1. Introduction

The organization of discourse can be described in terms of certain well-defined generalizations about the patterning of form and function, such as the correlation of the grammar of argument structure with particular referential-pragmatic or information flow functions. One such generalization is represented in “Preferred Argument Structure”, with its four constraints defining limits on lexical quantity, lexical role, information quantity, and information role for arguments (Du Bois 1987a, Du Bois et al. 2003b). But such generalizations can be achieved only through empirical analysis of particular instances of discourse. Moreover, even after the empirical evidence has supplied the evidence for the general model, it remains important to return to the particularity of the individual discourse itself. This is necessary for a number of reasons: to see where the generalizations work; to acknowledge where they don’t work; and most of all, to observe the posited patterns in their full ecological context of use, within which their larger significance is necessarily embedded. In discourse, taken as language use, the structure of any particular utterance is impacted by multiple factors, interacting in complex ways. While an uttered clause token may be described as conforming to one particular constraint, in all but the simplest cases it is likely to be impacted by additional constraints as well, which may tend to cooperate or

---

The initial field research on which this paper is based was carried out during several field seasons in Sacapulas from 1977-1980, with additional fieldwork carried out in 1992. My early fieldwork on Sakapultek Maya was supported in part by a series of grants from the Survey of California and Other Indian Languages, under the direction of Mary Haas (and later, Wallace Chafe), who I thank for their invaluable support and encouragement at an early stage. Support for later fieldwork in Sacapulas was given by the Academic Senate of the University of California, Santa Barbara. For helping me to record and to understand the discourse presented here, I thank Concepción López, Micaela López Mutás, and Jacinto Mutás López, without whom this study would not have been possible.
to compete, as it were, with the first. Moreover, multiple competing constraints motivate the development of strategies for working within and around these constraints (Du Bois 2003b). To begin to appreciate the interaction in context of multiple factors in language, including both constraints and strategies, there is no substitute for attending to discourse.

The primary objective of this paper is to examine the consequences of Preferred Argument Structure for language use, via close analysis of a single instance of narrative discourse in one language. The language in question is Sakapultek, a relatively little-known language of the Mayan family. Viewed from the point of view of the speaker and her language, the question can be stated: How does one speaker of Sakapultek, on one occasion, use the grammatical resources of her language to organize the narrative flow of information? We seek to observe the unfolding of grammar and function, and the interaction of constraint and strategy, within a specific narrative in a language with certain grammatical features of interest (e.g. ergative-absolutive verbal agreement for both subject and object). While a full theoretical treatment of the relation between constraint and strategy in language use would be premature at this point, we can only hope to lay the groundwork for understanding this relation if we come to terms analytically with individual instances of discourse. This motivates the format of this paper, which will present a line-by-line analysis, in both formal (grammatical) and functional (information flow) terms, of the narrative in question. At the same time, the particulars of any given discourse—its observed patterns of form and function—will speak to the point only if the analysis is informed by a well-defined hypothesis, such as that provided by Preferred Argument Structure. Thus, the specifics of the analysis will be framed throughout with reference to the latter theory.

The second major goal of this paper is to exemplify the Sakapultek Maya language in its own right, as it is realized in discourse. I have previously written a grammar of this language (Du Bois 1981b), but this is the first publication of an extended sample of the spoken language, with grammatical analysis. I present the narrative, as well as the framing interaction that elicited its telling, along with their linguistic analysis. In addition I comment on some specific points of Sakapultek grammar exhibited in these data. Finally, a subsidiary goal is to clarify certain points of methodology and analysis regarding Preferred Argument Structure, and regarding its application to the particular data at hand.

In the next section I outline some of the recent research on Preferred Argument Structure ($\S$1.1), followed by a brief summary of the four constraints which comprise Preferred Argument Structure ($\S$1.2). I then give some sociolinguistic background on the Sakapultek Maya language ($\S$2). Next I describe the process of eliciting and transcribing the present narrative ($\S$3.1), followed by a presentation of the narrative itself with interlinear gloss and free translation ($\S$3.2). In section $\S$4, I present an analysis of the (surface-oriented) grammatical structure of each line of the narrative, along with a representation of the information status of the elements in the line. I conclude with some general observations ($\S$5). Symbols and abbreviations employed in the transcription, and in the grammatical and information flow analysis, are noted in the Appendix.

1.1. Preferred Argument Structure research

That there exists a Preferred Argument Structure, governing the statistically preferred discourse distribution of lexical noun phrases and new information across the various argument positions of the clause, was first discovered in Sakapultek, a Mayan language of highland Guatemala (Du Bois 1981a, 1981b). This preferred patterning is claimed to reflect general constraints on the grammatical shape of the speaker's cognitive processing of new information. These constraints can be shown to motivate certain strategies for mobilizing grammatical structures to meet the speaker's and hearer's needs for the management of information flow in the communicative use of language. In the years since the pattern was first described for Sakapultek narrative (Du Bois 1985, 1987a, 1987b), the Preferred Argument Structure model has led to numerous studies in languages around the world (see the papers in Du Bois et al. 2003b and the bibliography in Du Bois et al. 2003a). Studies carried out to date extend to a wide range of language families, encompassing diverse grammatical types, and also document a range of discourse types including narrative and conversation. The relation of Preferred Argument Structure research to the broader field of argument structure research has been detailed in Du Bois 2003a, while its relation to the field of discourse-and-grammar research has been outlined in Du Bois 2003b.

One of the most creative and prolific contributors to the body of research on Preferred Argument Structure is Paola Bentivoglio. Her extensive studies of Spanish spoken discourse provide what may be the most complete picture of Preferred Argument Structure for any language (Bentivoglio 1990, 1992a, 1992b, 1993, 1994, 1995, 1998). Particularly important are her groundbreaking comparative and historical studies of Spanish and French, carried out with her collaborator William J. Ashby (Ashby and Bentivoglio 1993, 1995, 1997, 2003), which provide a demonstration of a constant role for Preferred Argument Structure in the diachronic development of Romance languages between medieval and modern times. This work has in turn had a
significant influence on subsequent research in the field, including that of
the present author.

1.2. Constraints

I briefly summarize here the four constraints which define Preferred
Argument Structure at the most basic level. Preferred Argument Structure is
manifest in two domains, syntax and pragmatics. In each domain there is a
constraint on quantity and a constraint on role. For (surface) syntax, the
“quantity constraint” can be stated as follows:

(1) One Lexical Argument Constraint: Avoid more than one lexical
argument per clause.

Here, the term “argument” includes the syntactic roles of A (transitive
subject), S (intransitive subject), and O (transitive object). The term “clause"
represents, more precisely speaking, the clause core, that is, the verb (or
other predicate, such as a predicate adjective) with its direct arguments
(A, S, O).2 A “lexical” argument is defined as an argument realized as an overt
full noun phrase.

The “role constraint” for (surface) syntax is:

(2) Non-Lexical A constraint: Avoid lexical mentions in A role.

Turning to the domain of referential pragmatics, the constraints define
certain limitations on information flow. While the constraints were originally
formulated in terms of new versus given information (Chafe 1987, 1994;
Du Bois 1987a), in more recent work (Du Bois 2003a, 2003b) I have begun
to explore a reformulation of the constraints in terms of Accessibility Theory
(Ariel 1990, 2001). The pragmatic constraints lend themselves to an
interpretation in terms of cognitive constraints on information processing,
of the sort identified by Accessibility Theory. The pragmatic “quantity
constraint” can be stated as follows:

(3) One New Argument constraint: Avoid more than one new argument
per clause.

Restated in Accessibility Theory terms, what is avoided is actually more
than one “low-accessible” argument mention (rather than new argument
mention).

The “role constraint” for information flow is:

(4) Accessible A constraint: Avoid a low-accessible mention in A role.

That is, the A role should be used for mentions of high—or mid—
accessible referents. These four constraints are amply illustrated in the
schematic analyses which annotate each clause in the transcription ($3.2),
and discussed briefly in the conclusion ($4).

2. The language

As noted above, the language in which Preferred Argument Structure
was first identified is Sakapultek Maya. Sakapultek is a language of the
K’ichean branch of the Mayan language family (Campbell 1997; Kaufman
1976). It was “discovered” only in the 1970’s through the efforts of Terrence
Kauffmann and his colleagues (Kaufman 1976), which is to say, its existence
as a language distinct from those of its neighbors came to the attention of
Western linguists at that time. The first full-scale grammatical description
was produced a decade later (Du Bois 1981b).3 More recently, Shoaps has
produced important work on Sakapultek as it is used in ethnographically
situated discourse (Shoaps 2004).

The recognition of Sakapultek as a distinct language remains somewhat
controversial, as do the details of its subclassification within the K’ichean
branch. Given its geographic location, Sakapultek has been in close contact
for several centuries with K’iche’ (Quiche), a prominent Mayan language
spoken widely in the surrounding region. Some would like to consider
Sakapultek to be a dialect of K’iche’ (McCluggage and Hile 1977). But
linguistically, despite considerable diffusional influence from K’iche’ over
the centuries, Sakapultek (along with Sipakapa) appears to be more closely
affiliated with the Kaqchikel and Tz’utujil languages, from which it has been
geographically separated for several centuries. In fact, no substantive linguistic
arguments have been offered for classifying Sakapultek as a dialect of any
other language, nor even for preferring K’iche’ over, say, Kaqchikel as the
language it most closely resembles. In contrast, I have presented comparative
linguistic evidence demonstrating that Sakapultek shares key diachronic
innovations with Kaqchikel and Tz’utujil, which it does not share with K’iche’
(Du Bois 1981b:26-91, cf. also Du Bois 1985). If the claim proves correct
that Sakapultek has a deeper genetic affiliation with Kaqchikel and Tz’utujil

2 The criterion of direct argument of a verb excludes Obliques (labeled B), although these are
interestingly subsumed under a variant formulation, termed the Single Dependent Hypothesis (Du
Bois 1987a).

3 My description of the Sakapultek language encompasses phonetics, phonology, grammar, discourse,
and comparative and ethnohistorical context (Du Bois 1981b). A trilingual Sakapultek-Spanish-English
dictionary was compiled by Paul Stevenson circa 1990, but remains unpublished. The grammar of
Sakapultek directives has recently received its most complete treatment in the work of Shoaps (2004).
than with K'iče', it would seem impossible to justify the assumption that it is a dialect of K'iče'.

Up to now very little has been published in the way of discourse originating in the Sakapultek language (but see Shoaps 2004).4 The fact that discourse data have not previously been widely available for Sakapultek may be partly responsible for opinions being expressed about the language based on little or no linguistic evidence. With publication of this first extended sample of the spoken language, material is now at hand which can give a fuller picture of what Sakapultek is like, via more direct access to the language as it is spoken. I hope these data will encourage a more sober assessment of the language in its own terms.

Sakapultek is spoken in a single central village in highland Guatemala, the town of Sacapulas, and in smaller communities in the river valley and surrounding mountain areas within the municipio (county) of Sacapulas. Nowadays, there are also a substantial number of speakers in Guatemala City. Sakapultek is spoken by an estimated 5 to 7000 people in its original homeland, including some small communities where virtually all are ethnically Sakapultek. Few individuals today are monolingual in Sakapultek. Most Sakapultek speakers are bilingual, in Sakapultek and Spanish, while some are trilingual, adding a mostly passive competence in the closely related Mayan language K'iče'. Sakapultek is used by most of its adult speakers in a broad range of contexts of daily life in Sacapulas: conversing at home, on the streets, and in the fields; bargaining in the local market; praying and orating in ceremonial contexts; participating in the civil-religious hierarchy; and many more contexts.

Where Sakapultek is not being used, increasingly, is among children. This change is new, abrupt, and seemingly catastrophic. In an unpublished assessment written in 1986 (based on fieldwork up to 1980) it was still possible for me to offer a prediction, based on the nearly four centuries of co-existence between Sakapultek and Spanish in Sacapulas, as follows: "In short, the Sakapultek language is quite robust, is well-entrenched in its area, and can be expected—barring extraordinary calamity—to continue flourishing for many generations to come." When I returned to Sacapulas in 1988 after an absence of eight years, however, I encountered evidence of a strong trend toward erosion of the learning of Sakapultek by the new generation of children. In addition, for some adult speakers there was a modest decrease in the range of uses in everyday life. Where Spanish had until recently served predominantly for contact with Ladinos (Guatemalans who are ethnically considered speakers of Spanish) and as a lingua franca employed with speakers of distantly related and mutually unintelligible Mayan languages (such as the neighboring languages Ixil and Aguacatec), it is has now come into wider use by many younger Sakapulteks when speaking among themselves. In most traditionally Sakapultek-speaking communities today, the trend toward language shift to Spanish, among both children and young adults, appears to be gaining considerable momentum. Within the town center of Sacapulas, as well as other communities located directly on the main road, virtually all Sakapultek children now grow up speaking Spanish as their dominant language. While some young speakers in these communities have passive competence in Sakapultek, only in the most remote hamlets, and to some extent also in the town of Rio Blanco, do children regularly learn Sakapultek as their dominant language (Shoaps, 2004). It is difficult to pinpoint the precise causal factors responsible for such an abrupt change, following centuries of linguistic coexistence. It may be that the military, social, and economic upheavals that shattered the peace of so many Mayan communities in Guatemala during the 1980’s, including communities around Sacapulas, helped to undermine the prestige and symbolic capital of the Mayan languages. Coupled with accelerated processes of cultural and economic globalization during the same period, a trend has begun which may lead to the endangerment and, ultimately, the loss of the Sakapultek language. But some more hopeful signs have begun to emerge. There is a growing cultural, political, and linguistic consciousness of a new generation of Mayans, attested in the activity of such newly formed organizations as the Academy of Mayan Languages and the Association of Mayan Writers. In the end, the historical agility of the Sakapulteks in maintaining their identity, despite pervasive and intimate contact with a series of numerically and politically dominant cultures over many centuries, may make possible—we can hope—a revitalization of the language, or at least of the culture which it symbolizes and embodies, for generations to come.5

4 Translations of portions of the Bible from Spanish into Sakapultek have been published by an American missionary Bible translator, Ralph McCluggage (cf. Du Bois 1981b:19), though this material obviously did not originate in Sakapultek (and thus includes, for example, a certain number of neologisms invented specifically for the purpose of Bible translation). Regarding material which does originate in the Sakapultek language, a few lines from the present narrative have been published previously in Du Bois (1978a) and Du Bois (1987b). (The latter was reprinted as Du Bois 1987c and translated into Spanish as Du Bois 1990.) The earlier data publications are superseded by the present version, with its improved transcription and grammatical analysis based on additional fieldwork in Guatemala in 1992. More recently, Robin Shoaps has produced extensive transcriptions of naturally occurring discourse in Sakapultek, including conversational and ritual interactions which she has documented through her linguistic and anthropological research in a small rural hamlet of Sacapulas (Shoaps 2004).

5 It should be noted that the speaker of the narration presented here is a fully fluent speaker of Sakapultek, one of a generation of speakers for whom language shift was not at issue.
2.1. Orthography

The orthography used in this article is that which has become standard as the practical orthography for writing Sakapultek, based on the alphabet promulgated by the Academy of Mayan Languages in Guatemala. Many letters have the same value as in Spanish and/or the International Phonetic Alphabet. Less familiar orthographic values include the following: x is a voiceless laminopalatal fricative; f is a voiceless velar fricative; g is a voiceless uvular stop; tz is a voiceless apicoalveolar affricate; nb is a voiceless velar nasal stop (engma). When apostrophe (') follows a vowel it represents a glottal stop. When it follows a consonant, the combination represents a glottalized consonant: b' and q' are implosive, while t', tz', ky', and k' are ejective. Vowel doubling (ii, ee, aa, oo, uu) indicates a phonemically long vowel. Capital letters have the same value as in Spanish and/or the International Phonetic Alphabet. Many of the orthographic conventions, a number of which are revised or updated from those of Du Bois et al. (1992, 1993), are listed in the Appendix.

3. The Pear Story in Sakapultek

In this section I describe how the Sakapultek narrative was gathered and transcribed ($3.1$), followed by presentation of the narrative itself, with its schematic annotation ($3.2$).

3.1. Elicitation

The narrative presented here was elicited as part of a cross-linguistic investigation of discourse, now widely known as the “Pear Film” project (Chafe 1980; Du Bois 1980). It was recorded on the evening of Monday, April 18, 1977, near the movie-showing area of the Catholic church compound near the plaza in the town center of Sacapulas. The interviewed speaker (narrator) is Concebida (Concepción) López, and her interviewer is Micaela López Mutás. Both are native speakers of Sakapultek, born and raised in Sacapulas (as an adult Concebida lived several years in nearby Uspantán, where Kiche’ and Uspantek are spoken). The narrator was part of a group of a half dozen women who had been invited by my Sakapultek assistants to come to the church compound to see a short film. The seven-minute film, which has sound but contains no speech, tells the story of a boy on a bicycle who makes off with a basket of pears, and subsequently encounters various adventures. Shortly after seeing this film, the speaker was asked by the interviewer (who had not seen the film, having remained outside in the corridor while it was shown) to tell what happened in the film. The interaction was recorded on a high quality portable reel-to-reel tape recorder (Uher), with a single high quality directional microphone directed toward the narrator.

The two women were left alone together during the recording, aside from a brief moment at the start when I was present to adjust the microphone. (For a more extended discussion of the efforts required to adapt this quasi-experimental elicitation protocol to the cultural context of Mayan village life, including the various interactions which led to the recording of the present narrative, see Du Bois 1980).

The initial transcription of this narrative was made two days after it was recorded by myself working with another native speaker of Sakapultek, Jacinto Mutás López. We also worked together to translate the narration into Spanish. Fifteen years later I returned to Sacapulas to work with Jacinto again on a revision of the transcription, focusing this time on the identification of intonation unit boundaries (most of the boundaries I had independently identified were confirmed on this occasion). The transcription has been substantially revised and updated in accordance with the discourse transcription system described in Du Bois et al. (1992, 1993). The key unit in this transcription system is the intonation unit (Chafe 1987, 1994; Du Bois et al. 1992). The transcription is organized iconically in intonation units, with each new line representing a separate intonation unit. The transcription conventions, a number of which are revised or updated from those of Du Bois et al. (1993), are listed in the Appendix.

Both speakers are native speakers of Sakapultek. They are labeled as I for the interviewer and S for the main speaker (i.e. the interviewee). A couple of words were also uttered by the fieldworker (i.e. the present author, labeled F in the transcription), who was momentarily present to adjust and check the recording set-up, prior to the narration. To give a more complete picture of the context, I present below not just the narrative which was the original target of our elicitation protocol, but the entire recorded interaction which frames it. This transcription thus includes: (1) turns concerned with preliminaries of setting up the recording; (2) the interviewer's framing of the request for a narration of the film's contents; (3) the respondent's narration.

---

6 This Pear Film narration is recorded on my Sakapultek tape #4, side 1. The initial transcription appears in my Sakapultek notebook #5.33-57. An analogue copy of the tape recording of this and all the other Sakapultek pear film narrations has been deposited in the Language Archive of the Language Laboratory at the University of California, Berkeley. Digital copies of my Sakapultek field tapes (including many hours of conversations and other genres, beyond those in the Berkeley collection) have also been deposited in the Santa Barbara Archive of Language and Discourse (SBALD) of the Linguistics Department of the University of California, Santa Barbara.

7 The section from lines 2 to 15 was spoken in very quiet voice by both speakers, resulting in some uncertain hearings (marked with <#> </#>). The actual question and framing of the interview (lines 16 to 18), and the narration which responds to it (lines 19 to the end), were spoken loud and clear, and recorded in a private and quiet location. This produced a clear recording, so that I consider the transcription of these portions quite reliable.
itself; and (4) the exchange of thanks and leave-taking afterwards. The focal and most substantial portion of the interaction, however, consists of one speaker’s narrative, in relatively monologic format, responding to the request to tell what she saw in the film.

3.2. The narration

(7) SakPerec 2:1-80
1 I; (...) Chi-re’ k-at-kuq-ub’ wu-qaj . \ V_i
   at-here icp-3ABS-SIT-VERS DEM-down
   (...) Sit down here.
2 S; (...) Uhu’ , / mhm
   (...) Okay.8
3 I; (...) Aaniim , / quickly
   (...) Hurry up,
4 (...) <#> k-0-tin ch-aa chaak n [a-tza’m rii’] </#> . V_P B_S
   icp-3ABS-continue at-DAT work one 2ERG-nose this
   (...) this here nose of yours is running" </#> .
5 #S; <#> [X-0-0k’am] ti ti ti’ </#> ? / V_o
   icp-3ABS-3ERG-take this this this
   <#> It recorded all this10 </#> ?
6 S; (...) K-inijel x-ee-b’eek ? / s V_i
   3ERG.PL-ALL icp-3ABS-3ERG-go
   (...) They11 all left?
7 I; (...) Ya x-0-aa-r-chik-a’ #cha-al #juun . \ V_o
   already icp-3ABS-LAT-3ERG-call-DEP again-behind one
   (...) He12 just went back to call #another #person back.
8 In uhu’ ‘yes, mhm’; both vowels are obligatorily (lexically) nasalized. Obligatory unconditioned nasal vowels do not normally occur in Sakapultek (Du Bois 1981b), except in a very small number of words, mostly with /ul, e.g. us’ ‘yes, mhm’ in line 8. The extra-systemic phonetics of such words relates to the fact that they are ‘marginal words,’ in the sense of (Du Bois et al. 1992:77-78), which often lack referential meaning, but instead index interactional pragmatic meanings.
9 In Sakapultek, chaak ‘work’ applies to the functioning of both machines (such as tape recorders) and noses, as well as to the more basic meaning of human labor. Compare English, where both machines and noses can be said to run. Thus, the interviewee is apparently being playful here in equating the interviewee’s (supposedly) running nose with the running tape recorder.
10 The Spanish gloss offered here was Recibio este este ‘it received this this’, accompanied by the explanation grabé las palabras ‘it recorded the words’.
11 By ‘they,’ the speaker is referring to the other Sakapulteks who had viewed the film, most of whom ended up leaving early because they were unwilling to have their voices recorded (Du Bois 1980:4).
12 The reference here is to the fieldworker, who had just left the room.
he went and (...) picked some pears.

Then he came down,

He wiped one off,

Then he came down,

he wiped one off,

and then

Then,13

a little boy came,

on a bicycle,

a girl passed,

coming along on a bicycle,

his hat fell off,16

the little boy fell,

on a rock.

Then,

The reflexive-reciprocal plural k-iib' 'each other, themselves' marks a reciprocal semantic relation between the two referents of the prefix ki- 'third plural ergative (possessor)'. However, the comitative relational noun -k'iin 'with' is inflected singularly with r- 'third singular ergative (possessor)' (i.e. 'her, him/his, it/its'), thus singling out one of the two participants as the entity saliently impacted on. (Simultaneous grouping and individuating perspectives on a single event are attested in the grammar of comitative expressions in some other languages, e.g. Russian.)

This is the intransitive verb -tzaaq 'fall' (compare lines 38 and 39), whose vowel is underlyingly long. The vowel has been shortened by a rule which shortens most stem vowels in non-final position, given that cliticization of the directional particle -*/'off, away has shifted the stem vowel of -tzaaq into non-final position. The pronominal prefix here (Absolutive 0-, not Ergative n-) confirms the intransitivity of the verb. Sakapultek also has a transitive verb -tzaq 'drop', with a short vowel. Historically, -tzaaq 'fall' appears to be derived from the (intransitivized) passive of -tzaq 'drop', which also has a lengthened vowel: -tzaaq 'be dropped'. However, these two have diverged and now appear synchronically as distinct verbs, which differ in that the long vowel in the passive -tzaaq 'be dropped' (whose length derives from the Proto-K'ichean passive infix *-h-) is not subject to the shortening rule, while the long vowel in the intransitive stem -tzaaq 'fall' is subject to this shortening rule.

13 The reflexive-reciprocal plural k-iib' 'each other, themselves' marks a reciprocal semantic relation between the two referents of the prefix ki- 'third plural ergative (possessor)'. However, the comitative relational noun -k'iin 'with' is inflected singularly with r- 'third singular ergative (possessor)' (i.e. 'her, him/his, it/its'), thus singling out one of the two participants as the entity saliently impacted on. (Simultaneous grouping and individuating perspectives on a single event are attested in the grammar of comitative expressions in some other languages, e.g. Russian.)

16 This is the intransitive verb -tzaaq 'fall' (compare lines 38 and 39), whose vowel is underlyingly long. The vowel has been shortened by a rule which shortens most stem vowels in non-final position, given that cliticization of the directional particle -*/'off, away has shifted the stem vowel of -tzaaq into non-final position. The pronominal prefix here (Absolutive 0-, not Ergative n-) confirms the intransitivity of the verb. Sakapultek also has a transitive verb -tzaq 'drop', with a short vowel. Historically, -tzaaq 'fall' appears to be derived from the (intransitivized) passive of -tzaq 'drop', which also has a lengthened vowel: -tzaaq 'be dropped'. However, these two have diverged and now appear synchronically as distinct verbs, which differ in that the long vowel in the passive -tzaaq 'be dropped' (whose length derives from the Proto-K'ichean passive infix *-h-) is not subject to the shortening rule, while the long vowel in the intransitive stem -tzaaq 'fall' is subject to this shortening rule.

15 The Sakapultek discourse marker tik'ara' 'then' appears at scene shifts and other such temporal-sequential change points in the narration, as in unit 23. Similarly, discourse shifts may be marked by despwees 'then (borrowed from Spanish despuis), as in unit 25. Here, in contrast, the two are used together, yielding despwees tik'ara', literally 'then then. This bilingual phrase is seemingly redundant. The difference in discourse function between the pair and either of its constituents used alone is not obvious. It may correlate with a more substantial change of narrative boundary, in which a greater number of time, scene, and participant features are modified. (Compare the similar bilingual double discourse marker toons tik'ara 'then then in unit 55.)
\text{The lexeme \textit{peera} as well as its cross-referencing marker on the verb (the zero morpheme '3rd singular absolutive') are unmarked for plurality, despite being notionally multiple, as well as translated in English and Spanish with the plural of 'pears'. In Jakobsonian terms the meaning of the Sakapultek morphemes could be analyzed as 'non-plural' (or '-plural'). Compare this to unit 42, in which reference is made to three boys, with plurality overtly registered both in the noun phrase and in the verbal cross-referencing marker. Thus for inanimates, but not animates, the non-marking of plurality represents a common way of referring to a notionally plural group of referents, especially if differences between the referents in the group are nonsalient.}

\textsuperscript{17} See the discussion of bilingual discourse markers in the note for line 28.
65 (...) (H) xu' chek 1 juun basiyo , / just again the one empty
(H) now (there was) just the empty one,
66 (...) ii jun chek 0-naj-naq , / and one again 3ABS-fill-PERF
(...) and another full one,
67 (...) (H) (%): X-e'-ak'aw ixeb' ak'al-saab' ri'i , / cp-3ABS.PL-pass three boy-PL this
(...) (H) (%): Those three boys passed,
68 (...) enoons xaq k-e'-il-anh: , / then just ICF-3ABS.PL-3ERG-see-TF
(...) then he just looks at them,
69 (...) k-ee-tijin ch-e r-tij-iik (l-ee) l: (...) peera . / V, P B/V, O
ICF-3ABS.PL-continue at-DAT 3ERG-eat-NOM the-uh the pear
(...) (as) they're eating [the-uh] the: (...) pears.
70 (...) li x-ee-b'ee:k , \ and cp-3ABS.PL-go
(...) And they le::ft,
71 (...) kwaando 0-0-qaj-uul . / V, Pb
(...) when cp-3ABS-descend-hither
(...) when he came down.
72 (...) li: xaq ke' la' 0-0-k'iiis-ek . / V, Pb
(...) and just like that cp-3ABS-finish.PASS-IF
(...) And that's how it ended.
73 I; (...) Aa , \ ah
(...) Ah,
74 (...) tyoo:x ch-aaw-anh: , / thanks at-2ERG-DAT
(...) thankyou:,
75 (...) e-re'-en x-0-inw-il taj: . / a V, 
FOC-the-1ABS cp-3ABS-1ERG-see not
(...) I didn't see it.
76 S; (....) Baay», \ well
(...) Well.
77 (...) Xu' la' x-0-inw-il-anh , / just that cp-3ABS-1ERG-see-TF
(...) That's just what I saw.

4. Analysis

I turn now to an analysis of the above narrative as a case study of patterns of grammatical organization of information flow. Following the main analysis, I give a brief explication of several relevant points of linguistic analysis which arise in the narrative.

4.1. Preferred Argument Structure in context

In previous work I have presented quantitative generalizations summing across multiple speakers in order to establish the generality of the Preferred Argument Structure pattern (Du Bois 1987a, 2003a, 2003b). Here, in contrast, I will instantiate this pattern at the level of the individual intonation unit or clause token (in these data they largely overlap). Each unit is considered in its relevant context, including grammatical structure, prior discourse, and so on. Because this paper is focused specifically on narrative, the exegesis will be presented exclusively for the narrative monologue portion of the discourse, which in this narrative begins with line 19 and continues up to line 72. In order to treat the information flow patterns adequately, basic familiarity will be assumed with the basic concepts of Preferred Argument Structure (see §1.2 above and Du Bois 1987a; Du Bois et ai 2003b).

It should be noted that some intonation units are primarily regulatory (Chafe 1994), serving to index the rhetorical, cognitive, or interactional organization of the discourse at various levels. In the narrative portion below (units 19-72), units 25, 28, 32, 41, 47, 51, and 55 are regulatory in this sense. Since these intonation units contain no verb nor other predicate, nor any arguments, they are not subject to Preferred Argument Structure constraints. Lacking a direct bearing on Preferred Argument Structure, in the interests of space they will not be included in the syntactic schema analysis presented below.

I turn now to a grammatical and referential-pragmatic analysis of each (non-regulatory) intonation unit in sequence, beginning with the first line
of the narrator's response to the interviewer's request to tell what she saw in the film. For each intonation unit the line number is given first, followed by a syntactic schema analysis (e.g. V, S), followed by commentary. The symbols used in the schema analysis, representing aspects of grammar relevant to Preferred Argument Structure specifically and information flow generally, are referenced in the Appendix.

19 V, T

In her first intonation unit responding to the question posed, the narrator frames her upcoming narrative with a clause containing just a transitive verb -il’’see’, inflected for subject and object agreement. (In addition the focus particle ee appears in the intonation unit.) The intonation unit contains no overt noun phrases or independent pronouns. This is pragmatically motivated by the fact that the referents of both arguments of the transitive verb constitute highly accessible information: the speaker because she is actually present (Ariel 2001; Chafe 1976:31-32), and the film contents because they have just been asked about in the immediately prior discourse. The paucity of new information motivates the use of a clause with no overt nominals. In such contexts the Preferred Argument Structure constraints on information flow quantity and role are very easily met, even with a transitive verb. Note that the constraints define a maximum, but no minimum, for lexical and new mentions in the clause.

20 V, S

Here a new human participant (the pear-picker) is introduced lexically; jun achenh ‘a man’. On his first mention he is introduced, however, not as a picker of pears but as the S role argument of the intransitive verb -aqan ‘ascend’. This information flow pattern is a typical one for new referent introductions. It is schematically represented as V, S, indicating an intransitive verb V, followed by an overt lexical noun phrase in the S role.

21 P, B

The noun phrase chee ‘tree’ in this unit represents new information. It is introduced not as a direct argument of a verb, but in oblique role as the object of the preposition ch-u’ ‘at the top of’. In their most basic formulation, the Preferred Argument Structure constraints apply only to arguments of verbs, leaving the oblique position outside their jurisdiction and hence “implicitly” free. However,

22 V, O

under an alternative framing of Preferred Argument Structure, the fact that chee ‘tree’ is syntactically dependent on the preposition ch-u’ ‘at the top of’ gives it the status of a separate unit for information flow management purposes. As the sole argument (i.e. single dependent) of its prepositional head, it is “explicitly” licensed to carry new information. This analysis was termed the Single Dependent Hypothesis (Du Bois 1987a:832-33). Either way, Oblique represents a ‘free’ position for the introduction of new information: obliques may freely introduce new information without violating either the information quantity or information role constraints.

23 V, T

Again this clause introduces a new referent, this time the inanimate nikyaj péera-s ‘some pears’. The indefinite pears are introduced in the O role, as object of the transitive verb -ch'up ‘pick’. This clause represents a typical pattern for introducing new information with a transitive verb, the V, O pattern (transitive verb V, followed by a lexical noun phrase in O role).

24 V, O

Here an intransitive verb -qaaj ‘descend’ is used with no accompanying noun phrase, even where one would be allowed by information flow constraints. The obvious reason is that the subject of ‘descend’ —the person doing the descending— has just recently been introduced, and remains given information. Note that, even though intransitive verbs (and other one-place predicates) are preferred for use when introducing a new human referent (Du Bois 1987a), this in no way implies that they are dispreferred when an introduction is not being made. Another way of putting this is that the claim that speakers are limited to a maximum of one lexical argument per clause core does not mean that they must necessarily put a lexical argument into every clause. There is no lower limit on lexical quantity or information quantity (Du Bois 2003b).

25 V, O

Here again the typical V, O pattern is employed. Note that r-iij juun, literally ‘the back of one’, is analyzed here as a lexical noun. (In an analysis more sensitive to the scalar dimension of accessibility (Ariel 1990; Ariel 2001), this would presumably be treated as intermediate between a simple independent pronoun and a simple lexical noun phrase.)

26 V, P, B

In this clause, the direct arguments of the transitive verb -ya’ ‘give, put’ contain no new information, and hence are not realized as overt noun phrases. This low information density results in a simple V, pattern. The goal of the motion is expressed in a prepositional phrase, which does introduce a lexical noun phrase.
This unit follows the same general grammatical and information flow pattern as the previous unit. Again, r-\textit{gabaacha} 'his apron' is definite, but introduces a first mention new referent in a 'free' oblique role.

In a separate syntactic dependency unit (and hence a new ball game for information flow purposes), headed by the inflected preposition \textit{ch-i}j 'on (its back)', the new inanimate referent \textit{bisikleeta} 'bicycle' appears in oblique role.

Immediately after his introduction into the narrative, the boy (now safely 'given' information, and hence pronominizable) steps into the role of transitive agent, performing a two-place action -\textit{k'am} 'take' applied to an inanimate patient. Note that the inanimate patient \textit{jun chikech peera} 'a basket of pears' is indefinite, which the speaker presents as the first mention of this particular basket of pears. The fact that other baskets of pears have just been mentioned presumably makes this referent more accessible than the first mention of a basket. In any case, it is not accessible enough to be introduced pronominally. Hence, as a lexical mention it is introduced appropriately in the O role, in the typical V, O pattern.

This is the third instance of introducing a new human protagonist into the narrative. Again the standard pattern is reaffirmed: the new information girl is introduced in the S role of an intransitive verb of motion, -\textit{pee} 'come', in the typical V, S pattern.

In this unit the only new information noun phrase is an inanimate, \textit{Ichikech} 'the basket'. While the referent is marked with the definite article, its status as new information is supported by the use of a full lexical noun phrase (and by the fact that this is the first mention in the discourse). This first mention is in an oblique role, which is a 'free' position according to either formulation of the Preferred Argument Structure constraints.

This unit follows the same general grammatical and information flow pattern as the previous unit. Again, r-\textit{gabaacha} 'his apron' is definite, but introduces a first mention new referent in a 'free' oblique role.

This is the second instance of the introduction into the discourse of a new human protagonist --this time, a little boy-. The basic pattern is once again repeated. Rather than immediately performing any agentive transitive actions (see the next clause, in unit 31), the boy is first mentioned with a full noun phrase in the S role of an intransitive verb of motion, -\textit{pee} 'come', in the typical V, S pattern.  

The reflexive-reciprocal plural \textit{k-iib}'each other, themselves' marks a reciprocal semantic relation between the two referents of the prefix \textit{ki} 'third plural ergative (possessor)'. However, the comitative relational noun -\textit{kin} 'with' is inflected singularly with r- 'third singular ergative (possessor)' (i.e. 'her, him/his, it/in'), thus singling out one of the two participants as the entity saliently impacted on. (Simultaneous grouping and individuating perspectives on a single event are attested in the grammar of comitative expressions in some other languages, e.g. Russian.)
43 V, O Now safely given information (and hence pronominalizable), the three boys immediately step into the agent of transitive role (with the verb -siky 'pick up'), acting on an inanimate patient (peera 'pears'), which is realized lexically. This represents the typical transitive pattern V, O.

44 V, P B The three boys continue as the subject of another transitive predication -ya 'give, put', with the same direct object (the pears they just picked up, now constituting given information). The endpoint of motion event of putting is specified obliquely via a lexical noun phrase r-chikaach 'his basket' in prepositional object role. This word order is marked, in terms of discourse frequency. Its use here correlates with 'switching' of the topic back and forth between two human protagonist referents. (Compare the topicalization and fronting of the boy in 45, also a switched topic.)

45 T The bike boy is given a full noun phrase mention n-aj-laab 'that little boy', in a separate intonation unit. This defines a topic switch, returning from the threesome to the bike boy.

46 V, S V, This intonation unit contains two predications, the first adjectival and the second an intransitive verb. Since both predicates are one-place, they each provide one S (free) position. This shows the familiar pattern of an intransitive verb of motion (-beek 'go') with full noun phrase (nikyaj als-oom 'those boys') in S role, but with the noun phrase fronted to preverbal position. This word order is marked, in terms of discourse frequency. Its use here correlates with 'switching' of the topic back and forth between two human protagonist referents. (Compare the topicalization and fronting of the boy in 45, also a switched topic.)

47 V, S Although this clause is similar to the previous one in referential content, including the same verb of motion (-beek 'go'), its word order is the opposite. The (unmarked) choice of post-verbal position for referring to the bike boy may index his status in this discourse as an enduring topic or proximate referent (Aissen 1997).

48 V, O This clause continues the same V, O pattern as the previous one. This clause contains a transitive verb -xub'uuj 'whistle to' with full noun phrase in O role, and a given referent in A role, expressed with an overt prefix, in other words, the typical transitive V, O pattern.

50 V, P B The bicycle is the only element realized as a lexical noun phrase in this unit, though it lacks a determiner, suggesting that it is the manner of movement (bicycle-riding) which is salient rather than tracking the bicycle as a referent. The noun appears in oblique role.

52 V, While no lexical noun phrase appears in this intonation unit, the clause extends over three successive intonation units (52-54). The direct object of transitive -riq 'find' is indexed here only by the absolutive zero prefix; the corresponding lexical noun phrase appears in unit 54.

53 P B The lexical noun b'rey 'road' appears in a locative prepositional phrase to specify the location of the event of finding.

54 V, S The lexical noun phrase l-aj pwe 'the little hat' may be construed as the sole, S argument of the non-transitive participle -tsaq-anaq 'fallen', or as the O argument of the transitive verb -riq 'find' — or as both —. Either way, it conforms to the Preferred Argument Structure constraints.

56 V, a The A role argument of the transitive verb -siky 'pick up' is marked overtly twice: once by the overt cross-referencing prefix r- '3rd singular ergative', and again by an overt independent pronoun juun 'one'. This is one of very few cases in this narrative of 'double-marking' of a referent (see discussion below). Even here, the second overt mark is with a pronoun rather than a lexical noun phrase.

57 V, O This clause contains a transitive verb -xub'uuj 'whistle to' with full noun phrase in O role, and a given referent in A role, expressed with an overt prefix, in other words, the typical transitive V, O pattern.

58 V, O This clause continues the same V, O pattern as the previous one. This clause contains a transitive verb -xub'uuj 'whistle to' with full noun phrase in O role, and a given referent in A role, expressed with an overt prefix, in other words, the typical transitive V, O pattern.

59 V, S Pb The intransitivization of (passivized) 'give' puts the full noun phrase ixeb'peera 'three pears' into the S role, producing the typical intransitive pattern V, S. The passive of course allows nonexpression of the agent of 'give', whose identity is clear from the semantic-memory construct derived from prior discourse. This nonexpression may be motivated by an avoidance of yet another switch back and forth between the two current protagonists.

60 V, This intransitive clause contains no lexical noun phrase, but it does carry a single overt mark for the S role argument, in the form of the verbal prefix ee- '3rd plural absolutive'.

61 V, P B While there are two lexical nouns in the prepositional phrase in this clause, only one of them (lchee 'the tree') is an argument of the preposition xe 'below'. The second noun phrase (lpeera 'the pears') is part of a phrase modifying the first noun phrase. Thus the clause conforms to the Single Dependent Hypothesis.

62 V, S This is the first mention of the man who was picking the pears since unit 27, now expressed lexically as jun achenh 'that man', with the low accessibility determiner jun (literally 'one'). The pear-picker's reintroduction after the passage of 35 intonation units naturally requires a full noun phrase, at least, given its current status of relatively low accessibility (Ariel 1990; Ariel 2001). (For Chafe, a similar interpretation would be captured by analyzing this noun phrase as new information, requiring cognitive reactivation after so much time and intervening material (Chafe 1976, 1987, 1994). Either analysis makes it clear that the context requires at least a lexical noun phrase.) This overt nominal mention appears in the S role of the intransitive motion.
verb -qaaj 'descend', representing the typical intransitive pattern V, S.

63 V, S This intonation unit contains one lexical noun phrase jun chikech 'one basket' in the S role of the negated existential/presentative predicate -k'oo(l). Though in Sakapultek the existential is not grammatically an intransitive verb, it is a one-place predicate, which is what matters for determining the S role. (There is also a false start at the end of this unit, which is repaired in the following unit.)

64 V, [O] The object of 0-0-r-il-anh 'he saw (it)' is presumably the preposed clausal complement in 63, 0-k'oo t chek jun chikech 'one basket no longer there'. Grammatically, the clause functions in O role of transitive -il 'see', conforming to the typical transitive pattern V, O, even if here the O role 'overt nominal' is actually a complement clause. For the Preferred Argument Structure analysis, the clause is counted among the overt noun phrases, since it consists of overt lexical material and, like an ordinary noun phrase, fills a direct argument role.

65 S The lone noun phrase in this intonation unit ljuun basiiyo 'the empty one' appears to be interpreted as an S of the negated one-place -k'oo existential/presentative predicate in unit 63. (Alternatively, the present intonation unit could be analyzed as verbless, and the noun phrase as a free nominal or detached noun phrase (Helasvuo 2001), though this kind of noncomittal classification doesn't seem to contribute much to understanding the function and interpretation of this noun phrase.)

66 S The sole noun phrase in this intonation unit jun chek najnaq 'another full one' is coordinate with that in the previous unit, and should receive the same structural analysis.

67 V, S Although the referent of ixeb' ak'alaab'rii 'those three boys' has been mentioned just six intonation units previously, a competing referent (the pear-picker) was introduced in the meantime, thus lowering their accessibility and motivating use of a lexical noun phrase plus demonstrative. The resulting utterance fits the standard intransitive pattern V, S.

68 V, In this transitive clause, both agent and patient are highly accessible, and both receive the minimal referential form, prefixes on the verb -il 'see'.

69 V, P B/V, O The verb -tijin 'continue' is formally intransitive, though here it takes as its complement a nominalized form of the transitive verb -tij 'eat'. The lexical noun phrase lpeera 'the pears' functions as the direct object of nominalized 'eat'. Each argument, clausal or lexical, has a distinct head, so that the constraints of Preferred Argument Structure are met.

5. Conclusion

The line-by-line schematic analysis of grammar in relation to information flow which I present above tends to confirm the accuracy, effectiveness, and relevance of Preferred Argument Structure. Beyond exemplifying the four constraints, it further shows how the constraints coexist with speaker strategies, such as the mobilization of one-place predicates for introducing new information (in S role), or the subsequent transitive predication allowing the just-introduced referent to fill the semantic role of agent of a two-place predication (in A role). There is a close relation between the grammatical resources of Sakapultek (from broad grammatical categories, down to the level of verb classes and individual verbs) and the functions they serve within the referential-pragmatic domain of managing information flow in discourse.

In this case study I have sought to provide access to the specific implementations of the general patterns subsumed under the rubric of Preferred Argument Structure. I presented a single extended instance of discourse, which I analyze to show how one speaker of Sakapultek mobilizes the grammatical resources of her language to say what she wants to say. One of the chief functions of interest is that of managing the ongoing flow of information in the production of a narrative. The interaction of the discourse function of information management with grammatical structures (especially intransitive and transitive verbs, or more precisely, one- and two-place predicates) accords with the general patterning of Preferred Argument Structure. In contrast to other publications in which I have presented a general bird's-eye view of the discourse constraints on information management, based on large-scale counts in a corpus of discourse data (Du Bois 1985, 1987a, 1987b, 2003b), the present paper provides a case study of a single instance of discourse production. In narrowing the focus in this way, I hope...
to provide a concrete picture of the specific implementations of information flow patterns, as found in the discourse of one speaker with a story to tell.

REFERENCES

Bentivoglio, P. 1995. Frases nominales plenas en el español de Caracas: Un análisis semántico-pragmático. In A. Matus et al. (eds.), *Actas del IV Congreso Interna-

cional de “El Español de América”, 595-603. Santiago de Chile: Pontificia Universidad Católica de Chile.
Appendix: Symbols and Abbreviations

Transcription symbols.

The transcription closely follows the categories, interpretations, and practices of (Du Bois et al. 1993). However, a number of the conventions for symbols (as opposed to the categories and their interpretations) have been updated since the earlier publications. Specifically, the symbol conventions used in this transcription are the following:

LINE start of a new line indicates intonation unit boundary
; speaker attribution
[ ] speech overlap (simultaneous speaking by two participants)
( ) brief pause, a slight break in the rhythm (200 milliseconds or less)
(...) medium or long pause (more than 200 milliseconds)
(6.0) pause, with duration indicated in seconds
: lengthening of prior segment (prosodic length, not segmental phonemic length)
(H) in-breath
@ laugh pulse (one symbol per pulse)
- morpheme boundary (hyphen)
– word truncation (en dash)
— intonation unit truncation (em dash)
, continuing intonation contour (comma)
. final intonation contour (period)
? appeal intonation contour
/ rising boundary pitch
\ falling boundary pitch
– level boundary pitch (underscore)
( ) vocalism (non-verbal vocal tract sound)
word% glottal constriction in word (often accompanies word truncation)
(%) creaky voice or glottalized vocalism
<WH> whisper quality
# unintelligible speech, one symbol per syllable
#word uncertain hearing of word (prefixed with # sign)
<#> words </#> uncertain hearing of words within the # sign (plus angle brackets)
Abbreviations: Morphology

The following abbreviations are used in morpheme glosses.

1ABS  1st person singular Absolutive
2ABS  2nd person singular Absolutive
3ABS  3rd person singular Absolutive
1ABS.PL  1st person plural Absolutive
2ABS.PL  2nd person plural Absolutive
3ABS.PL  3rd person plural Absolutive
1ERG  1st person singular Ergative
2ERG  2nd person singular Ergative
3ERG  3rd person singular Ergative
1ERG.PL  1st person plural Ergative
2ERG.PL  2nd person plural Ergative
3ERG.PL  3rd person plural Ergative
CP    completive aspect
DAT   dative
DEM   demonstrative
DEP   dependent
DIM   diminutive
DIR   directional
FOC   focus
ICP   incompletive aspect
IF    intransitive phrase-final marker
LAT   lative
NOM   nominalizer
PASS  passive
PERF  perfective aspect
PL    plural
TA    transitive active voice
TF    transitive phrase-final marker
VERS  versive

Abbreviations: Syntax

The following abbreviations are used in syntactic and referential-pragmatic schemas for clause structure (especially as relevant to Preferred Argument Structure).

V    verb, intransitive
V'   verb, transitive
V,   predicate, existential
V<   predicate, adjectival
A    transitive subject argument, lexical
a    transitive subject argument, pronominal
S    intransitive subject argument, lexical
s    intransitive subject argument, pronominal
O    transitive object argument, lexical
o    transitive object argument, pronominal
P    preposition
B    prepositional object/oblique, lexical
b    prepositional object/oblique, pronominal
X    miscellaneous