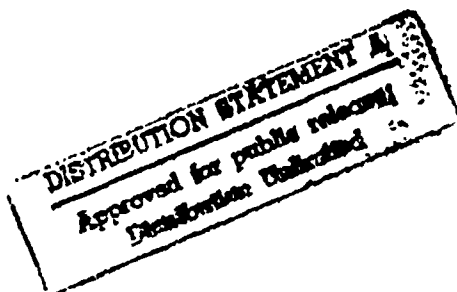# AD-A247 226

Functions of Language
In Two Frameworks

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ISI/RR-90-290

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92-05936

92 3 05 004

REPORT DOCUMENTATION PAGE

1a. REPORT SERCURITY CLASSIFICATION UNCLASSIFIED		1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILTY OF REPORT		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE				
4. PERFORMING ORGANIZATION REPORT NUMBER(s) ISI/RR-90-290		5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION USC INFORMATION SCIENCES INSTITUTE	6b. OFFICE SYMBOL	7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State, and ZIP Code) 4676 Admiralty Way Marina del Rey, California 90292		7b. ADDRESS (City, State, and Zip Code)		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION AFOSR	8b. OFFICE SYMBOL	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		

8c. ADDRESS (City, State, and ZIP Code) Building 410 Bolling Air Force Base Washington, DC 20332	10. SOURCE OF FUNDING NUMBERS			
	PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO	WORK UNIT ACCESSION NO.

11. TITLE (INCLUDE SECURITY CLASSIFICATION)

"FUNCTION OF LANGUAGE IN TWO FRAMEWORKS"

12. PERSONAL AUTHOR(S)

William C. Mann, Christian M.I.M. Matthiessen

13a. TYPE OF REPORT Research Report	13b. TIME COVERED FROM _____ TO _____	14. DATE OF EPORT (Year, Month, Day) 1990, June	15. PAGE COUNT twenty-two

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	Functional Linguistics, Rhetorical Structure Theory, Systemic-Functional
			Linguistics, Discourse Relations, Discourse Function

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This paper is the first in a pair of papers that compare two particular accounts: Rhetorical Structure Theory and Systemic Linguistics.

Rhetorical Structure Theory, initially formulated in 1983, describes texts in terms of functionally-defined relations that hold between parts. Systemic Linguistics is a much more comprehensive view of language initiated in the early 1960s. Where the two approaches are comparable, systemic linguistics describe text in terms of categories of processes which the texts perform.

The paper focus on correlating the relations used in rhetorical structure theory with the categories of function found in systemic linguistics. The correlation employs descriptions of speakers' intentions in an essential way. A surprisingly strong correlation results.

20. DISTRIBUTION/AVAILABLT OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS	21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED	
22a. NAME OF RESPONSIBLE INDIVIDUAL	22b. TELEPHONE (Include Area Code) (310) 822-1511	22c. OFFICE SYMBOL

DD FORM 1473, 82 JAN

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Abstract

Some of the most central problems in linguistics concern how language fills its characteristic roles: how it is useful, the nature and extent of its translatability, and the nature of the integrity of texts. Within linguistics there are many kinds of description that bear on such questions, one kind being the description of language in terms of its functions. Comparing these functional descriptions, the various descriptions do not all cover the same ground. Rather, each is quite partial, and appropriate ways to combine them into a more comprehensive account are not evident. It is hard to know wherein they conflict, wherein they agree, and where they simply speak of different things.

This paper is part of an effort to relate various accounts. It is the first in a pair of papers that compare two particular accounts: Rhetorical Structure Theory and Systemic Linguistics.

Rhetorical Structure Theory, initially formulated in 1983, describes texts in terms of functionally-defined relations that hold between their parts. Systemic Linguistics is a much more comprehensive view of language initiated in the early 1960s. Where the two approaches are comparable, systemic linguistics describes texts in terms of categories of processes which the texts perform.

The paper focus on correlating the relations used in rhetorical structure theory with the categories of function found in systemic linguistics. The correlation employs descriptions of speakers' intentions in an essential way. A surprisingly strong correlation results.

1 Introduction

One of the most central issues in linguistics concerns the capacity of human languages to fill their characteristic roles in human interaction. Texts, even more than money, are the exchange medium of living. Identifying functions of text and the relationships of those functions to the patterns of text use are thus foundational problems for linguistics. They are central topics of this paper and a companion paper.

One influential precedent in developing descriptions of text has been the extensive prior work on descriptions of sentences, predominantly in terms of categories

of constituents and structures built out of such categories.[1] There has been a widely shared desire to find continuities, analogies or even abstract identity between the notions of sentence and text.

Unfortunately, while the analogy from sentence to text is informative, it has not led to very restrictive accounts of text structure as some have hoped it would. In constituency terms, a text is not much like a sentence. Texts do not gain their integrity from well-formedness conditions on their sequences of constituents.

Other kinds of accounts, especially from "functional" linguistic frameworks, offer the possibility of a different kind of notion of text integrity, and correspondingly different descriptions.

This paper and the companion paper compare two "functional" linguistic frameworks: the Systemic Framework begun by Michael Halliday around 1960, and Rhetorical Structure Theory (RST), an approach to text description begun in 1983 by the authors and Sandra Thompson. Both frameworks are relevant to basic questions of language function, such as: What do texts do for their users? What kinds of differences can a text make by being spoken or heard? What are the functional principles of the organization of language and text? Which categories of text function are frequent and pervasive? How are text functions performed by use of the identifiable linguistic elements of texts? Do different kinds of formal elements perform the same kinds of functions?

In comparing the frameworks we focus on issues of identifying the functions and their distribution:

* What are the frequent and pervasive functions of language?

* Texts are organized, and they contain functioning elements in a wide range of sizes. Do the functions of text elements correspond somehow to their sizes, or are there kinds of functions performed at the full range of element sizes?

The papers concentrate on parts of the two frameworks which represent shared abstractions and observations. In particular, they examine three kinds of abstractions: major categories of function, ways of treating relationships between parts, and description of texts or genres of texts in terms of sequences of functions. This first paper introduces the relevant parts of both frameworks and then examines some of their most central notions, asking:

"How do the RST relations and the Systemic Metafunctions represent the same identification and grouping of functions of language in text?"

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[1] "Text" in this paper includes both spoken and written forms.

2 A Brief Introduction to RST

Rhetorical Structure Theory is a descriptive theory of a major aspect of the organization of natural text. Its conventions and notation have been used in analyzing several hundred texts from a wide variety of written sources, including administrative memos, personal letters, letters to the editor, adver. ements, Scientific American articles and abstracts, newspaper articles, organizational newsletter articles, public notices in magazines, travel brochures, and recipes. While RST has been developed in the context of these and other sources, it is not intended as a theory of any of the particular registers or genres they exemplify. We follow the convention of referring to the linguistic participants as "speaker" and "hearer" because the kinds of structures and functions that RST posits are found in all modalities of texts, not just written texts. Similarly, the hearer may be an audience of many hearers or readers; the term does not restrict number.

The description in this paper is in terms of the strongly dominant patterns that prevail most frequently in RST analyses.[2]

RST characterizes a text in terms of **relations which hold between its parts**, which come in various sizes. The parts are called **text spans**, and the minimal spans are called **units**. When two spans are related (**linked**) by a relation, then the pair stands as a span which can be linked to another span.

Strictly speaking, the relations of a text do not hold between the various word sequences of which the text consists. Rather, the word sequences are realizations of more abstract entities: meanings and intentions that are represented by those word sequences. In this sense all of RST is pre-realizational, since it makes statements about how such meanings and intentions are structured and combined, but not about how they are realized. It is inconvenient to acknowledge the abstraction on every mention, so we will generally say that relations hold between spans of text, but the distinction between the abstract entity and its realization always remains.

As we will see in Section 2, relations and constituent specifications constrain a text structure in different ways. Constituent structure constrains in terms of the categories of elements being locally combined, whereas relational structure constrains in terms of their relationship. So, for example, the difference between concession and evidence can be described in terms of different rhetorical relationships, but not in terms of the nature of the constituents.

Each relation has a name, such as **evidence**. Although the set of relations is open ended, there is a set of between 20 and 30 frequently used relations which is

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adequate for stating RST structures of a very large proportion of the small written monologues that we have encountered by sampling widely in our culture.

Relations thus link larger and larger spans, up to the entire text, the largest span. Table 1 shows names of some of the relations defined in RST. Various RST studies have found that the relations that hold between spans realized by clauses also hold between larger spans, and that the knowledge of discourse relations explains some otherwise unexplained facts about the grammar of clause combining (see especially the references on subordination, antithesis and concessives.)

Table 1: Relation names in RST

Elaboration	Evidence
Circumstance	Antithesis
Solutionhood	Concession
Volitional Cause	Motivation
Volitional Result	Enablement
Non-Volitional Cause	Justify
Non-Volitional Result	Background
Purpose	
Condition	
Otherwise	
Interpretation	
Evaluation	
Restatement	
Summary	

The units of an RST analysis are chosen to fit the purposes of the analysis, and are not theoretically prescribed. Our usual practice in analyzing a text is to regard clauses as the realizations of units, but to merge restrictive relative and complement clauses with their parents and to treat elliptical clauses as if they were non-elliptical.

RST text analysis requires an analyst; it is not mechanical. The analyst must make judgments about the text and its speaker and hearer as the text represents them. Because there is generally no way to be certain about the critical issues, they are plausibility judgments.

RST relations are defined in a systematic way. Saying that a certain relation holds, e.g. that the evidence relation holds between two spans of text, is saying that in the view of the analyst all of the conditions in the definition of the particular relation hold. The conditions are never defined in terms of particular morphological signals; rather they are situational conditions for which morphological signals are one class of clues. So for example a conjunction such as "because" may signal evidence. but it also may signal other relations including various kinds of cause, and any of the relations may hold with no corresponding signal.

In relation definitions, the two spans of text to be related are called the **nucleus** and the **satellite**. These are distinct, so that if a definition applies with span A as nucleus and span B as satellite, it will not ordinarily apply with span B as nucleus and span A as satellite. The nucleus/satellite distinction is a prominent feature of RST. It has been used in explaining "subordination" in grammar [Matthiessen & Thompson 89], and it crucial to a study of persuasion texts. It is important for explaining the asymmetric character of the relations, and the recurrent linguistic patterns that are affected by this asymmetry.

However, nuclearity is not an essential notion for this paper. The terms "nucleus" and "satellite" in the relation definitions below can be treated simply as labels for two distinct spans.

Relation definitions consist of two parts or fields, as indicated in Figure 1. The first is a set of **constraints** (i.e. conditions of use) on the spans, generally on the status they might plausibly have in the speaker's view of the hearer. The second, the **Effect field**, states a condition which (plausibly, in the analyst's view) the speaker wanted to achieve by employing the spans and the relation. It is always stated in terms of intended effect, the function of this particular aspect of the text. Unlike the Constraint field, the Effect field is never empty.
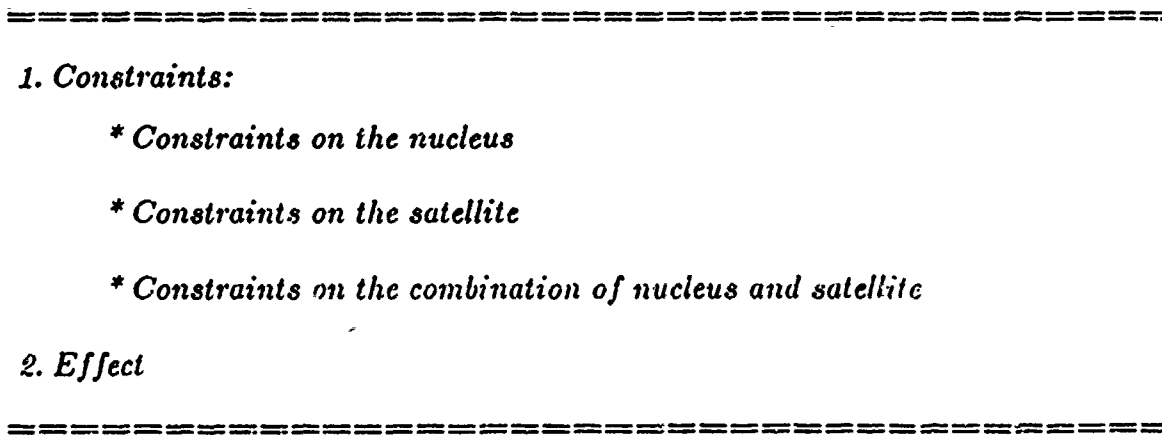
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1. Constraints:

    * *Constraints on the nucleus*

    * *Constraints on the satellite*

    * *Constraints on the combination of nucleus and satellite*

2. Effect

==

Figure 1: The Fields of a Relation Definition

Relation definitions do not specify the order of appearance of spans, and for some relations both orders are found frequently.

Figure 2 shows the definition of the evidence relation.[3]

In the Constraint field, the nucleus constraint represents the notion that it is

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[3]RST definitions utilize a notion of degrees of belief rather than the more conventional binary belief. This is not unprecedented, and it helps in explaining why some texts are organized as they are.

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1. Constraints:

   * Constraints on the nucleus: The hearer might not believe the nucleus to a degree that is satisfactory to the speaker.

   * Constraints on the satellite: The hearer believes the satellite or will find it credible.

   * Constraints on the combination of nucleus and satellite: If the hearer comprehends the satellite it will tend to increase the hearer's belief of the nucleus.

2. Effect: the hearer's belief of the nucleus is increased by means of increased belief that knowledge of the satellite is a suitable basis for increased belief of the nucleus.

==

Figure 2: Definition of the Evidence Relation

pointless for the speaker to support with evidence a claim that the hearer already believes to a satisfactory degree; claims already believed do not need support. The satellite constraint represents the notion that it is pointless to support a claim with non-credible evidence. The combination constraint represents the notion that there must be an actual support relationship between the claim and the evidence; they cannot be simply two independent items.

The Effect field, in many ways, is the most important, because many of the communication effects of language depend on such effects.[4] In the evidence definition it requires that the speaker intends to bring the hearer to increased belief of the nucleus. If that is an implausible intent to attribute to the speaker for some pair of spans, then the evidence relation does not hold between them.

As we will see in a later section, it is useful to classify the Effect fields of the definitions into two classes depending on which spans take part in the desired effect, as follows:

1. **Nuclear Effect** -- the desired effect involves the nucleus only.

2. **Nuclear and Satellite Effect** -- the desired effect involves both the nucleus and the satellite.

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[4]The Effect field is particularly helpful in accounting for the coherence of texts and in relating texts to the implicit communication which they accomplish. See [Mann 87].

The term **locus of effect** refers to this difference; the locus of effect is either the nucleus or the combination of nucleus and satellite. We will see that this distinction correlates with others and is particularly useful in understanding the functions of the relations.

As indicated above, spans can be linked by relations and thereby composed into larger spans, building a structure from single units up to the whole text. For example, Figure 3 shows a seven-unit initial segment of a newspaper article, and Figure 4 shows a structural analysis of it in a typical RST structure diagram. The arcs labeled with relation names show the links that comprise the structure. Arrowheads point toward nuclei and away from satellites. Vertical bars connect a nucleus with the whole span that contains it as a part.

1. Farmington police had to help control traffic recently

2. when hundreds of people lined up to be among the first applying for jobs at the yet-to-open Marriott Hotel.

3. The hotel's help-wanted announcement - for 300 openings - was a rare opportunity for many unemployed.

4. The people waiting in line carried a message, a refutation, of claims that the jobless could be employed if only they showed enough moxie.

5. Every rule has exceptions,

6. but the tragic and too-common tableau of hundreds or even thousands of people snake-lining up for any task with a paycheck illustrates a lack of jobs,

7. not laziness.

Figure 3: The "Not Laziness" Text

At the highest level, units 1 - 3 are in a **background** relation to units 4 - 7. The police incident is being used to make the point that a certain common political claim about the jobless has been refuted by the incident. The incident is unknown to hearers, and so must be described in order to make the point comprehensible. (The Effect field of background is "The reader's ability to comprehend the nucleus increases.")

The evidence relation between unit 4 and units 5 - 7 represents the use of an observation about the frequent occurrence of large job-lines to support the speaker's claim (that the common supposition that the jobless are lazy is refuted.) The speaker
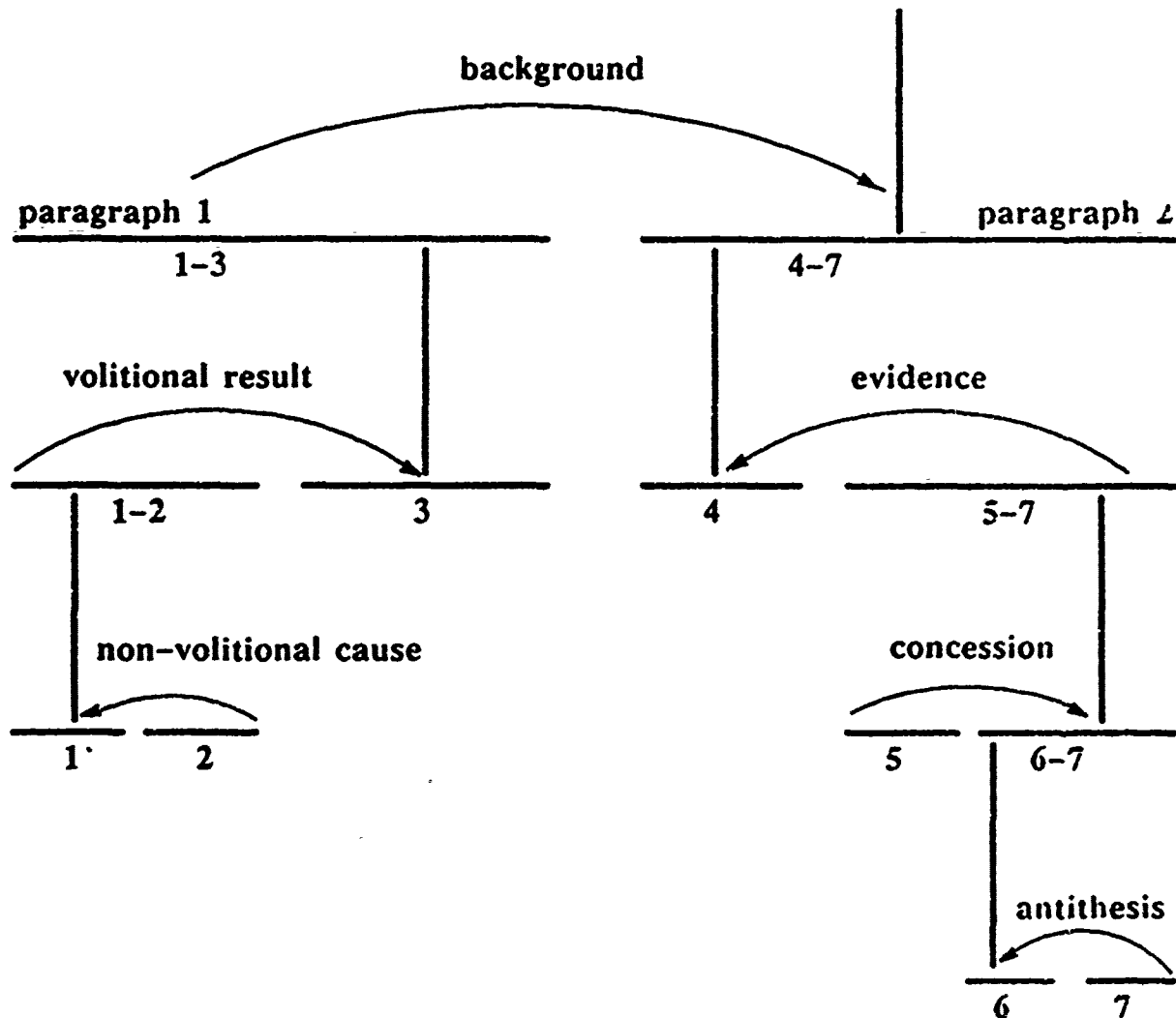
background

paragraph 1

1-3

paragraph 2

4-7

volitional result

1-2   3

evidence

4   5-7

non-volitional cause

1·   2

concession

5   6-7

antithesis

6   7

Figure 4: Structure of the "Not Laziness" Text

obviously wants the hearer to believe his claim. Thus the functional requirement of the Effect field of the evidence relation (that the speaker intend that "the hearer's belief of the nucleus is increased") is fulfilled.

The **volitional result** relation between unit 1 and units 2 - 3 is similar. The speaker wants the hearer to believe that the assembly of hundreds of people had the result that police acted to control traffic; this matches the Effect field for volitional

result, that the speaker intends that "the hearer recognizes that the situation presented in the nucleus could be a cause for the action or situation presented in the satellite."

The effects produced by employing the relations fall into two classes, depending on whether the satellite is involved in the intended effect. For evidence, for example, the intended effect is belief of the nucleus; the satellite is not involved. We say that the **locus of effect** is the nucleus. Correspondingly for the volitional result relation the locus of effect is the combination of the nucleus and the satellite. The locus of effect is determined entirely on the basis of inspection of the Effect field alone, not from the remainder of the relation definition or the texts in which the relation is used.

In summary, RST characterizes text organization and function in terms of relations that hold between spans of text. These spans of text occur in a wide range of sizes, ranging comprehensively from clauses up to whole texts. The relations are characterized in terms of function rather than form.

The following section introduces the functions described in the Systemic framework, and the next section compares RST and systemic descriptions.

3 A Brief Introduction to the Metafunctions of Systemic Linguistics

In systemic linguistics, the basic linguistic unit is a functional-semantic one rather than a grammatical one; it is text functioning in context.[5]

Consequently, there has been a good deal of systemic work on text in context. We will return to this work in our second paper. Here we will focus on a particular aspect of systemic functionalism, Halliday's theory of metafunctions.

Halliday [Halliday 69], [Halliday 70], [Halliday 68], [Halliday 80], [Halliday 85] has found that language is organized according to three kinds of functions (metafunctions) -- ideational, interpersonal, and textual.[6]

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[5]The term **function** is used in a somewhat different senses in RST and Systemic Linguistics. In RST the term denotes a classification or description of outcomes, the resultant states produced by hearing or reading texts, whereas in Systemic Linguistics the term represents classification of processes, most often processes which occur when the text is heard. Because of this difference in orientation there is no a priori reason to expect any correspondences between the two approaches; finding a strong correspondence is thus particularly interesting.

[6]The term **metafunction** is used to distinguish these generalized functions from the **microfunctions** of grammatical structure -- functions such as Theme, Subject, and Actor -- and from the **macrofunctions** of early child language -- functions or uses such as instrumental, regulatory, and heuristic. Use=function in early child language; they are differentiated in adult language. Halliday's ideational metafunction corresponds roughly to Dik's [1978] semantic function and his textual one to Dik's pragmatic function. There is also a correspondence between Halliday's interpersonal metafunction and Dik's syntactic function, but it is less direct.

* <u>Ideationally</u>, language is used to represent our experience: transitivity is an example of an ideational resource in the grammar.

* <u>Interpersonally</u>, language is a resource for interaction between speaker and hearer; it guides both at the same time. Mood and modality are examples of interpersonal resources in the grammar.

* <u>Textually</u>, language is a resource for creating and presenting text as a way of enabling the ideation and the interaction: theme and determination are examples of textual resources in the grammar.

When Halliday developed the theory starting in the first half of the 1960's, functional models had not usually been models of the organization of language itself but rather had been based on language-external considerations: the best known are probably Buehler's [1934] model and Jakobson's [1960] extension of it. Functions are recognized according to the orientation towards speaker, hearer, or reality other than these interactants -- the three persons of the familiar person systems: first, second, and third. Significantly, the language-internal function of creating text, the textual function, was not recognized in Buehler's model. In contrast, Halliday's metafunctions are not labels of different uses of language reflecting a view of language from outside, but they are the functional principles of the internal organization of semantics and lexicogrammar. They are simultaneous principles of organization.

3.1 Clause (grammar)

We will illustrate the metafunctions from the grammar of the clause, since it is here that the functional contributions can be seen most easily. Let's take the clause *Farmington police had to help control traffic recently*, the first clause of the "Not Laziness" text, as an example.

* From an <u>ideational</u> point of view, the clause is a representation of a configuration of a process, participants in the process and attendant circumstances. There is a Process (a type of action in this case), *had to help control*, an Actor, *Farmington police*, a Goal, *traffic* (a participant), and a Time, *recently* (a circumstance).

* From an <u>interpersonal</u> point of view, the clause is an interaction between writer and reader. It is a statement whose validity is claimed by the writer and can be accepted or questioned by the reader: *Farmington police had to -- yes, they did; no they didn't.* The speech-functional status of the clause is reflected in the combination of Subject and Finite, the finite verbal element. Since the clause is declarative, Subject precedes Finite; in a yes/no interrogative clause, the order would be reversed. Both Subject and Finite are interpersonal (micro-)functions; they reflect the interpersonal organization of the clause.

* From a <u>textual</u> point of view, the clause is organized as part of the text. The Theme of the clause is the Subject -- the unmarked theme selection in a declarative clause: *Farmington police.* This theme and the other themes of the text form an organized pattern which facilitates comprehending the text. The temporal specification, Time, would have been a likely marked Theme if the text or part of the text was organized temporally: *Recently Farmington Police had to help control traffic.* Subsequent clauses have different themes.

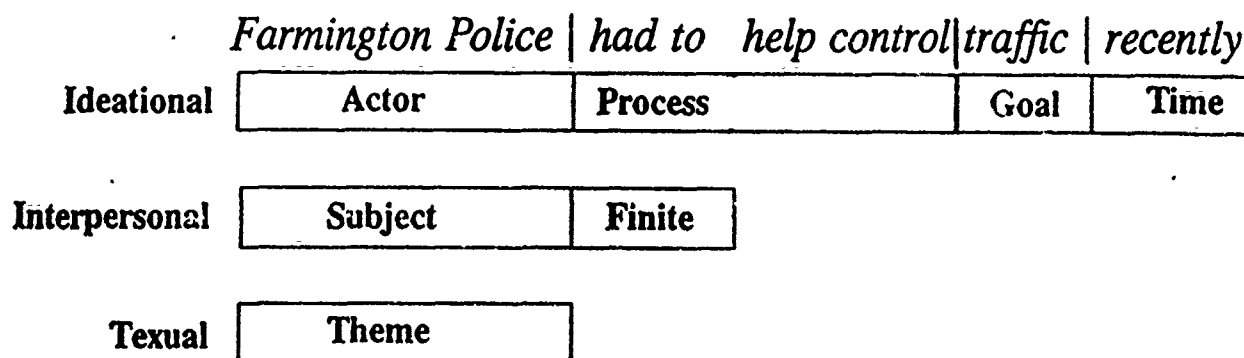The three metafunctional contributions to the organization of the clause are brought together in Figure 5.

Farmington Police	*had to help control*	*traffic*	*recently*
Ideational			
Actor	Process	Goal	Time

Interpersonal	
Subject	Finite

Texual
Theme

Figure 5: Clause Organization of Traffic Control Sentence

3.2 Text (semantics)

Given this brief illustration from the grammar of the clause, we now characterize the three metafunctions in more detail in a way that is relevant to the organization of text.

The **ideational metafunction** is concerned with the representation or construction of phenomena of our experience -- Most importantly in the grammar, phenomena of experience are represented as configurations of processes, participants, and circumstances; or as the sequences configurations enter into when they are related by temporal, conditional, causal, additive or other relations. "Experience" here is broader than just the perceived world. It includes the future, situations and objects that might arise, unperceivable abstractions, people's mental attitudes such as respect and indifference, groupings, categorizations and expectations. Although they are not subject to sensory perception, these sorts of entities are within the scope of "experience" and thus ideational functions apply to them.

From an ideational point of view, a text or part of a text can be interpreted as a representation of a complex phenomenon such as an episode, a procedure, a mechanism,

a scene, a record, a taxonomy, and so on. The ideational success of the text lies in the evocation for the hearer of the complex phenomenon or phenomena it represents as coherent wholes.

Returning to the "Not Laziness" text quoted above, we can now look at it from an ideational point of view. The text represents an episode where job openings are announced and people react by lining up, and so on.

The **interpersonal metafunction** is concerned with the establishment and maintenance of the interaction between speaker and hearer. The speaker's status is represented relative to the ideational portion of the interaction by means of assertions, commands, questions, attitudinal assessments. The speaker's text is configured to convey effectively these representations of status.

In taking a stance, the speaker simultaneously assigns a role to the hearer, as illustrated in Table 3.2.

The speaker participates in the interaction and also gives or demands comments, modal or attitudinal assessments, and so on.

From an interpersonal point of view, a text can be interpreted as constituting a complex speech-function -- what we might call a rhetorical act: a complex offer, demand, claim, and so on. For example, an argument is a complex of a claim and evidence for the claim, a recipe is a complex instruction, an advertisement might be a complex offer, and so on. The interpersonal success of the text lies in expressing the potential for both speaker and hearer fulfilling their roles in the rhetorical interaction.

So, for example, from an interpersonal point of view the "Not Laziness" text constitutes a complex claim -- a claim backed up by evidence.

The **textual metafunction** is concerned with making the organization of the content of the text evident to the hearer.

The ideational and the interpersonal meanings of the text are presented as contextualized messages, that is, within a discernible pattern of organization. The meanings are contextualized by giving them statuses as thematic or non-thematic, identifiable or non-identifiable, and newsworthy or non-newsworthy. The ideational and interpersonal messages of the text are set into their intended conceptual context.

From a textual point of view, a text is the ongoing development and contextualization of messages and presentation of their organizational status in the text. In this view, the text is inherently sequential and dynamic: what was new, becomes old, what was non-identifiable becomes identifiable, what was rhematic becomes thematic, and so on. In the course of presentation, the text builds up its own context. For

Table 2: Roles Assigned by Interpersonal Functions

I don't know whether C is the case.	
	You tell me.
I want C to be the case.	
	You make it so.
I affirm that C is the case.	
	You can blame me if it isn't.
I di: . C.	
	You should dislike C.
I believe C while simultaneously accepting P.	
	You should not reject C on the basis of incompatibility with P.
I believe that E is a suitable basis for accepting my presentation of C.	
	You should believe C on the basis of E.
Knowing C will be helpful in doing A.	
	You should do A.
Knowing C will be helpful in wanting to do A.	
	You should want to do A.

example, new concepts may be introduced before they are employed, problems or

questions are introduced before their solutions or answers, and so on. So for instance in the "Not Laziness" text, background information is presented before the formation it provides background for.

As these characterizations suggest, a text can be developed ideationally as well as interpersonally:

1. a text can be developed as a representation of a complex phenomenon by means of representing relationships such as cause, condition and time sequence.

2. a text can be developed as a rhetorical act (a complex speech-function) by means of relations that organize the interaction between speaker and hearer -- relations such as motivation and enablement.

These developments are not mutually exclusive alternatives; a text may be developed ideationally at the same time as it is developed interpersonally. Both developments are enabled by the textual metafunction.

The two types of development are reflected in the [Halliday & Hasan 76] account of conjunction. Conjunctions mark conjunctive relations such as addition, temporal succession and cause. For instance, *when*, used as a conjunction, can mark a conjunctive relation of time or condition. A conjunctive relation may be either external -- oriented towards the text as representation -- or internal -- oriented towards the text as interaction. As we will see presently, we can identify a similar distinction among the rhetorical relations of RST on independent grounds.

All three of the systemic metafunctions are well established in lexis and grammar. Within the systemic framework, the metafunctions have also been used extensively in describing larger units than sentences, e.g. see [Berry 81], [Halliday & Hasan 76], [Halliday & Hasan 88], and they are regularly found useful in descriptions at the whole text level.

4 RST Relations and the Systemic Metafunctions

Recall that the central issue posed for this paper is: How do the RST relations and the Systemic Metafunctions represent the same identification and grouping of functions of language in text? Recall also that the function of a rhetorical relation is stated in terms of its intended effect, divided into two broad categories based on the locus of effect. We can thus look for correlations between different types of rhetorical effect and metafunctions. Briefly, the correspondence is as follows:

* Each relation functions according to just one metafunction.

* All relations whose locus of effect is nucleus plus satellite function according to the ideational metafunction.

* All relations whose locus of effect is nucleus alone function according to the interpersonal metafunction.

* There are no relations whose function corresponds to the textual metafunction. However, the order of spans of a relation functions textually.

To find this correspondence we have examined each relation definition, comparing it to the definitions of the metafunctions. In each case only one definition applies. Table 3 shows the result, along with the locus of effect for each relation.

Table 3: Systemic Metafunction and Locus of Effect of RST Relations

Name	Systemic Metafunction	RST Locus of Effect
Elaboration	Ideational	Nucleus + Satellite
Circumstance	Ideational	Nucleus + Satellite
Solutionhood	Ideational	Nucleus + Satellite
Volitional Cause	Ideational	Nucleus + Satellite
Volitional Result	Ideational	Nucleus + Satellite
Non-Volitional Cause	Ideational	Nucleus + Satellite
Non-Volitional Result	Ideational	Nucleus + Satellite
Purpose	Ideational	Nucleus + Satellite
Condition	Ideational	Nucleus + Satellite
Otherwise	Ideational	Nucleus + Satellite
Interpretation	Ideational	Nucleus + Satellite
Evaluation	Ideational	Nucleus + Satellite
Restatement	Ideational	Nucleus + Satellite
Summary	Ideational	Nucleus + Satellite
Evidence	Interpersonal	Nucleus
Antithesis	Interpersonal	Nucleus
Concession	Interpersonal	Nucleus
Motivation	Interpersonal	Nucleus
Enablement	Interpersonal	Nucleus
Justify	Interpersonal	Nucleus
Background	Interpersonal	Nucleus

For the interpersonal relations, it is helpful to remember that the interpersonal metafunction includes the speech-function or speech-act-like effects, the speaker expressing a personal stance toward some ideational message of the text. Many interpersonal relations are specialized to support particular kinds of speech-functions.

* Evidence. antithesis and concession can be seen as aids to assertion-like activity.

* Enablement and motivation can be seen as aids to various kinds of requesting or offering, supporting the tendency of the text to lead the hearer to want to perform the proffered activity.

Background and justify are not specific to particular classes of speech-function. Instead they support any kind of speech-function, by making it more comprehensible or more acceptable.

For ideational relations, it seems quite reasonable that the locus of effect should be the nucleus plus the satellite. The purpose of such relations is to represent the kind of connection prevailing between the nucleus and satellite, not just to achieve the function of the nucleus.

Correlated with locus of effect is a difference in the way that the effect is stated. For nearly all of the interpersonal relations, the intended effect is an increase in the hearer's **positive regard** for the situation presented in the nucleus, i.e. an increase in the hearer's belief of the nucleus, or desire to perform the nucleus action, or approval of the action presented in the nucleus. **Background** and **Enablement** are similar: the intended effect is the hearer's increased ability to comprehend or perform the nucleus.

In contrast, for all of the ideational relations the intended effect is a recognition of some fact or situation, such as *the hearer recognizes the situation presented in the nucleus as a solution to the problem presented in the satellite*, where in each case the fact or situation involves both nucleus and satellite. The **Contrast** and **Sequence** relations follow the pattern of the ideational relations: the intended effect is to recognize particular facts and relationships.

These differences in how effects are stated suggest that the kind of effect intended seems to differ strongly between the two groups. But what is the essence of the difference? Could "recognize that X ..." be restated as "the hearer's belief that X ... is increased" ? Recognition seems to be a binary concept, recognize or fail to recognize, whereas increasable belief is a degree concept.

The two conceptions are actually quite compatible. Both use the same notion of belief, a degree notion. But for the interpersonal relations, some prior acquaintance with the nuclear situation is the norm, and so it is natural to talk about its increase. For the ideational relations, the most common use is creation of an idea, a pairing of a problem with a solution, for example. Describing this as increased belief would obscure the difference.

The correspondence is remarkably complete, given the independent development of the two approaches. The match results from convergence, not design.

It is significant that the correspondence comes entirely from use of the Effect

field of the relation definition. It identifies the ideational and interpersonal functions as representing speakers' intentions. It suggests connections with some of the theories of linguistic communication that are organized around intent [Grice 75], [Cohen & Levesque 87], [Grosz & Sidner 86] and points up the importance of recognizing and giving theoretical status to speaker and hearer intentions in accounts of communication. And it is a way to raise questions about the equivalence of texts in terms of equivalence of effects, which is relevant to the practice of translation and editing, and their corresponding theories.

As suggested above, the ordering of spans performs textual functions. We can see this in the Not Laziness text. The background satellite, which facilitates comprehension of units 4 - 7, precedes them; if it were presented after them instead, it would be less likely that they would be understood.

Using unit 5 in a concessive relation performs an interpersonal function. Conceding the possibility of exceptions to rules, it reduces the impression that the speaker is arguing from single cases, which would be a weak and easily rejected form of argument. This unit neutralizes a possible objection by the hearer, strengthening the presentation. Placing the conceded material before the nucleus conditions the hearer's initial reaction to the nucleus by setting up an immediate presentational context in which the nucleus is less easily rejected -- a textual function.

Finally unit 7, the antithesis satellite ("not laziness"), expresses in a slogan-like way the central claim of the text, which is spelled out in unit 4. Compare the original ending with this less effective rewording:

6.' but the tragic and too-common tableau of hundreds or even thousands of people snake-lining up for any task with a paycheck does not illustrate laziness,

7.' but a lack of jobs.

By putting the antithesis satellite after unit 6, "not laziness" is put in the culminative prominence position of this paragraph.

It is interesting that the textual devices at larger scales resemble those in the sentence. Ordering, including marked and unmarked orderings, manipulation into beginning and ending prominences, contextualization by pre-statement of situation -- these devices are employed within sentences in clause and group ranks. All of these devices perform textual functions. (Notice also that all of them correspond to liberties or alternations at the sentence level, not to form constraints.) All of them are found performing the same textual functions in intersentential organization up through the largest scale.

5 Conclusions

We see that there is a tight correspondence between the metafunctions of the systemic framework and functional descriptions of RST relations. Each metafunction is represented differently in RST, with the differences between metafunction identification corresponding to simple differences in the locus of effect.

Combining results from the systemic framework and RST, we see that the same kinds of functions are performed by very different sizes of elements. covering the full range from single lexical items to whole texts. There is a continuity in the distribution of metafunctions that contrasts sharply with the sentence-level discontinuity in constituent structure descriptions of texts. This suggests that functional description is a potential basis for a unified linguistic description, as has been suggested before on other grounds.

The issue of what gives texts their unity can be addressed in functional descriptive terms. However, descriptions of text must address at least the three systemic metafunctions in order to find that unity. Instead of working with an ideational view of communication as message passing. a view based on at least these three kinds of functions will permit full-scale unified descriptions, as RST has demonstrated.

And because functional descriptions of RST relations are based on statements of speakers' intention, it is clearly possible to create extensive characterizations of a great diversity of whole texts in terms of intentional frameworks.

6 Acknowledgments

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