Seminal Studies in Linguistics and Translation

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Edited by

Amr M. El-Zawawy

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TABLE OF CONTENTS

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INTRODUCTION

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Seminal Studies in Linguistics and Translation is not merely some guessing at the linguistic unseen or an attempt at going against the grain in both linguistics and translation. Rather, it is a collection about the challenging topics in both fields with a view to providing insightful investigations into the latest trends in them. The book is, in essence, a recollection of how linguistics, in its broadest sense, cannot be easily divorced from translation, even if the latter is now theoretically well-grounded and assumes a separate niche in many universities the world over: translation is *nolens volens* a linguistic act, regulated by the 'norms' that tangentially govern its practices and briefs.

The reason why the collection was ruminated and introduced to the prestigious publishing house Cambridge Scholars was the need to give a scholarly vent for new voices in the fields of linguistics and translation to prosper and set the scene for further studies that can broaden the scope of postgraduate students and fellow scholars in terms of the variety of topics and depth of discussions. Not that the book is an amalgam of unrelated themes, or that it allows for academic 'beatnik'-like ideas of disaffected scholars: it charts the ground of how both linguistic and translative investigations are no longer unidirectional or confined to the 'big names'.

The task of editing the book was a gargantuan one. I have spent almost two years sifting through the article proposals and complete submissions. Through my reading of these articles, I discovered that what seemed to be axiomatic can be rethought and re-evaluated as the world around us changes. Further, the study of purely theoretical constructs is still occupying a firm ground in both linguistics and translation. This remark is based on the amount of theory-oriented articles and proposals that was screened. Similarly, it was noted that linguistics can be studied alone apart from translation, but still the two fields often merge so that a demarcating line can be difficult to draw. This last point has made the division of the

collection into linguistics versus translation studies a demanding task, if the content not the titles is to be the criterion.

As such, a bird's eye view of the articles in this collection necessitated rethinking their significance, not how they fit in within the context of linguistics or translation. An important trend that can be detected is the translation of minors' (or children's) literature. Two articles in this collection usher to the slot this trend is actually filling, bearing in mind that Translation Studies is on the path to fossilization with the absence of new ideas that can trigger ground-breaking research. Children's literature is a virgin field that can be tilled, and with the help of practicing translators and theoreticians alike, new insights can be gained. This is clear in the two articles by Ekram Abdelgawad and Nourhan Elarabie. The first adopts a thematic purview focused on the translation of girlhood in Johanna Spyri*'s Heidi* into Arabic, where Mona Baker's narrative approach is called to assume a high profile. The author concludes that Heidi's girlhood can be found in almost every family in the Arab world and culture, which renders its translation a narrative embedded in culture. The second chapter by Nourhan Elarabie is a case study of the translational choices adopted or disregarded in relation to the bigger narrative across the different levels either linguistic or non-linguistic. The chapter also employs Mona Baker's (2007) notion of reframing to the Arabic-English translation of *Faten the Servant* by Fatima Sharfeddin. Thus, it can be safely said that the two directions of Arabic-English and English-Arabic translation of children's literature is an observable streak of interest in Translation Studies that invokes Mona Baker's insights to give fresh perspectives on the theory of translation.

A similar trend can also be observed: the two chapters by Riham Debian and Amr El-Zawawy (myself) re-institute the importance of theory-oriented studies of translation. The first chapter is entitled "UNCRPD'S Rights Discourse and the Politics of Interpretation". A glimpse at the title reveals that it can be placed in the realm of linguistics, but reading through it exhibits how translation is primarily an act of reframing, albeit unconsciously. The author is intent on arguing that the question of globalizing culture and internationalizing discourse and their implication for the politics of interpretation and translation of the rights discourse of Persons With Disabilities (PWD) entail a shift from the politics of recognition to acknowledgement and the framing of these people. Thus, the chapter re-reads 'the UNCRPD (2006) and its Arabic translation to examine the politics of naming, its effect on the framing of person with disabilities (as object of charity versus subjects with rights) and its

ramification with respect to the developing social policies/practices of inclusion'. Among the significant conclusions are the repertoire-opening (echoing Even-Zohar's paradigm in this particular respect) of Critical Discourse Analysis, political philosophy, and translation theory, and the aspectual duality of intersubjectivity and institutionalized inclusion on both psychological and redistribution levels of recognition to the effect of re-perceiving PWDs as subjects with rights.

The second chapter by Amr El-Zawawy is a rethinking of Toury's laws of translation. Like Debian's, the chapter reconsiders theoretical constructs, but with challenging views. The author argues that despite the fact that Toury provides concrete examples in his elegant analysis of the proposed laws, he did not attempt to carry out large-scale applications, or better investigations into them, in terms of corpus analysis. The chapter also compares Toury's laws (1995) to Baker's Universals (1993) (which are linguistics-oriented, and thus suffer from being narrowly scoped), and the major conclusion is that Toury himself admits that laws are 'probablistic' and do not apply to all acts of translation. This clearly answers House's (2008) stricture about genre-specificity, which Baker still cannot stand up to due to her highly ambitious project of compiling corpora and analyzing them: how many corpora are needed then to cover all types and sub-types of texts? Her approach is also remiss about culture and its role vis-à-vis translation. This has boiled down to keeping Translation Studies stranded in the age-old conflict between theory and practice.

From the articles reviewed above, a number of observations can be gleaned. First, the translation of children's literature and the PWD theme situate the discussion within the Arab culture. Not prejudiced notwithstanding, the article on Toury likewise sheds light on Mona Baker (an Arab and Egyptian scholar) and her efforts in the field, thus tangentially bringing the Arab(ic) to the fore. Another relevant study in this regard is Safa'a Ahmed's on the comparison between the Arab Medieval and contemporary Western schools of translation. The author sees that the Arab Medieval School is no less in standing than the modern ones, especially in terms of choosing the translators and what to translate. In a sense, early on, there were selection criteria and an institutionalized policy of translating. Second, the humanist approach is present more than once. The PWDs, Toury's ignorance of translators as humans, and the Arab Medieval School's insistence on the polymath savant-translator allow for reconsidering the locus of attention in Translation Studies, i.e. Mr Translator.

This humanist line of investigation is further pursued in my linguistics-oriented chapters. The first is "Reclassifying Human Text-Processing Models: A Bird's Eye View" and the second is "Sir Philip Sidney and Ahmed Shawqi: A Comparative Stylistic Reading". In these two articles, I tried to explore how humans are the agents of thought in a text. Humans process texts via complex cognitive processes, and this processing aids stylistic analysis. Despite being widely varied, the models of human text-processing cannot evenly capture the complexities involved in producing a text, and this text cannot be easily subjected to stylistic tools of analysis without invoking their authors' lives and events. In other words, humans are prioritized in the course of approaching *human* texts.

All the above insights cannot *mutatis mutandis* be taken as a riposte of adopting a text-oriented approach to both linguistics and translation: the two chapters of Jack Morino and Jamshed Akhtar show how *text* analysis is no less seminal as an avenue of research. Morino sees that philosophy of language is a topic that accords a discerning view of linguistic scholarship. The question of meaning, however thought to be resolved, is hitherto a mystery to be unraveled by the philosopher of language. He concludes, after reviewing many schools of thought in this respect, that Frege's serious effort of systemizing the way in which both language in general and meaning in particular operate is still laudable. Frege's approach to meaning can be considered the first attempt at establishing a semantic theory through logical rules or logical calculus. Skeptics and mentalists have also grounded pragmatics as a then nascent branch of linguistics. Akhtar's chapter likewise lays emphasis on the importance of reconsidering the message of the Quranic text, which itself underlines the practice of the mindful reflection of everything around us, citing many examples from text to highlight their semantic content and import.

Last but not least, I wish to extend thanks to the contributors for giving me the opportunity of taking vicarious pride in being the editor of their meritorious articles. I hereby admit that all errors and mishaps, if any, are mine.

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PART I:

LINGUISTICS

RECLASSIFYING HUMAN TEXT-PROCESSING MODELS: A BIRD'S EYE VIEW

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1. Introduction

Models of human text-processing are widely varied. They differ in many aspects, especially how meaning is represented: some models prefer to represent meaning in the form of propositions which can be verified or denied. Others consider meaning a mental image that is usually represented by means of complex networks, frames and schemas. Still, other models give priority to the process of human text-processing per se by emphasizing the steps taken by humans to achieve the goal of understanding.

All these models, however, do agree on the salience of lexical, semantic and syntactic processing, which is indispensable in a theory of human text-processing. Thus, a completely lexicalist approach (cf. Rommetveit 1968) will eventually make use of semantic and syntactic analyses in determining meaning: it will start with lexis and end at the sentence structure. Similarly, a completely syntactic approach (cf. the Chomsky School) will focus on deep versus surface structure and touch upon thematic roles to account for agenthood. This means that the varied models of human text-processing usually integrate to provide a true picture of how human text-processing occurs.

In this chapter, different models of human text-processing shall be outlined. They will be discussed under three discrete categories: process and propositional models, coherence-based models, and mental models. The rationale behind this division, which is not tallied with common ones (particularly Foss and Hakes 1978 and Graesser et al 1997), is that some models do not fall neatly into one of the conventional categories of propositional versus mental. van Dijk and Kintsch's model, to take a

concrete example, heavily depends on propositions in representing meaning, and emphasizes how the human text-processing process proceeds. It is apposite, therefore, to place it under what are called process and propositional models (cf. Beaugrande 1981, 2005). In a similar vein, coherence-based models may use propositional calculus to some extent, but only as a means to an end. Unlike process and propositional models, coherence-based models take coherence as the locus of attention by maintaining that achieving a coherent text or discourse is the sole proof of good understanding. Mental models also emphasize the need for propositional logic (cf. Laird 1983), but schemata are usually highlighted in those models to refer to either mental or deductive ones.

This chapter will provide a number of attempts at zooming in on human text-processing during translation. Some of the human text-processing models outlined here may be invoked wholly or partially, and new concepts based on mental processing may be introduced.

2. Human Text-Processing Models

2.1. Process and Propositional Models

Beaugrande (1981, 2005) tackles ten models of human text-processing. Only five of them will be discussed here (since the rest are computational models that fall beyond the scope of the present chapter), and other models shall be added that are not mentioned by Beaugrande, based on the fact that they use propositions and focus on the process-oriented approach to discourse comprehension. Before addressing the models, Beaugrande (1981,2005) discusses at length the criteria required to build a model of reading or understanding. These criteria include inter alia processor contribution, memory storage, utilization, automatization, decomposition, processing depth, scale, power and modularity versus interaction.

Processor contributions refer to 'the manner in which the processor—in this case, the understander reading the text—applies stored knowledge and prior expectations' (p.4). Thus, in bottom-up processing, letters, words, phrases or sentences, Beaugrande maintains, are the focus, while in top-down processing, experience and world knowledge fill in gaps. Memory storage, as a second criterion, includes abstraction, construction or reconstruction. Abstraction is the process of extracting features or traces from the text and storing them away, and recall occurs by reviving those traces. Construction integrates stored knowledge with what is presented to the reader, and leads to expanding the experiences stored in the memory in

the case of recall (p.5). In reconstruction, Beaugrande maintains that 'further contributions are still entering after the experience is stored in the memory' (p.5). Other criteria include utilization, which is the extent to which presented materials are utilized either fully by dealing with every element on the linguistic level, or occasionally through cues that confirm predictions. Automatization refers to the processes done automatically (e.g. automatic inferencing in McKoon and Ratcliff, 1992) and requires scarce attention. As for decomposition, it simply means the decomposing of the text into smaller elements that are liable to reduction. Processing depth, on the other hand, refers to the effort required to understand a complete task. As Beaugrande (p.6) claims, '[it] depends not on readers nor on texts, but rather on tasks assigned.' Scale refers to locality versus globality: i.e. recognition of smaller elements (e.g. letters, words, and sentences) versus getting the gist of the text (p.6). Power refers to the applicability of general operations to a wide range of occurrences. Finally, modularity versus interaction is referred to as the level-by- level processing versus the interaction among all levels of phonemes, graphemes, syntax/grammar, semantics and pragmatics.

2.1.1. The Chomsky Model (1965)

The Generative Transformational Grammar has long hogged the limelight as a plausible model of human comprehension through the two notions of deep structures versus surface structures. As Beaugrande sees (p. 11), the informant's tacit knowledge is taken by Chomskyans to form the processor contributions. The central processing unit is the structure, which is usually analysed from surface into deep. This calls for total utilization by the processor through decomposition of units incapable of further reduction. Thus, the scale is local, and power is low. The depth of processing is not given due attention: infinite numbers of sentences are to be generated form a finite set of rules irrespective of meaning.

However, Beaugrande severely criticizes the Chomsky model:

> …It proliferates alternative formattings to an alarming degree with no routine processing advantages from converting structures to other structures of the same type… It discovers many ambiguities no reasonable human would be likely to consider… And, as already noted, it is closed to many factors that obviously play important roles in human communication. (p.12)

2.1.2. The Gibson Model (1975, 1977)

It is a lexicalist approach to understanding texts; it operates through feature extraction starting from the phonemic/graphemic level, then the syntactic level to semantic level (p.14). The model ignores processor contributions and heavily relies on utilization and decomposition. Thus, scale is usually local and the power noticeably low.

As for automatization and processing depth, Beaugrande (1981,2005: 15) believes that the model makes reference to age, as automatization is restricted to adult readers, and processing is 'truncated' before the semantic stage. Memory recall is abstract rather than constructive. Although the model is uniform in areas such as skill acquisition, it runs serious into problems as regards the processes readers perform on-line (e.g. connection, unification and integration).

2.1.3. The Herbert and Eve Clark Model (1977)

This model assumes that human processing is comparable to that of a professional linguist. It dissects a sentence into constituents (i.e. noun, phrase, verb phrase, etc.) and builds propositions thereof. As they (1977) believe, each proposition consists of a verbal unit plus one or more nouns. Thus, *Mary bought the book from John* is represented as ' Buy (Mary, book, John)'.

Processor contributions admit world knowledge into sentences, and inferencing is kept at a modest scale. Construction and reconstruction are utilized: the reader can reconstruct the author's intentions. However, power is low because the notion of 'proposition' is limited. Other criteria of automatization and modularity versus interaction are ignored.

Green and Coulson (1996:45-46) believe that the model makes use of bridging assumptions, which implies that listeners can only understand texts if they have prior knowledge of the topic under discussion. A classic example of bridging assumptions is the relationship between the two utterances *John put the picnic things in the car* and *The beer was warm*. However, Green and Coulson (1996) consider bridging assumptions not always effective, since the speaker's bridging assumptions may be different from those of the listener. Graesser et al (1997) believe that the model is rudimentary in nature, and like the 1980s models, it is limited by the preoccupation with the explicit text. To them, it is important to consider the goals and background knowledge of the reader.

2.1.4. The Meyer Model (1977, 1979):

This model assumes that there is a hierarchy of reading importance, and reading will be most efficient if this hierarchy (which is a characteristic of every text) is discovered. Case grammar is used to handle surface texts, and predicates and arguments are turned into 'lexical propositions' (cf. Beuagrande, 1981, 2005: 18), which are then turned into 'rhetorical propositions'.

To her, readers should follow the author's guidance in order to discover the text structure. Therefore, utilization is not that heavy, and interaction is needed between lexical and rhetorical propositions. She (cf. Beaugrande, 1981, 2005: 19) organizes text hierarchies into the following categories:

1- Adversatives: comparing a favoured view to an opposing one.
2- Covariance: relating preconditions to their outcomes.
3- Response: stating a problem and offering a solution.
4- Attribution: outlining the limits of an object or event.

Beaugrande (p.20) believes, however, that her model requires more activities on the part of the reader, but her discussion of global textual organizations is 'clearly a pioneering effort at time when few other researchers had realized the importance of this factor'.

2.1.5. The Kintsch Model (1977, 1988)

Kintsch's model is predominantly interactive. It is built on two focal processes, i.e. construction and integration. The constructive phase occurs according to a textbase which is made up of propositions or concepts (1988: 164-165). These propositions are like nodes in a network and are connected to each other. They have a 'strength value' (Kintsch's term) ranging from zero to negative. As Kintsch claims, there are two ways to look at propositions or nodes: either as ' a portion of a general knowledge network' or as a base for a discourse (p.165). Integration, on the other hand, is a sequence to construction, where node activation 'spreads around until the system stabilizes' (p.168). However, according to Kintsch (p.170), the model is not interactive, and priming is not involved. Meaning is thus constructed for the word in context.

Beaugrande (1981: 6) believes that Kintsch's model makes extensive use of utilization, and memory storage is both constructive and reconstructive. He commends the model that it

> ….correlates functional diversification with functional consensus… Kintsch is willing to disregard effects of surface syntax to some degree, and classifies sentences only on the basis of their number of underlying propositions. I do not agree that his experiments 'are not tests of strict deductions of the theory', but only 'studies in search of a theory'. (p.6)

2.1.6. van Dijk and Kintsch's Model (1978, 1983)

With the aid of Kintsch, van Dijk initiated a theoretical framework of discourse studies in the late 1970s. The theory presented in 1978 consists of several components (van Dijk and Kintsch, 1978: 367):

(i) a theory of discourse, consisting of
(ii) a grammar of discourse, with at least
(iii) a theory of semantic representations (propositions) for sentences and sequences of sentences (micro-structure);
(iv) a theory of semantic representations for global discourse structures (macro-structures);
(v) a theory relating micro-structures with macro-structures.
(vi) a more general theory of (non-linguistic) discourse structures, with specific theories for different kind of discourse
(vii) a theory or model of discourse structure processing, in particular of semantic information, i.e. for comprehension/interpretation, storage in memory, memory transformations, retrieval, and (re-)production and use/application.
(viii) a more general theory for complex cognitive information processing, in which the ability to process discourse is related to our ability to perceive/interpret and memorise complex events and actions after visual input, and to plan or organise and execute complex actions, both bodily and mental (reasoning, problem solving).

The model is primarily propositional in nature: it operates through propositions which are assigned to sentences at the micro-level. At the macro-level, macro-structures are built up through amalgamating micro-propositions. As Niska (1999) argues, the model draws on a distinction between an implicit and explicit textbase underlying discourse. Implicit textbases are not actually expressed in discourse; explicit textbases, in contrast, are theoretical constructions which establish coherence. The model also refers to inferencing through memory processes: micropropositions are processed in the working memory in order to establish coherence with propositions already processed and stored in the short-term memory.

van Dijk and Kintsch, moreover, discuss macro-rules: they are global operations which are entailed by sequences of micro-propositions. There are three maro-rules (in Niska, 1999: 3-4):

Macrorule 1: Deletion

Of a sequence of propositions, all those denoting an accidental property of a discourse referent can be deleted (NB the general constraint: if not necessary for the interpretation of following propositions).

(1) *A girl in a yellow dress passed by.*
1. A girl passed by.
2. She was wearing a dress.
3. The dress was yellow.

Propositions 2 and 3 can be eliminated.

Macrorule 2: Generalisation

Of a sequence of propositions, any subsequence may be substituted by a proposition defining the immediate superconcept of the micropropositions.

(3) *Mary was drawing a picture. Sally was jumping rope and Daniel was building something with Lego blocks.*
1. The children were playing.

Specific predicates and arguments in a series of propositions are replaced by more general terms so that one propositions suffices.

Macrorule 3: Construction

Of a sequence of propositions, each subsequence may be substituted by a proposition if they denote normal conditions, components or consequences of the macroproposition substituting them.

(4) *John went to the station. He bought a ticket, started running when he saw what time it was and was forced to conclude that his watch was wrong when he reached the platform.*
1. John missed the train.

The model of 1983 is, on the other hand, a broad study of discourse with all its embedded problems. van Dijk and Kintsch start their investigations by a list of cognitive and 'contextual assumptions' (van Dijk and Kintsch, 1983:4 ff in Beaugrande, 2006: 2) to inspire the major components of their

model. Their model is centred around the hypothesis that discourse processing is strategic: understanding invokes both internal and external information. Thus, discourse strategies operate on many kinds of input even if they were incomplete. These strategies apply to sequences of mental steps: identifying sounds or letters, constructing words, analyzing syntactic structures, or interpreting sentences and whole texts. Graesser et al (1997:295) consider van Dijk's model deficient in ignoring some features of discourse that cannot be explicitly present in propositional representations, such as tense, aspect, voice, and 'determinacy of nouns'.

van Dijk and Kintsch (1978) also discuss the assumptions of local and global strategies of the linguistic and cognitive theories of discourse. Local strategies, they maintain, are concerned with establishing the meanings of clause and sentences and the relations among them, whereas global strategies determine the meanings of discourse fragments. The two types interact hierarchically in the course of text comprehension.

The two scholars likewise investigate the role of world knowledge in discourse comprehension. They (1978) sketch the components of the knowledge system, being levels or nodes forming overlapping chunks. Strategies are used in this respect to activate certain nodes to achieve the user's goals. According to Beaugrande (1981, 2005), the notion of knowledge as presented by van Dijk and Kintsch can be broken down into:

1- Episodic knowledge: i.e. constructed or inferred from prior experience.
2- Conceptual or semantic knowledge: i.e. derived through abstraction, generalization, and decontextualization and therefore useful for many cognitive tasks.

One way of spreading activation, they argue, in the knowledge nodes is inference-making, which is mainly a form of adding plausible or necessary information to discourse.

Although the 1983 model makes much reference to schemas, scripts and frames, it emphasizes the salience of a situation model. According to van Dijk and Kintsch (p.4), a situation model integrates the comprehender's existing world knowledge with the propositions derived from the textbase; it incorporates previous experiences or textbases. These experiences come in the form of clusters, and problem-solving operates through transforming unsuitable situation models into fitting ones.

2.1.7. Discourse Information Grammar (DIG) (2005)

This model marks the most recent approach to discourse comprehension. Developed by Sévigny (2005), its gist is accumulation of information during discourse processing in linear, dynamic, left-to-right, incremental, nonmonotonic manner (2005: 1). It is primarily a process model, since it emphasizes the role of parameters and limits which guide information accumulation through various components.

The model makes use of the lexicon, claiming that its entries contain the basic phonological, morphological, semantic and syntactic information for a word to be initially understood. The lexicon, Sévigny (p.4) maintains, allows lexical information to be concatenated with compatible structures or to initiate new ones. He (p.4) outlines the processes of DIG as follows:

1- If a new structure is initiated, the old structure is closed, and possibly assigned a functional role.
2- The old structure, now bound to a functional role, is attached to a discourse stream.
3- Functionalized structures are then connected together through argument binding done via functional roles which have been established for each structure.

Sévigny (p.4) comments that there may be delays in functional role assignment, but these delays are only temporary, 'given Miller's limit on short term memory' and 'the cognitive pragmatic constraints imposed by the principle of relevance.'

DIG poses the following questions:

1- What kinds of information are represented within it?
2- How is this information related to ‘meaning’, ‘comprehension’ and ‘interpretation’?
3- How can this information be represented?
4- How and when is this information perceived?
5- To what extent is this information self-sustaining, that is, can incremental discourse information processing operate independently or is it critically dependent on outside factors, such as information contained in world knowledge?
6- What information is part of discourse processing and what is extrinsic to it? What kinds of units should be utilized to capture this information?

7- What fundamental processes are utilized?
8- How is discourse information accumulation related to the theory of grammar?
9- How do we know when a structure or unit starts and more importantly, given the linear approach adopted how do we know or decide that a structure has ended?
10- When does information accumulation begin? (pp.2-3)

To answer these vexed questions, Sévigny proposes a model made up of three basic components: the lexicon, structures, and discourse units among others. The lexicon contains lexical entries composed of the following information:

NAME: <letters> (in spoken language: <sounds>)
INDEX: Gender
Number
Person
CATEGORY: Structure-type
Semantic: {…}

Names are the words normally printed. They have no arguments, and only isolate concepts which constitute functional roles to be included in the category (p.8). Indexes refer to agreement in gender, number and person. Categories refer to the types the words belong to, e.g. noun, verb, adverb, etc. Categories typically incorporate structure-types which are not VPs or NPs but 'chunks' and 'information patterns' (pp.2-3). The semantic {…} is 'an open set, subject to modification of various sorts: addition, fusion, composition, deletion, reduction, value change' (p.9). It also depends on world knowledge.

Structures, the second component of DIG, refer to words themselves or concatenations thereof. Unlike words alone, structures are capable of being assigned functional roles (p.12). A structure, as defined by Sévigny (p.13), is <HEAD, F-SET, TYPE, STATE, TEMP>. 'Head' is the most important element in a structure; 'F-set' refers to the range of functional roles; 'type' to structural units; 'state' to the operation or incorporation of a structure; and 'temp' to an empty set of attribute features.

Discourse units, the final component, are divided into:

1- Minimal discourse units (MDU).
2- D-stream (short for 'discourse stream').

3- D-frag (short for 'discourse fragment').
4- DUC (short for 'complete discourse information unit').

A continuum is accumulated which starts with MDU to D-frag to DU. This does not start unless functional roles are assigned. MDU has to be integrated into discourse stream; it does not do so unless F-sets are assigned. The whole process is summarized by Sévigny (p.15) through the following graphic cline:

Word→ Structure →F-structure→MDU→D-stream→DIU→D.

The continuum can be interrupted, and the d-stream may end without reaching a full sentence status; this usually happens in conversation but rarely in written texts.

2.2. Coherence-Based Models

2.2.1. Van Dijk's Model (1977)

van Dijk's model of discourse comprehension has revolutionized text linguistics and discourse analysis. It has established basic notions such as coherence, frames, scripts, microstructures and macrostructures. It has also paved the way for further explorations in pragmatics and cognitive linguistics through van Dijk's collaboration with Kintsch (1978). van Dijk's model (1977) derives its importance from emphasis on the role of coherence as a starting point for pragmatic analysis on more global levels (i.e. microstructures and macrostructures).

van Dijk (1977: 93) defines coherence as ' a semantic property of discourses, based in the interpretation of each individual sentence relative to the interpretation of other sentences'. He (p.96) believes that coherence relations exist between propositions (like those explained above); values must thus be assigned to these propositions or parts of sentences. He also speaks of 'model structures' which depend on each other; individuals may be introduced or eliminated in the course of discourse, and each sentence is to be interpreted with respect to its 'actual domain of individuals' (van Dijk's term). This implies, he maintains, that sentences in a discourse are connected to each other so that interpretation occurs a priori. Moreover, 'properties' or 'relations' (i.e. predicate values) change for an individual 'at different time points and in different possible worlds' (p.96). Thus, a discourse containing two propositions like *John is ill* and *John is not ill* may not be inconsistent.

van Dijk (pp. 98-99) gives a concrete example of coherence at work. The following passage is cited:

Clare Russel came into the Clarion office on the following morning, feeling tired and depressed. She went straight to her room, took off her hat, touched her face with a powder puff and sat down at her desk.

Her mail was spread out neatly, her blotter was snowy and her inkwell was filled. But she didn't feel like work…

van Dijk discusses one important cognitive condition of semantic coherence through this passage, i.e. the 'assumed normality of worlds involved' (p.99). He identifies the term as the role played by individuals' knowledge about the structures of worlds in general and of particular states of affairs or courses of events in determining expectations about the semantic structures of discourse. Thus, normal propositions can be added to the above passage as well as abnormal ones. van Dijk lists the following as abnormal propositions (or discourse alternatives):

1- (…) took off her clothes (…)
2- (…) threw her desk out of the window (…)
3- (…) her mail was hanging on the wall (…)
4- (…) she drank her inkwell (…)

He introduces here the notion of 'frame, which is '[t]he set of propositions characterizing our conventional knowledge of some more or less autonomous situation (activity, course of events, state)' (pp.90-91). The above example illustrates the office frame with all its events and contents.

van Dijk (pp.102-103) summarizes coherence conditions as follows:

1- Each situation of each model of the discourse model is either identical with an actual (represented) situation or accessible from this situation.
2- There is at least one individual function for all the counterparts of this function.
3- For all other individuals, there is a series of other functions defined by relations of partiality (inclusion, part-whole, membership, possession).
4- For each property (or relation) applied to the same individual in the successive models of discourse model, there is a more comprehensive property or a dimension containing sets of characteristics.

5- For each fact in the subsequent models of the discourse model, there is a fact that is a condition of other facts or a consequence of it.
6- A sequence of sentences consisting of two coherent sequences is coherent if there is a relation such that individuals or properties of the two topics or frames satisfy this relation in the discourse, or if the first sequence contains a predicate giving possible access to the possible worlds in which the second sequence is satisfied.

van Dijk (p.108) touches upon inferencing as a consequence of coherence in discourse:

> It has been remarked several times that natural language discourse is not EXPLICIT. That is, there are propositions which are not directly expressed, but which may be INFERRED from other propositions which have been expressed. If such implicit propositions must be postulated for the establishment of coherent interpretations, they are what we called MISSING LINKS.

To van Dijk (p.109), inferencing is closely related to 'completeness', i.e. the degree to which information is explicit in a discourse. The following examples (p.109) well illustrate the point:

1- John came home at 6 o'clock. He took off his coat and hung it on the hatstand. He said "Hi, love" to his wife and kissed her. He asked "How was work at the office today?" and he took a beer from the refrigerator before he started washing up the dishes…
2- John came home at 6 o'clock and had his dinner at 7 o'clock.
3- John came home at 6 o'clock. Walking to the main entrance of the flat he put his hand in his left coat pocket, searched for the key to the door, found it, took it out, put it into the lock, turned the lock, and pushed the door open; he walked in and closed the door behind him(…)

Example 1 is, van Dijk argues, a relatively complete action discourse: all actions of roughly the same level have been referred to. Example 2 is incomplete, however: it does not mention John's activities between 6 and 7 o'clock. Example 3 is overcomplete: it details actions that can be easily inferred. An undercomplete discourse, van Dijk (p.110) maintains, may run as follows:

4- (…) He put his hand in his left pocket and searched for the key. He turned the lock. He closed the door (…)

In this example, details are given of one action but not of the other actions.

van Dijk's model, moreover, makes reference to higher levels of discourse processing, namely macrostructures. They are global structures that organize discourse structures in a memorable way. Macrostructures (van Dijk, 1977: 143) have the functions of organization, in processing and memory, of complex semantic information; this information will be reduced to macrostructures. Thus, the following text can be boiled down to 'Fairview was dying':

Fairview was dying. In the past, it had been a go-ahead, prosperous, little town and its large factories, specializing in hand-tools, had been a lucrative source of wealth (p.143).

van Dijk (p.157) finally discusses the cognitive bases of macrostructures:

> In ACTUAL PROCESSING, these operations [i.e. information reduction ones] are however HYPOTHETICAL or PROBABLISTIC: during input and comprehension of a certain sentence and underlying propositions the language user tentatively constructs the macro-propositions which most likely dominates the proposition in question. This hypothesis may be confirmed or refuted by the rest of the discourse. In case of refutation another macro-proposition is constructed. (original emphasis)

van Dijk (p.159) also maintains that his model is based on hierarchicality: discourse processing does not proceed linearly through micro-information; hierarchical rules and categories and the formation of macro-structures are necessary.

2.2.2. de Beaugrande and Dressler's Model (1981)

de Beaugrande and Dressler's model of coherence-based comprehension is one of the most influential; it derives its significance from the fact that it provides an integrated theory of human text-processing together with graphic illustrations of the salient processes of coherence. The model has undergone two stages of development, which will be explicated below.

de Beaugrande and Dressler (1981: 90) define coherence in the light of a continuity of senses; '[a] "senseless" or "nonsensical" text is one in which text receivers can discover no such continuity, usually because there is a serious mismatch between the configuration of concepts and relations expressed and the receivers' prior knowledge' (p.96). de Beaugrande and Dressler further pose the following questions as a stepping stone (p. 96):

1- How do people extract and organize content from texts for use in storing and recalling?
2- What factors of the interaction between the presented text and people's prior knowledge and disposition affect these activities?
3- What regularities can be uncovered by varying factors such as the style of the surface text or the user groups to whom the text is presented?
4- What is the role of expectations?

An initial step towards exploring the above questions, they explain, is to redefine coherence. Thus, coherence is 'the outcome of combining concepts and relations into a NETWORK composed of KNOWLEDGE SPACES centred around main TOPICS' (p.96; original emphasis). de Beaugrande and Dressler's model focuses as such on reception of text rather than production. Their main point is to discover 'control centres', i.e. points from which both accessing and processing of texts can be strategically done. These centres are termed 'primary concepts:

(a) OBJECTS: conceptual entities with a stable identity and constitution;
(b) SITUATIONS: configurations of mutually present objects in their current states;
(c) EVENTS: occurrences which change a situation or a state within a situation;
(d) ACTIONS: events intentionally brought about by an agent.

'Secondary concepts', on the other hand, incorporate the following (pp.96-97):

(a) STATE: the temporary, rather than characteristic, condition of an entity;
(b) AGENT: the force-possessing entity that performs an action and thus changes a situation;
(c) AFFECTED ENTITY: the entity whose situation is changed by an event or action in which it figures as neither agent nor instrument;
(d) RELATION: a residual category for incidental, detailed relationships like ‘father-child’, ‘boss-employee’, etc.,
(e) ATTRIBUTE: the characteristic condition of an entity (cf. “state”);
(f) LOCATION: spatial position of an entity;
(g) TIME: temporal position of a situation (state) or event;
(h) MOTION: change of location;