Children's Production of Textual Organizers

BRONCKART, Jean-Paul, SCHNEUWLY, Bernard

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SOME ASPECTS OF CONTEMPORARY FRENCH-LANGUAGE PSYCHOLINGUISTICS RESEARCH

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Children’s Production of Textual Organizers

J.-P. Bronckart and B. Schneuwly
Section des Sciences de l’Education
Université de Genève

Conjunctions are words with no declension expressing various operations of our mind and helping to relate members or parts of discourse.
(Restaut, 1732)

Although this classical definition applies to conjunctions only, it satisfactorily specifies the aim of the present study, namely the study of those units of language that function as textual organizers (or connectives) and the psychological operations underlying their production. The experimental studies that we shall report here are characterized by an interactionist and differential approach aimed at revealing the relationships of interdependence between certain configurations of linguistic units and certain configurations of extralinguistic (or contextual) parameters. As will be seen later, such an approach implies the description of types of texts, including specific linguistic characteristics and the formulation of linguistic operations "representing" the different forms that the relationships of interdependence between text and context may take.

Except for Antoine’s monograph devoted to La coordination en français (1958 and 1962), very few linguists belonging to the structuralist trend dealt with textual organizers. Indeed, Brunot (1926), Sechehaye (1950) and Bally (1932) investigated textual organizers, but their main concern was to introduce some order and consistency in their rather vague classification of this category of units. On the other hand, for the proponents of generative grammar, connectives were used mainly as "privileged criteria" for validating some hypotheses on syntactic description (cf. in particular the synthesis proposed by Grunig 1977).
For about the last fifteen years, however, as an extension of the studies performed by logicians and philosophers focusing on the characteristics of "natural language" (Stawson 1950; Searle 1969), connectives and organizers have been analyzed in numerous, often stimulating studies. Dealing with the "logic of language", from a pragmatic perspective, Ducrot and his collaborators (Ducrot 1973; Ducrot et al. 1980), analyzed the conditions of use in French of such units as MAIS (BUT), EH BIEN (WELL), DÉCIDEAT (UNDoubtedly), D'AILLEURS (BESIDES), etc.; they demonstrated that the functioning of these connectives was highly dependent on the characteristics of the situation of enunciation. In an analogous approach inspired by the theory of speech acts, Roulet and his collaborators studied the marks of structuration of genuine dialogues and proposed hypotheses specifying the level of functioning of a substantial subgroup of organizers (cf. L'analyse des conversations authentiques, ELA 44, 1981). Finally, within the framework of textual linguistics, Van Dijk (1979) and above all Biasci (1982) proposed to distinguish the "semantic" functioning (chaining of clauses) from the "pragmatic" functioning (chaining of speech acts) of various connectives in English, German and Italian. The most exhaustive study of the functioning of textual organizers was proposed however, by Gulich (1970). We shall examine it in more detail before analyzing its extensions in Quasthoff's (1979, 1980) and Auchlin's (1981) work.

Gulich considers that every text has a structure which is marked at the surface level by a specific class of linguistic units, the "Gleiderungssignale" (segmentation signals); these are invariant words which have lost their proper lexical meaning and are henceforth capable of indicating and/or specifying the structural relationships in a text. On the basis of the analysis of a corpus of dialogues and conversational narratives in French, from a typological perspective, Gulich demonstrated that signals of segmentation in dialogues are essentially used to mark a change in topic or a change of speaker, whereas in narratives the same units contribute mostly to the structuration of episodic units. Gulich also demonstrated that the distribution of units is dependent on the type of text, where PUIS (THEN) and ALORS (SO) are produced with a high frequency in narratives, and where MAIS (BUT) and EH BIEN (WELL) occur mostly in dialogues. However, the author notes that it is often difficult to distinguish dialogue from narrative and that there is often a transition from one type to the other within the same text.

Quasthoff advanced the hypothesis that segmentation signals would have two distinct functions: on one hand, they would constitute the involuntary trace of an "intense activity of cognitive planning" (to fill in pauses, to signal that one is going to continue to speak...); on the other hand, they would mark the different phases in text organization (or semantic macrostructure) and would serve to orient the
listener’s attention. The results obtained by Quasthoff seem to show that there is no one-to-one correspondence between either of these two functions and a subclass of organizers. She proposes however to distinguish *marks of hesitation* (repetitions, hum, prolonged phonemes) which would mostly constitute the trace of cognitive planning, from *marks of segmentation* (metanarrative sentences, abstraction, orientation, coda, phrases such as *Wie dem auch sei*), etc. which primarily indicate macromantic caesuras, and finally connection marks which we are particularly interested in and which would have a twofold status. They would be the trace of general planning as well as the trace of means used for connecting events within a temporal or causal sequence in order to orient the listener’s attention.

Within the theoretical framework proposed by Roulet (1981), Auchlin studied markers of conversation (MCS) in French, hypothesizing that the function of MCS’s is to indicate the "level of textualization" of the segments (or constituents) of a text. He proposed a classification which takes into account "the behavior of MCS’s relative to the levels of textualization of the constituents they articulate" (linear chaining, etc.) on the one hand, and the type of constituent articulated on the other hand by the MCS’s (constituent of the same speaker, constituent of the listener, nonverbal constituent). Like Quasthoff, Auchlin emphasizes the plurifunctionality of many textual organizers.

After its introduction into linguistics, the pragmatic perspective was adopted by a number of psycholinguists who investigated the problems posed by the functioning of textual organizers. Using metalanguage tasks, Fillenbaum (1974, 1975, 1977) revealed the "referential" and "contextual" use of AND, OR and IF in adults. Using analogous tasks, Caron (1983) and Fayol (1981) described the status given by French speakers to such units as AINSI (SO), COMME (LIKE), SI (IF), ET (AND), OU (OR), APRES (AFTER) and ALORS (THEN). In children, we should first mention many studies focusing on the comprehension of connectives (cf. especially Katz and Brent 1968; Kail 1979a; and Hamer 1980) which go beyond the logical perspective initiated by Piaget as early as 1924. Concerning production – which we are more particularly interested in – Bates (1976) and Bloom et al. (1980) have shown that at an early age Italian-speaking children like English-speaking children, produce equivalents of AND and a little later equivalents of BUT, BECAUSE and IF NOT. Other connectives occur still later and are probably used as temporal organizers before indicating causality relationships. In an investigation of children’s narratives, Kernan (1977) advanced a distinction analogous to Quasthoff’s proposal and demonstrated that AND, THEN and AND THEN organizers are not only used to express relationships of succession, but could also relate semantically independent events. Fayol’s (1981) very detailed study of children’s narratives in French con-
firms the precociousness and plurifunctionality of ET (AND) demonstrates that organizers, interacting with punctuation marks, function as traces of the enunciative structuration of narratives. Except for Schneuwly's work (1981) on the production of dialogues, most of these studies are limited to the study of one particular type of text, children's narratives. Other types of textual production should be investigated if a real description of the ontogenesis of organizers is to be achieved.

With this purpose in mind, we will summarize here a broad study which has been presented elsewhere in detail (cf. Bain et al. 1982; Bronckart 1983; Schneuwly and Bronckart 1983).

1. The textual corpora that has been collected constitute a first level of data — the linguistic units — that can be analyzed using distributional procedures and statistical methods of quantification.

2. These corpora are dependent on a second category of parameters, namely contextual parameters in a broad sense. In order to define the problem of text functioning in a real interactionist perspective, we believe it indispensable to develop a model of context. Contextual constitutes a theoretically infinite collection from which a finite set should be extracted, namely the set of parameters exerting an observable influence on text production. We propose to distinguish three subgroups of parameters: first, those which refer to social interaction, goals of the linguistic activity, institutional locus of this activity, listener and speaker; second, those which refer to the material act of enunciation (speech), speaker, possible listeners, time and physical location of enunciation; third, those which concern the referential content, notions and cognitive relationships which are expressed.

3. The production of a text is the result of psychological operations on contextual parameters. These operations are materialized in the syntactic and semantic categories of a natural language. Each unit of a textual corpus then constitutes the trace of one or several operations and, for this reason, may be submitted to a second functional analysis.

4. The text unit is the part of a textual corpus produced in interaction with a stable configuration of the parameters of social interaction and the act of production. Types of texts are defined on one hand by the particular configuration of linguistic parameters determining them and, on the other hand, by the configuration of linguistic units at the surface level.

5. General operations of contextualization should be distinguished from textualization operations. The former aim at the "representation" of contextual parameters, i.e., at the selection of one value for each parameter, while the
latter contribute to the construction of the verbal chain. The latter category of operations may be described in terms of computations on contextual variables and may be divided into three subgroups: a) operations of textual anchoring (which determines the type of text); b) operations of text organization (semantic macrostructure); and c) operations of discursive strategies (contributing to marking the phases of text composition, cohesion and modalization).

On the basis of these theoretical proposals, an experimental method was derived which aimed at bringing out the relationships of dependence existing among certain types of context and certain configurations of surface units in a corpus. More precisely, the types of text production conditions which constitute the independent variables in the experiments were defined by controlling the parameters of social interaction and by their relations with the parameters of the act of production. On the other hand, the referential content was not controlled. The texts produced in these conditions were collected and analyzed and the ratios of dependence between contextual parameters and surface units in the texts were then computed. First of all, contemporary texts produced by adults were studied. The analysis resulted in a typology on a "polar" categories were differentiated from an "intermediary" one (cf. Bain et al. 1982). The present phase of study focuses on children's texts, using the same procedure. The aim is not to delineate the operations of textual production develop - such an aim is too premature - but rather to improve our knowledge of the relevant extralinguistic parameters and the linguistic operations underlying text production. It is our belief that for children the paradigms of linguistic units corresponding to a determined linguistic operation are narrower than for adults and that this limitation should help us refine our present model of operations.

In the present study, 140 texts were selected from the general corpus of texts produced by children. 70 of them were produced by children (9 and 10 years old) attending school (4th grade, this group will be referred to as 4P) in the suburbs of Geneva and the other 70 were produced by 11- and 12-year-olds attending the same school in another grade (6th grade, 6P). Texts were produced orally in three controlled conditions.

a) Situational discourse (SD): The children were taught how to build a device with the help of cardboard, wheels, straw and nails. One of them was asked to explain verbally to a classmate (who was not trained to build the device) how to proceed with the construction. The necessary materials were available to the speaker, but he or she was required not to use them for his/her verbal explanations.
b) Theoretical discourse (TD): The children were required to describe familiar objects; the experimenter asked one child to describe a carriage to children who were supposedly unfamiliar with this vehicle.

c) Conversational narrative (CN): In the course of a conversation the experimenter asked the child to tell him what s/he did the day before.

The texts produced by the children were recorded and transcribed. Subsequently, textual organizers were extracted from the transcriptions. These units constitute what is known as a semi-open paradigmatic class consisting of conjunctions, phrases, adverbs, and various "expressions". Due to their morpho-lexematic character (cf. Bronckart 1983; Schneuwly and Bronckart 1983), they cannot be identified by rigid distributional procedures. For this reason all morpho-lexemes that are given in Grevisse's *Bon usage* (1936/1959) were noted. Expressions of oral punctuation, *BON* (WELL), *BEN* (SO), as well as prepositional phrases with a tem-

| Table 1 |

**Group 4P (9 to 10 Year-Olds)**

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>TD</th>
<th>CN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of texts</td>
<td>30</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Number of words</td>
<td>12.072</td>
<td>1.408</td>
<td>1.594</td>
</tr>
<tr>
<td>Number of organizers</td>
<td>1.103</td>
<td>122</td>
<td>144</td>
</tr>
<tr>
<td>Ratio of organizers to number of words</td>
<td>1/10.94</td>
<td>1/11.54</td>
<td>1/11.07</td>
</tr>
</tbody>
</table>

**Group 6P (10 to 11 Year-Olds)**

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>TD</th>
<th>CN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of texts</td>
<td>30</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Number of words</td>
<td>12.137</td>
<td>838</td>
<td>3.317</td>
</tr>
<tr>
<td>Number of organizers</td>
<td>1.130</td>
<td>46</td>
<td>257</td>
</tr>
<tr>
<td>Ratio of organizers to number of words</td>
<td>1/10.75</td>
<td>1/18.20</td>
<td>1/12.90</td>
</tr>
</tbody>
</table>

*General characteristics of the texts produced. SD: situational discourse. TD: theoretical discourse. CN: conversational narrative.*
describe familiar temporal relations to children 20 and 30, and the use of a few real or schematic characters of time to help the children structure conversations. For example, the expression "Après trois jours" (three days later) was used to indicate the passage of time.

Subsequently, the children used these units constituting the main categories of conjunctions, connectives, and time expressions. However, the use of the words "Après" and "Tout de suite" (straightaway) was not always consistent. Some children used these expressions consistently, while others did not. In the 6P group, the relative frequency of organizers is analogous in SD and CN (10.74 to 11.07), it is much lower in texts produced in the TD condition (one organizer for 18.2 words).

In a previous study, Schneuwly (1981) had already observed such an impoverishment. At the end of primary school, children produce very short theoretical texts (on the average 45 words per text in the present study) with very few and poorly differentiated organizers.

Table 2 presents the different organizers found in the texts. For lack of a better solution, we maintain the differentiation between coordinate conjunctions and subordinate conjunctions which is disputed by various linguists but which can be applied to our texts without any major problem. Also with all the necessary reservations that should be made, temporal values are distinguished from logical values. The fourth class (adverbs and adverbial phrases) groups together units that probably ought to have been differentiated had their frequency in the present texts been higher. Finally, it should be noted that the fifth class does not include "voilà (there), which occurs very frequently in SD (256 in the 4P group and 204 in the 6P group), nor "oui (yes) nor "non (no), also very frequent in this type of text.

Table 3 shows the distribution of organizers for each class. The digits indicate the relative frequency of production, i.e. the percentage of occurrence of the units of a class relative to the total number of organizers produced by each age group and for each type of text.

On the whole, two thirds of the organizers consist of coordinate conjunctions. But at variance with Kernan’s results, in the 4P as well as in the 6P group, connectives with a logical value (et (and), mais (but), car (because or for), donc (therefore)) are clearly more frequent in conversation narratives than in the two types of discourse. In SD and TD, most connectives are temporal (puis (then), alors (so), ensuite (and then), après (after, then)). This paradoxical result can be better understood by comparing the theoretical discourse and the conversational narrative produced by two 4P students (cf. Table 4). At the first level of analysis, it seems that the order of the succession of events (semantic macro-structure) in CN is so salient that the order of the succession of clauses and the presence
Table 2

Classification of the Main Organizers Occuring in the Texts

<table>
<thead>
<tr>
<th>Classes</th>
<th>Main Occurences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. &quot;Logical&quot; coordinate conjunctions</td>
<td>ET (AND), MAIS (BUT), DONC (THEREFORE), CAR (FOR).</td>
</tr>
<tr>
<td>1b. &quot;Temporal&quot; coordinate conjunctions</td>
<td>PUIS or ALORS (THEN), APRÈS (AFTER), ENSUITE (AFTERWARDS), MAINTENANT (NOW).</td>
</tr>
<tr>
<td>2a. &quot;Neutral&quot; subordinate conjunctions</td>
<td>QUE (THAT) followed by a subordinate clause, SI (IF) followed by a subordinate clause.</td>
</tr>
<tr>
<td>2b. &quot;Logical&quot; subordinate conjunctions</td>
<td>PARCE QUE (BECAUSE), PUISQUE (SINCE), SI (IF), POUR (FOR) followed by the infinitive, POUR QUE (SO THAT), SINON (IF NOT).</td>
</tr>
<tr>
<td>2c. &quot;Temporal&quot; subordinate conjunctions</td>
<td>QUAND (WHEN), LORSQUE (WHILE), PENDANT (DURING/WHILE), CHAQUE FOIS QUE (EVERY TIME THAT), COMME (AS), EN MÊME TEMPS QUE or TAN-DIS QUE (AT THE SAME TIME THAT/WHILE), APRÈS (AFTER) followed by the infinitive (after + verb + -ing), AVANT QUE (BEFORE).</td>
</tr>
<tr>
<td>3. Prepositional phrases</td>
<td>QUELQUES JOURS PLUS TARD (A FEW DAYS LATER), PENDANT CE TEMPS (MEANWHILE).</td>
</tr>
<tr>
<td>4. Adverbs and adverbial phrases</td>
<td>AUTREMENT (OTHERWISE), AUSSI (ALSO), AINSI (SO), DES FOIS, QUELQUEFOIS or PARFOIS (SOMETIMES), NORMALEMENT (NORMALLY).</td>
</tr>
<tr>
<td>5. Oral punctuation</td>
<td>BON, BEN, EH BEN (WELL, O.K.).</td>
</tr>
</tbody>
</table>

of the neutral connective ET suffices to mark it at the surface level. On the contrary, in TD the elements to be described are not "referentially" ordered and the subjects seem to feel the need to mark more strongly the succession of phases in the description activity. In this type of text ET PUIS is probably also a mark of hesitation, in Quasthoff's sense, and should be studied in more detail.

When considering subordinate conjunctions, one can see that there are very few "neutral" units in the 4P group, whereas their number increases in the 6P group, especially in narrative texts. The role of these conjunctions seems to be highly de-
Table 3

<table>
<thead>
<tr>
<th></th>
<th>SD 4P</th>
<th>SD 6P</th>
<th>TD 4P</th>
<th>TD 6P</th>
<th>CN 4P</th>
<th>CN 6P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a.</td>
<td>Logical coord. conj.</td>
<td>14.3</td>
<td>13.3</td>
<td>0.4</td>
<td>15.1</td>
<td>40.8</td>
</tr>
<tr>
<td>1b.</td>
<td>Temporal coord. conj.</td>
<td>63.6</td>
<td>57.6</td>
<td>56.6</td>
<td>52.2</td>
<td>25.6</td>
</tr>
<tr>
<td>1.</td>
<td>TOTAL</td>
<td>77.9</td>
<td>70.9</td>
<td>60.6</td>
<td>67.3</td>
<td>66.4</td>
</tr>
<tr>
<td>2a.</td>
<td>Neutral subord. conj.</td>
<td>1.8</td>
<td>2.6</td>
<td>3.2</td>
<td>4.3</td>
<td>3.5</td>
</tr>
<tr>
<td>2b.</td>
<td>Logical subord. conj.</td>
<td>9.4</td>
<td>10.3</td>
<td>12.3</td>
<td>4.4</td>
<td>7.5</td>
</tr>
<tr>
<td>2c.</td>
<td>Temporal subord. conj.</td>
<td>1.5</td>
<td>0.4</td>
<td>4.8</td>
<td>0.0</td>
<td>18.0</td>
</tr>
<tr>
<td>2.</td>
<td>TOTAL</td>
<td>12.7</td>
<td>13.3</td>
<td>20.3</td>
<td>8.7</td>
<td>20.0</td>
</tr>
<tr>
<td>3.</td>
<td>Prepositional phrases</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>4.2</td>
</tr>
<tr>
<td>4.</td>
<td>Adverbs and Adverb. phrases</td>
<td>3.4</td>
<td>6.4</td>
<td>18.7</td>
<td>23.8</td>
<td>0.0</td>
</tr>
<tr>
<td>5.</td>
<td>Oral punctuation</td>
<td>5.8</td>
<td>8.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Relative frequency of organizers in 4P and in 6P. SD: situational discourse. TD: theoretical discourse. CN: conversational narrative.

pendent on the verbal forms (*DEMANDER SI* (ASK IF), *DIRE QUE* (SAY THAT), *CROIRE QUE* (BELIEVE THAT)) and one may wonder whether they are real textual organizers. As to the other two classes (2b and 2c), in both types of discourse, logical subordinate conjunctions predominate while temporal subordinate conjunctions are rare. In contrast, in narrative texts the latter predominate. It should be emphasized that in this type of text the development from 4P to 6P is mainly characterized by diversification in the marks of subordination, be they logical or temporal.

The distribution of the last three classes of organizers is very clear. Prepositional phrases occur in narratives only, and marks of oral punctuation are characteristic of SD. In both cases, the occurrence frequency is very low. Adverbs and adverbial phrases are produced mainly in TD and in most cases have the value of a frequentative phrase (*SOUVEN* (OFTEN), *QUELQUENFOIS* or *DES FOIS* (SOMETIMES), etc.). One might hypothesize that this type of unit (which amounts to a quarter of the organizers in TD for the 6P group) constitutes the trace of an operation of aspeptual determination of the speaker’s perceptual activity, whereas for adults one would expect that the determiners quantify the topic. For example, instead of the expected utterance "certains carrosses ont de jolies lanternes" (some carriages have pretty
Table 4

Examples of Typical Texts Produced by 9- to 10-Year-Olds

Theoretical Discourse: Sandro (4P)

Un carrosse—ALORS—it y a quatre roues—it a quatre chevaux (sic) QUELQUEFOIS—PIS en haut il y a des sièges pour celui-là qui conduit le carrosse—ET PIS derrière il y a une grande planche ET PIS il y a des bancs dedans—des sièges pour s’asseoir—PIS c’est QUELQUEFOIS pour les dames qui viennent au bal PIS ils vont—PIS le haut, il y a des fenêtres—PIS des portes—QUELQUEFOIS on peut mettre des bagages en haut ET PIS il y a des phares.

Translation:
A carriage—THEN—it has four wheels—it has four horses SOMETIMES—THEN on top there are seats for the one who drives the carriage—AND THEN behind there is a huge board AND THEN there are benches in it—seats for sitting on—THEN it is SOMETIMES for ladies who go to a ball AND THEN they go—THEN the top, there are windows—THEN doors—SOMETIMES you can put luggage on top AND THEN there are lights.

Conversational Narrative: Bruno (4P)

Dimanche—QUAND j’ai été au golf—j’ai tiré de belles balles—ET au quatrième trou, j’ai tiré une balle très belle ET je suis tombé—ET c’est très bien le golf de Divonne—MAIS on a dû partir CAR j’étais tout mouillé.

Translation:
Last Sunday—WHEN I went to the golf course—I made some beautiful shots AND at the fourth hold I made a very beautiful shot AND I fell down—AND the golf course at Divonne is very nice—BUT we had to leave BECAUSE I was all wet.
lights), children produce sentences of the following type: "DESOIS, ils ont de jolies lanternes" (SOMETIMES, they have pretty lights).

Table 5 presents a more detailed analysis of the distribution of coordination conjunctions. It appears that for "logical" organizers the difference between these two types of discourse (SD and TD) on the one hand, and narratives on the other hand, is mainly due to the massive use of ET in narratives; other types of logical connectives are equally frequent in SD and in CN. Temporal conjunctions are distributed over four subclasses. PUIS (THEN) is nearly the only unit produced in TD; it also occurs more frequently in SD, which confirms its status as an organizer linked to the continuity of discursive activity (according to Quasthoff). MAINTENANT (NOW) is found almost exclusively in SD, together with VOILÀ (THERE), OUI (YES), NON (NO); its functioning seems to be related to controlling the listeners’ activity, and it could be considered as a deictic. APRÈS (AFTER) and ENSUITE (AFTERWARDS) predominate in CN, but also appear in SD; they may be considered as serving to mark the succession of events. The status of ALORS (THEN) is polyvalent, but the increase in its frequency of occurrence in CN for the 6P group seems to reveal that later on it becomes specialized in marking temporal succession.

To what extent, then, do these data permit us to increase our knowledge of the operations underlying the production of textual organizers?

Within the framework of the general model that we are attempting to develop, textual organizers might constitute the trace of four separate operations of textualization:

| Table 5 |
|-----------------|----|----|----|----|----|----|
|                | SD |    | TD |    | CN |    |
| ET (and)       | 4P | 6P | 4P | 6P | 4P | 6P |
| MAIS (but), CAR (for) | 11.7 | 12.0 | 1.3 | 6.4 | 13.2 | 16.2 |
| PUIS (then)    | 31.4 | 35.1 | 92.1 | 75.3 | 5.3 | 4.5 |
| MAINTENANT (now) | 18.8 | 16.8 | 0.0 | 3.3 | 0.0 | 0.7 |
| APRÈS (after), ENSUITE (afterwards) | 13.1 | 11.0 | 0.0 | 0.0 | 23.9 | 12.9 |
| ALORS (then), other conjunctions | 18.5 | 18.3 | 1.3 | 0.0 | 9.3 | 20.1 |

Relative frequency of occurrence of the various types of conjunctions of coordination in the two age groups. SD: situational discourse. TD: theoretical discourse. CN: conversational narrative.
T1: which would mark textual anchoring (UN JOUR (ONE DAY), HIER (YESTERDAY)).

T2: which would mark the phases of textual structuring, or to put it differently, the semantic macrostructure (PUIS (AFTER), C'EST ALORS QUE (SO THEN)).

T3: which would contribute to grammatical cohesion, in Halliday’s (1964) sense (TANDIS QUE (WHILE), PUISQUE (SINCE)).

T4: which would mark modalizations, i.e. the speaker’s explicit modal interventions (MALHEUREUSEMENT (UNFORTUNATELY), ON POURRAIT CROIRE QUE (WE MIGHT BELIEVE THAT)).

These hypotheses which are derived from our model, integrate and organize most of the functions that up to now linguists have attributed to connectives, with the exception, however, of the function of "marking the cognitive planning" proposed by Quasthoff (1979). In agreement with this author, we propose a fifth operation which expresses the very essence of discursive activity:

T0: which would mark the continuity of the textual chain (EH! (UH), BON (WELL)).

In accordance with the theoretical perspective presented above, it would seem that organizers which "reflect" the same operation are organized in different subsets depending on the type of anchorage and, as a result, on the type of text. Differences between types are especially visible at the level of macrostructure marks. Thematic units in SD are very highly dependent on the listeners (marks of interaction), while in TD they are more dependent on the social pair listener-speaker (marks of abstraction) and in CN they are closer to the events reported (episodic marks).

An attempt will now be made to identify the operations each unit of the eight surface classes of organizers are the trace of.

Let us consider class 1a ("logical" coordinate conjunctions). As mentioned above, the functioning of the ET unit is paradoxical; it occurs more frequently in CN than in the two types of discourse. Generally considered as a precocious and polyvalent connective (cf. Bates and Fayol especially), in the groups of subjects studied here (whose ages vary between 9 and 12 years) it clearly functions as an organizer that is specific to narrative. We think that this use constitutes an intermediary stage, probably a necessary one, which follows the production of general marks of interaction and which precedes the use of marks specific to the macrostructure of narratives. Compared to the other organizers of this class, MAIS is the
CHILDREN'S PRODUCTION OF TEXTUAL ORGANIZERS

only one to have a high frequency of occurrence. It seems to play two different functions: in SD its function is frequently to manage and control interaction and is analogous to what Bruxelles et al. (1976) described in adult discourse, while in CN and TD (and for the remaining occurrences in SD) it clearly marks "logical" relationships between events. MAIS thus functions in our corpora as an index of the semantic macrostructure; in SD, it marks interaction and in the other two types it marks episodes.

As mentioned above, MAINTENANT has a particular status in class 1b (temporal coordinate conjunctions) and indisputably functions as a mark of interaction. The other units of this class are clearly marks of connection (in Quasthoff's sense); they mark both the continuity of discursive activity and temporal caesuras in the macrostructure. However, three subsets of this class can be distinguished: PUIS, particularly in TD, is related to discursive activity and its temporal character is less accentuated; APRÈS and ENSUITE seem to be more closely related to the macrostructure, while ALORS occupies an intermediary position.

Things are much clearer concerning subordinate conjunctions. "Neutral" units (2a) do not function as textual organizers, and units with a logical (2b) or temporal (2c) value have a "transphrasic" role; they are hence marks of cohesion, in Halliday's sense.

Predictably, units of class 3 (prepositional phrases) function exclusively in narrative. They mark textual anchoring and its relays in the text macrostructure (a clearly episodic function). Class 4 includes rather diverse units (adverbs and adverbial phrases) whose main function seems to be to characterize the "modus" of the relationships between speaker and listener (NORMALEMENT (NORMALLY), QUAND MÊME (ANYWAY), DES FOIS (SOMETIMES)); these units undoubtedly express operations of modalization. It should be emphasized that insofar as connectives of class 3 and class 4 organize the text in its relationships with the act of production on the one hand (anchoring) and with the parameters of social interaction on the other (modalizations), they may be considered as marks of "coherence" in Slakta's (1975) sense. Finally, units of class 5 clearly function as marks of continuity in discursive activity as well as marks of interaction.

The interpretation that has just been proposed obviously necessitates solid experimental confirmation. Nevertheless the data demonstrate the heuristic validity of the operative model as well as the relevance of differentiation among several types of text. Situational discourse is characterized by the massive presence of marks of discursive continuity (T0) and marks of interaction (T2), by the scarcity of units referring to cohesion and modalization and by the absence of units expressing anchorage. In this type of text the macrostructure is clearly dependent on the act of
production and on the control exerted by the listeners. Hence it is not necessary to make "coherence" explicit. Conversational narrative generally contains marks of anchoring (T1) that are reinforced in the macrostructure by episodic marks (T2) and marks of consistency (T3, mostly in the 6P group). As a result, units expressing discursive continuity are very rare in this type of text. Finally, very poor structuration of theoretical discourse is due to a lack of macrostructure organizers. The units that are found in this type of discourse contribute to the continuity of speech (T0) on the one hand and "reassure" the speaker in his/her exchanges with the listener on the other hand (T4, modalizations).

NOTES


2. To simplify we consider as structuralist the linguistic schools that existed from Saussure to Chomsky.

3. This type of operation is often difficult to differentiate from operations of contextualization concerning the relations of referential content.