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## THE HORIZONTAL – VERTICAL DICHOTOMY IN FSP

The article examines the distributional macrofield (such as the paragraph or the chapter) from the point of view of functional sentence perspective (FSP), focusing on the horizontal and vertical relations operating within the text. It deals with a functional analysis of the basic distributional field (the clause) as opposed to the FSP analysis of higher levels of text; the main concern is the difference between the co-referential strings and the dynamic-semantic tracks. The paper also discusses these horizontal – vertical relations within FSP analysis with regards to the dichotomy concepts offered by Ferdinand de Saussure.

The domain of the theory of functional sentence perspective (FSP) has been explored mostly on the sentential level, i.e. in the area of the **basic distributional field** created by the clause. Recently, however, attention has been paid also to the functional picture of higher hierarchical levels of text; the research has shown that an FSP analysis of a **distributional macrofield** (a paragraph, a chapter) is a promising step taken in the study of FSP and that it can reveal significant characteristic features of a whole text (cf. Adam 2004).

This article proposes to examine the distributional macrofield from the point of view of functional sentence perspective, focusing on the horizontal and vertical relations operating within the text. All the concepts and terms used or referred to in this paper can be consulted in *Functional Sentence Perspective in Written and Spoken Communication* (Firbas 1992).

### 1. FSP Analysis of the Clause

Since the pioneering work of Jan Firbas' research into the theory of functional sentence perspective, the interpretative analysis of a clause has been the corner stone of FSP. And it will never be different. Indeed, it is the FSP analysis of a **basic distributional field** (clause) that is the starting point of the functional interpretation.

The very Firbasian notions connected with the functional and dynamic approach towards text derive from the source offered by a clause. Firbas claims that the central position in FSP interpretation “is occupied by distributional fields provided by independent verbal sentences” (Firbas 1992: 11–12). He views a sentence as “a field of relations” (syntactic and semantic above all) that determine the distribution of communicative dynamism (CD) over individual communicative units of the sentence. Units carrying a lower degree of CD form the thematic part of the sentence and those carrying a higher degree of CD form – together with so-called transition – the non-thematic part of the sentence (Firbas 1992).<sup>1</sup>

Since the sentence is a field of relations, it is necessary to define what is meant by a basic distributional field. Firbas (1992: 15–17) agrees with Svoboda (1989) that “a sentence, a clause, a semi-clause and even a nominal phrase serve as distributional fields of CD in the act of communication, and their syntactic constituents (e.g. subject, predicative verb...) serve as communicative units”. Through the interplay of FSP factors (context, semantics and linear modification) it is then possible to identify the degrees of CD carried by the communicative units: according to the gradual rise of CD it is ThPr – DTh – TrPr – Tr – Rh – RhPr.

To sum up, the functional analysis of a basic distributional field is, in its essence, a **horizontal** process and the relations between individual segments are purely **syntagmatic**. The table below displays the interpretative arrangement<sup>2</sup> of a clause consisting of six communicative units represented by black dots: the degree of CD they carry is symbolized by the size of the dots.

ThPr	DTh	Tr	TrPr	Rh	RhPr
•	•	•	●	●	●

**Table 1** Symbolic FSP Analysis of the Clause

## 2. FSP Analysis of a Macrofield

As has been mentioned above, the principles adopted in the FSP analysis of a clause are applicable also to higher hierarchical levels of text, such as paragraphs or chapters. The dynamic relations appear not to be restricted to the level of individual clauses, but to exceed them to operate on the suprasentential level of a **communicative macrofield** (for details see Adam 2004: 17–18).

Looking at an integral piece of text, we may – apart from the horizontal FSP analysis of individual clauses – identify two types of vertical relations, “chaining” into strings: **co-referential strings** and **dynamic-semantic tracks**<sup>3</sup>. By means of illustration, let me give an example of an FSP chart of analysis, where both types of the chains are indicated. First, the text under analysis will be presented in full, so that the reader may see the piece of writing in context (it is an extract taken from the New Testament, namely a passage from the Gospel according to Luke, chapter 2, verses 4–9).

So Joseph also went up from the town of Nazareth in Galilee to Judea, to Bethlehem the town of David, because he belonged to the house and line of David. He went there to register with Mary, who was pledged to be married to him and was expecting a child. While they were there, the time came for the baby to be born, and she gave birth to her firstborn, a son. She wrapped him in cloths and placed him in a manger, because there was no room for them in the inn. And there were shepherds living out in the fields nearby, keeping watch over their flocks at night. An angel of the Lord appeared to them, and the glory of the Lord shone around them, and they were terrified. (Kohlenberger 1997)

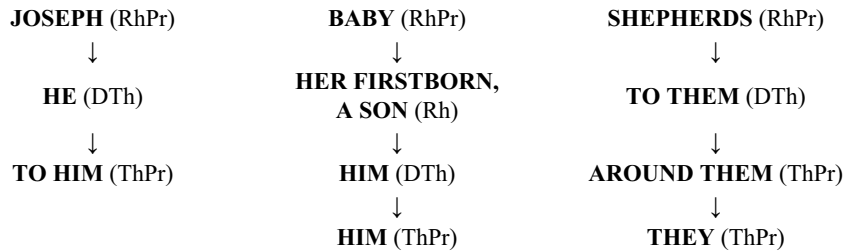
In the table below, the referential strings of the notions of ‘Joseph’, the ‘baby Jesus’ and the ‘shepherds’ respectively are presented in **BOLD CAPITALS**, whereas the dynamic-semantic track created in the rheme-proper layer is indicated by grey shading (both these categories will be discussed separately below the chart).

Verse	Clause	TrPr (conj)	ThPr (Set/B)	DTh (Set/B)	TrPr/Tr (Q/Pr)	RhPr (Q)	Rh/RhPr (Sp/FSp)	RhPr (Ph)	Scale
2:4	4	So1		also4 from the town of Nazareth in Galilee5	went3		to Bethlehem6	<b>JOSEPH2</b>	Pr
5	5		there3	<b>HE1</b>	went to register2		with Mary, who...4		Q
	5a		<b>TO HIM4</b>	who1	was pledged2		to be married3		Q
	5b	and1	^		was expecting2		a child3		Q
6	6			While they were there1	came3			the time for the <b>BABY</b> to be born2	Pr
7	7	and1		she2	gave birth3		<b>TO HER FIRSTBORN, A SON4</b>		Q
	8		She1	<b>HIM3</b>	wrapped2		in cloths4		Q
	9	and1	^ <b>HIM3</b>		placed1		in a manger4 because there was no room for them in the inn5		Q
8	10	And1	there2	out in the fields5	were3			<b>SHEPHERDS</b> keeping watch over their flocks at night4	Pr
9	11			<b>TO THEM3</b>	appeared2			An angel of the Lord1	Pr
	12	and1	<b>AROUND THEM4</b>		shon3			the glory of the Lord2	Pr
	13	and1	<b>THEY2</b>		were3		terrified4		Q

**Table 2** An example of FSP Analysis<sup>2</sup>

### 2.1 Co-referential Strings

It is of crucial importance to distinguish between the co-referential strings on the one hand and the dynamic-semantic strings on the other. The co-referential strings are chains of individual communicative units with the same referent; the string usually starts in the rhematic sphere and, moving across the transition, it finally establishes itself in the thematic layer (Firbas 1992: 27–29). In the thematic sphere, if the notion remains context-dependent, the process may continue within a number of distributional fields. In the chart above, one can easily follow the vertical run of three co-referential strings: those of ‘Joseph’, the ‘baby Jesus’ and the ‘shepherds’. These strings may be presented in a simplified way as follows:



Firbas defines the co-referential strings as “linguistic elements naming or indicating the same extralinguistic phenomenon, in other words having the same referent” (Firbas 1995 and 1992: 32). In the flow of communication, “co-referentiality links elements together, producing co-referential strings” (Firbas 1992: 63).

Apparently, the co-referential strings – in contrast with the syntagmatic quality of the FSP analysis of the clause – run in the text in the **vertical** direction, forming thus a field of **paradigmatic** relations. The general character of the co-referential strings is demonstrated in the table below (the black dots symbolize the movement of the referent from the rheme-proper layer, via the transition, to the thematic layer):

Th	DTh	Tr	Rh
○	○		●
○	●		○
●	○		○
●	○		○
●	○		○
●	○		○
●	○		○

**Table 3** Analysis of the co-referential string

## 2.2. *Dynamic-Semantic Tracks*

The other type of vertical chains – the dynamic-semantic tracks – is not based on such inter-layer relations as the co-referential strings are, but on the links established within one of the tracks exclusively. The existence and function of the dynamic-semantic tracks was first described by Firbas in relation to the concept of notional homogeneity of the RhPr layer (Firbas 1992: 77 and 1995: 64–66). The tracks are formed by all the thematic, transitional and rhematic elements of the text respectively. In other words, the rhematic track of a text, for example, may be described as a complete set of all the rhematic elements found in the given passage. Let me add that since the rhematic sphere is the most dynamic section of every piece of text (Rh-elements carry the highest degrees of CD), it is usually the rhematic track that is central to the functional analysis of a text. Also the thematic and even transitional tracks are, however, capable of chaining into separate dynamic-semantic tracks.

Coming back to the analysis offered by Table 1, we can identify, for example, the following rhematic track constituted by all the rhematic elements (due to space limitations, I will present the track in lines, although its character is, of course, vertical):

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**RhPr:** Joseph ⇒ to Bethlehem ⇒ with Mary ⇒ to be married ⇒ a child ⇒ the time for the baby to be born ⇒ to her firstborn, a son ⇒ in cloths ⇒ in a manger ⇒ because there was no room for them in the inn ⇒ shepherds keeping watch over their flocks at night ⇒ An angel of the Lord ⇒ the glory of the Lord

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**Table 4** The Rhematic Track of the Text Analysed

At this point let me comment on the semantic character of the rhematic track: a mere outline of its prominent members “tells the story” and contains the information necessary for the reader to follow the narration. Thanks to this notional homogeneity, the dynamic-semantic strings are capable of summarizing and communicating the main points of the message conveyed (for details see Adam 2003: 48–50). The enumeration of the rhematic elements neatly shows the semantic structure of the text and, at the same time, corroborates the significance and prominence of the rhematic layer.

To be more specific, the scene of the text under discussion is gradually entered by four participants: Joseph, the baby, shepherds, and an angel – i.e. the elements that enter the course of communication for the first time and so carry the highest degree of CD. These RhPr notions are accompanied and semantically developed by the elements occupying the Rh-sphere, found in Table 2 in the third column from the right.

As has already been mentioned above, the dynamic-semantic tracks may be viewed as a vertical phenomenon; they run through all the distributional fields

“downwards”. Following a track (for instance a rheme proper track), we get a vertical “cut” through all the text, creating a line of successive members of the RhPr layer. It is then possible to make use of simplified outlines of all the members of the respective dynamic-semantic track. In this sense, they are – together with co-referential strings – a **vertical** field of **paradigmatic** relations, though each of them are of different character.

The paradigmatic chaining of three dynamic-semantic tracks (thematic, transitional and rhematic) can be observed in the following table reflecting the FSP analysis in a symbolic way:

Th	Tr	Rh
◆	●	■
◆	●	■
◆	●	■
◆	●	■
◆	●	■
◆	●	■

**Table 5** Analysis of the Dynamic-Semantic Tracks

### 3. Syntagmatic and Paradigmatic Relations within FSP

At this point, by way of a summary, let me recall that the functional analysis of the basic distributional field created by the clause is a horizontal phenomenon characterized by syntagmatic relations between individual elements, whereas the FSP picture of a distributional macrofield formed by higher levels of text operates on the vertical axis and is characterized by two sets of paradigmatic relations (co-referential strings and dynamic-semantic tracks).




Such a two-direction system of relations operating within the discourse logically corresponds with Ferdinand de Saussure’s concept of the structure of the language system (de Saussure 1993[1915]). De Saussure was the first one to come up with the idea that language – as with any other signifying system – is based on the relationships that can occur between the units in the system. In his opinion, such relationships consist mainly of relations of difference and similarity.

The most important kind of relationships, according to de Saussure, is a **syntagmatic** relation, i.e. linear (or as I say horizontal) one. He points out that in language – whether in spoken or written form – words come linearly one by one, forming a chain, by which one unit is linked to the text (de Saussure 1993[1915]: 170–172). For instance, word order in English – the position of a word in a chain of signification – contributes to meaning: in a neutral clause it is the subject that occupies the first position, following the SVO principle, etc. This concept obviously reflects what has been said above in regards to the dichotomy of the horizontal – vertical relations in FSP analysis: in the interpretation, the syntagmatic

relations are primary. Furthermore, de Saussure claims that individual ‘syntagms’ acquire their value only because they stand in opposition to all elements before or after them. Similarly enough, the degrees of communicative dynamism are distributed over individual units of the basic distributional field according to the degree to which they contribute to the development of communication; in this sense, the syntagmatic relations are in concordance with one of the central factors in FSP, linear modification. In the development of communication, the meanings of individual elements continually move closer to the high point of the message to finally fulfill the communicative purpose of the author (Firbas 1992: 105). The elements, showing different degrees of CD, differ in the extent to which they contribute to the development of communication.

The other type of Saussurean relationships that function in the language system is labeled as **associative**. From the point of view of de Saussure’s dichotomy, the associative relation “unifies individual notions into a virtual mnemonic chain”, in other words, it creates associations of meaning among other members of the text that are not a part of the syntagmatic unit (de Saussure 1993[1915]: 171). In this way, the associative relations correspond with the paradigmatic relations described in the theory of FSP; both are non-linear and associate notions in dynamic chains that – if arranged in a logical sequence – carry meaning.

Let me now summarize the results deriving from the discussion above in the following table:

DISTRIBUTIONAL FIELD	FUNCTIONAL LEVEL	TYPE OF RELATIONS	AXIS OF DIRECTION	SYMBOL
basic field	clause	syntagmatic	horizontal	
macrofield	co-referential strings	paradigmatic (associative)	vertical	
	dynamic-semantic tracks			
	text	paradigmatico-syntagmatic	horizontal-vertical	

**Table 6** Horizontal – Vertical Relations within FSP

## Conclusions

First, let me share an observation concerning the functional comparison of FSP and de Saussure’s teaching. As has become clear, the vertical-horizontal con-

cepts of study adopted in the theory of functional sentence perspective are in its function identical with the corresponding dichotomy introduced by de Saussure's theory. This may raise a legitimate question: why is that? How is it that the structuralist principles are, in an analogical way, reflected in Firbas's functional approach? In my opinion, both the theories are well-founded on the very nature of language. They both study the same material, i.e. the living language used as a tool of communication. Only with this provision, the two theories may draw similar conclusions. In the same way as de Saussure looks at the meaning of an individual lexeme or a whole sentence both from the syntagmatic and associative point of view, the researchers in the field of FSP may analogically explore a text both from the horizontal and vertical angle. Generally speaking, in the study of language, both the axes are functional.

By way of conclusion, I will summarize the benefits derived from a two-dimensional approach to the FSP study of text. When both the directions – horizontal and vertical – are applied, the functional picture of the text becomes more plastic and distinct. Such a study apparently enriches the set of methodological tools available.

For instance, in Adam (2003) I presented a research based on the FSP analysis and interpretation applied to the whole macrofield. This approach brought several results; having finished my research, I was able to define a paragraph (a chapter) as a communicative distributional macrofield, which follows the same structural principles as their lower communicative counterparts (a clause, a noun phrase) (Adam 2003: 164). In the FSP analysis of one of the narrative extracts from the Gospel according St. Luke, I tried to interpret separate sections of the whole passage analogically to the usual interpretation of a clause. I succeeded in tracing the Th – Tr – Rh structure in the chapter. Furthermore, the holistic approach revealed that such an analysis depicts the characteristic features of the text, such as gradation, coherence or semantic unity (Adam 2003: 61–66; 164).

It seems that functional implementation of the vertical axis (to broaden the FSP analyses) is worth investigating and that the two-dimensional approach to FSP opens new vistas to further research within text and corpus analysis study.

### Notes

- 1 Also Svoboda (1989: 25) considers the functional study on the level of the sentence a basis of functional syntax; he labels the sentential level units as 'mezzo-structures', hierarchically occupying the sphere between micro-structures and macro-structures.
- 2 The distribution of degrees of CD within a sentence is not necessarily implemented linearly, and so it is inevitable to distinguish between the linear arrangement of sentence elements on one hand, and their *interpretative arrangement* on the other (Firbas 1995: 63). The latter is defined as "the arrangement of the sentence elements according to the gradual rise in CD irrespective of the positions they occupy within the sentence" (Firbas 1986: 47). The two arrangements may either coincide, or there are differences of various kinds.
- 3 To name the vertical dynamic-semantic strings, two different labels have been used: *layers* and *tracks*. In his key monograph (Firbas 1992) and preceding works, Firbas uses consistent-

ly the term *layer*. In Firbas 1995 (an article dealing for the first time with the FSP principles adopted in higher-level approach) and the following articles, he replaces this label by *track*; this term, in his opinion, depicts the dynamic character of the strings. The term *layer* is then used for the whole bodies of the thematic, the transitional and the rhematic spheres. In the present paper, I am using the terminology accordingly.

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