#### DOCUMENT RESUME

ED 389 231 FL 023 452

AUTHOR Rasmussen, Ole Elstrup

TITLE The Discontinuity of Human Existence, Part III.

Perspective Text Analysis: A Methodological Approach

to the Study of Competence. No. 52.

INSTITUTION Lund Univ. (Sweden). Cognitive Science Research.

REPORT NO ISSN-0281-9864

PUB DATE 94

NOTE 28p.; For related documents, see FL 023 450 and ED

379 354.

PUB TYPE Reports - Evaluative/Feasibility (142) -- Viewpoints

(Opinion/Position Papers, Essays, etc.) (120)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS Attitudes; \*Beliefs; \*Cognitive Psychology;

\*Competence; \*Discourse Analysis; Epistemology; Foreign Countries; Individualism; \*Individual Power;

Language Research; \*Phenomenology; Research

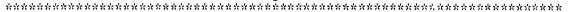
Methodology

IDENTIFIERS \*Discontinuity

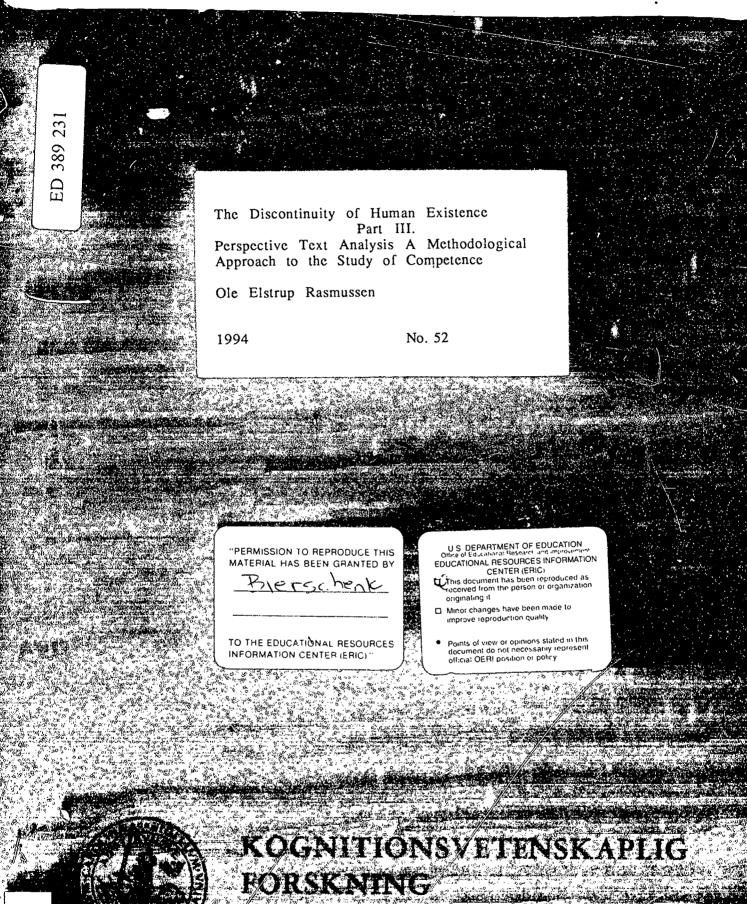
#### **ABSTRACT**

The third in a series of three reports draws on earlier discussion of theories of discontinuity in human existence to develop a method for studying individual perceptions of existence. The method is Perspective Text Analysis, a form of discourse analysis that focuses on self-reference as a reflection of competence. The model for the methodology is first outlined, and the computer program used to perform the text analysis is explained. Application of the analysis to one text, a Danish company employee's comments concerning a job for which he was applying, is examined and the results compared with the subject's self-assessment and a psychologist's report on the individual. The text that was analyzed is also presented. Contains 20 references. (MSE)

Reproductions supplied by EDRS are the best that can be made \* from the original document.







The Discontinuity of Human Existence
Part III
Perspective Text Analysis
A Methodological Approach to
the Study of Competence

Ole Elstrup Rasmussen

1994

No.52

Cognitive Science Research
Lund University
Sweden

Postal address

Cognitive Science Research P.O.Box 7080 S-220 07 LUND SWEDEN Editor

Bernhard Bierschenk Department of Psychology Lund University Adm. editor

Helge Helmersson Department of Business Adm. Lund University



#### **Abstract**

This is the last article in a series of three, the objective of which is to describe the fundamental discontinuities of human existence.

In the first article: The fundamental concepts of human existence and the relation between the singular and the super singular, it is shown, among other things, that a number of classic theories have three fundamental concepts of development in common: canalization that encompasses transference of something from one to another, correlation that encompasses reciprocity which is the basis of generalization, and combination that encompasses the production of the new. It is also emphasized that the classic theories point to the problem of self-reference.

In the second article: The general and the specific theories of discontinuity, the problem of self-reference is outlined at a high level of generalization and it is argued that self-reference and three other degrees of freedom: development, time-space and difference govern human existence. The general discontinuity theory, then, models the implicate order of human existence by claiming that human existence unfolds as discursive strings, the general form of which is .....(Aa(AaO))...... The discursive string encompasses a context-agent that enacts an agent that enacts an objective, where the objective itself can be an agent that enacts an objective, etc.

Within the general theory of discontinuity, a specific theory which builds on the heritage of the classic theories analyzed in the first article, is outlined. The specific theory claims, among other things, that the person, because of three founding developmental processes: systematizing, perspectivizing and organizing, obtains the *qualifications* to put his existence in *order* and acquires the *competence* to make *sense* of his existence.

The Discontinuity theory exists at a high level of generalization, which means that the theory itself cannot conceptualize the diversity of human existence. Therefore, in order to model the diversity of human existence, a method is needed. This method must be capable of analyzing and systematizing the empirical foundation of the theory within the frame of the theory itself. *Perspective Text Analysis*, which is described in this article, has these qualities, as it unfolds the core of the Discontinuity theory, namely self-reference in the form of competence. In a synthetic way, Perspective Text Analysis is, able to analyze and to map the way in which a person makes sense of a situation.

The article encompasses a description of the founding propositions of Perspective Text Analysis, which also builds upon the idea that human existence unfolds as discursive strings, the general form of which is .....(Aa(AaO))....... Further, the article includes a description of the technology of the method: PERTEX, and a simple illustrative example that aims to show the differences between an analytic and a synthetic approach to the modelling of competence.



# **Preliminary Remarks**

This article is the last one in a series of three.

The first article: The Fundamental Concepts of Human Existence and the Relation between the Singular and the Super Singular [Elstrup Rasmussen, 1994a] includes two sections.

The first section comprises an analysis of entrepreneurship. The reason for starting with entrepreneurship is twofold. The entrepreneurial sciences represent a tradition, the subject matter of which is change, and entrepreneurship encompasses the relation between the singular and the super singular which constitutes a problem that has frustrated the cognition of human existence.

The analysis of some classic theories of entrepreneurship shows that, given a sufficient level of generalization, a small number of concepts are enough to model entrepreneurship within economics. The analysis, however, shows that economics cannot describe entrepreneurship completely. Psychology must be included, but the analysis reveals that current psychological research is unable to solve the problems of entrepreneurship. Finally, the analysis concludes that an unclarified relation between the super singular and the singular constitutes an obstacle for the modelling of entrepreneurship.

In the second section of the first article, some classic theories of human existence are analyzed in order to examine whether it is possible to find answers to the questions posed in the analysis of entrepreneurship. Concurrently, the article examines whether a set of fundamental concepts of human existence appears across the theories.

The conclusion of the analysis is that the classic theories cannot solve the problems arising from the relation between the singular and the super singular, although to some extent these theories have produced the means to do so.

It is shown that the analytic and the dialectic logic that are the paradigms of the analyzed theories are able to explain the forms of existence that are under control, but it is also revealed that the fundamental, uncontrolled and uncontrollable social processes are not conceived as anything but prerequisites of the control processes.

Consequently, the article suggests that it is necessary to disengage the fundamental forms of existence found in the classic theories from their present paradigmatic restrictions. If the problem of the relation between the singular and the super singular is to be solved, the dialectic as well as the analytic logic has to be neutralized. It is thus suggested that the modern complexity theories could be the path to obtaining a more profound understanding of the uncontrolled human existence.

Further, it is shown that the analyzed theories have a number of fundamental concepts of human existence in common: canalization which encompasses transference of something from one to another, correlation which encompasses reciprocity, which in turn is the basis of generalization, and combination which encompasses the production of the new. These theories also point to self-reference, although this concept does not have a completely transparent status in all the theories. And, finally, the theories bring to attention the necessity of determining whether human existence is to be viewed in a local or global perspective.

The second article: The general and the specific theories of discontinuity [Elstrup Rasmussen 1994b] encompasses a short note on the problem of self-reference, plus descriptions of the general and the specific theories of discontinuity.

The aim of the introductory note on self-reference is to outline the preconditions of the general theory of discontinuity. Consequently, the first section ends with a set of propositions determining the frame of reference within which the general theory of discontinuity is described. The frame of reference is qualified as four degrees of freedom, difference, space-time, development and self-reference.

The general theory of discontinuity modelled, among other things, by means of catastrophe theory [Thom 1975] is described in section two. The general discontinuity theory models the implicate order of human existence determined by the degrees of freedom mentioned. The theory also suggests a solution to the problem of the relation



between the singular and the super singular, claiming that the singular and the super singular are but different expressions of the same fundamental structures and processes of human existence

The specific theory of discontinuity offers a model of human existence, building on the heritage of the classic theories. The model encompasses three fundamental developmental processes: canalization, which includes the process of perspectivizing the context of the person, correlation, which includes the process of systematizing the context of the person, and combination, which encompasses the process of organizing the context of the person. Because of the three developmental processes, the person obtains the qualifications to put his existence in order and acquires the competence to make sense of his existence in a perspective manner.

The Discontinuity theory exists at a high level of generalization, which means that the theory itself cannot conceptualize the diversity of human existence. Therefore, in order to model the diversity of human existence, a method is needed. This method must be capable of analyzing and systematizing the empirical foundation of the theory within the frame of the theory itself.

It is inconceivable that all forms of human existence, whether they are of a singular or a super singular nature<sup>1</sup> can be uncovered empirically by means of a single method, but Perspective Text Analysis<sup>2</sup>, which is described in this article, can unfold the core of the Discontinuity theory, namely: self-reference in the form of competence. Perspective Text Analysis is able to analyze and map the way in which a person makes sense of a situation.

As the intention of this article is to integrate theory and method, what follows is not simply a paraphrase of Perspective Text Analysis but a reconstruction of the method's most important features. Because the developmental history of the theory and the method are dissimilar, terminological differences exist. To enhance readability, I have chosen to use the language of the Discontinuity theory where differences occur.

# Modelling the Discontinuity theory

To facilitate the comprehension of the link between the theory and the method, I have converted the main parts of the theory into a simple model.

### The 'I'/self model

The model encompasses two interconnected parts. The first part of the model concerns the *creation* of the discourse, that is, the 'I'/self processes, and the second part of the model concerns the discourse itself.

The foundation of the model is the generative 'I'/Self process. The self consists of prototypic concepts, represented in the model in the form of ellipses. 'I' generates the discourse by utilizing the prototypic self concepts, but, at the same time, 'I' generates 'Self'. 'I', then, is the occasion for, as well as the consequence of, 'Self'. When 'I' carries something into speech, that is, generates a discourse, 'I' transforms the self concepts, but in doing so, 'I' generates new self concepts. The 'I'/Self processes are thus self-references that continuously generate themselves, among other means through social interaction.



<sup>&</sup>lt;sup>1</sup> For a discussion of the relation between the singular and the super singular, see Elstrup Rasmussen [1994a]

<sup>&</sup>lt;sup>2</sup> Perspective Text Analysis has been developed by the psychologist B. Bierschenk and the linguist I. Bierschenk. The software program: PERTEX, which analyzes the text has been developed by the economist H. Helmersson.



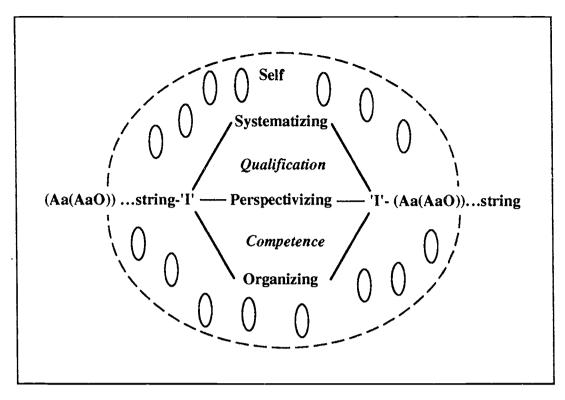


Figure 1. The qualification/competence model

#### The Discourse

The discourse is a flow of (Aa(AaO))... strings. An (Aa(AaO))... string consists of an objective (O) that forms a unit with an object-agent (A) because of an enactment (a), and a context-agent (A(...) that enacts the (AaO) unit. For example

The creation of the discourse and the (Aa(AaO))... strings are two expressions of the same phenomenon, namely human existence as an ongoing process.

#### The self concepts

'Self' is a node in a social network. This means that all selves in principle are interconnected through networking. The entire human existence can be viewed as network and networking.

The self, that is, the network node, consists of prototypic concepts. A prototypic concept is a form of order. Each prototypic concept encompasses three different types of order: knowledge, value, and insight.

The first type of order: knowledge, exists as analytic expressions, that is, as (Aa(AaO))...strings, in which *identification* is the active relation between A and O. In the knowledge expression, the context-agent claims that something: A is identical to something else: O. For example: (I identify that (a gun is identical to a sword)). This is the analytic order of the weapon concept.

The second type of order: value, also exists as analytic expressions. In the value expression the context-agent claims that something: A, is as good as something else: O. For example: (I identify that (a gun is as good as a sword)).

The third type of order: insight, exists as synthetic expressions, that is, as (Aa(AaO)...strings in which the active relation between A and O is of the sort: occasion - consequence. In the insight expression, the context-agent claims that A implies O. For



example: (I identify that (guns and swords kill people)). This is the synthetic order of the

weapon concept.

Any prototypic concept encompasses value, knowledge and insight. It is thus obvious that a concept is not a class but a prototype. When I say 'weapon', for instance, the weapon concept encompasses the identification of guns and swords, a valuation of guns and swords and an insight into the use of weapons.

Concepts exist at different levels of generalization. The weapon concept, for example, exists at a higher level of generalization than the sword concept, but the weapon concept is not a class that encompasses different elements. The weapon concept is a pro-

totypic concept, and the sword concept is a prototypic concept.

Because the self consists of concepts, the self also exists at different levels of generalization. In any situation, the highest level of generalization represents self-identity.

The 'I'/self processes

As noted above, 'I' generates the discourse by processing self concepts, and, by doing this, 'I' generates 'Self'.

I call the first 'I'/Self process systematizing. Systematizing is the process that

generates the knowledge and value content of the concepts.

To systematize means to put something into order, this something being mostly self concepts. When 'I' systematizes, 'I' continuously discovers and produces order in the self concept. Therefore, the above mentioned knowledge order: (I claim that (a gun is identical to a sword)), is also the manner in which 'I' systematizes the concepts of the

I call the second 'I'/Self process *perspectivizing*. As the name implies, perspectivizing means to put something into perspective. Perspectivizing is a process that relates to systematizing, as well as to organizing. When perspectivizing relates to systematizing, 'Self' appears as qualifications.

Qualification is the way in which 'Self' appears when the systematizing process is put into perspective. Qualification is a set of stable forms of order that can and will be repeated. Qualifications are forms of order that 'I' can carry into effect or carry into speech. Qualifications are, so to speak, ready-made ways in which 'I' enacts the envi-

Qualifications emerge as anticipation of possibilities. I can, for example, anticipate trade, as I know the way in which trade takes place. I have a specific concept of buying, the form of which, in Denmark at least, tells me that I have to pay whatever the price tag says. It is my qualification that I am able to put into speech the fact that trade is an exchange of money for commodities, which means that I know that I will receive a specific commodity if I pay a specific amount of money, because I know the order of the marketplace. As I am qualified in a specifically Danish manner, it is very difficult for me to process my self concepts when I enter a foreign culture where I have to haggle. As I do not encompass the concepts by means of which I can put the situation into speech in a systematized manner, I am not qualified in the situation, which means that I cannot direct my activities. I simply do not know what I have to do in order to obtain a specific commodity. Because I am not qualified, I begin to act innovatively. Instead of using known forms of order by means of which 'I' can direct the situation, I have to organize my self concepts instead.

I call the third 'I'/Self process organizing. Organizing is an ongoing discourse in which the self concepts are put together in an innovative manner. When organizing, 'I' continuously puts the self concepts into speech through (Aa(AaO))...strings that form a discourse. In organizing, the active qualifier of the (Aa(AaO))...string, that is, the relationship between context-agent and (AaO) unit, and object-agent and objective, are not identifiers, but enactments. In organizing, the context-agent does not identify something with something else, but expresses the fact that something (A) acts upon something else (O). I can, as a context-agent, for example, put into speech the fact that I, as an object-



agent, take a pencil. I do not identify the pencil with something else. I put into speech the fact that I take the pencil.

Competence is the way in which 'Self' emerges when organizing is perspectivized. When the organizing of the self concepts is put into perspective, the discourse emerges as *competence*. I am competent when I am able to perspectivize my organized self concepts in a sense making manner, that is, when I am able to create situation insight. To make sense of a situation means to transform the unknown into something known. Sense making, therefore, is the process of knowing.

When I do not encompass an order that I can activate immediately, as is frequently the case in a complex world, I organize my self concepts in a perspectivizing manner into

something that makes sense.

The most essential way in which sense making takes place is through the discourse. When I create a synthetic text that follows the form of the (Aa(AaO)).....string, I knit my self concepts together into a whole that makes sense, which means that I can manage the situation, because the discourse, in a perspective manner, organizes my intentions.

Qualification versus competence

The qualification part of the model describes the way in which human beings try to direct the environment by repeating known forms of order. Most theories claim the direction process to be the only one or at least the most important one in human existence. The Discontinuity theory claims that the competence part of human existence is as important as the qualification part. The competence part of the model shows that human existence is formed in the ongoing process of knowing. Synthetically conceived, enactment is governed by the logic of discovery and innovation, but based upon personal concepts that are created through systematizing.

Competence has never been studied in its own right. Throughout the history of psychology and linguistics, competence has either been neglected or studied as if it were an analytic phenomenon. The innovative production of competence has been conceptualized as if it were an analytic calculus, that is, as if competence were the same as qualification. Chomsky's theory of generative grammar is a well-known example. Chomsky [1965,1966] claims that language production is of an algorithmic nature only, and, by

that, he rationalizes the innovative speech act.

The transformation of synthetic phenomena into analytic ones has made it impossible for classic psychology and linguistics to uncover the creation of competence through situation management and to model the resulting competence itself. It is therefore extremely important to be able to distinguish between being in analytic control and making synthetic sense. It is also extremely important to know that one cannot describe and explain competence by means of analytic logic. a point discussed in Elstrup Rasmussen [1994b].

# Perspective Text Analysis

# Linking Discontinuity theory and Perspective Text Analysis.

It is a shared concept of the Discontinuity theory and Perspective Text Analysis<sup>3</sup> that the 'I'/Self processes are isomorphous to the linguistic processes, which means that linguistics represents the formative language of psychology. The concept of 'I'/Self processes and the concept of natural language production represents the same phenomenon, but the two concepts belong to different sciences.

By claiming that the 'I'/Self processes are isomorphous to the production of natural language, it is simultaneously claimed that the result of these processes, that is, the



<sup>&</sup>lt;sup>3</sup> My discussion of Perspective Text Analysis is based on B. Bierschenk (1991a, 1991b, 1993a, 1993b, 1993c) and I.Bierschenk (1992a, 1992b).

situated self, and the result of the production of natural language, that is, the text, must be isomorphous. And because the text expresses the situated self, it must be possible to

However, Perspective Text Analysis is only interested in texts that represent competence. This means that Perspective Text Analysis does not concern the way in which systematizing is perspectivized, that is qualification, but the way in which organizing is perspectivized, that is, competence.

It is the most important link between the Discontinuity theory and Perspective Text Analysis that both build upon a specific conceptualization of Kants's [1975] synthetic schema. In the Discontinuity theory, Kant's synthetic schema concept is transformed into the concept of organizing [Elstrup Rasmussen, 1994b], that is, creation of ((Aa(AaO)..... strings. The situated 'I' organizes the self concepts, and, by perspectivizing the organizing, 'I' reorganizes 'self' into something that makes sense in the situation. However, Perspective Text Analysis takes this general proposition a step further. Because human behaviour is always intentional and oriented towards the transformation of a field, the organizing process is, according to B. Bierschenk [1984, 1991a, 1993c], governed by a functional mechanism that encompasses an intention function int(A). a functional constant (a) and an orientation function ort(O).

### $((int(A)) \ a \ (ort(O)))$

It is thus the founding proposition of Perspective Text Analysis that the context-agent, that is, 'I', determines the object-agents (A) and the objectives (O) that are organized as (Aa(AaO)).....strings. As the object-agents and the objectives are constituted by self-concepts, it is presumed that any (AaO) unit in a (Aa(AaO)).....string refers to the context-agent, which means that the (Aa(AaO)).....string is self-referential. Any other conclusion would be absurd, as it would imply that the text writes or speaks itself. A discourse cannot be analyzed without reference to the one who generates the discourse. It is also presupposed that 'I' without any constraints is able to organize the existing set of self concepts in a perspective manner. 'I' does not get an idea which is then transformed into a discourse. 'I' represents the discourse, and this discourse is irreversible self-organizing and independent of fixed ideas, but is, of course, dependent on existing concepts.

### Text and text mass

reconstruct the situated self from the text.

A discourse can appear as written text. A text is a string of graphemes. Figure 2 shows a single string of graphemes in which interruptions are indicated by interspaces and any other grapheme is indicated by x'es. Such a string of graphemes encompasses patterns in the form of grammatically determined *clauses*: (AaO) that are put together into *sentences*: (Aa(AaO)). A set of clauses and sentences constitutes a *text string*, and a finite text string constitutes a *text mass*. A text mass unfolds in time and has a specific start and ending.

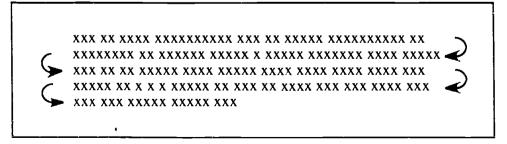


Figure 2. A string of graphemes.



In the writing process, the text mass develops quantitatively because of the organized self concepts. The text mass starts at a zero point and develops until the process comes to the last full stop.

The unit of the text mass

The wholeness of the text mass can be qualified in different ways. A text mass, for example, that encompasses many stops and pauses is different from one that has few stops and pauses. It is thus quite easy to distinguish between the cutting style of Hemingway and the more slowly evolving rhythm of Steinbeck. These characteristics of a text can be analyzed by PERTEX, the program that executes the perspective text analysis.

However, it is the sense making qualities of the text that are the centre of discussion here

The most simple form of a text mass is a single clause that follows the (AaO) schema in which the tacit context-agent is 'I'. The text could be: 'The peasant chops the wood on the block with an axe for the winter season', which is formalized as follows:

(A) The peasant

(a) chops

(O<sub>F</sub>) the wood

(O<sub>Gr</sub>) on the block

(O<sub>M</sub>) with an axe

(O<sub>G</sub>) for the winter season

When organizing, the 'I'/Self process integrates, by means of a verb, an agent and an objective, but, at the same time, perspectivizing splits the objective by means of prepositions into four different forms: the figure objective (O<sub>F</sub>), the ground objective (O<sub>G</sub>), the mean objective (O<sub>M</sub>) and the goal objective (O<sub>G</sub>).

Any clause can, according to Perspective Text Analysis, be transformed into the form:

### AaO(F,Gr,M,G)

A transformed clause is called a *functional clause*.

When a text string is built up, a concept that appears as a figure at one point in a text can reappear as means or aims at another. Furthermore, agent concepts can become concepts of objective. It is not in any way determined which self concept takes what position in the functional AaO(F,Gr,M,G) clause. The only determinants of the clause are the verb that organizes agents and objectives, prepositions that determine the figure, ground, mean and goal positions, the sentence markers ('.', '?', '!') that determine the length of a sentence, and the clause markers (',', ':', 'and', 'that' etc.) that determine the length of a clause.

Given a dictionary that encompasses verbs and forms of inflection, prepositions, sentence and clause markers, it is possible by way of the PERTEX program to transform any text into functional AaO(F,Gr,M,G) clauses. I shall return to PERTEX later.

# The internal properties of text building

Sometimes the functional clauses are identical to the textual clauses as described in the above noted example, but, more often, this is not the case. In text building, the set of agents co-operates and interacts in such a way that the functional coupling of the agents and objectives manifests itself as a double helix<sup>4</sup>. Figure 3 shows the complementary movements of agents and objectives in the first sentence of a description of the famous



<sup>&</sup>lt;sup>4</sup> For a comprehensive discussion of the helix, see B. Bierschenk [1993c].

cliff experiment described in Gibson and Walk (1960]. The sentence<sup>5</sup> says: 'Many parents, who carefully have observed their infants at the crawling stage, have presumably observed, that they initially crawl over edges of different kind without being aware of the danger of falling'. In the model, the first helix represents the agent-function and the second helix represents the objective-function. The twining of the helix represents a point in the discourse at which a new agent is introduced, marked by a bold A in the figure, while the twisting of the helix represents, for example, a substantial string marking intention and orientation.

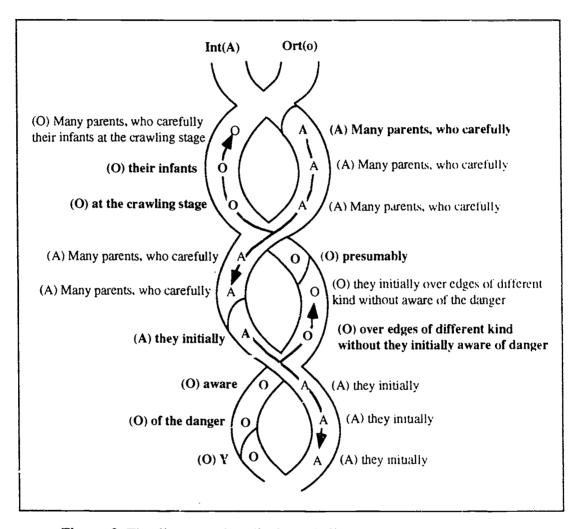


Figure 3. The discourse described as a helix.

The upwards and downwards movements of agents and objectives in the helix are caused by the fact that the ((int(A)) a (ort(O))) schema governs text building. Although, for example, an objective obviously has no immediate agent, as in '(being) aware', the agent still exists in the discourse, that is, in the mind of the text producer. Because the schema governs the text production, every agent enacts an objective, and every objective is enacted by an agent. And, as the agent moves intentionally, that is cursively, the preceding agent adopts the obviously agent-free objective. For example, the objective of the 'agent-free' clause '(being) aware' is picked up by the agent 'they initially' in a downward swing. Within the string, the same agent can put more objectives into action in a cursive



<sup>&</sup>lt;sup>5</sup> The sentence is a direct transcription of the original Swedish text, and not a translation.

movement, and, complementarily, the objectives are assembled in a recursive movement until a state of equilibrium has been reached at which every agent is linked to an objective and every objective is linked to an agent.

It is thus obvious that the functional coupling of agents and objectives causes a difference to emerge between the grammatical texture of the text and the helical structure of the text.

In the helix, a twist has a certain volume corresponding to the elaboration of the text. If, for example, the writer elaborates the text by introducing agent-free objectives and insertions, the volume of the helical structure increases with a speed greater than that of the texture. And the writer elaborates the text until it reaches its natural ending, which is the steady state at which the writer can put a full stop, because the text expresses what the writer wants it to express. The writer listens to the text, so to speak, until it makes sense. This does not mean that everything that a writer wants to express is written in one sentence, but only that a local sense has been created. To elaborate the local sense, the writer may, for example, make a shift in perspective of the subject matter by introducing a new agent that produces a new twining of the helix.

It is one of the essential empirical findings of Perspective Text Analysis that the helical movements that link agents and objectives follow a small number of substitution rules.

Rules of text building

The rules of substitution are:

Component Substitution Condition

1. An Textual strings An is directly accessible Example: *they initially* crawl over edges of different kind

2. A<sub>n</sub> X-variable A<sub>n</sub> is covert or unknown Example: (X) Crawl over edges.

3.  $A_n$   $A_{n-1}$   $A_n$  is indirectly accessible Example: they initially crawl over edges of different kind without (they initially) being aware of the danger

4.  $A_n$   $A_{n-1}$  + On-1  $A_n$ ='it' and  $(AaO)_{n-1}$  exists Example: They crawl over edges, it (They + over edges) is dangerous.

5.  $A_n$  X-variable  $A_n$ ='it' and  $(AaO)_{n-1}$  does not exist Example: It (X) was dangerous.

6. On Text strings On is directly accessible Example: they initially crawl over edges of different kind

7.  $O_n$  Y-variable  $O_n$  is unknown Example: they initially crawl over edges of different kind without being aware of the danger of falling (Y).

8.  $O_n$   $A_{n+1} + O_{n+1}$   $O_n$  is indirectly accessible and  $(AaO)_{n+1}$  exists

Example: They crawl (they + down) until they fall down



### **PERTEX**

The program that executes the text analysis is called PERTEX<sup>6</sup>.

#### Coding

PERTEX reconstructs and codes the text string through an iterative process in such a way that the text string eventually appears as a series of AaO blocks which is the technical expression of functional clauses. In the process, the text is cut up into blocks that contain an agent (30), a verb (40), and one or more objectives: figure (50), ground (60), mean (70) and goal (80).

Block coding			Supplementation		
01			01		
,	30	they initially		30	they initially
	40	crawl		40	crawl
	50	over edges of		50	over edges of different kind
		different kind			without they initially
					aware of the danger
01		without	01		without
	30	*		30	they initially
	40	being		40	being
	50	aware		50	aware
	60	of the danger		60	of the danger
01		of	01		of
	30	*		30	they initially
	40	falling		40	falling
	50	* .		50	Y
00		•		00	

After the block coding, all doubles are removed, because the analysis is interested only in unique relations between agents and objectives and not frequencies. The analysis is qualitative and not quantitative. In the example above, 'they initially/aware' (30/50) is such a unique relation that expresses the figure of the text, while 'they initially/of the danger' (30/60) expresses the ground.

### Cluster analysis

On the basis of the unique relations between agents and objectives, it is possible to create four binary matrices that list the figure, ground, mean and goal objectives in relation to the agents. In order to show a clear example of the principles of the cluster analysis, I have constucted an agent/figure matrix shown in Figure 4. The 17 figure objectives in this example are numbered according to their position in the analyzed text. The first emerging objective is number one in the matrix, etc.

Figure 4 shows a matrix of a text in which 11 agents are related to 17 figure objectives in 18 blocks. This naturally means that a number of figure objectives are related to the same agent, but also that a number of figure agents are related to the same objective. The concentrations of objectives emerge because of the interdependence between the functional clauses of the text.

Cluster analysis is the most effective way by which affinity patterns within matrix systematized data can be uncovered. In PERTEX, Ward's [1963] method is used. In short, a cluster analysis is an amalgamation and dimensioning mechanism that operates according to a set of rules.



<sup>&</sup>lt;sup>6</sup> My discussion of PERTEX is based on Helmersson [1992]

The first amalgamation rule concerns closeness. For example, the matrix components determined by objective 3 and 4 are close to each other because an affinity exists between two objectives and agent 3, while 1 and 2 are distant from each other because they do not share the same agent. The matrix components determined by objectives 7, 8 and 9 are close to each other, because they share agents as well as objectives.

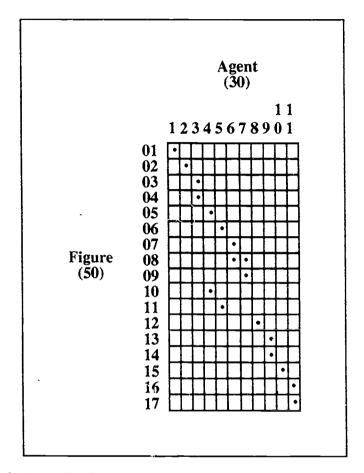


Figure 4. A matrix of agent/figure relations

The second amalgamation rule states that before a cluster can be claimed to be a cluster, it has to amalgamate a *significant* number of components, therefore PERTEX has a built-in statistical test that can support the choice of value that points to the significance criteria<sup>7</sup>.

Following these rules, the series of clusters that can be derived from the matrix shown in Figure 4 will appear as shown in Figure 5. The components that do not constitute a cluster are assembled in a residual set (number 1 in Figure 5).

PERTEX automatically prints out the clusters. Thus, the entire analysis represents a deterministic process in which the input is a text string and the output is dimensioned clusters of figure, ground, mean and aim objectives.

Each cluster of objectives represents a prototypic self concept, and the dimensioned clusters of objectives, that is, the dimensioned set of self concepts, expresses a coherence in the utilized self concepts. The output of PERTEX therefore is the *substance* of the prototypic self concepts.



<sup>&</sup>lt;sup>7</sup> The choice of significance criteria corresponds to the yard stick of generalization discussed in Elstrup Rasmussen [1994b].



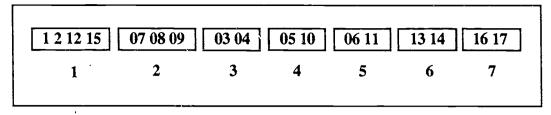


Figure 5. The figure objectives systematized as dimensioned clusters.

The next step in modelling encompasses the *naming* of the prototypic self concepts that systematizes the cluster objectives. In this process, the model creator names the prototypic self concepts, that is, the attractors, that systematize the cluster objectives.

Naming the clusters of objectives

When naming the clusters, the model creator systematizes the objectives at a level of generalization that unifies all the objectives in the cluster.

It can, of course, be argued whether identifying and naming are rigid processes which imply that any model creator arrives at the same name of the prototypic concept emerging from systematizing the objectives. This question has to be settled empirically. It is, however, important to realize that the naming process is rigid for reasons that can be derived from an example. Cluster number 17, derived from the text which I shall use as an example later in this article, encompasses the following objectives numerated according to the position in the analyzed text.

28: profoundly and thoroughly.

45: they from the leader.

46: they to the relevant employees.

I have identified and named this cluster 'command'. The process towards this concept name follows the argument: because the two objectives: 45 and 46, which, at least in my world of concepts, expresses 'chain of command', carries a greater weight than the one objective: 28, these two objectives constitute the point of departure. Objective 28, however, expresses that it is not 'chain of command' as such that characterizes the cluster, because a chain of command cannot be profound and thorough. It is the content of the chain of command that can be profound and thorough. This means that 'chain of command' is too specific, because of which the systematizing has to move to a higher level of generalization in order to identify 'chain of command' and 'profoundly and thoroughly'. I have then chosen 'command' as the name of the concept. It is, of course, possible that a synonym of 'command' be chosen, but, even if another name were given to the cluster, the naming would not change anything in the concept content.

The solution of the naming process is probably valid for the model constructor, as well as for the text producer, because they share a culture in which the concepts of the model constructor and the text producer are identical at a high level of generalization, as argued in Elstrup Rasmussen [1994b]. At the very least, the text producer and the model constructor should be able to negotiate the naming of the cluster until they reach an agreement that suits both parties. It is, of course, possible that 'command' could be exchanged for the cognate word 'instruction', but it would, for example, be absurd to name the cluster 'Christmas tree', as this name does not represent any character of evidence [Schultz 1986] in relation to the systematizing of the cluster.

The named clusters are called the *terminal states* of the text mass. The terminal states represent the self concepts that systematize the knowledge which is expressed in the text in the form of figure, ground, mean and aim objectives. A complete set of the terminal states of a text mass thus encompasses four dimensioned sets of concepts.

The next and final step in modelling encompasses organizing of the terminal states, as illustrated in Figure 6. In the model,  $T_{n,p}$  represents the terminal states, that is,



the self concepts. 'T' represents the terminal states, 'n' represents the position of 'T' in the dimensioned series, and 'p' represents the weight of 'T' corresponding to the number of objectives that the prototypic concept systematizes.

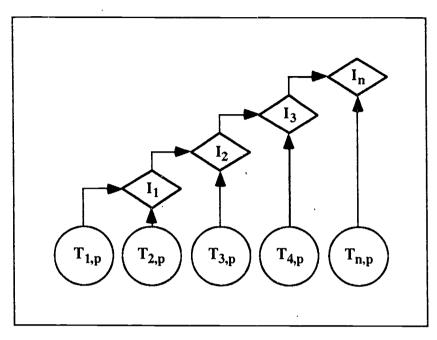


Figure 6. The synthetic movement from the terminal states to the final all-encompassing concept.

Figure 6 illustrates the organizing movement from the terminal states  $T_{n,p}$  through the topological invariants  $I_1$ ,  $I_2$ , etc. to  $I_n$ . In the example that I shall return to later (see Figure 9) the invariant: 'laissez-faire' ( $I_2$ ), and the terminal state: 'program' ( $I_3$ ) are integrated through an organizing process into the invariant: 'program liberty' ( $I_3$ ). The idea behind the organizing process is to name the concept insight which is represented by the invariant. Again the question can be discussed of whether a set of synonyms exists. It is, however, evident that the name cannot be chosen arbitrarily.

The final invariant  $(I_n)$  represents the most comprehensive and profound concept which organizes all the other concepts.  $I_n$  represents the entire situated insight gained by the text producer.  $I_n$  corresponds to the trough in which all the sources that spring from the valleys, that is, the terminal states, finally amalgamate.

The final concept thus emerges through steps of organizing. Because of perspectivizing, it is possible to produce four topologic models that represents figure, ground, mean and goal. These four models as a whole express the text configuration.

### Topological differences of organizing

The topologic routes for organizing terminal states and invariants differ according to the cluster analysis.

As noted above, each terminal state  $(T_{n,p})$  has a weight according to the number of objectives it encompasses, represented in Figure 7 by the numbers below the circles. The weights of the terminal states determine the placing of the states along the dimension: 1.....n, but the weights also determine the topological map. If the quantitative distance between a pair of succeeding terminal states is greater than the distance between the following pair of succeeding terminal states, a breach exists in the configuration (model II in Figure 7): if not, no breach exists (model I in Figure 7).



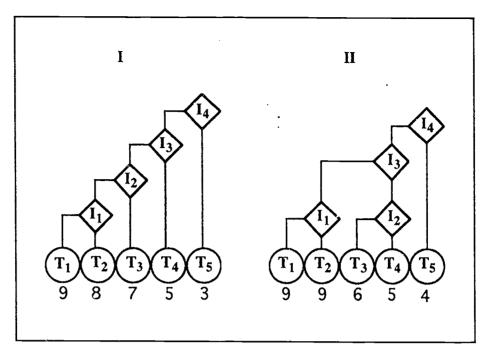


Figure 7. Different topological expressions of organizing.

However, the theoretical meaning of the different configurations is not yet established. At the moment it is only possible to state that the more elaborated competence is able to organize the organizing.

# Perspective Text Analysis models competence

I consider it plausible that Perspective Tex Analysis models competence and that the helical expression represents perspectivizing of organizing.

When 'I' perspectivizes the organizing, 'I' makes sense of a situation by means of functional clauses that follow the AaO<sub>(F,Gr,M,G)</sub> schema. One can imagine the point of departure of sense making as a sphere. The sphere represents the not yet configured situation, while the centre of the sphere represents 'I' that encompasses the prototypic self concepts. Before the discourse starts, the sphere is smooth, because it encompasses no configuration.

When the discourse starts, 'I' picks up concepts in order to configure the situation, that is, the sphere. As 'I' organizes the self concepts, the sphere becomes dented. A dent emerges each time an agent enacts an objective. If, however, the same agent, for example, enacts different objectives as shown in the helix model (see Figure 3), the dent becomes deeper. As the discourse progresses, a configuration emerges on the sphere, because different agents are made active, until the sphere resembles a planet with hills and valleys.

From the context-agent's point of view, the valleys represent the prototypic concepts that systematize the situation<sup>8</sup>. Each valley represents order, that is, knowledge. However, this knowledge is integrated into insight. Figuratively speaking, the created valleys are interconnected through sources that well out in the valleys and converge into a major river that absorbs the knowledge in an integrating manner. The valleys represent the total knowledge made active in the situation, while the interconnected source system



<sup>&</sup>lt;sup>8</sup> For a discussion of the hill/valley analogy of prototypic concepts see Elstrup Rasmussen [1994b]

represents the insight which is produced in the situation. As a whole, the source system,

as it flows from the source to the trough, represents competence.

Because Perspective Text Analysis can differentiate between figure, ground, mean and aim, the method can produce four different maps, which, as a whole, represent situated sense making. This means, of course, that it must be possible to distinguish between four types of competence producing 'I'/self processes. I call the 'I'/Self process that generates figure objectives the competence of casting, because 'I', figuratively speaking, selects and produces the stage actors. The type of 'I'/Self process that generates the ground objectives is called the competence of arranging, because the cast figures are posited in time and space, while the process that generates the mean objectives is called the competence of supporting. Finaly, I call the type of process that generates the aim objectives the competence of prospecting, because the aim objectives represent what 'I' is looking for(ward to). When perspectivizing, the organizing, 'I', is, figuratively speaking, staging a scene by casting the characters, arranging and supporting them in order to go prospecting. It is important to notice that the types of competence process are not logically, but empirically determined. It is because of the way in which clauses appear that it is possible to distinguish between different types of competence.

At this point it is vital to acknowledge the difference between classic linguistics and Perspective Text Analysis. In classic linguistics, it is the grammatically determined text patterns, that is, the texture, that is of interest. Chomsky, for example, claims that it is possible to uncover the depth structure of the human mind, that is, the calculus of text production, by analyzing texture, because texture represents the theorems of a calculus. Chomsky believes that it is possible to derive the axiomatic origin of the theorems and, by that, the procedures of the calculus from the theorems. Perspective Text Analysis, however, claims that texture is nothing but a surface phenomenon, and that an analysis of text patterns does not pick up the hidden *configuration* of the text that constitutes the sense of the text, and, by that, competence. Perhaps Chomsky uncovers a qualification phenomenon, but he does not uncover competence represented by the configuration of

the text mass.

# A case example: leadership

The case concerns promotion. A major Danish company hired a consultancy firm to assess whether one of their employees was capable of being the head of a department. In the assessment, a self-assessment test, a personality test, an intelligence test and an intensive psychological interview were administered. The test-subject also produced a text concerning his view of the job towards which he was aiming. This text encompasses a section on leadership. It is this section that I have analyzed using PERTEX.

This case has been chosen because I think that it is interesting to compare a relatively comprehensive analytic test-based assessment with a synthetic text analysis. Of course, I did not know the result of the psychological assessment undertaken by the consultancy firm before the perspective text analysis was carried out.

# An analytic approach

Normally, it is necessary to evaluate the reliability and validity of tests [Østergaard 1992] administered during test-sessions. However, in this connection, it is my sole interest to compare the resulting model of the test with that of the perspective text analysis. I do not intend to evaluate whether the hypothesis that the analytic model puts forward is true or false.



A personality test

The personality test encompasses 106 situations involving choice. For example:

## Stable □ □ Dynamic

It is the task of the test-subject to choose the word that he or she thinks describes himself best in relation to his or her work life.

After having carried out the series of choices, the test-subject is asked to describe his or her weak and strong personal and professional qualities.

The test results in a matrix that models the test subject on a set of dimensions, as shown in Figure 8.

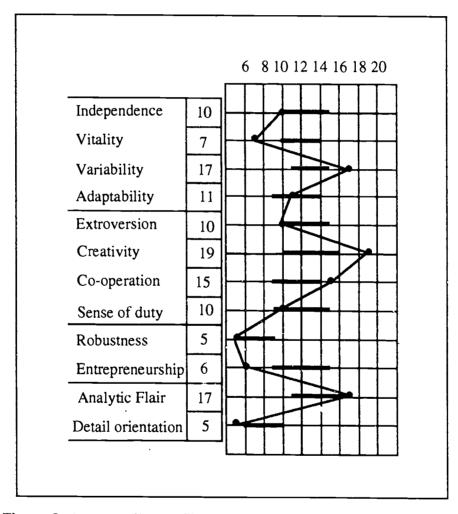


Figure 8. A personality profile.

The model shows, for example, that the subject has 10 positive choices on the dimension: independence. This is a low score on that dimension, the normal range of which goes from 10 to 15 marked by the bar in the figure. As the model shows, the subject has an extreme scoring on every dimension except adaptability and sense of duty.

Each scoring can be described according to an interpretation manual. Each dimension encompasses five steps, which means that the manual encompasses 5<sup>12</sup> possible profiles.



A rigoristic description of the test-subject on the basis of the interpretation manual is as follows:

Independence. Stops when in doubt. Is not able to finish his tasks. Has to be started and supervised. Poor initiative.

Vitality. Despairing, apathetic and detached.

Variability. Changes for the sake of change. Forgets the existing positive values. Picks up all new signals without censoring.

Adaptability. Critical towards himself and others. Often on guard towards other people. Can appear as a juvenile, charming rebel. Enthusiastic. Adheres to his opinions.

Extroversion. Reserved or very superficial and strained in relation to others. He needs to be alone, as social contacts demand energy.

Creativity. Constantly sees other possibilities and connections. Everything is turned upside down, sometimes without being down to earth and without possibilities of action and implementation.

Cooperation. Cooperation for the sake of cooperation. Provides a lot but also demands support, care and acceptance to implement decisions.

Sense of duty. Unpredictable, cannot accept being managed. Wants to assess the content of his loyalties. Has a great need for freedom. Functions best within less strict boundaries.

Robustness. Very sensitive and susceptible and quite vulnerable.

Entrepreneurship. Lacks initiative. Dislikes responsibility. Expects others to take the entrepreneurial role.

Analytic flair. The thorough reflections can in some cases delimit acts and activities. Has difficulty in ending reflections and analysis. Decision making ability is presumably poor.

Detail orientation. Superficial and sloppy. Is not interested in details.

#### Self assessment

The test subject's self assessment:

Strong professional qualities. Knowledgeable. Fairly good taste. Coherence and breadth of outlook. Good at starting and inspiring. Good and constructive critique. Is good at keeping a flock together.

Weak professional qualities. Uncompromizing. Often too clever. Superficial. Tends to have favourites. Blind spots, sporadically overdeveloped ability for repression. Has very little respect for useful rituals. Can strike too hard. Too anti-authoritarian. Can forget the small people.

Strong personal qualities. Fairly intelligent. Creative. Tends towards monomania. Activity seeking. Dynamic. Most often hard working. Most often kind and forthcoming. Active socially.

Weak personal qualities. Labile moods. Tends towards monomania. Can talk incessantly. Bullying. Vegetates too much. Unharmonious and spasmodic rhythm of work.

#### The final report

On the basis of the test, a psychological interview, an intelligence test and the testsubjects description of his opinions concerning leadership, the psychologist offered the following hypothesis:

He is very perceptive, and he is creative. Signals come to him from every corner of his surroundings. He picks up and processes the signals in a more or less uncensored manner. He has a comprehensive outlook, and he



is good at supporting, inspiring and motivating people. He will be an inspiring 'here and now' leader, but, because of personal insecurity and personal weaknesses that express themselves in many different and unstable ways, he will encounter problems in more long-term tasks.

As he has no great impact on people, he is only able to implement his creative ideas through others who have the drive to see his ideas through, or to do so himself through short bursts of incredibly hard work. He will throw himself into a task and forget every thing else, and then fall back into passivity for a period.

In his style of leadership, he will be dependent on others. He will

seek consensus, but he will also produce a court of favourites.

He is authoritarian and anti-authoritarian at the same time. In many cases, he will be able to compensate and act rationally because of his intelligence, but this will be in spite of his own insecurity.

The internal logic of the model

I do not intend to analyze the psychological report in depth. I shall only present a single example of the internal analytic structure of the report. In the report, the test results appear in the form of axioms:

He is creative.

He has no great impact on people.

He is only able to implement his creative ideas through others.

And, because of these axioms and a statement from the self-assessment report: 'Tends to have favourites', the psychologist arrives at the following conclusion:

In his style of leadership, he will be dependent on others. He will produce a court of favourites, who can implement his creative ideas.

In the report, every concluding theorem is an analytic logic derivation from the axioms that originate either from the test, the self-assessment or the interview, and, because of that, there is nothing in the conclusions that has not already been stated in the axioms. Furthermore, the report suggests that the test subject will act according to the analytic logic of the report, which, in turn, implies that the searched-for qualifications of the test subject must unfold in the form of a strict analytic logic.

If the tests are valid and reliable, the conclusions are true, of course, but the problem is that the conclusions can be true only if the axioms are true and if the qualifications of the test subject unfold in the form of a strict analytic logic. It is, however, extremely difficult to prove the axioms true, because they do not express the concepts of the test subject, but the concepts of the test. The test subject is, so to speak, transformed into a test abstraction. Naturally, a relation exists between the test subject and the test concepts, because the test person enacts the test concepts by choice, for example, but nobody actually knows the enactment, that is, the transformation of the tested qualifications into the test concepts. It is thus a problem that the psychologist can only predict within the limited set of axioms that the tests allow for, which means that the logic of prediction is that of the test and not the test subject. In the end, a reliable result rests upon a clinical judgement, that is, the clinical experience of the psychologist.

One of the reasons why test results, and by that, predictions, are accepted as valid and reliable, is that the semantics of the concepts allow for interpretations that transcend the analytic logic. The axiom, for example, which expresses that the test subject is creative, makes it possible to state that the person will act unpredictably, that is, creatively, in a predictable manner, which means that whatever the person gets up to, his acts can be interpreted without damaging the logic. Because of semantic loopholes, the prediction simply cannot fail.



## A synthetic approach

The text

As noted above I did not know the report and the tests before I analyzed the 'leadership text' that comprised a part of a major text which, among other things encompassed thoughts on development of production. For reasons of discretion, the text has been made anonymous, but nothing substantial has been changed.

It is a well-known fact that a good product has never been generated at an executive desk or as a result of imperial commands. At least, I do not know of such a product. On the contrary, history shows a number of completely appalling products that have been generated in such a poisonous incubator. Naturally, the reason is that a good product is generated in the head of the singular employee. This is not to be understood as if an employee can only produce the product he or she has thought out - far from it. But it has to be understood in such a way that only the ideas or the concepts that the employee agrees with, sees as relevant, sees as essential, can motivate him. And it is exactly by this inspiration, and by the mobilizing and focusing of the creative forces and the professional expertise on the idea, that the absolute prerequisite of a good product lies. The professional employee does not make the fundamental demand that the first idea must be of his own making. The unprofessional may do so perhaps.

It is thus the leader's task to make sure that the best ideas emerge, that they are developed profoundly and thoroughly, that they are realized at a high level of quality. This is also called leadership. And this means that leaders clearly express that something is good and something else is not good, and because of that, everything is sorted out. It sounds very simple, but in practice it is not. It is my opinion that the most essential tool in this leadership function is the demands the leader makes on the production, in all the phases of production and in all connections. Demands specific demands. But it is not sufficient that a leader makes never ending demands. The demands have to be or should be a part of the department's collective intellect. The demands can arrive from different places, but they have to come from the leader, and they have to be communicated to the relevant employees.

However, in practice a leader does not cavort round and throw out demands. Hopefully, the demands are well-known and generally accepted, and, because of this, they emerge in the form of mutual expectations. What has to be communicated, and it has to be done all the time, is what we normally call post-critique, not only from the leader and downwards in the system, but naturally also (and perhaps best of all) across the system. It is, moreover, my impression that there are some social psychological barriers to overcome here.

In other words, the creative milieu, to use an expression that has often been used and misused, is nourished by stimulus, when someone is aflame with what you do, and that the same 'someone' does not consider it a violation of your freedom of speech to discuss it with you, to enter your room, to enter your group, to discuss your product in all its phases, and, all in all, to try to influence you the most. When the whole group of leaders and all groups are filled with the same understanding and mutual interest, everything points to the emergence of an optimal creative milieu.



23

The synthetic configurations

The analysis encompasses a figure and a ground configuration, but not a mean and an aim configuration, in defiance of the fact that mean and aim components exist in the test. This means that there is no structure in the objectives, which implies that the test subject does not make sense of means and aims in the situation. However, the analysis generates a figure configuration shown in Figure 9.

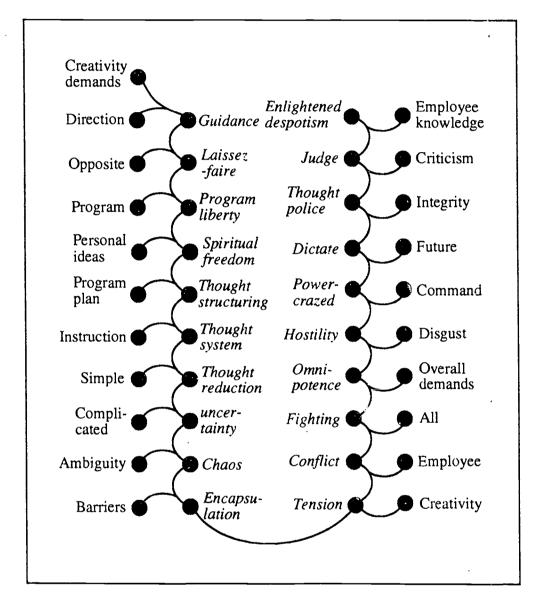


Figure 9. The figure configuration

I want to emphazise that the self concepts are directly expressed in the terminal states, shown in the model as the outer layer, independent of the naming process, and that the organizing process is directly expressed in the topology of the model, shown in the model as trajectories and invariants, independent of the naming process.

In the model, the series of terminal states - non italics - named by the model creator, represents the self concepts that are realized in the sense making process. These self concepts, that is, knowledge, are organized arough a series of insights - italics - also named by the model creator.



However, it is the most important feature of the synthetic model that it is not restricted by a pre-defined set of terms, as is the case with the analytic tests. In the synthetic approach, it is not the test that puts forward the relevant concepts. The concepts of the model emerge directly from the test subject himself. The model shows the concepts of the situated self and how the self concepts are organized into a whole, showing the entire figure configuration of the situated leadership competence, where the last concept, 'enlightened despotism', depicts the self-identity of the subject as a leadership figure. It is thus quite important to realize that it is not the test subject who accommodates to a set of test or model constructor concepts, but the model constructer who has to name the emerging set of the test subject's concepts. And, because the model in status nascendi is an expression of the test subject and not the test or the model constructor, the model is valid as well as reliable irrespective of the names allocated to the terminal states and invariants.

As mentioned above, the concordance between the naming process and the representation process is firmly rooted in the Discontinuity theory [Elstrup Rasmussen 1994b], in which it is theorized that persons, because of networking, unfold identical concepts at a high level of generalization. It is thus possible that the concepts of the test subject and the model constructor are different from each other at a low level of generalization, but, at the level of modelling, these differences are levelled out because of the bigger yardstick utilized.

The naming of the singular terminal state and the singular invariant is, of course, not always evident in the sense of Schultz [1986], but, because the model represents sensemaking, the model has to make sense, which means that the naming process has to continue until the model evidently expresses an inner coherence. If the model expresses sense making, then it has to make sense.

If the model expresses sense making, and it is impossible to make sense of the model, then it will be impossible to pick up sense at all. And, if human beings are unable to pick up sense, most of what people say to each other will be double Dutch, inasmuch as conversations seldom follow the rules of analytic logic.

The figure configuration does not represent the entire leadership competence. The figure has a ground which is shown in Figure 10.

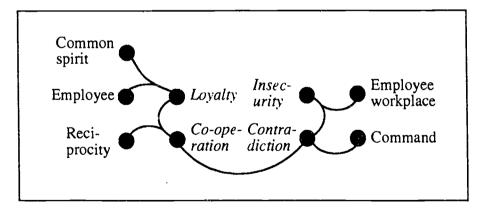


Figure 10. Ground Configuration.

The ground configuration is constructed according to the same principles as the figure configuration. It is, however, of a smaller size. This is the rule and not an exception, corresponding to, for example, the description of a room in which it is only necessary to describe one floor upon which several pieces of furniture are situated.

A few interpretations

Because the analysis of the leadership text is not included in an experimental design, it is only possible to make a few comments about the internal qualities of the model.



It is impossible to infer anything from the lack of aim and mean configurations, but different hypotheses can, of course, be put forward. It is, for example, possible that the test subject, as a leader, does not know what means he is able to manage in the relation between himself and his employees, and that he does not know the aim of leadership. He might lead because he is supposed to lead, but he might not know how and to what end. On the other hand, it is also possible that the test subject's concept of leader ship aims and means is so rigid that he does not even try to make sense of them. Perhaps, they exist as fixed qualifications not to be tampered with.

The ground configuration moves from 'loyalty' and 'cooperation' through 'contradiction' to the all-encompassing 'insecurity', as shown in Figure 10, because the

test subject at the same time perceives leadership as 'reciprocity' and 'command'.

It is quite interesting that the analytic approach also uses the term 'insecurity' in the description of the test subject. There is, however, a difference between the two approaches. The analytic approach claims that the test subject is insecure, which means that he has a specific quality of insecurity, which in turn implies that he is an insecure leader. The synthetic approach claims that the self identity of the test subject can be described as 'insecurity', but not any 'insecurity'. The concept integrates loyalty, cooperation, etc., which implies that the test subject may act insecurely, but he does so for a specific reason. This reason is presumably that he grounds his leadership conception on 'reciprocity' as well as 'command', without any mediating ideas. 'Insecurity', thus, is concrete and accounted for in the synthetic model.

An unstable state also appears in the figure configuration shown in Figure 9, in which control and freedom terms, for example 'guidance', 'laissez faire', 'program liberty', 'spiritual freedom' and 'thought structuring', interchange until the resulting 'uncertainty' through 'chaos', 'encapsulation', 'tension', 'conflict' and 'fight' is organized into 'omnipotence' leading to 'enlightened despotism'. Because the test subject cannot figure out how to mediate control and freedom concepts, he solves the conflict through 'enlightened despotism'.

The analytic approach also notes a sort of despotic stance, as it claims that the test subject will produce a court of favourites. The analytic model, however, states that the court of favourites has a specific purpose, namely to implement the creative ideas of the test subject. Contrary to this, the synthetic model shows that, although creativity is perceived as an initial demand, it drowns in conflicts and control.

In many ways it looks as if the analytic and the synthetic model grasp the same aspects of the person's mind, but the last example shows that a distinct difference exists. In the analytic model, each axiom has the same weight and placing in the model, which means that 'creativity', for example, remains a potent quality throughout the analytic model, while 'creativity' in the synthetic model is modified until it becomes next to nothing. This difference is vital. In an analytic model, it is possible to express derived theorems on a dimension like 'more' or 'less', but it is impossible to express transformations.

The differences between the results of the two approaches are marked, but the similarities are also striking.

The similarities are caused by the fact that any competence emerges from self concepts. Within the narrow boundaries of a Danish leadership subculture, the sets of self concepts are presumably few and very much alike at a high level of generalization, which means that the 'leadership test' and the test subject share a common set of concepts. This shared set of concepts is expressed in the analytic test and, of course, also in the text, and by that in the synthetic test. The problem of the analytic test is (in addition to the difficulties mentioned above) is that the test cannot transcend its own defining set of concepts, which means that it cannot transcend the subculture of which it is an integral part. The synthetic test, however, is able to encompass any set of concepts, which means that it is dependent of the entire set of personal concepts. In the test situation, this fundamental difference implies that if, for example, a set of concepts that is normally



expressed in the domestic area is important for the test subject, then the set of concepts will be expressed in the synthetic model, but not in the analytical model.

In Perspective Text Analysis and the Discontinuity theory no water-tight steel screens exist between sets of self concepts. All concepts can at any time emerge as situated and the concepts of the concepts are the concepts. ted sense, that is, competence.



### References

Bierschenk, B. (1984). Steering mechanisms for knowability. Cognitive Science Research, nr.1. Lund University.

Bierschenk, B. (1991a). The schema axiom as foundation of a theory for measurement and representation of consciousness. Cognitive Science Research, nr.38. Lund University.

Bierschenk, B. (1991b). Mentality, measurement and representation. Cognitive Science Research, nr.39. Lund University.

Bierschenk, B [1992). The referential reality of Sweden. A topological approach to the consciousness of high and low achievers. Cognitive Science Research, nr. 44. Lund University.

Bierschenk, B. (1993a). The fundamentals of perspective text analysis. Cognitive Science Research, nr. 45. Lund University.

Bierschenk, B. (1993b). The tacitness of Tacitus. A methodological approach to European thought. Cognitive Science Research, nr. 46. Lund University.

Bierschenk, B. (1993c). An experimental approach to functional analysis of text building behaviour. Part I. The verbal flow. Cognitive Science Research, nr. 47. Lund University.

Bierschenk, I. (1992a). An excursion into the ecological co-ordinates of language space.

Cognitive Science Research, nr. 43. Lund University.

Bierschenk, I. (1992b). The pendular movement of text building. Cognitive Science Research, nr. 42. Lund University.

Chomsky, N. (1965). Aspects of the theory of syntax. Massachusetts: M.I.T. Press.

Chomsky, N. (1966). Cartesian linguistics. London: Harper & Row.

Elstrup Rasmussen, O. (1994a). The discontinuity of human existence. Part I. The fundamental concepts of human existence and the relation between the singular and the super singular. Cognitive Science Research, No. 50. Lund University.

Elstrup Rasmussen, O. (1994b). The discontinuity of human existence. Part II. The general and the specific theories of discontinuity. Cognitive Science Research, No. 51. Lund University.

Gibson, G.B. & Walk, R.D. (1960). The visual cliff. Scientific American, 202, 64-71. Helmersson, H. (1992). Main principles for perspective text analysis via the PC system

PERTEX. Cognitive Science Research, No. 41. Lund University.

Kant, I. (1975). Die drei Kritiken in ihrem Zusammenhang mit dem Gesamtwerk.
Stuttgart: Alfred Kröner.

Schultz, E. (1986). Personlighedspsykologiens teori og metode, eller: Mysteriet om personen der forsvandt. Copenhagen: University of Copenhagen.

Thom. R. (1975). Structural stability and morphogenesis. Massachusetts: Benjamin.

Ward, J.H. (1963). Hierarchical grouping to optimize an objective function. *Journal of American Statistical Association*, 58, 236-244.

Østergaard, L. (Ed.) (1992). Undersøgelsesmetoder i klinisk psykologi. Copenhagen: Munksgaard.

