# **METAPHORICAL INDICES:**

Presenting context in discourse through metaphorical expressions

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#### ABSTRACT

The purpose of this article is to present a study of metaphorical expressions in the Swedish forest-discourse, and thereby, to demonstrate a special function of metaphorical constructions in discourse, that is, to indicate contexts relevant to ongoing discourse. Traditionally, theorizing about metaphorical expressions has lacked considerations of discourse processes and temporary contexts, and, due to this focus, metaphorical meaning has been analyzed in terms of indirect and isolated statements. Consequently, the special character of metaphors is ignored or reduced. Instead of simply stipulating universal functions of sentences in discourse, e.g., to predicate subjects locally, this study relies on a semiotic approach to discourse analysis in which functions of verbal expressions are derived from temporary contexts.

### 1. INTRODUCTION

This article focuses on the use of metaphors in discourse. It is based on analyses of Swedish discourse concerning forests. Articles and texts collected from diverse parties interested in forests constitute the main empirical material. I will demonstrate the capacity of metaphorical expressions to indicate perspectives, and thereby, to globally frame sense and meaning in discourse. Traditionally, by dealing with sentences out of context, the main strategy in theorizing about metaphors has been to reduce indirect expressions to sentences out of context. In my opinion, little progress has thereby been made to further our understanding of how metaphors function in discourse. In studies of everyday language, it is essential to relate verbal expressions to their contexts of use. By showing that forest-metaphors relate to both verbal and nonverbal contexts, and by demonstrating a function to frame meaning globally in discourse, this study points to a new direction in empirical research concerning metaphorical discourse.

The idea of a categorical difference between literal and metaphorical language is partly an ideological product (Lloyd 1990). Literal expressions have been considered as the more scientific and explicit ones, whereas metaphors are supposed to force us into subjective interpretations, as in poetry. The distinction then manifests the norms in different types of discourse. In scientific work, one should strive to be explicit, but in poetry, interpretations are encouraged. Such a normative view of metaphors is put into serious doubt by recent years of semantic research, e.g., Lakoff (1987). Some of the more recent views of metaphors see them as functioning as general instruments in conceptual analyses. The figurative content of metaphors is an important aspect of reasoning in general, and it is not limited to any particular kind of discourse. As a consequence, all discourse abounds with metaphors. However, conceptual analyses are mainly conducted without considering of discourse processes and contexts, the consequence of which is a lack of understanding regarding the function of metaphorical expressions in discourse.

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As a method, discourse analysis involves studies of language in use. In contrast to theories that put weight on closed systems and grammar out of context, it is an activity oriented approach which demands that temporal dimensions are taken into account (Brown & Yule 1983). One of the greatest problems confronting any scholar interested in discourse processes is how to understand and explain interactions between manifest discourse and its context of manifestation. Because of the complexity involved, e.g., physical, social, cultural and verbal aspects, in empirical studies, the context must in some way be delimited. In this article, I will be dealing with contexts in the form of perspectives and their verbal manifestations in discourse. Humans acquire knowledge of their environment when interacting with it. Since such interactions always involve interests, knowledge of our environment is fundamentally structured by interests. Whenever we talk about things, such structures of knowledge constitute perspectives and foci. Since both nonverbal and verbal contexts are involved, perspectives interestingly delimit what aspects of context should be taken into account in studies of everyday discourse.

Even if we analyze linguistic expressions that appear static, e.g., texts, which is done in this study, they should not be seen as fixed structures independent of contexts but as discourse dependent on temporary contexts. This may sound obvious to any pragmatically oriented scholar, but when it comes to metaphors, it has not been so evident. Therefore, before dealing with the empirical material, I want to discuss rather thoroughly some of the consequences that the traditional focus on sentences out of context has had on our reasoning about metaphors and thereafter present an alternative view.

# 2. SENTENCES WITHOUT CONTEXT: REDUCTIONS OF DISCOURSE

Despite a general acceptance of a dependency of discourse on context, *sentences* are still considered to have context independent meaning. This would seem to imply that sentences do not belong to discourse, but form our "abstract and universal competence." As a consequence, when naming equivalent units of discourse, one adopts the notions of *utterance* or *expression* (Lyons 1977). By taking the sentence as the point of departure in an analysis, it forces us to look at discourse as superimposed on some abstract grammar, some kind of universal structure. A discourse will then consist of sentences expressed in sequence. When it comes to the function of metaphors, this conception becomes very problematic.

Theories of structure and function are intertwined, which is why a universal structure, like the sentence, also implies a primitive function of expressions in discourse.

Judgements of what constitutes a sentence, its grammatical or logical form, are usually based on expressions that have clear predicative structures, that is, structures involving a subject and a predicate. This is not only a matter of form, but also of function. To predicate a subject is to "say" something about the subject locally. Surely, there are many opinions on the nature of this function, but whatever the context, a basic verbal act, a function, is assumed to be performed by the sentence, i.e., a local predication of a local subject. If discourse is seen as expressions of sentences, it will basically consist of local predications linked in sequences. Contexts will only come into the picture when there is a need to resolve ambiguities but will not affect the very basic function of expressions, i.e., predicating a subject. For example, the function of "There she is!" will basically involve a locative predication of the subject. The context resolves what the subject and the location are, but the predicative structure is not affected by any context. Pragmatically oriented scholars, e.g., Givón (1990) and Silverstein (1985, 1976), doubt the generality of this kind of functional analysis but do not discuss its consequences for our conceptions of metaphor. The context independent accounts of sentences present primitive functions assumed to be fundamental to language use in general. As a result, expressions, e.g., metaphors, that deviate from this paradigm should still be derived from it.

No doubt, there are and have been many different views about the exact nature of the metaphorical but in semantics, metaphors are process. fundamentally seen as indirect means to express complex, but local predications of a subject. For example, if someone is "a worm," he/she is not "really" a worm, but has at least one "real" wormproperty, e.g., slimy. Metaphors become abbreviations of several predications of properties. Opinions mainly differ in what way indirect expressions constitute transformations of direct sentences. As a semantic process, this kind of transformation has been described, for example, as "mappings" (Lakoff 1987, Sweetser 1990), as "inferences" (Levinson 1983, Sperber & Wilson 1987), as "comparisons" and "interactions" (Black 1979, Cohen 1979), as "similes" (Basso 1976), as "chains of metonymic relations" (Eco 1985, Sapir 1977), as "symbolic knowledge directed by semantic break-downs" (Sperber 1975) and as "implicatures" (Strecker 1988), but the varying theorists do not question the very fundamental method, i.e., reducing metaphorical expressions to, deriving them from, or explaining them through, sentences. (There are no metaphorical sentences.) The

main problem is the traditional assumption that verbal expressions are fundamentally local in their characters, it is only a matter of finding directly understood sentences by decomposing an indirect expression. Whatever the theory above, the meaning of an expression is assumed to be judged *locally*, but actually, nothing suggests that local predications form primitive functions in everyday discourse. To decompose metaphors, or everyday verbal expressions in general, is so difficult as to expect that there are some holistic forces involved, which strongly suggest that more holistic judgements are called for. The predicative structure may well be a common way to organize verbal expressions, but to organize something is a function different from the usually assumed one, that is, to locally say something of a subject. Actually, the strategy of decomposing metaphors could be an ideological heritage due to the academic tradition and practice. We ought to find analytic knowledge in every text, even if the result is analytic reductions of meaning.

Since the concept of meaning nowadays includes so many aspects, e.g., ideas, concepts, prototypes, features, propositions, images, speech acts, inferences, implicatures and schemata, we should neither assume that there are primitive predications in discourse. The argument can be exemplified with two Swedish expressions, which have been translated word by word:

"Lumber *grows* in the forest." versus "The forest *contains* lumber."

Sometimes, these metaphorical expressions occur together, especially in texts dealing with the economic value of forests. In the context of forestry, their meanings have strong connections. Due to the practical relationships between trees and lumber, they practically imply each other. Depending upon a given interest, a tree gives lumber, and a certain volume of lumber makes a tree. If we try to derive the expressions from some more direct sentences, formal problems will arise. First, the grammatical subject can be either "growing lumber" or "forests of lumber," and the choice will be arbitrary with respect to the empirical material. Second, if arbitrary choices of the subject and the predicate are made, relations of meaning will not depend on some context, but on a closed system of predicative structures. It then becomes very difficult to explain why verbal expressions, like the ones above, lose their connection out of context. If one lacks experience, be it nonverbal or verbal, a productive language concerning some topic will also be lacking. In everyday discourse, people mix nonverbal and verbal contexts. For that reason, predicative structures cannot be a sole concern in an analysis. With a focus on predications, it

becomes very difficult to deal with everyday discourse, its context and their interaction.

### 3. DISCURSIVE SIGNIFICATION: MANAGEMENT OF CONTEXT

Because of the great problems of taking predications of subjects as primitive functions in everyday discourse, I agree with Tobin (1990:29) that it is better to take the verbal sign as the primary unit of analysis rather than the sentence;

"the sentence and its component words and parts of speech ... have become preconceived 'logical' categories which do not belong to language *per se* and often allow us to ignore or disregard the actual signs - the signals and meanings..."

Verbal signs have abstract meanings that are continuously recreated and negotiated by people who use the signs. I consider dictionaries to be the most reliable sources to the most general meanings of verbal signs, even if the cultural and social distribution of language is not homogeneous. In the analysis of the Swedish forest-discourse, meaning will be taken as a context dependent notion, involving interests, purposes, background knowledge, etc. (Givón 1990). Even if some abstract quality enables a verbal sign to figure rather independently of context, its actual manifestation is at the same time dependent on temporary contexts. Verbal signs constitute both expressions and impressions (Voloshinov 1985). On the one hand, they express meaning, on the other hand, they give impressions of meaning, and some temporary context is always involved in discursive formations. Instead of taking some constellation of signs as the basic discursive unit of discourse, e.g., the sentence, we need to stress verbal signs in their contexts.

Verbal signs express not only things and their properties, i.e., they constitute not only proper lexemes, but also form markers of context. The meaning of temporal morphemes, definite noun phrases and deictic expressions are relative to their situation of use. Depending on the particular language, social relations, status and personal qualities are grammaticalized or get expressed by the words actually chosen (Levinson 1983). Following the usage of Ochs (1990, 1988), we can call such markers indices. Indexical signs "point to the presence" of something essential to a verbal event, and their function is to contextualize discourse and to order it, i.e., to frame it. Through indices, temporary contexts manifest and present themselves in discourse. Evidently, indices are parts of discourse, but so far, they have played a marginal, if any role when analyzing temporal relations between verbal

signs, simple verbal constructions. However, there are reasons for suspecting indexicality to penetrate even this realm of language.

Discourse is continuously introduced verbally, but always interpreted through context (Givón 1990). Not only is the context indicated in the form of isolated signs, but the choices of lexemes and words in discourse result partly from considerations of some context. There are many concrete examples in the Swedish forest-discourse. A woodland may or may not be a forest depending on perspectives. If it is a cultivated forest, for some people, it forms a fine forest, for others, it qualifies as a piece of land with trees on it, but not as a real forest. Another example, if a fire has burned trees in a forest, a forester might consider it as *damage to the forest*, whereas an ecologist can experience the fire as a natural event in the forest. There is then at least some lexical relativity in discourse, even if we at the present time cannot say to what extent. Some scholars claim that literalness is a myth (Rommetveit 1990, 1986), or that it is at least empirically suspect (Rummelhart 1979); a choice of verbal forms is always a matter of interpretation and perspective, and never involves a matching of objective features between things and language. I do not want to stipulate any fundamental relations between language, reality and users. However, pragmatically speaking, there can be no doubt that interpretations and perspectives are more or less abstract, what is in focus may be more or less concrete, for which reason, semantic relativity cannot completely dominate discourse. A total semantic relativity cannot be reconciled with some real levels of abstraction in discourse.

An ecologist remarked in a Swedish television program that "cultivated forests are not true forests." Likewise, an forester claimed that "primeval forests are fictions," that all forests have been effected by human hands. In these examples, the perspectives involved when talking about forests get expressed quite explicitly, but generally, this need not be the case. In face to face interaction, different means can be used to establish the contexts of expressions, e.g., knowing who is talking to whom, when and why (Markovà and Foppa 1990). However, if discourse becomes anonymous, e.g., in written material, verbal signs can be the only instruments left to this end (something poststructuralists find very problematic). From the perspective of a producer, there are no anonymous verbal expressions, whereas a receiver must often assume, recover or construct some context. But how?

When so much relativity is introduced in discourse as to effect even the senses of lexemes and their combinations, one could begin to wonder how communication is possible at all. When even the most concrete words are claimed to be context dependent, how do people manage discourse? Since understanding is possible, there is every reason to suspect that the knowledge and the experience which influence a particular discourse, i.e., effects of context, must in some way be signaled or indicated by verbal interactors (whenever it is not known by other means, e.g., knowing the speaker as a person). In other words, we need to manage contexts to manage discourse. Otherwise, meaning would be impossible to identify. There are probably many ways to manage contexts, but one way may be found in the Swedish forest-discourse. By corresponding to perspectives, metaphorical expressions seem to affect meaning globally in discourse.

## 4. METAPHORICAL CLUSTERS IN THE SWEDISH FOREST-DISCOURSE

The Swedish forest-discourse manifests many interests and conflicts. Swedes have a long history in forestry, and nowadays, the forest fulfils several important cultural and economic roles to the nation as a whole, e.g., it gives raw material to the industry, it enables extensive forestry, recreation and scientific work. The forest has characterized the Swedish cultural and natural landscape for a long time. Since a total account for the cultural context is beyond the purpose of this article, relevant interests and parties will be presented as the analysis proceeds. Furthermore, every metaphorical expression that occurs in discourse will not be presented, since the purpose is to discuss their role in discourse, not only to dwell upon the empirical material.

Possibly, some doubts may arise concerning the metaphorical status of the expressions. Are they really metaphorical? Since linguistic intuition depends on experience, I can only state my own intuitive criteria. Metaphorical expressions represent implicit relations of similarity, and due to a dynamic and holistic conception, many metaphorical expressions can relate to each other in a systematic way (Lakoff 1987, Leach 1976). Any fusion of verbal signs, be it a phrase, clause or some other constellation of verbal signs, can form an expression of metaphorical meaning. However, I will not deal with isolated or dead metaphors, only with active ones. Metaphorical expressions are presented mainly in the form of the more or less coherent clusters which they make up, i.e., out of the original linguistic contexts. It would take too much space and time to go through the details.

In Swedish, there is no lexical distinction between a wooded area and a forest. Furthermore, the Swedish

word which codifies both of these senses, "skog", can refer to forests as both objects and substances. "Forest" will be used in the following as the English equivalent, despite the differences.

In general, "a forest" refers to some kind of space with a certain content. Expressions like "in the forest," "forest border," "forest area" and forests as "life rooms" or "woodlands" abound in the texts analyzed and point jointly to some kind of wooded space. Spatial descriptions may seem to be quite literal ways to represent forests, but since such expressions often replace the word "forest" itself, e.g., "woodland" or "area of forest," the spatial dimension is expressed strongly. All interested parties seem to be concerned with the spatial distribution of forest. Geographic attributions locate forests nationally and regionally, e.g., "the Swedish forest" or "the Nordic forest." Metaphors like "the forest walked into the land," and others remarking on present and changing locations, are common. Spatial expressions form a metaphorical cluster used by all parties without any profound difference in attitude. Swedes seem to have a rather strong and general impression of the forest as a wooded space. As we proceed with the analysis, we will see that this spatial meaning forms the basis for further metaphorical extensions of it.

Spaces have borders delimited by humans, and in this respect, interested parties end up in conflicts. Not only do parties differ in their opinions about how much of the Swedish forest should be cultivated, reserved for recreation or for its environmental values, but also in the ways they verbally and practically delimit the wooded space. To an ecologist, it is the living organisms that matter, whereas the trunks are more important to an economist or a forester. Conflicts between the interested parties concerning the forest seem to originate in the diverse social and practical activities in the forests. These activities, in turn, seem to be the main sources of semantic conflicts between metaphorical clusters.

One set of metaphorical expressions, which we can call *the industrial cluster*, links the forest with its economic value to society. They are used primarily by economists and owners of woodland.

"Forests are *lumber factories*, places of *work*. They *produce* and *yield* lumber. We can *construct*, *treat*, *run* and *restore* forests."

This cluster structures the forest as a production unit, and the wooded space is then be delimited by some working space. Another word tied to this cluster and used very often connects forests to both *work* and *accomplishment*, that is, "avverka." This Swedish word is a compound consisting of the two senses mentioned and used whenever one fells forests for economic reasons. Due to the widespread and frequent use of these expressions, the industrial cluster manifests a well-established conception of forests as products of human work.

Economically oriented articles on forests and foresting often involve phrases like "stands of lumber" and "volumes of lumber." Since "damage to the forest" is seen as affecting the lumber, "the forest" implies things made by industrial work. The following expressions reveal the homogeneous substance in forests:

*Volumes* of lumber blew down. *Lumber* grows in forests. Wood is a natural *resource*, a raw *material* and a primary *product*."

By standardizing forests as essentially involving work with lumber, they obtain a place in the economic market, and economic models and theories can be applied more easily. Forests can be measured by counting volumes of lumber or the number of trunks. There is then an economic view supporting this metaphorical cluster and influencing meaning in discourse globally, but in an economic direction. Words like "damage," "treatment," "growth" and "area" are but a few of all the expressions that get coloured by the industrial view. "Growth" implies more lumber, not necessarily that some forest grows higher, even if there is a correlation. In the following, I will discuss several perspectives that affect discourse in the same way.

Another group of metaphorical phrases concerns forestry and afforestation. By structuring the forest as a cultivation, *the forestry cluster* implies a focus on the soil of and the plants in the wooded space. There is a close connection in theory between these metaphors and the cluster above because of economic interests, but in practice, they differ as to create different perspectives. The view changes from a focus on lumber to a concern with the soil, the plants and the trees.

"Forests are plantations and cultivations. They are fertilized, cleared, thinned, sown and reaped. A forest can be mature for harvesting and be rich

in wood."

In forestry, soil and planted trees play the continuous roles, both practically and theoretically. When there is "damage to a forest," it effects them. For example, "an acid forest," something of great concern to foresters, means that the acidic soil affects the quality of wood. Both soil, plants and trees delimit a wooded space, but no doubt, the soil is the primary criterion. A tree can be adapted to some kind of soil, but not vice versa, something practically taken into account in forestry. Differences in focus, lumber versus soil, might explain why opinions diverge about "optimal" forests. In the industrial view, one should optimize the "quantity of lumber," whereas in forestry, the soil sets limits to the "quality of wood." Despite this difference in view, it is shallow in comparison to the following metaphorical expressions that form *the ecological cluster*.

*The ecological cluster* departs radically from the above views. No doubt, ecological metaphors cohere strongly, and the perspective figures very explicitly. To an ecologist, forests are nature. Therefore, metaphors of both forest and nature become relevant to an analysis of the ecological cluster.

"Nature is a *machine*, it is *constructed* out of *material*. Nature consists of ecosystems. Nature *lives* and *dies*.

Forests can be wounded.

Nature and forests have *continuity*, and they may not tolerate *interference*. There can be *foreign* elements, plants and animals in nature and forests.

Forests are *nature types* and these differ with respect to how *vulnerable, stable* and *resistant* they are."

These metaphors indicate the presence of some kind of mechanism, but the interesting part comes with the combination of "machine" and "life." It would not be proper to look at nature as only a machine or only as a matter of life, since machines lack the power of life, and living beings vary so much in kinds of relationship as there is no limit to what to include in an ecosystem. Materials, energy flows and certain biological relations are included, i.e., more or less mechanical aspects, but other qualities of living beings are excluded, e.g., emotions. Nature and forests should function in particular ways, but then, the material and their connections must also fit in a certain way. By combining a "machine" with "life," we get a practical and balanced level of observation when investigating nature.

The wooded space contains a machinery of living things and other materials. It is not delimited by the trees or the ground alone, which is the case in the views above. A delimitation is made through a forest type, i.e., the plants and the animals that form "*a web of mutual dependencies*." In the industrial and forestry views, forests can vary in form as long as there is lumber to be felled or soil capable of bearing stands of trees. When it comes to ecology, physical forms by themselves become much more important. The ecological view implies that the forest should contain "nature types," i.e., ecosystems, and these vary in materials and energy flows, but have fixed functional relations. However, there are concrete forms of forests

that do not primarily relate to documentations of organisms and materials. Landscape architects picture the forest by assessing it visually, and this activity creates *the landscape cluster*.

From a doctoral thesis by a landscape architect (Axelsson Lindgren 1990), a single cluster has been formed because of its special character. The thesis deals with recreational aspects of forests, and how we should take these aspects into account when planning a woodland. Experiments, which were aimed to evaluate how different wooded environments are visually experienced by people, form the basis in her discussions. However, despite a breadth in procedures, forests are viewed in a quite consistent way, which the following phrases indicate:

"Forests are visually complex structures, they offer different types of visual environments.

There are *visual qualities* inherent in wooded spaces.

Forests can have or be given *esthetically optimal* levels of visual complexity."

The following metaphorical compounds are also important to the perspective indicated: "*esthetics* of forests" and "*interiors* of forests."

Since there is no single metaphor that can be used to summarize this cluster, it may first strike one as lacking conformity. However, if we consider what is meant by qualities in this context, we get signs of a more uniform view. To measure the visual experience of forests, eight qualities were used by Axelsson Lindgren (1990) as dependent variables. These were: complexity, totality, "pleasantness, spatiality. intensity, social status, affect and originality." When I first read about these qualities in isolation. I did not suspect any metaphorical core, but when considering the results, i.e., particular descriptions of wooded environments, it began to sound like the discourse of an art critic. As spaces, forests are places of recreation, but their contents are pictures. (This is why it must be seen as one kind of recreation, not recreation in general.) "Types of forests" are something one creates through visual assessments, and a "good" forest should contain "varying visual types."

As in the ecological view, varying forms of forests are stressed, but in the landscape cluster, visual qualities are the primary aspects when discussing the forest, not physical materials. Theoretically, it is interesting to note that the landscape cluster seems to be supported by a rather coherent perspective, but this relates to practical activities, i.e., visual assessments, not to explicit formulations of them. In contrast, the industrial, forestry and ecological clusters consist of verbal expressions that formulate the corresponding perspectives more coherently.

As a final cluster, I now turn to a group of metaphorical expressions that form a rather abstract view, that is, *the person cluster*. Verbal expressions that ascribe personal qualities to forests are in this study taken to reflect a single perspective. However, because of both the great number of metaphors of this kind, and their dispersion, the analysis must be seen as tentative. I am not sure if this view really forms a coherent perspective or should be split into several views. These are important questions for future research.

In the forest-discourse, personal qualities are ascribed to forests by all parties, but it is only in texts from one of them, i.e., "The Swedish Association for the Promotion of Outdoor Life," where this kind of metaphor dominates as a group. As in the ecological view, nature and forests are semantically intertwined.

"Man has *power* over nature. Nature seems *to bother* some people. One should *like* and *love* nature. Nature *makes conditions*.

The forest *lends* us material. The forest *provides* us with freedom of action. Something is *harmful* to the forest. Something *protects* the forest."

If forests are persons, we interact with them in a social way. Social interactions imply a multitude of activities, i.e., forests support all aspects of human life. There is then no special requirement on their contents as long as there are "*healthy*" forests that can "give" things to humans, animals and other plants. This analysis fits with the official policy of the Association for the Promotion of Outdoor Life, which is that "all kinds of forest are needed." The policy is not simply formulated rhetorically. The association actually organizes diverse social activities in the forest, e.g., education, camping and recreation.

So far, I have presented five metaphorical clusters: the industrial, the forestry, the landscape, the ecological and the person cluster. They have been discussed in a way that depicts them as almost exclusive alternatives. However, by delimiting forests spatially, forests seem to be apprehended in a common way. All metaphorical clusters ascribe some kind of functional structure to forests, be it in form of factories, plantations, pictures, machines or persons. To focus on functional structures makes delimitations more manageable, but at the same time, temporal changes tend to disappear. Can forests change in these perspectives? I have no clear answer, but another group of metaphors dispersed throughout the material, *the ethnic cluster*, indicates a general and dynamic

view. Like spatial metaphors, the ethnic ones are used without any real difference in attitude between the parties.

"Forests *walk* into, *invade* and *conquer* land. Trees *colonize* and *adapt* to a piece of land."

It was earlier mentioned that all parties are engaged in the spatial distribution of forests (page 5). This simply means that the geographic identity of a forest is important in whatever way it is delimited. On the surface, there is nothing remarkable about this, but coupled with how forests change, i.e., by "spreading" and "propagating" like a "society" or like its "individuals," geography becomes essential to understanding the various changes that forests undergo. When a forest changes spatially, it breaks geographic boundaries. Since these boundaries partly correspond to cultural and political systems, changes in the forest also involve some kind of ethnic changes. Naturally, changes depend on what we consider to be the object of change, and when discussing what and when forests change, we must use one of the perspectives already mentioned. To an ecologist, an insect or a species of tree can change an ecosystem, i.e., the contorta pine "trespasses" on Swedish forests. From another perspective, one could make other judgements. It would depend on effective production or some esthetic qualities, for example. Consequently, we have a common ethnic perspective of change, but what and when something changes depends, once again, on perspectives. Let us now consider some practical foundations of the metaphorical clusters presented.

People practically treat the forest in different ways, and metaphorical clusters relate to such practical experience with forests. By calculating the economic value of forests, economists treat them as production units at a rather abstract level. Since such calculations must be based on well-defined objects, the forest is represented as work with lumber. In contrast, when concerned with esthetic qualities, the focus is on some local and physical aspects of the environment. By visual assessments, the forest is concretized as, and divided into visual scenes. When all kinds of practical activities are taken into account, the person cluster appears rather fitting as a representation. Because of the great variations in people's treatments of forests, the only common denominator left seems to be the forest as a complex object of treatment, and "a person" then suits rather well as a picture of this object. In ecological research, the forest is treated as an ecosystem by investigating it as a physical selfsupporting and closed system. Such a verbal and practical activity fuses a physical environment with the verbal and practical knowledge used to investigate it, to treat it. Metaphorical clusters are projections from such fusions of verbal and practical experience. Practical treatments of forests organize verbal signs in

accordance to the meanings of the signs, the interests and the practical knowledge involved, e.g., economic calculations and treatments organize the industrial cluster. Keesing (1990) has observed such relationships with respect to magic, ritual and processes of grammaticalization. Instead of trying to analyze metaphorical expressions locally and out of context, this kind of symbolic account seems more appropriate. Before looking at some consequences of this relationship in discourse, some remarks must be made concerning the empirical material.

It is uncertain whether the above division of clusters is the optimal one. There are several reasons for this doubt. First, the analysis is based exclusively on written material. Texts may restrict what and which kinds of interests get expressed, e.g., socially accepted values versus more personal ones, and there might be as many metaphorical clusters as there are interests. Second, the clusters have not been evaluated with respect to their internal strengths. Whereas the industrial cluster seems rather concrete, the social qualities of forests are more diffuse and give a vaguer impression. Third, even if one of the clusters tends to dominate a particular text, usually all kinds of metaphorical expressions can occur in the same text. It is then unclear in what way the clusters form discontinuous sets, or merge into each other. Still, despite these short-comings, the analysis points to a use of metaphors which does not correspond to traditional theorizing.

### 5. PERSPECTIVES VERSUS METAPHORICAL CLUSTERS

So far, clusters of metaphorical expressions have been considered as corresponding to perspectives. To make this argument clearer, there is a need to elaborate and explicate the ideas of cluster and perspective. According to Rommetveit (1990) and Graumann (1990), perspectives are essential for understanding how people verbally categorize things in their everyday environment. Perspectives and language are interdependent because they are embedded in the process of attention. When a person attends his/her environment, he/she will always apprehend aspects of some object in view, but never experience the object in some complete and absolute sense. Verbal categorizations are then always made with some perspective in mind determined by the perceived aspects. Interests in and concerns for our environment direct what aspects we focus on, that is, what These perspectives we have. theoretical considerations and the analysis of the Swedish forestdiscourse jointly point to some practical knowledge involved in perspectives, that is, a capacity to handle the environment in accordance with certain ends.

Economics, cultivation, esthetics, ecological research and recreation are not only defined verbally, but also involve techniques, methods and instruments. Practical knowledge is used when interacting with the environment, and such knowledge forms a part of any perspective.

In the Swedish forest-discourse, there is a close correspondence between metaphorical clusters and perspectives. People use language to enforce their interests and to influence one another, and therefore, language and perspectives get intertwined. But in a sense, everyday discourse lives a life of its own. Perspectives "travel" faster in discourse than in practical experience. Skills in forestry are acquired over a long time, whereas learning to talk about forestry can be managed rather rapidly. Consequently, there is a difference between having a perspective that includes skills, interests and attitudes and expressing it. One does not have to adhere to a perspective to understand it. Perspectives can be constructed in discourse, and for that reason, verbal expressions cannot only be dependent on existing perspectives. Therefore, verbal expressions cannot stand in a direct correspondence with perspectives. By stressing practical knowledge as fundamental to perspectives, I diverge from scholars that regard the relationship between language and perspectives as a rather direct one (Markovà and Foppa 1990). In their view, perspectives are expressed explicitly in the form of statements and propositions. But then the foundations of perspectives in practical experience is forgotten. Furthermore, they take the predicative structure as a point of departure in analyses of expressions in discourse, instead of the verbal sign. Perspectives are then assumed to get expressed directly by such structures. However, since the verbal sign is a more fundamental unit of discourse, there can be no such direct relationship between language and perspectives.

Because of the differences between discourse and other forms of experience, I want to maintain a strong distinction between discourse and perspectives. With respect to the presented analysis, in discourse, verbal signs cluster due to the holistic character of perspectives, and thereby, perspectives become embedded verbally. People get impressions of some perspective whenever clusters are partly expressed, but these impressions are naturally more superficial than perspectives founded in all sorts of experience. Surely, people do also state their perspectives, but such statements are secondary with respect to verbal clusters of signs. First, to place statements and perspectives in a direct correspondence implies that discourse would lack the capacity of creating new perspectives, since every statement would express old ones. Second, if every statement of whatever form were relative a perspective, a perspective in the sense stated in this article, nonverbal experience would rule

language, but it does not. Third, discourse is not local statements linked in sequences but rather a process of verbal signification.

# 6. CONTEXT DEPENDENCIES OF MEANING IN THE SWEDISH FOREST-DISCOURSE

We will now take a look at some verbal expressions in the Swedish forest-discourse that depend on some perspective to obtain a proper meaning. It should be evident that this is not a matter of resolving polysemic or ambiguous senses of lexemes. There is no codified limit to what perspective can be constructed in discourse. Discursive signification is an open-ended process, wherefore this context dependency constitutes a process rather than fixed semantic structures. The temporal dimension is central to this context dependency because of the possibility of changing perspective in discourse.

Many lexical constructions in the forest-discourse are apprehended in several and conflicting ways due to the perspectives discussed. Let us begin with the very fundamental idea that forests have borders. To some extent, humans create the borders by themselves. In Sweden, there are laws regulating woodland and its distribution that take different interests into account, which in the opinions of several interested parties make the law vague and watered-down. Borders of forest are not just discovered in an environment but also created by humans in accordance to some interest. Even if "border" as a verbal sign has an abstract meaning, this meaning is not enough to understand expressions involving both "forest" and words like "border," "area," "surface" and "land." Such constellations of signs demand the employment of some more concrete criteria of the spatial dimension of forests. The metaphorical clusters in the forest-discourse relate to perspectives concerned with what aspects should be taken into account when dealing with forests. They imply more concrete structures of forest than the general notion of borders and can then provide more abstract things with a more concrete context. If the forest is a "visual scene," in accordance with the landscape cluster, "borders" correspond to visual assessments, both in discourse and in practice. Contexts make the forest-discourse concrete, and going from abstract to more concrete conceptions is a typical aspect of metaphors. Perspectives then create metaphorical discourse, they concretize the meanings of many other expressions than the local one that indicates it.

There is a multitude of expressions demanding some perspective to be properly understood. If the forest mainly produces lumber, "damage to a forest" will be

seen as effecting lumber. In contrast, relative to the view of forests as ecosystems, "damage" may concern energy flows or organisms of different kinds, and "damage to lumber" may actually be natural events in some forest. A "rich" and/or a "healthy" forest is also dependent on a perspective. The forest that is rich in visual experience needs not be rich in organisms or lumber. The following words are but a few more fragments of context dependent expressions concerning forest: "new," "age," "fine," "dead," "element," and "content." To a forester, when many trees die, "the forest" may die too. In contrast, from the perspective of some ecologist, dead trees make the forest alive. Knowledge about perspectives seems to be necessary for managing the forest-discourse, otherwise no one would know what people were talking about. When people do not share each other's perspectives, metaphorical expressions are ways of gaining knowledge about perspectives. The holistic character of perspectives is constructed or recovered by metaphorical expressions because of a capacity to give a rather holistic impression of some perspective. No doubt, this capacity is mediated by other cognitive structures, e.g., larger metaphorical clusters, but metaphorical expressions form the simple channels to perspectives. The verbal sign is the point of departure in elaborating meaning in discourse. In that way, a metaphorical expression indicates some perspective, and other verbal expressions can then be coloured by that perspective.

Metaphorical expressions usually interact in complex ways, and then they are very difficult to analyze as there are several perspectives involved. There is one common and explicit conceptual conflict between representatives of the forest industry and ecologists. The former people often express that "the forest is a home for animals and plants." In opposition to this formulation, ecologists remark that "the forest is the animals and the plants." Not only does this semantic conflict figure frequently in the texts analyzed but also in interviews on Swedish TV and radio. Why is this distinction so seemingly important? In correspondence to a metaphorical cluster, there is an idea of the forest as some kind of functional structure, i.e., the forest as constituting a factory, a plantation, a picture, a machine or a person. Each one implies a perspective that excludes or competes with the others, e.g., lumber factories are not ecosystems, and vice versa. Since "home" is a notion centred around human beings, to talk about forests in such terms conforms to the functional structure related to the person and industrial clusters. By "making" a forest into "a home," we get an impression of a human forest, of a perspective on forests as cultural life. The forest becomes a cultural space. In contrast, when dealing with ecosystems, no human constitutes any part in the networks of organisms and energy flows. Nature should not be affected by the surrounding culture. In this example, the semantic conflict arises not only from two opposed perspectives but also from further verbal elaborations of them in discourse. With respect to the notion of home, the perspectives are made into questions of culture and nature. Verbal elaborations depend on complex symbolic experience, involving both perspectives, clusters and discourse.

# 7. METAPHORICAL EXPRESSIONS AS INDICES OF CONTEXT

If metaphorical expressions concerning forest made up local predications of a subject, they would simply be a matter of assimilations or rejections in discourse. As indirect expressions, they would end up as some direct predications. But the Swedish forest-discourse reveals more relative and holistic qualities than complex predications would imply. Once a perspective has been expressed, another can replace it. For example, in a particular text, there can be assiduous alternations between cultural and natural aspects of forest. Contexts are changed by metaphorical constructions of verbal sign. Still, metaphorical clusters constitute opposed semantic structures, and therefore metaphorical expressions are not mixed freely. For example, it would sound paradoxical to equate "lumber factories" with "ecosystems," and vice versa. However, semantic conflict is something controlled by practical knowledge, not something determined by formal or normative rules of language. That a factory is not an ecosystem does not follow from any formal rule but from environmental activities. When one treats a woodland as a factory, it does not constitute an ecosystem, and vice versa.

In general, forests center around wooded spaces. Since this general character is rather abstract, we need ways to delimit a wooded space more concretely. Metaphorical expressions of forest signify practical ways of delimiting forests. In discourse, they thereby concretize the forest concept by indicating some perspectives. A transference of concrete meaning to abstract concepts is a typical feature of metaphors (Sweetser 1990), but in discourse, it is not a local transference between isolated or single concepts but affects many other verbal expressions and signs. Without this capacity to present and change contexts, discourse would become very stiff, i.e., only one perspective would rule a discourse (a situation very difficult to imagine). For example, "stock-taking of forests" means different things to different people. To a forester, the phrase would mean something like "to check and to count trees in a stand," but according to the ecological view, one is referring to all kinds of living organisms. If a forester and a ecologist want to

discuss their methods, there must be means in discourse to manage the different perspectives. They should be able to manage alternations and changes of perspectives in discourse. Therefore, there must be indices that only present contexts. As a function, indexicality enables verbal signs to change contexts during the same discourse.

By stressing perspectives and clusters, this study of forest-discourse is partly in accordance with the idea of cognitive models (Lakoff 1987) or semantic domains (Sweetser 1990). At the same time, it differs radically. Metaphorical expressions are temporal relations between verbal signs dependent on contexts, and contexts are not models without foundations in different kinds of experience, e.g., perspectives and clusters. Humans live in a "cognized environment" (Laughlin et al 1990), a symbolic world, that consist of both verbal signs, material symbols and other forms of symbolic behaviour. Since language is part of the general interaction between human beings and this cognized and symbolized environment, we cannot build models devoid of experience. For example, we need to take practical knowledge, interests and attitudes into account when dealing with metaphorical expressions. Furthermore, by constructing models with only verbal expressions, we still have not taken into account any discourse processes. For example, metaphorical expressions concretize the meaning globally, not only locally. This transfer of meaning has primarily been seen as a fixed structure between concepts (Sweetser 1990, Lakoff 1987), not as a process affecting discourse. If semantic domains or cognitive models should be of any value to discourse analysis, they must be related to their contexts of use. With verbal expressions out of context as the only empirical source, we have not left the traditional paradigm of linking verbal predications out of context. The Swedish forest-discourse implies rather that semantic structures are established in and can change during discourse, and people use metaphorical expressions to this end.

#### 8. CONCLUSIONS

Metaphorical expressions that arise from and relate to clusters and perspectives make up indices of contexts. They do not constitute predicative structures but rather temporal relations between verbal signs organized as to conform to some context. When forests are expressed in some verbal form as ecosystems, a context is presented into discourse. This presentation affects the meaning of other expressions globally, even if only temporarily. Metaphorical constructions of verbal signs give impressions of global meanings, contexts. Therefore, they have nothing to do with local predications. There are several reasons for this conclusion. First, to affect and

frame meaning globally contrasts with local functions of verbal expressions, and predications are local ones by definition. Second, even if two metaphorical expressions form a semantic conflict, e.g., cultivations are not ecosystems, and vice versa, they often occur in the same discourse, and can follow each other in sequence, e.g., "forests are cultivations and ecosystems." This would be impossible if they basically were local predications of the forest. Their behaviour would create contradictions, but people do not experience that. There can be severe semantic conflicts, but these are not determined by predicative structures. The context determines the semantic rules, but the context varies. Third, an ability to indicate contexts is not a possibility with local predications. There is no place for temporary contexts in a discourse based on local predications. The context would only consist of already established predications, and the context would not temporarily change globally.

When dealing with social indices, scholars have focused on the ways which phonemes, intonation, choices of lexical words and grammaticalizations codify elements in and aspect of discourse events (Saville-Troike 1989, Brown & Levinson 1987, Gumpertz 1982, Hudson 1980). Such codes form cues of contextualization which give particular events their proper place in a larger cultural context. By indicating contexts by indices, people introduce contexts into discourse. In parallel, metaphorical expressions have, in this article, been analyzed as ways of indicating contexts in the form of perspectives. Since these contexts affect the meanings of many expressions, they are more global in their character than social indices. Perhaps, indexicality involves a continuum from local contexts, like the physical aspects of a speech event, to holistic ones, e.g., perspectives. Social indices (Brown & Levinson 1987) could constitute intermediary cases. Such markers indicate social perspectives, but not only with respect to the present persons, but to background knowledge of a more holistic character.

If we change our views about the internal structures of verbal expressions and accept that there are many functional layers (Silverstein 1985, 1976), of which indexicality is one, metaphorical expressions become prime candidates in a solution to the problem of contextualization of meaning in discourse. Since they give impressions of perspectives with only a few verbal signs, they contextualize discourse in an effective way. Surely, metaphorical expressions may enable other functions as well, e.g., transmitting new information, but their metaphorical status does not seem to be tied to some local knowledge, that is, predicative facts. In this respect, metaphorical expressions take on an almost ritualistic character. Introducing contexts and changing them must continuously be reiterated in discourse. Perspectives in discourse have a temporary character because there are many perspectives involved, but by combining verbal signs in accordance to some perspective, verbal interactors continuously reintroduce them into discourse.

Naturally, equating metaphorical expressions with global indices implies a radical departure from traditional accounts. Formal or grammatical criteria that are based on the internal structures of sentences cannot be primary to a discourse analysis. Managing perspectives by choosing the right verbal signs implies that human interests penetrate language and discourse in a very fundamental way. Therefore, we should look for verbal constructions that express contexts based on practical experience, perspectives, interests and attitudes. Concrete experience is the energy source to discourse.

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