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THE DYNAMICS OF METAPHOR

Conflicting images of forest in Swedish discourse

The cover depicts two Tarot cards. Tarot is an old game of fortune-telling which consists of symbolic images of spiritual forces. There are several types of Tarot in that there are several decks involving various number of cards. The origin of Tarot is controversial; there are people who trace it to ancient Egypt, but modern Tarot decks originated in medieval Europe. I can think of no better example of metaphor than the Tarot game. Tarot plays with images to help to create structures of reality, to bring experiences into action in creative ways, which is also the case with metaphors. The magician and the fool are the first and the last cards respectively. They exemplify the opposing, but mutually dependent forces of disintegration and control. The fool adapts to circumstances, whereas the magician fights them. Together, they form a good metaphor of metaphor, i.e. conflicting images.

CONTENTS

Chapter 3 • Spiders of the Forest – Perspectives on forest in Swedish discourse   65

Bibliography   113

PREFACE

The three chapters in this thesis are based on three independent articles. The first one is, at the time of writing, a manuscript submitted to *Discourse Processes*. The second article has been accepted for an anthology concerning nature views which The Swedish Council for Planning and Coordination of Research will be publishing in the near future. The third chapter has been written more for the purpose of creating coherence in the thesis, and does not, as yet, conform to any manuscript standard.

There are a number of people who have encouraged and helped me continuously during the work with this thesis, and they all deserve credit for any good qualities.

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I am in deep dept to my supervisor, prof. Peter Gärdenfors, especially for his remarkable lack of prejudices towards research in general, but also for his pragmatic view on theoretical matters, which inspires me a lot.

INTRODUCTION

The thesis consists of three independent articles presented in the form of three chapters which all deal with the interplay between discourse and metaphor. It is based on qualitative research on conceptions of forest manifest in Swedish policy concerning forest. The third article also includes an intercultural comparison with Canadian conceptions of forest management. The object of study may appear strange to cognitive scientists considering the tendency to work with mental, logical or computer-based representations of information and knowledge. Research on symbolic systems and representations is often devoid of cultural and social considerations. However, qualitative research on conceptions must be considered an essential part of cognitive science, otherwise, there would be no basis on which to develop models of the human mental faculties.

The thesis is based on a discourse analytic framework, and even if this is first and foremost a method in cultural and social studies because of a strong emphasis on qualitative research, e.g. Coulthard (1985), and rather unusual in the cognitive tradition, the method transcends most disciplinary boundaries, and does actually apply to many problems in cognitive research, (cf. Brown and Yule, 1983). In broad terms, discourse analysis deals with the dynamics of verbal forms in contexts. Contexts may range from parts of texts to cultural and social settings. With some imagination, it is evident that discourse is relevant to many parties interested in human thinking and reasoning. Studies of human conceptions and their verbal manifestations could actually be

interpreted in terms of types of discourse. Some of us choose to focus on individual faculties like problem-solving, others focus on social, cultural, or even historical contexts of conceptions manifest in verbal form.

The research on conceptions of forest relates to an interdisciplinary project aimed at understanding the human impact on forest environments in Sweden and Canada. I was given the task of discovering how metaphors affect conceptions of forest management in Sweden and Canada. Geographers and natural scientists are responsible for mapping the interplay between human activities and actual impacts on forest environments. In accordance with this larger project, the thesis is delimited by practical interests in forest management. Consequently, the cultural and social contexts of interest are not outlined solely for theoretical purposes, but are continuously specified and extended during the course of research, which is the general strategy in qualitative research. Nevertheless, the dynamics of metaphor in discourse forms the theoretical, and central object of study in this thesis.

Traditionally, metaphors have been defined in terms of invalid statements, i.e. they are not really true, they infringe verbal standards. With such a view, it becomes difficult to use metaphor analysis to document and explain conceptions because no one can believe in them anyway. The result would be either that people are irrational due to false beliefs, or that their words cannot be taken seriously. The view has a long tradition in linguistics, anthropology and philosophy, and according to Lloyd (1990), it is actually an artefact of academic conflicts; metaphors are invalid statements because they do not concern proper and scientific objects of study. The strategy has then been to discover *what people really mean* by reducing metaphors to some implicit, but true statements. According to Sperber (1976), meanings are treated as hidden true statements to be discovered by deciphering a code. However, in recent years of linguistic research on metaphor, e.g. Lakoff (1986), metaphors have taken on the opposite role in theorizing about conceptions, that is, metaphors constitute conceptions, and verbal manifestations of metaphor are really a conventional thing which need not be reduced to facts or analytic truths. With this view, every verbal expression

depends on interpretation, and consequently, an analysis should be directed more at demonstrating the conventional meanings of metaphors. Metaphors are, thus, found everywhere in language and thought. However, this new linguistic approach to metaphor creates another analytic problem; metaphors do contrast with facts and definitions, and they would not be controversial expressions if they were conventional.

The views on metaphor above do obviously range from some kind of verbal mistake to full-blown beliefs, but despite an appearance of being opposed ideas, there is a common core. Irrespective of context, metaphors are metaphors to everyone and everywhere within a culture or a speech community. Metaphors are founded on collective judgements of verbal standards, and there is thus a lack of dynamic qualities, i.e. there are no verbal disputes or arguments. For example, when dealing with a statement like "nature is our mother," collective and invariant meanings of nature and mothers are assumed to exist, and therefore, the statement is judged in the same way by all speakers of a certain language. There are no conflicts in meaning with such a view. Even in social anthropology, many social and cultural studies are conducted in the spirit of consensus, (cf. Fernandez, 1991). Either everyone in a speech community believes in a metaphor, or it is a play on words to all people involved. Cultural and social conflicts in meaning are thus neglected.

When one conducts qualitative research on when, where, and how people talk, it is quite clear that questions, statements and verbal expressions in general are not used in homogeneous and collective ways. They are deemed good or bad depending on the situation, and on the people who use them. For example, in saying that "a forest produces lumber," a forester may really mean it, whereas I experience that it is "humans who produce lumber," not the forest as such. Consequently, I have deemed it necessary to be sensitive to people's contrasting experiences, and not to statements, cultures or language at a too general level.

A metaphor is not always a "metaphor;" the same verbal form performs various tasks. An expression may be a trivial one, an analytic truth, a fact, a metaphor, or simply nonsense

depending on the people who use the expression. For example, the idea that "forest is nature" is, according to the media, often an analytic truth, but in the context of forest industry, it is, most of the time, irrelevant and strange. Forest is lumber to the industry, and the idea of nature relates to environmental radicals. Consequently, metaphor analysis must be truly sensitive to contexts of use, to dynamic qualities like speakers' attitudes and interests.

My argument is not a plea for relativism, but concerns methods of investigation. When dealing with people's statements of their conceptions, one must take their attitudes and experience into account, and not simply rely on ones own judgements of the relevance of statements. Sperber (1985) emphasizes the need to take "propositional attitudes" into account whenever one deals with people's beliefs in qualitative research, and that is rather my plea too. Metaphor analysis must involve qualitative research that relates metaphors to conceptions and attitudes that are maintained and sustained by the people who express the metaphors. Consequently, metaphors cannot be sought only on the basis of linguistic norms, but must relate to experience at a general level.

I take metaphors to be verbal expressions of conflicting experiences and conceptions. Metaphors are rhetorical tropes, and such expressions are in general used to change people's conceptions, not to express trivial things. There are scholars who claim that metaphors are new categories created out of old ones, e.g. Basso (1976), but with such a view, the actual conflicts are once again left out of account. The idea of metaphors being based on conceptual conflicts is confirmed by the rather ambiguous attitudes that we have towards metaphors. If I say that the forest is my home, I am using conventional names of things to form an expression in accordance with non-conventional experiences of forest and homes. On the one hand, there may be conventional ways to talk about forests, i.e. "trees" and "wood," but on the other hand, conflicting experiences may demand conflicting expressions, i.e. I may experience the forest as my home, not simply as trees. In saying that the forest is my home, I combine contexts in an unusual way, and other people may object, accept or ignore the statement depending on impressions of present and past experiences of both forests

and homes. If there were no conceptual conflicts involved in metaphors, there would not be any need to use them.

Metaphors are often equated with imagery, but it is very difficult to grasp in a practical way what is meant by images. Fernandez (1986) argues that imagery and metaphors are cultural activities aimed at creating coherence and order out of fragmented experiences, and my own view is also that some conceptual holism is involved. Imagery and metaphors arise out of conceptual conflicts, but they are expressed in order to transcend these conflicts. Metaphorical expressions turn conceptual conflicts into public concerns, and thereby, conceptual change becomes possible. The argument relates to Sperber's (1976) theory that metaphors "evoke" experiences of things because ordinary categories are inadequate to identify or define them. Metaphors involve cultural evocations of memories, not invocations of truth, to deal with conceptual conflicts. Naturally, if unusual experiences become usual, metaphors may very well become like any other facts or definitions, that is, uncontroversial, or "dead."

Many philosophers and linguists would claim that I am *really* breaking the rules of language in using metaphors (Levinson, 1983), and superficially, that seems to be the case. Metaphors involve conceptual change (Givón, 1989), and therefore transcend older verbal structures. However, the idea that metaphors break rules is often intermingled with arguments that they should be explained by, and derived from such rules, e.g. Levinson (1983). In other words, one assumes that there are permanent meanings or attitudes attached to verbal expressions, and by not conforming to this verbal and conceptual system, metaphors are only seen as "hiding" these true and permanent meanings. This argument is peculiar because, in Margolis' (1987) terms, meanings depend on contextual judgements, not on static systems. The question of verbal extensions is a question of human judgements, not a question of verbal conventions established by any omnipotent creature. Since metaphors extend conceptual systems, the idea of reducing them to such systems appears very strange.

> There can be "rules" for applying our concepts only because the activity of applying a rule necessarily incorporates an intuitive (in a broad sense of the term,

we might say "metaphorical") "reaching beyond" all the particular instances which have up to that time been compromised under that particular rule (Falck, 1989, p. 48).

Metaphors should not be defined solely in terms of verbal rules because they depend on people using words to express their experiences, as statements do in general. Metaphors should not be reduced to definitions or facts since they go beyond verbal predications of things. If I say that the forest is my home, I am not talking about either forests, or homes in any truly conventional way. A metaphor may be mediated by nominatives, verbs, adjectives, or, according to cognitive linguistics, e.g. Lakoff (1986), any grammatical category, consequently, it is a mistake to define or delimit metaphors in formal ways as some kind of relation between words. If I exclaim *look at my home*, I may, or may not, be using a metaphor. Perhaps, there is a forest or a home in front of me, but then, the question of metaphor is a matter of the actual application of words in everyday contexts, and thus, metaphors are not defined by verbal relations. Metaphors extend the meanings of words by mixing contexts in concrete ways, not by way of verbal analysis alone, but also through perception and interpretations based on social and cultural experience. When someone extends or delimits the word "home" to forests, the person is using a metaphor with respect to a verbal standard, and thereby, the metaphor is not a matter of congruous verbal experiences, but depends on divergent and conflicting perspectives. Since metaphors involve complex and holistic judgements, i.e. extensions of meaning, they are more susceptible to contrasting views, or conflicting images, but instead of reducing metaphors to "criminal" acts of some verbal kind, they are better seen in the light of such conflicting imagery. When contrasting experiences and conceptions correspond to the same verbal forms, they form contrasting or conflicting verbal standards. Such verbal and conceptual controversies do not make statements invalid, even if they may cause doubts, but, to relate the argument to Peirce (1990), without doubts, there would be no thinking. Conceptual conflicts and doubts are the essence of metaphors because every verbal extension is made at the risk of being misunderstood.

Metaphors indicate conceptual change, and therefore, they attract attention, and invite argumentation. Cultural and social conflicts in meaning constitute, thus, a truly dynamic quality of metaphor. Conceptual conflicts demand conceptual change, which invites metaphors to make the conflict public and subject to change. Without conceptual conflicts, there would not be any conceptual dynamics, and consequently, no metaphors. Actually, it is remarkable that there seems to be a lack of interest in conceptual conflicts in research on metaphor. Since scholars, on the one hand, claim that metaphors constitute invalid statements, and on the other hand, analyze their true meaning, the idea of conceptual conflicts would seem to be a quite natural conclusion. In a discourse analytic framework, this conclusion is, actually, a fundamental premise. A discourse analytic approach to language means that cultural and social dimensions must be taken into account, but then not in the sense of discovering only conventional meanings and consensus. On the contrary, the point is to discern real social and cultural conflicts that sustain conceptions (Parker, 1992). Instead of searching for true beliefs in some kind of direct way through verbal analysis, the quest changes to a concern for statements that express conceptions in contrasting and contradictory ways in correspondence with real social and cultural conflicts. The method is not a matter of establishing solely collective meanings, but to contrast opinions and beliefs in such a way that their verbal manifestation must be taken seriously because they are sustained by social and cultural conflicts. From a discourse analysis point of view, metaphors emerge as social and cultural conflicts in imagery, rather than existing from the beginning. Conceptual conflicts are thus the dynamics of metaphor, their source of energy.

According to Bateson (1980; 1972), every natural system of communication is based on phylogenetic and ontogenetic learning of contrasts. Since metaphors are part of human discourse, it would be strange if they did not conform to such patterns; metaphors are contrasts that matter to someone in accordance with their cultural and social experience. Consequently, and despite my earlier emphasis on verbal conflicts, discourse analysis of metaphors must also be directed at discovering coherent patterns of communication.

Verbal and social conflicts are most interesting when they are strong and enduring cultural conflicts, and consequently, give rise to elaborated patters of communication. The focus should be on rather general types of social and cultural experience, e.g. forestry, recreation, ecology, etc, since the task of documenting conceptions of forest would be quite chaotic if the focus was on any kind of conceptual contrast and conflict. The metaphors of interest are conceptual contrasts, and mixes of contexts, that cohere in discourse because of strong social and cultural foundations. The idea corresponds to some extent with the ideas of "cultural models" in anthropology (Holland and Quinn, 1987), and "mental models" in cognitive science (Brown and Yule, 1983). However, I do not seek sources of coherence in closed systems of verbal forms, which the work on models presupposes, but rather in everyday contexts. Metaphors take on coherent forms when people use language in cultural and social settings, not because of some kind of natural or inherent propensity to cohere in logical systems. Therefore, I see practical experience as a source of metaphorical coherence. Whenever people talk about things, practical experience forms perspectives that may be in conflict with other perspectives, and metaphors reveal such conflicts. The idea that perspectives govern verbal forms is much in line with the work of Markovà and Foppa (1990).

Discourse analysis may be based on diverse kinds of material, e.g. analysis of text books, journals, newspapers, interviews, everyday conversations, TV- or radio programmes, etc, and naturally, one is forced to choose what verbal material to consider relevant to the task at hand. When conducting qualitative research, the selection should not be done before the work begins, but the choice of objects of study is made continuously during the research. The criteria of relevance is something that must be understood to depend on actual research, not on preconceptions. So far in my research, I have gone through different text materials that relate to forest management from several points of view, e.g. forestry, ecology, recreation and economics, and I have conducted interviews with official representatives of institutions and organizations which I have deemed relevant to questions about forest policy. The research does not conclude with this thesis, on the contrary, the thesis concerns mainly the

methodological framework, even if it also involves a lot of examples from the research. The following articles should be seen in this light, i.e. they are all aimed at discovering how to apply a discourse analytic framework to metaphor analysis. The aim is then subordinated to the larger goal of discerning conceptual conflicts and perspectives that reveal conceptual relationships between humans and their forest environments.

The first chapter deals with the opposition between seeing metaphors as conventional statements, on the one hand, and as discursive expressions, on the other hand. Traditionally, within a Saussurian approach to language and thought, an analysis should establish conventional meanings and senses of sentences and words. However, when applied to metaphors, the method becomes problematic because metaphors break conventions for some reason. Contrasts of meaning and divergent perspectives seem therefore to be more proper qualities of metaphors. The first chapter is mainly based on analysis of text books dealing with issues of forest like forestry, economics, ecology and recreation.

In the second and the third chapter, I extend the discourse analysis to include verbal material of several types. The second chapter concerns metaphors related to nature that have been drawn from three cultural sources: idiomatic expressions, students in disciplines relevant to forest management, and the Swedish policy of nature conservation. The analysis shows that metaphors should be related to cultural contexts if their actual manifestations are to be explained. It also demonstrates how discourse analysis of metaphor should be aimed at discovering themes of cultural and social conflict if the meanings of metaphors are to be understood. The main part of the third chapter is based on extracts from interviews with official representatives of various kinds involved in Swedish forest policy. However, the analysis is also placed in a larger cultural framework by an intercultural comparison with Canadian conceptions of forest management. Furthermore, a more radical contrast is made by a short discussion of the forest-cosmology of the BaMbuti, a pygmé tribe in Congo. The last chapter exemplifies best the need of taking cultural and social conflicts into account when dealing with discourse analysis of metaphor.

CHAPTER 1

METAPHORICAL DISCOURSE – HOW TO TELL THE WOODS FROM THE TREES

Abstract

The purpose of this article is to present theoretical and empirical arguments for an analytic distinction between *metaphorical discourse* and *conventional metaphor*. Traditionally, in linguistics and anthropology, the formal approach to metaphors is to decompose them into conventional units of meaning, e.g., analytic predications. However, when dealing with everyday discourse, an analyst confronts many perspectives that affect the ways in which verbal signs are composed. The processes involved when either composing metaphors in discourse or decomposing them out of context demands radically different points of view, i.e., *negotiations* between several perspectives versus *predications* of one of them. Therefore, two types of metaphorical expressions must be acknowledged, i.e., metaphorical discourse versus conventional metaphor.

1. Introduction

There are conflicting trends in recent years of research on metaphors. Cognitive linguists, e.g., Lakoff (1987) and Sweetser (1990), consider metaphors as important units of reasoning and categorisation. In opposition to the linguistic view, anthropologists, e.g., Fernandez (1991) have remarked that metaphors belong rather to the realm of language performance. For example, in her studies on American conceptions of marriage, Quinn (1991) argues that metaphors do not constitute any coherent patterns of thought and that they are used in ad hoc ways. Lakoff (1986) doubts the validity of empirical studies, and thinks that metaphor analysis demands a formal approach that takes the competence of "idealized speakers" into account. This conflict is disturbing because of the lack of distinction between theory and method. It becomes impossible to talk about metaphors in general terms if it is only defined with respect to an analytic method in use.

The aim of this article is to draw an analytic distinction between metaphorical discourse and conventional metaphor. By "metaphorical discourse," I am referring to metaphorical expressions in everyday discourse. In contrast, "conventional metaphors" are manifest in formal analysis of the conventional and systematic meanings of metaphors, i.e., the Saussurian attempts to establish the definite and conventional meanings of words and signs. According to Quinn (1991), in everyday discourse, metaphors lack a formal character, they are rather discursive in their forms. Now, before we accept that there are no important metaphors involved in everyday discourse, or conclude that discourse analysis is inappropriate to deal with metaphors, as Lakoff (1986) believes, we ought to consider the possibility that this lack of formal character depends on the verbal material that is being analyzed. I will argue that because everyday discourse involves many perspectives and negotiations of meaning, there is no room for formal representations of metaphors. Contemporary theorizing on metaphor relies mainly on a formal tradition, and we ought not take for granted that we can apply the notions developed from this

tradition to oral discourse, e.g., the ideas of definite and conventional meanings.

I will support my theoretical arguments with a number of empirical examples from my research on Swedish discourse on nature and forest. This research is focused on cultural contexts and metaphorical discourse in the form of *perspectives* and *metaphorical clusters of words*. Humans acquire perspectives of their environment when interacting with it. Since such interactions always involve cultural and social aspects, perspectives include an understanding of the cultural and social experiences involved. Even if we analyze linguistic expressions which appear to be static, e.g., texts, as in this study, they should rather be seen as discourse-dependent on such contexts. This may sound obvious to any pragmatically oriented scholar, but when it comes to our understanding of metaphors, it has not been so evident. Therefore, I want first to discuss in detail some of the consequences that the traditional and formal focus on sentences and meaning out of context has had on our reasoning about metaphors, and thereafter present an alternative view.

2. Sentences Without Context – Conventional and Definite Meanings

Despite a general acceptance of the dependency of discourse on context, *sentences* are still considered to have conventional meanings out of context. 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 built upon "conventional compositions," e.g., sentences or propositions. With a Saussurian approach, a discourse is a sequence of conventional expressions.

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 formal subject and a formal predicate, e.g., NP + VP. This is not only a matter of form, but also of function. To predicate a subject is to "say" something conventional and definite about the subject. From a formal point of view, such predications are basic verbal acts in discourse. Contexts will only come into the picture when there is a need to resolve ambiguities. For example, the exclamation "There she is !" involves a conventional and definite meaning that is represented by 'a predication of a location of a female subject.' The context resolves what the subject and the location are, but the conventional meaning, the predicative structure, is not affected by any context. Pragmatically oriented scholars (e.g., Givón, 1990; Silverstein, 1985, 1976) doubt the generality of this kind of functional analysis but do not question its central importance to discourse. When it comes to metaphors, formal representations become very problematic. Since they contradict analytic definitions, there seems to be a lack of logical or formal coherence. They break conventions. For example, when economists say that "forests are lumber-factories," they gladly admit that "forests are not *really* lumber-factories." If metaphors were true predications, like facts and analytic definitions, people would hold onto them more than they do.

No doubt, there are, and have been, many different views about the exact nature of the metaphorical process, but in semantics, metaphors are fundamentally seen as complex predications. For example, if someone is "a tiger," he/she is not "really" a tiger, but has at least one "real" tiger-property, e.g., aggressive. Metaphors become abbreviations of several predications. Opinions mainly differ in what ways complex expressions constitute transformations of analytically acceptable and conventional predications. 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, predications. The main problem is the traditional assumption that verbal expressions are fundamentally conventional and definite in their character and it is thus only a matter of decomposing complex expressions into their analytic components, i.e., into some analytic re-definitions. Actually, no arguments suggest that predications compose and form metaphors in everyday discourse. There remains the possibility that we use more holistic and relativistic judgements when it comes to creating "complex" expressions.[1]

The predicative structure may well be a common way to organize verbal expressions, but to organize something is a function very different from the usually assumed one, that is, to formally predicate something conventional of a subject. Contextual and holistic judgements are continuously being made during discourse, for which reason, complex expressions demand complex judgements. The argument so far can be exemplified with two Swedish expressions, which have been translated word for word:

Sw. "Virke växer i skogen." versus "Skogen ger virke."

Eng. "Lumber grows in the forest." versus "The forest gives 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 conventional 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.

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[1]The idea of holistic judgements of metaphors came to my mind when reading Margolis (1987).

Second, if arbitrary choices of the subject and the predicate are made, relations of meaning become closed systems of predications independent of the cultural context. Thereby, cultural foundations and conflicts of meaning are ignored. Third, people do not state metaphors as facts or definitions; the forest does not *really* give lumber, humans produce it. Formal representations demand analytic definitions, but actually, in everyday life, conventions serve cultural life.

In formal representations of metaphors, cultural meanings are transformed into conventional objects and formalized subjects, and this creates empirical problems. If we define verbal expressions formally by specifying a subject, it becomes very difficult to explain why expressions, like the ones above, lose their connection out of context. If one lacks cultural experience, be it non-verbal or verbal, verbal conventions and a productive language concerning some topic will also be lacking; cultural contexts constitute connections in meaning. For this reason, analytic coherence in the form of predicative structures cannot be a sole concern in an analysis if one wants to unravel the meanings involved in complex expressions, such as metaphors. Because of the great problems of taking analytic predications as primitive units when dealing with discourse in empirical ways, I agree with Tobin (1990, p. 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...

A formal representation of a metaphor involves an attempt to establish its truly conventional meaning, e.g., its analytic meaning, but such conventions cannot be taken for granted. Signs are units of meaning that must be used and negotiated by people to aquire, maintain or change their meanings, and consequently, conventions of meaning reside in patterns of cultural and verbal interaction, not in the words themselves (Voloshinov, 1985). In the following, the verbal signs of

interest will be choices of words that relate to cultural contexts of forest.[2]

3. Cultural and Negotiated Meaning in Discourse

People use words to express meaning and to give impressions of meaning, and some temporary context is always involved in the continuous elaboration of discourse. Words have meanings because people continuously recreate and negotiate them by interacting with each other (Hodge & Kress, 1988). Even if some abstract quality enables people to use words rather independently of a particular context, the actual manifestation of words are at the same time dependent on temporary contexts of social and cultural kinds. Instead of taking some potential structure of words as the basic discursive unit of discourse, e.g., the sentence, the focus is on verbal signs that correspond to cultural and social contexts. This is in accordance with studies in interpersonal communication that stress social negotiations in cultural contexts when dealing with everyday discourse, e.g., Markovà and Foppa (1990).

Many verbal signs form markers of context, i.e., indices. 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). 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* (Ochs 1990, 1988). They demand more global considerations of the cultural or the social context.

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[2]I do not claim that everyday discourse lacks formal qualities, but I do mean that formal predications presuppose truly conventionalized uses of words. However, words, like "forest," occur in many and conflicting social and cultural contexts, for which reason there are several conflicting patterns governing its use. It is very difficult to establish the conventional meaning when people use words in accordance with several cultural values.

Through indices, temporary contexts frame discourse. Obviously, indices are part of discourse, but so far, they have played a marginal role, if any, when analyzing temporal or discursive relations between words. However, there are reasons for suspecting that indexicality penetrates even this realm of language.

Not only are contexts indicated in the form of isolated signs, but the choice of words in discourse results partly from considerations of cultural and social contexts. 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. An ecologist remarked in a Swedish television program that "cultivated forests are not true forests." Likewise, a forester claimed that "primeval forests are fictions," that all forests have been influenced by human activities. 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." These expressions exemplify how divergent perspectives meet and affect each other in discourse.[3] When there is a complaint that "the cultural forest is not a forest," in a formal sense, there appears to be an analytic contradiction, but actually, we are dealing with two different cultural objects, i.e., the cultural versus the natural forest. The word "forest" occurs in two different and conflicting cultural contexts, and "culture" and "nature" indicate them. Such discursive indications of cultural contexts could be considered metaphorical expressions, because they indicate which perspective among several alternatives is in view, what a forest appears to be. By shifting between "culture" and "nature," "forests" become different and conflicting things.[4]

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[3]In these examples, the perspectives involved when talking about forests get expressed quite explicitly, but this need not be the case. In contrast to face to face interaction, a reader of a text must usually recover or construct some cultural context for himself/herself.

[4] When dealing with social indices, scholars have focused on the ways in which phonemes, intonation, words and grammar codify elements in and aspects of discourse events (Saville–Troike, 1989; Brown &

We need to manage contexts and discourse simultaneously. Otherwise, meaning would be impossible to identify. There are probably as many specific ways to manage discourse as there are specific encounters between people. However, there are general processes going on in discourse, e.g., indexicality, that mediate between the specific flows of words and general structures of knowledge. Consequently, when dealing with everyday discourse, we need to recognize that we are actually dealing with two different things at the same time. On the one hand, we document verbal negotiations of meaning in everyday discourse, on the other, we formalize conventions. The documentation could go on for ever since there is no end to verbal arguments and conflicts resulting from divergent cultural experiences. In contrast, when we stop looking for variation and start to formalize some convention, we identify the convention with the formalization, not with the patterns of cultural and verbal interaction. Naturally, it then appears definite and coherent, but that depends on a contextual displacement. The representation is made by a transformation of patterns of verbal interaction into systems of definitions and predications concerning words. It is an open question to what extent our formalizations actually capture the conventions involved in everyday discourse.[5]

4. Metaphorical Clusters in The Swedish Forest-Discourse

We will now take a closer look at the Swedish forest-discourse, and discern metaphorical clusters of words that

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Levinson, 1987; Gumperz, 1982; Hudson, 1980). Such codes form cues of contextualization which give particular events their proper place in a larger cultural context. By indicating contexts with indices, people introduce contexts into discourse. In parallel, metaphorical expressions are indices in the form of metaphorical choices of words.

[5]I want to emphasize that no formal predication is without cultural and social meaning. Even definitions in dictionaries dissolve. For example, when equating forests with ecosystems, the notion of "a physical place where trees grow" is suppressed.

give the forest several cultural meanings. 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 for the nation as a whole, e.g., it gives raw material to 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 all cultural context is beyond the scope of this article, only relevant interests and parties will be presented as the analysis proceeds. Naturally, I have chosen empirical examples that clearly demonstrate my argument. This kind of representation creates an illusion of formal coherence in everyday discourse, but there is no alternative way to represent them if they should be understood for what they are, i.e., indications of perspectives.[6]

In general, "a forest" refers to some kind of space with a certain content.[7] Expressions like *"in* the forest," "forest *border*," "forest *area*" and forests as "life *rooms*" or "wood*lands*" 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

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[6]I follow the tradition in representing metaphors as systematic, but I use italics to emphasize that we are dealing with choices of words in discourse. Metaphors are primarily connected to cultural and social use of words, not to systems of formal predications. Metaphors are presented mainly in the form of metaphorical clusters, i.e., out of the original linguistic contexts. It would take too much space and time to go through the details. Possibly, some doubts may arise concerning the metaphorical status of the expressions. Are they *really* metaphorical? Since linguistic judgements and intuition depend on cultural and social experience, I can only state from where my own intuitive criteria come, e.g., Lakoff (1987); Leach (1976).

[7]"Skog," the Swedish word for "forest," does not codify a distinction between a wooded area and a forest. Furthermore, "skog" refers to forest as both an object and a substance. "Forest" will be used in the following as the English equivalent. Despite problems when translating between languages, I present no Swedish expressions, only the English translations. The focus is on cultural contexts and metaphorical clusters and it is then more important to dwell on cultural meanings.

strongly expressed. 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 elaborations and 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 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, the forestry cluster. By looking at the forest as a cultivation, the focus is on the soil 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 in that they 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 affects 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 an 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*.
> 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 forests contain nature types, i.e., they are ecosystems and webs, and these vary in materials and energy flows, but have fixed functional relations.

There are concrete forms of forests that primarily relate neither to documentation of organisms and materials nor to measures of lumber or wood. Landscape architects picture the forest by assessing it visually, and this activity creates a 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 of her discussions. However, despite a breadth in procedures, forests are viewed in quite a 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: "pleasantness, complexity, totality, spatiality, intensity, social status, effect 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. As with art, there are good and bad forests. 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.

The analysis so far shows that it is possible to document metaphors by relating clusters of words to cultural contexts without considering formal or analytic coherence. The metaphorical clusters should not be seen as several verbal conventions because they are not shared among the people involved, they depend on cultural and social experiences. In practice, people treat the forest in different ways, and the metaphorical clusters presented 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. In visual assessments, the forest is made concrete as, and divided into visual scenes. In ecological research, the forest is treated as an ecosystem by investigating it as a physical self-

supporting 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 connect words in accordance to the values, the interests and the practical knowledge involved, e.g., economic calculations and treatments organize the industrial cluster.[8]

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 someone observes his/her environment, he/she will always apprehend aspects of some object in view, but never experience the object in any 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 perspectives we have. These theoretical considerations and the analysis of the Swedish forest-discourse 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 and ecological research are not only defined verbally, but also involve techniques, practical methods and instruments. Practical knowledge is used when interacting with the environment, and such knowledge forms a part of any perspective.

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[8]Keesing (1990) has observed such relationships with respect to magic, ritual and processes of grammaticalization.

In the Swedish forest-discourse, there is a correspondence between words, 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 are also constructed in discourse, which demands that words cannot stand in a direct correspondence with perspectives. They must be mediated by cultural practice and social negotiations. The word "forest" is subject to social negotiations between several cultural and social groups that make the forest into several and conflicting cultural objects.[9]

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 present analysis, in discourse, words cluster due to the holistic character of perspectives, and thereby, perspectives become embedded verbally. People form impressions of some perspective whenever clusters are partly expressed, but these impressions are naturally more superficial than perspectives founded in all sorts of experience. Certainly, people do also state their perspectives, but such statements are secondary with respect to the cultural and social contexts of words. First, there are verbal negotiations of the meaning of words that statements must conform to. Second, to place discourse and perspectives in a direct correspondence implies that discourse would lack the capacity of creating new perspectives, since every word would express old ones. Third, if every word was dependent on statements of perspective,

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[9]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 & Foppa, 1990). In their view, perspectives are expressed explicitly in the form of statements and propositions. But then the foundations of perspectives in cultural and practical experience is forgotten.

perspectives would rule the use of words, but this is not the case.

6. Discursive Indications in the Swedish Forest-Discourse

Many words 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 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 are created by humans in accordance with 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 make concrete the meanings of many other expressions than the local signs that indicate the meanings.

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 affecting 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 a forest. A "rich" and/or a "healthy" forest is also dependent on a perspective. The forest that is rich in visual experience need not necessarily 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 an 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 somewhat 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. Thus, 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 often say 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 or a machine. 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 forestry and the 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 of 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. Conclusions – Metaphorical Discourse versus The Conventional Metaphor

A transference of concrete meaning to abstract concepts is a typical feature of metaphors (Sweetser, 1990), but in discourse, it is not a definite transference between conventional concepts but it relies on perspectives. Without the possibility of presenting and changing cultural contexts, discourse would become very inflexible, i.e., only one perspective would rule a discourse (a situation very difficult to imagine in the Swedish forest-discourse). 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 an 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.

If metaphors in actual discourse were conventional predica-tions, they would simply be a matter of assimilations or re-

jections in discourse. As complex expressions, they would end up as analytically acceptable or unacceptable predications. But the Swedish forest-discourse reveals more relativistic and holistic qualities than such predications would imply. Once a perspective has been indicated, another can replace it. For example, in a particular text, there can be many alternations between cultural and natural aspects of forest. Still, metaphorical clusters demonstrate opposed conceptions. For example, it would sound paradoxical to equate "lumber factories" with "ecosystems," and vice versa. However, such a semantic conflict is controlled by cultural, social and practical knowledge, not determined by formal rules of verbal signification. That a factory is not an ecosystem does not follow from any verbal convention but from environmental activities. When one treats a woodland as a factory, it does not constitute an ecosystem, and vice versa. How well a perspective is formalized by verbal conventions is a question beyond an empirical analysis of discourse. Discourse analysis must first deal with the actual perspectives involved, and thereafter, it is up to the researcher to represent them in an acceptable manner, but that does not necessarily include considerations of the conventional meanings as in formal and analytic representations.

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, metaphors in the form of discursive indications of perspectives may perhaps explain how cultural contexts manifest themselves in everyday discourse. Since metaphorical choices of words give impressions of cultural perspectives, they contextualize discourse in an effective way. Surely, metaphorical expressions may perform 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, definitions or 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 words in accordance

with some perspective, verbal interactors continuously reintroduce them into discourse.

By stressing metaphorical clusters of words, this study of forest-discourse is partly in accordance with the idea of cognitive models (Lakoff, 1987) or semantic domains (Sweetser, 1990), but at the same time, by putting emphasis on cultural objects and perspectives, it relates more to Quinn's (1991) view. Models fixate connections between words, which excludes the process of cultural and social negotiation of meaning. Now, this is necessary to investigate analytic coherence, but the formal systems that come out of such analyses, i.e., the conventional meanings, are not appropriate as models of everyday discourse. Metaphorical expressions are discursive relations between words dependent on cultural contexts, e.g., perspectives, and contexts are "environments" patterned by cultural and social experience (Scharfstein, 1989). Perspectives are not conventions because they are not shared among all members of a speech community. 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 discourse is part of the general interaction between human beings and this cognized and symbolized environment, we cannot build closed models of verbal reasoning. We need to take practical knowledge, interests and attitudes into account when dealing with metaphorical expressions in discourse.

It is remarkable that there seems to be no real interest in the methodological consequences when choosing between discourse versus formal analysis of metaphor. There are negotiations and several perspectives involved in an interview, whereas a formal analysis presupposes the intuitive judgements of conventions and analytic coherence. The kind of planning involved differs in the two cases. The verbal forms of a discourse stem from cultural/social interactions and negotiations (Mishler, 1986; Tyler, 1987), whereas formal representations of discourse presuppose truly conventional uses of words, no perspectives in conflict, for which reason, verbal forms are fixated (Rommetveit, 1986; 1990). Therefore, we should not expect conventional metaphors to correspond to metaphorical discourse, and vice

versa; metaphorical discourse demands judgements of cultural and social meanings, whereas formal judgements of metaphors involve predications of their conventional meanings. Contextual and formal judgements of meaning are better seen as complementary analytic methods than as theories in conflict.

CHAPTER 2

VIEWS ON NATURE IN METAPHORICAL DISCOURSE

1. Introduction – A dialogue

A: – Nature is culture!

B: – No, nature is nature.

A: – Why do you say that?

B: – Because it is so defined.

A: – That, I would call culture.

2. How not to find views

Depending on context, we use the word "nature" to refer to many different sorts of things; living animals as well as non-biological matter may be relevant. For some people, e.g., in

poetry and in the New-Age movement,[1] nature is a living being with omnipotent qualities, e.g., the character of being a living totality with rationality. For others, nature is more tied to everyday life; biologists consider nature as an ecosystem, industrialists look at it as a resource, the hunter experiences its wildlife and the artist discover its forms. To me, nature does not denote a definite object, but rather a fascinating cacophony of conceptions. In this article, I discuss some conceptions that manifest themselves in the Swedish discourse on nature.[2] The purpose is to demonstrate, on the one hand, the heterogenous character of views on nature, i.e., conceptual variation and conflicts, and, on the other hand, the importance of metaphors in understanding such views.

When dealing with views on nature, varying conceptions of nature create problems of interpretation. What conceptions of nature are we ourselves referring to when discussing views on nature? Our own perspectives play an important role in understanding other perspectives. Perhaps, we rely on some common idea in the mass media or definitions in dictionaries, e.g., *nature as a place where plants and animals live and which has not been affected by human civilization*. In that case, we assume some kind of objective standard from which we derive divergent perspectives. Views are then materialistic, spiritual or emotional depending on people's relationships to this fundamental nature. Others' views become subjective distortions of a true conception of nature.

An objective view on nature cannot be found in nature itself, but it arises out of social struggles over people's values and attitudes which transform certain ideas into all-embracing assumptions in reasoning. We call such unquestionable assumptions "analytic definitions," but despite an appearance of being neutral, they are products of a never ending

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[1]With the New-Age movement, I mean cultural influences that partly encourage a more harmonic, personal and spiritual attachment to nature, e.g., Bloom (1991). One of the affects of these influences can be seen in the use of 'nature' as a proper noun, i.e., "Nature."

[2]When talking about discourse in general, I am reffering to all kinds of verbal interaction going on between people.

cultivation of norms.[3] This is not to deny the fact that co-operation demands norms, i.e., that norms have communicative values. However, we tend to forget that norms are actually enacted by people sharing values and purposes. Language, for example, involves the desire to understand, create and maintain social bonds. Since values and goals vary and change, we must be prepared to suspend them whenever we want to understand new or other perspectives besides our own.

When discussing views on nature, I am interested in people's varying conceptions, not of supporting any normative standard. The problem, then, becomes to avoid derivations of certain conceptions from others, since derivations of ideas do not create an understanding of people's complex reasoning, but rather create stereotypes of their arguments, which in turn leads to conflicts.[4] In the eyes of the physicist, definitions of nature in the mass media appear popular and simplified. To the ears of an animist, materialists let themselves become hypnotized by dead matter. From a yuppy's point of view, the physicist is too specialized and the animist is religious. Opinions like these simplify and stereotype the complex reasoning that always supports human conceptions.

To avoid stereotyping conceptions of nature, we must refrain from the desire to make certain views fundamental, i.e., making conceptual standards. Therefore, neither an objective nor a subjective view of nature can form any point of departure in analytic studies of nature views. In the eyes, and to the ears of many people, I thereby jeopardize my credibility as a speaker of anything at all. How can one ignore an objective nature without becoming a solipsist, without drawing the conclusion that we do not know any longer what we are talking about? I think that hypothetical worries like these are unjustified. One can be objective with respect to views without endorsing or relying on an objective view of nature.

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[3]All kinds of rules and laws are partly matters of convention (Bloor 1991).
[4]Windisch (1990) considers stereotypes as interpretations of people's behaviour and reasoning that are done almost exclusively through one's own perspectives.

3. How to study views

Understanding means understanding in a certain context. Nature is no exception. As a word, nature forms part of larger patterns. On the one hand, it forms part of conceptual patterns represented by individuals, on the other hand, "nature" is structured by the on-going discourse between people.[5] The problem with views on nature, then, changes from the aim of deriving subjective perspectives to studies of how people use words in various ways to reason about nature, *how they pattern nature in discourse.* The analysis is then directed towards understanding the conceptual patterns that are found in discourse on nature. I think that answers must be taken from actual discourse.[6]

In discourse analysis,[7] we are dealing with verbal material structured by both verbal and non-verbal experience. Therefore, choices of when and where to study discourse influence to a great extent what results one gets. There are at least two major aspects of discourse that direct us in how to

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[5]I follow Bateson's (1972) communicative approach to contexts and patterns; "the essence and *raison d'être* of communication is the creation of redundancy, meaning, pattern, predictability, information, and/or the reduction of the random by "restraint" (pp. 131-132.) This creation is situated in the interactions between organisms and their environments.

[6]It will become apparent in later discussions that this focus does not eliminate the distinction between conceptual patterns and actual discourse. Ongoing discourse displays many different types of verbal interactions, and conceptual patterns can be drawn from some of them. Language is not a homogeneous phenomena, but connects to a variety of empirical data, i.e., language has psychological, social, cultural and historical dimensions. Since we are largely unconscious of all the patterns that are involved in communication, it is very important to deal with discourse in an empirical way. Otherwise, it becomes difficult to distinguish between varying types of discourse and different contexts.

[7]Discourse analysis involves the study of language as a dynamic phenomenon, in contrast to theories that put emphasis on rules and closed systems (Brown and Yule 1983). In analytic practice, people tend to stress either dynamic models of language or empirical studies. I prefer the latter approach. To model something presupposes something to model, and there are too many dimensions in actual discourse that have not yet been investigated.

delimit our field of study. First, it is impossible in practice to deal in any thorough way with all conceptions of nature; there is an infinite number of contexts that could be considered. Cultural conceptions seem to be a more appropriate target of research.[8] Second, and related to the first remark, forms of discourse can be more or less stable. Accidental expressions are not as relevant as the recurrent ones.[9] Also in this respect, I think that the notion of culture helps us in delimiting the research. We must study cultural expressions of nature. Jointly, these limitations imply that *views on nature are cultural expressions of cultural conceptions in actual discourse*.

In linguistics and anthropology, metaphors have become prime tools in conceptual analysis.[10] In contrast to literary analysis that emphasizes individual and creative aspects of discourse, the conceptual approach stresses the cultural and/or conventional character of metaphors. Despite a certain consensus, conflicts in aims and methods of research give rise to many opinions on the relation between metaphors and concepts. I will not go through the arguments, but simply state and explain the way I have chosen to approach metaphors.[11]

A metaphor is a way of expressing a perspective, to make a point or to illustrate something.[12] An explicit metaphor is an

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[8]I use the notion of culture in the sense that cognitive anthropologists attribute to it, that is, as shared beliefs (Dougherty 1985, Holland and Quinn 1987). However, "to share belief" is a too vague a notion by itself. For example, humans and monkeys share some kind of belief concerning their physical environment, but I do not know how to formulate this relation in terms of culture. Therefore, besides beliefs, I think that experience and learning must be taken into account. Bateson (1972) makes a good synthesis by emphasizing *learned patterns of communication*. "Cultural conceptions" then refers to shared conceptions with respect to a stable group of people sharing some experience.

[9]Accidental expressions must in some way conform to the recurrent ones, otherwise no stable patterns of communication would be possible.

[10]E.g., Lakoff (1987) and Fernandez (1991).

[11]In chapter 1, I discuss some of the arguments in detail.

[12]It is very difficult to talk about some exact function, but an overriding theme in metaphor theorizing seems to be some function to transcend

unconventional equation of words because of some similarity/-ies, e.g., "the forest is a lumber factory." However, there are more indirect ways of conveying similarities. For example, to put the idea of nature in the context of resource management delimits the comparisons that can be made, e.g., nature as an ingredient in the economic sphere of a society, as a component in an economic equation or maybe as an economic value in people's lives. When we equate nature with "resources," "production areas" or "environmental sectors," the expressions by themselves form neither concrete conceptions nor unconventional ways of expressing oneself. Still, I think that it is fully legitimate to talk about metaphorical conceptions. In context, i.e., by taking cultural aspects and on-going discourse into account, it becomes evident that more abstract expressions have a concrete basis by jointly expressing some concrete perspective. Due to experience and learning, "nature" is put into new contexts, and thereby, new perspectives arise. *To treat nature on the whole as a resource is no natural or analytic necessity, but rather a matter of learning to use things in our environment in certain ways to the exclusion of conflicting ways.* Therefore, both explicit and indirect metaphors depend on perspectives and also indicate the presence of them.

In discourse, one shifts perspectives continually.[13] This shifting may occur at different levels of attention and awareness. By breaking conventions, one may crystallize an idea, i.e., make it stand out from the flow of words, but there

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objective limits, but not for the purpose of producing fantasy or subjective ideas. Metaphors express *and/or* give concrete form to general patterns of similarity. I think that when people try to elaborate on the function of metaphor, they neglect this important distinction between expressing a pattern of similarity and learning it. There is a constant mix between the two, e.g., people do not distinguish between metaphors in discourse and their effects. *The function of a metaphor depends on how it has been learned.* If the similarity is made concrete through language, the function varies; it may constitute a rejection to some competing metaphor, it may explain in a compact form one's own overall experience of something, or it may be a thought experiment. In contrast, learned similarities through experience are parts of myself as a human being, and these can not be altered in any simple way.

[13]Markovà and Foppa (1990).

are a lot of other possibilities when giving a conception a concrete form. For example, instead of saying "lumber factory," one could consider the forest as "an economic sector." That would change the focus and the level of abstraction, but certain concrete relations to forests can still be imagined. Since metaphors are formed by experience, learning and patterns of communication, we should not expect them to conform in any simple way to grammatical structures, e.g., *the forest as a work of art may be expressed as the idea of maximizing the esthetics of forest*.[14] We must rather gather metaphorical expressions in larger coherent clusters that show both abstract and concrete qualities of our object of study, i.e., views on nature. For example, the idea of an ecosystem involves "energy flows" and "mechanics" among "organisms," but it thereby disregards "thoughts" and "emotions" among "animals." This way of analyzing metaphors demands that they have a cultural dimension. Otherwise, there would be no stable conceptual or communicative patterns.[15]

With these theoretical arguments in mind, I will for the rest of this paper deal with metaphorical expressions in the Swedish discourse on nature. I will try to demonstrate some of the patterns, images and motives involved in expressing conceptions of nature. However, before I start, some remarks need to be made concerning the forthcoming presentation. First, it is well-known that it is very difficult to translate poetry between languages without loosing some important dimensions of meaning. During my writing of this article, I have experienced the same thing with the Swedish

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[14]The metaphors are discussed in chapter 1.

[15]"Discourse cannot autonomously determine its rhetorical effects" (Tyler, 1987, p. 212). Human participation must be taken into account. I use the notion of culture to understand at least some of these effects, i.e., stable perspectives. Models of language and reasoning often become closed systems that are independent and autonomous from other human skills. This is a serious flaw for anyone dealing with empirical discourse analysis. The context of learning something is always lurking behind one's back and disturbing any general conclusion of the form and the pattern involved in a skill. For example, there are great differences between the forms of oral and written communication, but still, we insist on talking about some homogeneous skill called *language*.

metaphorical discourse on nature. Whenever this is a problem in an analysis, I will follow the practice of discourse analysts by presenting original expressions in Swedish together with both word-by-word translations in English, and give comments on differences where it is needed. Second, I use italics to emphasize that some expression is common and recurrent in some context. Third, most of the metaphors that will be presented are commonly found in the mass media, for which reason, I will not list any references, but rely on the reader's knowledge. Finally, I want to emphasize that verbal metaphors do not in any way exhaust the metaphorical patterns involved. These studies could go on infinitely because of infinite contexts. The aim with these analyses is rather a communicative strategy, that is, to get a hold on the metaphorical patterns that explain conceptual conflicts that occur in the discourse on nature.

4. Loosing one's sight of nature with a view

I will begin with a summary of some well-known metaphors that are idiomatic and common in both everyday and academic life. Without a context, they give an appearance of being rather concrete, they invite your imagination, but after a while of contemplation, their patterns shatter and their meanings tend to vacillate. An analysis that simply compares and lists metaphors does not form the usual context of metaphor, i.e., an on-going discourse in which a metaphor constitutes a part. Therefore, there is nothing to prevent metaphors from changing or dissolving. Consequently, in dealing with idiomatic metaphors, there is a need for a context that does not constitute a system of definitions, but rather conforms to a story that gives concrete form to the theme, that is, the story should explain nature, e.g., a myth.

The common expressions *"outdoors," "indoors," "in nature"* and *"being close to nature"* relate to some kind of bodily orientation and movement, and many idiomatic metaphors support some kind of bodily notion of nature. Presented

below, are some Swedish compounds involving "nature" and "body":[16]

natur/kontakt	kropps/kontakt
nature/contact	*bodily/contact*
natur/känsla	kropps/känsla
nature/feeling	*bodily/feeling*
natur/upplevelse	kropps/upplevelse
nature/experience	*bodily/experience*
natur/vänlig	kropps/vänlig
nature/friendly	*body/friendly*

The metaphors imply that "nature" may be compared to a "body" and vice versa, i.e., they form similar patterns of discourse. It is very easy to construct arguments that involve both nature and the human body. *We protect both nature and our bodies against harm. Nature lives and dies, and so do our bodies. We treat nature badly or goodly, as we do with our bodies.* The metaphors may give the impression that "nature" is "a human body," but such a conclusion would be an analytic mistake. Metaphors are not definitions. It is always possible to dispute metaphors by argument. A good example is the recurrent scientific or academic discourse on the relation between *man and nature*.[17] On the one hand, one asks how natural man is, on the other hand, one asks how nature really looks without human intervention. This problem would never arise if the relation between the human body and nature was a matter of definition. Interestingly, a related question concerns our individual bodies, that is, the separation between me as a person and my body. The body seems fixed and down-to-earth, but I as a person change depending on the situation to a much greater extent. However, one can be *natural* by *wearing no mask* and having an *unaffected* manner, as if one is *naked*. Nature in the form of a body is a very

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[16]I use a slash to mark the boundary between the words involved in a compound.
[17]The contrast between man and nature may be a sexist expression in this context, but in the discussions to follow, it is a metaphor of the contrast between the male and female body.

intricate theme in the whole Western culture, but not a very precise one.[18]

Man is dependent on nature. Nature gives birth to life and nourishes it. Once again, nature involves metaphors of the body. This time, it is in the form of a female body, e.g., *mother nature*. In a sense, man is as dependent upon nature as the small child is dependent upon its mother. We say that *man comes from nature*, and some of us even say that *we should return to nature because we have mistreated her*. As adults, you and I as single persons are independent of our mothers, but as human beings, we are dependent upon a motherly capacity to give birth to children. Nature is like mothers in this general sense; there would be no human beings and no life without *mother nature*. This argument extends to the idea that *man has left nature*. Children leave their mothers too when they grow older.

We lost contact with nature when we developed civilizations and a certain independence of natural conditions. In the same way, *we loose bodily contact with our mothers* when we become independent persons. The following metaphors support this metaphorical argument:

> Children are *more natural* than adults and *closer* to their mothers.
> Children are *born into a culture*, but not into nature.
> We *live in a culture*, but not in a nature.
> We *cultivate* ourselves, but people do not naturalize themselves.
> However, a *child of nature* has not been affected.

There is a bodily distance expressed in these metaphors of nature, and there are many more examples that reinforce this

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[18]Jordanova (1980) notes a number of topics in the Western discourse that form metaphorical contrasts: *nature versus culture, woman versus man, physical versus mental, mothering versus thinking, feeling and superstition versus abstract knowledge and thought, country versus city, darkness versus light*, and *nature versus science and civilization*. There are anthropologists who claim that the concept of nature does not apply to cultures in general (MacCormack and Strathern 1980), something that is often taken for granted, e.g., Lévi-Strauss (1962).

impression. One may *visit nature*, it is a temporary contact, as when one visits relatives. In practical life, bodies and locations are interdependent dimensions. If bodies are in contact, there is a place where they meet. The shifting of perspective between nature as a body and as a place seems unavoidable because nature is a stationary thing; *it stands still, it is a place, whereas cultures rise and fall*. There is a lot of academic activity and conflicts concerning the attempt to establish when, where and how cultures meet. Culture does not seem to have the same stationary character as nature. Likewise, the female body is both more immobile and natural than the male body (both in modern myths and in older ones). Women take care of children, which put up restraints of mobility. Traditionally, she stayed at home, a quite stationary place.

Places and bodies like mountains and cities do not move and they can put up a heavy resistance to change. The contrast between a movable and a stationary character reinforces the distance between man and nature, i.e., man and nature do not follow each other because the former moves, whereas the latter is stationary. Nature does not visit our homes, but *man meet nature* by visiting her on her own ground. Therefore, *we leave, return, depart from, go back, move from, move back, lose contact or keep the contact with nature*. Man may move from place to place, but not nature. *Nature is a landscape*. It is a territory that man sees from a location, and then *enters*. No doubt, there has been, and there still is, much talk of *conquering both nature and women*. In contrast to a competition, in which all participants move according to the same rules, there is no symmetry involved when *we fight nature*. Man does not compete with nature, but tries *to master her*. But one must be aware, *she may strike back*. Even if nature is stationary, it is *a dangerous and wild place, a foreign land. Nature is hard to capture*, but we try.

The metaphors above presents nature as both a female and distant body/place.[19] *Confrontations with nature* in our

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[19]According to Hodge and Kress (1988), bodily distance expressed in discourse and in art indicate relations of power and solidarity. There are no absolute rules involved, but the tendency is to keep a distance in

everyday life and discourse support such a metaphorical pattern. The discourse on nature takes place through visual media, e.g., maps, books, pictures and television. Once out doors, *in nature*, we talk about more particular things, e.g., trees, plants, animals and lakes, etc.[20] Nature is everywhere whenever one visits nature, and therefore, there is no use in talking in terms of nature in nature. Of course, nature is somewhere, but we use maps to point it out, and then we are usually far away. Consequently, there is an image of a distant place where nature is.[21] This stationary nature is almost a paradox. In books and on television, one gets the picture of something well-behaved and far away, but at close range, she is everywhere and yet nowhere to be seen. Consequently, in practical life, we view "nature" at a distance and avoid bodily contact, e.g., in front of the TV.

Vision directs and extends our field of action.[22] Through vision, we document the objective properties of things. Objective bodies are not supposed to think and to move by their own will. Thoughts and feelings disturb our concentration when something is being an object of our treatment. To a psychologist, sounds constitute a subjective dimension, whereas "objective" sound waves are measured

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power relations when there are also dependencies involved, e.g., relations between males and females and master and servant. In war and love, bodies meet because there is no "status quo" to maintain. I believe that this dimension is much more important to discourse analysis than what is usually assumed. To indicate dependencies is to talk about relations between oneself and one's environment. The context of interaction is a necessary component in all communication (Bateson 1972). "Power," "control," "rule," "dependency," "distance," "safety," "insecurity," "trust" and many more are all words that have something to do with the context of things in an organism's environment. This dimension forms an important type of context in discourse.

[20]Learning a concept involves contexts that affect discourse in a profound way. We talk about things in their contexts (Tyler 1987). There is then the possibility that our idea of nature would not exist without visual media. The argument that nature is a holistic thing may demand a view point that is very far away from it, e.g., in front of television or when reading a book.

[21]Olwig (1984) discusses a more dynamic conception of nature that existed from classical times to the Enlightenment, i.e., nature as an inherent change in things.

[22]Maxine Sheets-Johnstone (1990).

by visualized frequencies and decibel. The "objective" nature involves dimensions like time, heights, lengths and depths that are given by visible numbers. Acidification, growth and animals are matters of visible things. This static and visual view of nature may sound like an overly extreme simplification of people's conceptions. Despite an appearance of being a distant body that stands still, we know that everything changes, including nature. However, this recognition is not part of our desire, which is to control change and to create order by subjecting nature to our treatment. By transforming sounds and sensations into visible things, we create a greater distance between our environment and our own bodies. We do not accept changes in our surroundings that are undirected by ourselves.

The metaphors involved when "looking at nature" in everyday life are parts of a verbal repertoire that gives concrete form to nature. As a cultural conception, nature is apt to create conflicts. Since nature is nowhere in sight, but we are encouraged to control her, we need views to see her. Questions like "when, where and how to observe and change nature" become great problems. Depending on cultural identity and experience, e.g., being a scientist, a farmer, an urban citizen or an industrialist, metaphors of nature take on varying forms that order and affect every discourse on nature. They become very strong motives in conceptual conflicts.

5. Regaining the sight of nature in discourse

I shall now exemplify some conceptual conflicts that were expressed in an interview with three students. The topic was "opinions and attitudes concerning the environment, nature and forest." The students were between twenty and thirty years old. The two females studied landscape architecture and plant ecology respectively. The male was a student in political economy. The interview lasted one and a half hours. Consequently, I will only discuss a short extract from the interview. The extract relates to a question of mine about the

difference between "environment" and "nature." It shows how people in discourse use metaphors of nature to negotiate conceptions and present perspectives. Views on nature are embedded in these negotiations, and it is during discourse that we actually understand nature.

In the extract below, the following abbreviations will be used to refer to the participants in the interview: LA (landscape architect), PE (plant ecologist), PO (political economist) and IM (interviewer, myself). Italics highlight conceptions of nature. As before, slashes mark boundaries between words in Swedish compounds. A line indicates that some portion of the interview has been left out. There is a lot of talk going on that is not relevant to conceptions of nature in any direct way. I have omitted many dimensions of oral discourse, e.g., paralinguistic features, interjections, repetitions and pauses. In this extract, I have included only aspects that are needed to show what conceptions of nature are involved. The other dimensions are, of course, necessary to express the conceptions, but because of limited time and space, they must be presupposed. However, the sequence of the dialogue is intact as not to lose the interacting character of a discourse. I will skip the Swedish original, and jump directly to a word-by-word translation. There are explanations of words and expressions in footnotes.

LA: the word nature [...] precisely as one says, is there any *wild/land*,[23] is there any *untouched nature*. Then, it is also dangerous [...] if one interprets nature as *something that man has not affected*, as some would put it, whereas others begin to shift more to *park/environment* [...] it is difficult to set up *limits*, isn't it

PO: well, *not built-upon land*

LA: but, not built-upon land, it is *culturally/influenced*, in the south of Sweden, all land is surely culturally/influenced [...] it is the question, should one call it nature or not? [...]

PO: *everything that is not a building is nature*

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[23]More proper translations of the Swedish compounds would be: wild/land = wilderness, park/environment = park-like environment, or simply park, culturally/influenced = influenced by culture, health/care = prophylaxis, and city/environment = city life.

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PE: when one talks to people in general [...] then I, I suppose, willingly use the word nature, but between ourselves,[24] we never do it. It is called *biotopes* and it concerns rather *specific units*. One classifies the word directly if it is *untouched*, or *to what degree* of, *forest or open land*.

[——]

IM: you have,[25] for sure, the *resource*/concept [...]

PE: yes precisely [...] *equal to*[26]

PO: there is of course the idea of *renewable and non-renewable resources* [...] because English is the language that is in use, it is *"environment"*

[——]

LA: but I do not see it as an *economic profit* [...] urban people [...] for them, I see it as *a source to well-being and health/care* [...] *to come out from the dull city/environment*.

In this extract, nature is mainly contrasted with human places of residence, human settlements and artifacts. The metaphors are of a rather subconscious sort: *wilderness, something that is untouched and unaffected, park, ground/soil/land,[27] not built-upon land, everything that is not a building, biotope, units, an economic profit, a resource and a source for urban people.* They may not be experienced as especially metaphorical, but still, they are standard ways of indicating cultural contexts, experiences and concrete perspectives that the students partly share, and partly do not. For example, when PE says "it is called biotopes," she is expressing a core concept in theoretical ecology that is connected to certain methods to

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[24]PE is here referring to some cultural group to which she belongs, but it is difficult to know what people she would include. Maybe, she thinks of biologists or ecologists in general.

[25]I am trying to get PO to use the word "resource" because it is a controversial concept in discussions of nature. PE confirms my belief by taunting PO with an insinuation that economists do not make a distinction between "resource" and "nature."

[26]In the interview, it is clear that PE is here expressing the idea of *nature as equal to resources*, and that she taunts PO with the idea.

[27]Without a context, the Swedish word "mark" corresponds to both ground, soil and land. In practice, it is very difficult to distinguish between the different senses.

observe, investigate and document things in nature. The students are negotiating their conceptions of nature through these metaphors by discussing when, where and how to apply them. There can be no doubt that the participants in the interview are trying to give concrete form to nature.

LA makes a good introduction to nature by mentioning the questions "where to find wilderness" and "where to find untouched nature." An unaffected place relates to the idea of nature as uninfluenced by man and culture. By focusing on cultural influence, it becomes difficult to draw a line because some people consider parks as nature. Obviously, LA is aware of different conceptions and respects them. PO takes no notice of this potential conflict. Instead, he contrasts nature with buildings. LA is more sensitive to human influence in judging where nature is, whereas this dimension does not seem too important to PO. Here is a conceptual conflict that resides in the extent to which one is sensitive to human influence on land. A landscape architect is trained to see and to picture such an aspect, an economist is not. After PO's second statement, LA does not seem to be interested in continuing the argument.

During the whole interview, PE is in general more reluctant to compare her conceptions with others. As a concept, nature is of no concern in her empirical studies, but relevant when talking to people in everyday life. However, in being an ecologist, besides "biotope," "uninfluenced land" is an important concept too. "Nature" is an everyday concept that relates to biotopes by way of other concepts like "land," "forest," etc. PE does not claim that nature should be totally uninfluenced by human activities, but talks about degrees. By stressing degrees of influence, she is even more sensitive to human influence than LA. This is exemplified by her reaction to the concept of resource. She taunts PO by alluding to a lack of distinction. The relation between man and land, then, is a shared theme among all three when trying to explain nature, but they differ in what the relation should be. The idea of human influence and the earlier more idiomatic metaphors that depicted nature as a distant place complement each other fairly well. It becomes more problematic to influence something the further away it is.

I wanted PO to elaborate on *nature as resource* because it is fraught with conflict. However, he relates the idea of resource to the concept of environment, and thereby, he restricts its field of relevance. Instead, a long argument arose about the way landscape architects use nature. Do they not see it as a resource?! LA thinks that the whole idea is wrong. She does not primarily see nature in terms of profit, but considers it as a place to go and feel good. Once again, we are dealing with a conceptual conflict that gets enacted through metaphorical expressions, i.e., nature as a variable in an economic calculation or a physical place. "Source" emphasizes nature as permanent location, whereas "resources" are economic and transportable units. Obviously, the idea of economic resources is more important to an economist, whereas a landscape is essential to the work of a landscape architect.

6. Swedish "care of nature" in view[28]

So far, metaphors of nature have either had the character of idiomatic expressions, e.g., *mother earth*, or been standardized expressions of perspectives, e.g., *biotopes*. They have been presented in two essentially different contexts, i.e., in the form of arguments and in an extract from an interview. On the on hand, metaphors are used to construct a view, on the other, metaphors are used to present and shift already established perspectives. It may be a good thing to demonstrate something in between, that is, a metaphorical argument that has an empirical basis and is also coherent. In Swedish newspapers, television and journals on nature, we find recurrent and common metaphors of precisely this kind.

There is a large number of compounds in Swedish that all involve the concept of "care." It forms the kernel concept in

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[28]There are important distinctions between the Swedish word for care and this English word that must be kept in mind during the coming discussion. In Swedish, "care" is more abstract. Furthermore, in Swedish, "the care of something" is expressed in idiomatic form that cannot easily be altered syntactically.

front of which other concepts indicate the kind of care involved. Many of these compounds constitute names of private and public services. To Swedes, "to take care of people and things" is a cultural ideology.[29] Institutions of care are founded for many reasons, e.g., tending to people and nature. Furthermore, it is easy to invent new types of care, both mentally and in practice. Listed below, is only a few of many such compounds.[30]

sjuk/vård *sick/care*	fång/vård *prisoner/care*
mental/vård *mental/care*	åldrings/vård *aged/care*
kropps/vård *body/care*	maskin/vård *machine/care*
mark/vård *soil/care*	gödsel/vård *manure/care*
skogs/vård *forest/care*	natur/vård *nature/care*

The Swedish word for care, "vård," relates to an aim of keeping things in good order. It is a cultural commitment. Inevitably, this cultural motive affects the way nature is patterned in discourse. There are some common expressions that, to some extent, explain the perspective in question.

to *manage* the care of nature
to *treat* nature

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[29]In Swedish, the morphological difference between the verb "to take care of" and the noun "care" is only a matter of a suffix, i.e., "vårda" versus "vård."

[30]A correct translation would be: sick/care = medical care, prisoner/care = prison welfare, and machine/care = to maintain machines. The four compounds at the end are rather difficult to translate. There are laws regulating what they imply. Superficially, whereas "care of nature" partly means both conservation and protection of nature, "care of soil," "care of manure" and "care of forest" imply that some kind of, and some level of fertility and productivity should be maintained with respect to what is of concern.

to *tend* nature
to *observe* nature
to *respect* nature
to *be careful* in nature

Care of nature means all these things. The idea could be phrased as "keeping things in good order." There is a Swedish word that expresses this sense, and that is strongly related to the *care of something*, that is, "att bevara." Dictionaries translate this word into "to preserve" or "to protect." The Swedish word "bevara" fuses these senses, e.g., in the context of nature, it implies both preservation and protection, as is the case with *care of nature*. Since one does not usually protect bad things, the idea of keeping something in good order is a rather good translation of the Swedish ideology of care. However, if it concerns people, we had better paraphrase this into "keeping people in good health and shape."

There are many human activities that aim at treating and tending something as to make it last and to keep it in good shape. It may concern everything from human lives to stamps. We learn to keep our toes, our nails, hair, skin and body in good order. To be healthy is a question of not being ill, i.e., to keep one's health in good order. The human body resembles graves and other *objects of care*. The process of decay is underground, as not to be seen, whereas the memorial stone above looks perpetual and impervious to change. Likewise, there is much talk about the need of conserving and protecting nature, but then, "care of nature" does not apply to natural forces that are out of control, e.g., flooding or storms, as in the case of decay. *Care*, keeping things in good order, is essential to cultural life.

Swedish care and *supervision* are intertwined in practice and in the discourse on nature. We *supervise and observe influences* on nature. There is a need for observation and supervision whenever we want to keep things in good order. Whenever new technology is introduced to transform our environment into resources, there is a growing need for *care of nature. Technology changes our environment and creates a distance between man and nature. The destruction of nature* justifies *better care of nature*. Maybe, the total human environment

needs care soon, something exemplified by a growing concern for *care of the environment* and *care of the landscape*.[31]

The criterion of good care is that something *looks good*. *If something looks good, it is healthy. Nature may look good or bad, healthy or sick*.[32] Once again, we are dealing with metaphors that relate nature to the human body. There are more examples of this pattern. *Nature may endure some harm*, as a body may. *Nature recovers from damage,* as a body does. There are reasons for assuming that medical care forms an especially important discourse on nature. No doubt, biology and medicine are related sciences, and also constitute authoritarian discourses on nature and the human body respectively.

Swedes "take care of things" that cannot manage on their own, e.g., machines and sick people. Things that do manage on their own need no care, e.g., the weather and thoughts. Ideas like "care of friends," "care of happiness," and "care of creativity" sound very strange even to me as a Swede. In Swedish, "to take care" is to change a bad situation into a good one as to conform to the good order of things. Criminality may be difficult to control, but by putting criminals in prison, it is done in an indirect way. However, there is naturally no "care" involved if something cannot be bad, e.g., happiness, or is beyond our control, e.g., the weather. "Care of things" demands some kind of object that lacks the capacity to change a bad situation by itself, but then, it must be possible to be in such a situation, and we must be able to control it. In "taking care of nature," there seems to be a rather strong confidence in man's control and supervision of things.

In the interview with the three students, I asked them what we take care of when we care for nature and the environment. After a rather long pause, I got the unanimous answer *"the future."* *Care of future* fits rather well with the

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[31]More correct translations would be "control of the environment" and "maintenance of the landscape."

[32]In Swedish, "to look sick" and "to be sick" are two very common metaphors for expressing the view that something appears not, or is not working, as it should. In a way, things are in bad order.

purpose with controlling and supervising something; we have plans that must be fulfilled.

7. Discussion – The planned nature

At a lecture on animal cognition that I attended, there was a discussion whether animals could intentionally fool each other or not.[33] The question developed into the problem of how to decide if some behaviour constitute a habit or if it is intentional. Some people meant that we need more systematic and controllable observations to be able to answer the question and to solve the problem. This objective view on how to approach the thoughts of animals is interesting in that it insists on plans and rules to investigate the creativity of animals. There is no wish to live with animals in nature to actually learn something from them, but only the idea of observing them at a distance. In contrast, people who love their pets would never dream of putting a strait-jacket on their intercourse with their friends. There is much talk about respecting animals and nature, but there is very little intercourse with living beings in nature. To discover the creativity of animals, one must not only refrain from planning and controlling one's intercourse with them, but also accept unforeseeable events.[34]

A creative environment is experienced whenever we associate ourselves with things. Man has dissociated himself from nature to replace it with a technological and planned environment. Consequently, nature has no feelings, thoughts or creativity whatsoever. Animism is not accepted as a serious perspective in the Western cultures. Ascriptions of social and spiritual qualities to nature are judged as superstition. I want to stress that this reaction is truly ideological, and that it expresses an ignorance of perspectives. When we talk of superstition, we are really

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[33]"Animal cognition" is the study of animal perception, problem solving and reasoning.
[34]Lorenz (1985).

stereotyping views on nature that are immensely complex. People in cultures that live by and in nature do not have the same concern for a planned future as we do. To live in nature is as much to feel it as to observe it.[35] People living in cultures with high technology feel rather a planned and a technical environment, not a varied biological one. I believe that arable land and urban life must have changed man's sight in nature. We have been accustomed to viewing nature as one thing or another, but lost sight of its biological potential.

Throughout this paper, I have stressed the importance of metaphors in analyzing views on nature. Naturally, there are many other dimensions, e.g., historical, biological and psychological contexts. However, studies of varying and deeper layers in concept formation demand analyses that take both cultural experience and patterns of discourse into account, and therefore, I believe that discourse analysis of metaphor is a good compromise. Through this kind of analysis, it is possible to explain and make explicit conceptual conflicts that depend on experience and different values. We should not repress or hide varying conceptions through norms and standards, but state our values and try to explain them in order to make them fit other goals. Maybe, we should use more explicit metaphors to this end.

Nature was a friend and an enemy.
Man lost one by fighting the other, but he keeps a picture.[36]

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[35]Lévi-Strauss (1962).
[36]If there is any doubt; this is my own view on nature.

CHAPTER 3

SPIDERS OF THE FOREST – PERSPECTIVES ON FOREST IN SWEDISH DISCOURSE

Prologue – A Dialogue

A: – What´s a forest?

B: – An ecosystem, my friend.

A: – Oh, a system...

B: – Yes, it´s a holistic thing, you know...a web of living things and energies that sustain in time...

A: – A web?

B: – Okay, not *really* a web, but almost like a web... there are a lot of connections.

A: – But a web is not a holistic thing... there are the spiders that spin and repair the webs!

B: – No, no, no... don´t take it in a literal sense, a web is a metaphor.

A: – But think of it, if there are webs, there may actually be many spiders on the same spot spinning and repairing many webs, and a forest may be a mess of webs, *really* a mess of connections.

B: – Now, this is beginning to sound very silly... What spiders are you talking about?

A: – Oh, farmers, foresters, ecologists, architects and politicians. They spin forest, I suppose. Perhaps, we are spinning too.

1. Introduction

According to Saville-Troike (1989), the communicative competence of any person demands vast experience of cultural and social kinds. With this holistic idea of communication in mind, this article is an attempt to capture some of the infinite conceptions in Swedish culture that relate to the forest, and that form frames of reference during discourse. Because of the many values and interests involved, e.g. forestry, economics, research, nature protection and recreation, there are many perspectives that shape Swedish discourse. The aim is twofold; on the one hand, there is the purpose of presenting perspectives on forest based on an analysis of varying texts and interviews, on the other hand, the analysis is an attempt to demonstrate how choice of words during discourse connects to perspectives.

The main material of the study stems from interviews with representatives of Swedish institutions and organizations which inform Swedish policy concerning forest. Consequently, the study is restricted to institutionalized concerns, e.g. forestry, economy, recreation, etc. Of course, a focus on professionals and experts excludes everyday conceptions from an analysis, but at the same time, professionals are authorities in everyday life; they dictate the relevance of problems in everyday contexts. Besides interviews, texts of diverse kinds, dealing with issues of forest, constitute important sources of information. Text material is especially relevant in the section involving a comparison between Canadian and Swedish conceptions of forest management. This comparison is made in order to strengthen contrasts between perspectives in Swedish discourse. Furthermore, to create a more radical contrast,

there is a very short discussion of the forest-cosmology of a hunting and gathering people.

Discourse analysis of metaphor is a way of approaching perspectives. A metaphor is a special choice of words which make an idea more concrete by mixing contexts. Words do not only constitute bits of verbal information, but they are also used in discourse to emphasize perspectives and to suppress conflicting ones. When choice of words indicate perspectives in this way, they form metaphors by making discourse more concrete. For example, in an interview, the interviewee compared social planning of forest areas with planning of *football grounds*. Furthermore, by saying that people should be able *to go out and into a forest nearby their town*, the urban perspective manifests itself quite clearly. However, before going into empirical matters, some methodological issues must first be dealt with.

2. Discourse Analysis of Metaphor – Cultural Choices of Words

Cultural studies demand qualitative methods of research, and discourse analysis is one such method. "Discourse," as it is used here, refers to verbal communication in everyday situations, and an analysis should deal with *verbal forms* in their *contexts* (Parker, 1992; Coulthard, 1985; Brown and Yule, 1983). Contexts constitute environments patterned by cultural and social experience (Scharfstein 1989), and they constitute perspectives whenever we talk about things. Due to diverse cultural and social experiences, words form parts of many contexts, e.g. the "forest" in ecological research, in environmental plans or in economic calculations. When choice of words indicate perspectives during discourse, they form metaphors by giving a topic a more concrete form. For example, by equating the forest with "a lumber-factory", there is a change in view of the forest from something outside society to an economic unit within it. In a sense,

metaphors in the form of choice of words are entries to perspectives.[1]

Discourse analysis of metaphor implies systematic documentation of metaphorical expressions and interpretations of their cultural sources. Empirical data may be drawn from texts, interviews, radio- and TV-programs or any other verbal event involving topics concerning forest. A metaphor should not be seen primarily as a poetic device, even if poets have made the metaphorical way of expressing oneself into an art-form, but as a special choice of words to communicate one's conceptions and experiences. Metaphors may be explicit, e.g. "the forest as a treasure," or more implicit, e.g. "the forest as a resource." When dealing with explicit metaphors, it is easy to imagine what experience, values and arguments are involved; they "summarize" similarities and contrasts between things in a compact way. Implicit metaphors express only aspects of some perspective, and therefore, they must be systematized in larger clusters to reveal the perspective involved. For example, when the word "resource" clusters together with "prosperity" and "growth," the perspective manifests itself more clearly, i.e. "future harvests and rewards." Furthermore, perspectives contrast with other perspectives, and words with words, for which reason, differences are as important as similarities. Actually, the importance of contrast to metaphor has been underestimated by scholars interested in metaphor.

In a way, a metaphor is not a valid comparison of things, e.g. "the forest as a lumber-factory." Traditionally, linguists, anthropologists and philosophers have tried to explain why and how metaphorical similarities "break" verbal rules. The theoretical problem is then to find other verbal rules that would explain a metaphor. However, if verbal norms and conventions are interpreted in terms of "patterns of communication" and "contrasts" (Bateson, 1972), the problem with metaphors could instead be formulated in terms of "unpredictable verbal patterns" or "contrasting contexts." Depending on context, the same pattern of words might form

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[1]See chapter 1 for a more elaborate discussion of the methodological issues related to metaphorical discourse.

a trivial statement, a fact, a metaphor, or a queer formulation. For example, the idea that "forest is nature" is trivial if "forest" relates to actual surroundings, but if the topic is the forest industry, the expression is rather odd, i.e. "forest is timber." Cultural and social experience elaborates older verbal patterns, and thereby, more specialized and unpredictable patterns arise which are highly dependent on cultural and social contexts. Since metaphors are rather unpredictable patterns of words because of contrasting cultural and social contexts, "non-predictability" must be a criterion of metaphor in a discourse analysis. Therefore, discourse analysis of metaphor must include documentations of verbal contrasts and conflicts.

Metaphors are comparisons, and in turn, comparisons presuppose similarities and contrasts, which are two mutually compatible qualities of experience. One cannot see similarities without apprehending contrasts at the same time, and vice versa. Otherwise, things are the same, or completely different. At a verbal level, metaphors could consequently be defined as unpredictable comparisons. Whenever a statement implies a comparison between things that presupposes a mix of contexts, we are dealing with metaphors. Unpredictability must be understood in a relative way because there are no verbal expressions independent of contexts of learning. Naturally, there are verbal standards and conventions, but these vary depending on cultural setting (Saville-Troike, 1989). A mix of contexts, a metaphor, must rather be related to possible mixes of contexts, other metaphors. For example, if forests are compared to "football grounds," similarities to "lumber-factories" get suppressed, and vice versa. The more excluding alternatives there are, the more unpredictable and metaphorical comparisons become, i.e. conceptual conflicts support metaphors.

An analyst of metaphor should rather be like an *enfant terrible* going on asking questions to discover new, recurrent and contrasting comparisons. The present study is mainly based on interviews. When analyzing interviews, there is no way of doing justice to all aspects of communication; depending on purpose, some aspects are emphasized, whereas others must be left out of account. Since the focus of the present study is on metaphors and perspectives, the central object of study is

choice of words which reveal cultural views on forest. Certainly, when abstracting words from oral discourse, many analytic problems arise. Discourses are unique events tied to particular situations. Furthermore, it's impossible to know what people "really" mean by what they say because definitions are actually negotiated during discourse. People elaborate and negotiate meanings during discourse, but they do not define them in any complete sense (Markovà and Foppa, 1990). Despite many analytic problems, stable verbal patterns of discourse are possible to discern if they are related to cultural experience. Therefore, to put Swedish perspectives in a larger cultural framework, a radically contrasting perspective is first presented. Thereafter, a softer introduction to Swedish discourse is made by comparing Swedish and Canadian conceptions of forest.

3. A Radical Contrast

In a classic anthropological work, Turnbull (1962) describes the life of the Pygmies, the BaMbuti, a hunting–gathering people in the Ituri Forest in Congo. To the BaMbuti, the forest is their home, it is where they gather food and hunt, where they build camps and perform ritual activities. Outside the forest on cleared land, the surrounding African tribes experience the BaMbuti as a strange people who have the evil forest as an ally.

It is very hard to summarize Turnbull's excellent and detailed analysis of the forest-cosmology of the BaMbuti, and instead of trying to do it myself, I have chosen some quotations that depict what conceptions may arise when the forest is the basis of everyday life.

> The world of the forest is a closed, possessive world, hostile to all those who do not understand it. At first sight you might think it hostile to all human beings, because in every village you find the same suspicion and fear of the forest, that blank, impenetrable wall... But these villages are set among plantations in great clearings cut from the heart of the forest around them. It

is from the plantations that the food comes, not from the forest, and for the villagers life is a constant battle to prevent their plantations from being overgrown... For them it is a place of evil. They are outsiders.

But the BaMbuti are the real people of the forest. Whereas the other tribes are relatively recent arrivals, the Pygmies have been in the forest for many thousands of years. It is their world, and in return for their affection and trust it supplies them with all their needs. They do not have to cut the forest down to build plantations, for they know how to hunt the game of the region and gather the wild fruits that grow in abundance there, though hidden to outsiders.

The BaMbuti roam the forest at will, in small isolated bands or hunting groups. They have no fear, because for them there is no danger. For them there is little hardship, so they have no need for belief in evil spirits. For them it is a good world (ibid., p. 13–14).

The complete faith of the Pygmies in the goodness of their forest world is perhaps best of all expressed in one of their great molimo songs, one of the songs that is sung fully only when someone has died...Of the disaster that has befallen them they sing, ... "There is darkness all around us; but if darkness *is*, and the darkness is of the forest, then the darkness must be good." (ibid., p. 93).

If you ask a Pygmy why his people have no chiefs, no law-givers, no councils, or no leaders, he will answer with misleading simplicity, "Because we are the people of the forest." The forest, the great provider, is the one standard by which all deeds and thoughts are judged; it is the chief, the law-giver, the leader, and the final arbitrator. (ibid., p. 125).

To the BaMbuti, the contact with the forest is total, i.e. it is a matter of being close to and dependent on both their tribal members and the forest simultaneously, for which reason, the forest cannot be a bad thing. The forest is not solely a material thing, but it sustains their cultural ways of living, their needs, their emotions as well as their identity. In

contrast, modern people have only occasional contacts with forest environments, and these distanced contacts cannot support the metaphor of *"a caretaker,"* which is how the BaMbuti experience their forest. Western ideas of managing forests for their resources are hard to imagine in the forest-cosmology of the BaMbuti. If the forest is a sort of "caretaker," control is attributed to the forest, rather than to humans. The BaMbuti should be kept in mind when we turn to deal with Canadian and Swedish discourse on forest, not because of any romantic fancies, but because the BaMbuti thinking creates a contrast, and contrasts are fundamental to any analysis.

4. *New Brunswick versus Swedish Metaphors*

The following analysis concerns conceptions of forest management in Sweden and Canada. It is based on empirical research done during a three-week-visit to Quebec and New Brunswick in September 1991.[2] The visit made me realize that there are profound differences between Sweden and New Brunswick with respect to conceptions of forest management. To the extent that New Brunswick represents a Canadian way of managing forests, these differences may be more general than they appear in this report. The purpose was to make only a preliminary survey of Canadian conceptions of forest, but I deem the survey to be sufficient to be used in an analytic comparison between Sweden and New Brunswick. No doubt, the cultural variation in Canada, as in Sweden, is too great to discern any uniform conceptions. However, if one believes, as I do, that conceptions in general are embedded in everyday life, it is possible to talk about Canadian conceptions if the context is made explicit.

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[2]I would like to thank Joakim Hermelin, who works at the New Brunswick Department of Natural Resources & Energy, for his invaluable help during my visit to Fredericton. He arranged meetings and made my visit a very pleasant one. Without his support, I would not have managed to gather the information that I got in such a short time.

In this intercultural comparison, I have chosen to deal with conceptions that relate to forest management. There are two reasons for this choice. Firstly, because of the short time I spent in Canada, I was forced to concentrate on rather well-documented conceptions. Secondly, in the media, conceptions of forest management are often depicted in a stereotyped way, that is, as involving exploitation of natural resources. I want to point out that the cultural aspects of forest management vary to such an extent that the perspectives involved are much more complex than is usually assumed. The empirical investigations involved: on the one hand readings of official documents and texts, on the other hand interviews with people at McGill University in Montreal, the New Brunswick Department of Natural Resources & Energy and the Department of Environment.

One very common idea in both Sweden and New Brunswick is that *the forest is an economic resource.*[3] It may be experienced as a trivial one, but in reality, its meaning is very complex and dependent on cultural experience. Not only would it make no sense to the BaMbuti because it implies human control of the forest, but the idea of resource is also dependent on what form the forest management takes. Due to radically different conceptions of management, the forest in Sweden and New Brunswick is apprehended in different ways. The hypothesis is that, in Sweden, to a larger extent than in New Brunswick, the forest is maintained as "a unit of production," e.g. a factory or a plantation, whereas it is more often seen as "a unit of extraction," e.g. a mine or a supply, in New Brunswick. Naturally, the perspectives do not contrast as sharply as Western thinking do with the forest-cosmology of the BaMbuti, but still, divergent cultural experiences due to forest management practices give rise to divergent metaphors and perspectives. The following discussion elaborates on this hypothesis.

In New Brunswick (N.B.), 51% of the forest land is owned by private owners and 49% by the public. Public land is divided

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[3]In this section, italics are used to mark metaphors that can easily be verified through Swedish and Canadian official documents concerning the forest.

between the federal and provincial crown, 47% is owned by the province and 2% by the federal government.[4] The eastern parts of Canada differ from the west by having a larger portion of private owners. On the average, 67% of the Canadian forest is owned by the provinces, 27% by the federal government and 6% by private owners.[5] The Swedish proportions are almost the opposite; private owners, individuals or companies, own 70% of the Swedish forest, and the remainder is distributed between varying forms of public ownership.[6]

Swedish and Canadian forest policy differs in many respects, but there is one contrast that is worth emphasizing. Whereas Canadian provinces primarily manage the forest for the purpose of its resources, the federal role includes responsibilities for nature reserves and research centres. This division does not exist in Sweden. The Swedish government is responsible for control of the environment, and it supervises the management of resources. In Canada, but not in Sweden, the supervision of forest land is apparently divided between two forms of public government which have partly different goals, the supervision of timber management and the conservation of woodland.[7] Naturally, this kind of division of responsibilities makes it harder to integrate the goals. There is no single public institution in N.B. that integrates both economic and environmental values of forest land, as the National Board of Forestry in Sweden does. Possibly, these two alternative forms of policy may explain what appears to be different relations between the public, politicians and forest companies in the two countries. During my interviews in N.B., I got the impression that the politicians seem to be the important targets of criticism in the media, whereas in Sweden, it seems to be the forest companies who are the ones to blame for bad forest management.[8]

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[4]Curtis, D.S., 1987, *Woodlot owner organizations in eastern Canada*, Government of Canada.
[5]The Canadian Encyclopedia, 1988: 2:e ed.
[6]Skogen, Sveriges Nationalatlas, 1990.
[7]*Forests of Canada: The Federal Role*, 1990, Second Report of the Standing Committee on Forestry and Fisheries, Government of Canada.
[8]My informant in Fredericton, N.B., Joakim Hermelin, informed me after reading the present study that Canadian politicians are involved

There are two metaphors that picture the difference between forest management in Canada and Sweden. In Sweden, government officials talk about *a cultural heritage*, whereas there is a preference for *a national treasure* in Canada. By emphasizing *a heritage*, there is a sense of respect for tradition involved. In contrast, *a treasure* is a lawless thing, at least when it is first found. The rights to treasures are open questions, but not when dealing with heritages. I think that these metaphors correspond rather well to the actual forms of ownership in the two countries. Ownership relates to conceptions of individual rights, for which reason, the larger portion of public land reinforces an idea of no man's land, a lawless land.[9] Public land gives public rights, but then there is the real political problem of deciding when and how to respond to public concerns. The same policy problem seems to be the case for Swedish forest companies which are controlled by the government.

There is another sense in which the metaphors above relate to different perspectives of forest management. When managing a heritage, there is an idea of multiplying it because of an inherent value. In contrast, a treasure is of no value in itself, it is only useful when transformed into something else. This contrast manifests itself in an emphasis on *cultural regeneration* in Sweden, whereas in N.B., *the processing of wood* seems to be more central when planning the management of forest land. The provincial forest land is divided into areas of management that correspond to the demands of the processing industries in the province. The province gives *licences* to cut trees according to established plans. (How could one give *licences* when dealing with *a heritage*?) It appears to me that this kind of forest management is related in a direct way to the economic considerations of the processing industry. In Sweden, *to cultivate forest* and to sell trees is many times *a business* in

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in absolutely everything, for which reason, public criticism directed at politicians concerning the forest management is probably based also on more general social conditions.

[9]This idea is not a fiction. In N.B., a ranger is a kind of policeman, and during discussions, people confirmed a real conflict between individual and public concerns of forests.

itself. There are more metaphors which support this difference in perspective.

> A real conflict may arise between the industry's desire to "*mine*" the resource for profit and society's desire to protect public land. (italics are mine).[10]

The concept of *resource* is very prominent in Canadian texts concerning forest management. I believe that this relates to an industrial idea of the forest as a supply, instead of the Swedish emphasis on *production of lumber*.[11] Swedish economists depict the forest as *a lumber-factory. A mine* contrasts with *a factory* by not being subject to a definite construction, a contrast that corresponds to the ways that the forest is managed in N.B. and Sweden, e.g. *natural regeneration* versus *lumber cultivations*. Forests are mines in N.B., they are factories in Sweden.

A mine is closer to nature than a factory, at least with respect to its location and its character. This would seem to predict different conceptions of the relations between forest, culture and nature in N.B. and Sweden. Swedish foresters sometimes depict the forest as *a home for plants and animals*. I have discerned no such metaphor during my interviews in N.B. or when reading Canadian texts. To be sure, there is the ecological notion of *habitat*, but when used, it retains its technical sense, i.e. it has not the cultural sense that is expressed by the word "home." In Sweden, there has actually been a conflict over the use of the word "home." Environmentalists have complained about the strange view implied by the word, i.e. the forest as something other than plants and animals, other than pure nature. Instead, they would like to see the notion of *ecosystem* strengthened. The idea of ecosystem is devoid of social and cultural dimensions, something that might explain why the concept seems to be well accepted among N.B. officials dealing with forest policy. The forests in N.B. are "more natural" than the Swedish

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[10]The Canadian Encyclopedia, 1988: 2:e: p. 811.

[11]I am not claiming that there is no concept of resource in Swedish talk about forest management. It is obviously the case. But I do mean that the concept is used in a much more restricted sense, i.e. in economic contexts.

ones, that is, intensive silvicultural activities are lacking, and wildlife seems to be much more important to everyday people. In contrast, Swedish talk involving *cultivation, heritages, homes* and *factories* strengthens the cultural dimensions of forest. Even if there is a tendency now in N.B. to replant forest land after a harvest, it appears to involve a minimum of human influence on how a forest continues to grow. *Treasures, ecosystems* and *mines* are not primarily cultural things; they are far away from human dwelling.

The phrase "forest management" is very hard to translate into Swedish because it lacks the sense of *cultivation*. There is a Swedish word that is used to talk about forest management in political and economic contexts, that is, "bruk," but this word relates more to "silviculture" in the context of forestry, than to "management." "Silviculture" seems to be a more suitable word to name Swedish forest management in general. Interestingly, when one cultivates something, there is a sense of future reward, whereas the management of things implies a control of things in the present. This contrast corresponds to the mentioned metaphors above, that is, the forest as *a heritage* or as *a treasure*. A heritage is something beyond individual control, which is not the case with treasures.

To conclude this intercultural analysis, I would like to put forward a rather strong hypothesis to be elaborated in future research. Because of differences in extents to which forests are subject to silvicultural activities, the contrast between nature and culture takes on a different force in N.B. and Sweden. In N.B., forests form part of nature, in Sweden, they are apprehended as a cultural domain. However, there remains much to be done to elaborate and validate this. For example, one must not forget that neither N.B. nor Sweden are culturally uniform. Research in the future must disentangle conceptions of forest from many different kinds of belief. Despite empirical short-comings, this analysis makes an introduction to Swedish perspectives on the forest; cultural influences shape the forest.

5. Cultural Influences on Forest – 1

The intercultural comparisons in the two sections above illustrate how conceptions of forest correspond to human activities in forest environments. The everyday living of the BaMbuti within forest environments supports conceptions of human subordination, whereas Western life outside forests creates ideas of control and management because of practical interests in resources. However, depending on the extent of silvicultural treatments, there are several ways to depict the idea of the forest as a resource. Natural regeneration in New Brunswick strengthens the idea of managing nature, whereas Swedish silvicultural treatments make the forest into a cultural object subordinated to human interests. By opposing nature and culture, the analysis might create the impression of radically opposed perspectives. In a sense, this is also the case, but seen in the context of the forest-cosmology of the BaMbuti, this is far from the case. In both Sweden and New Brunswick, contacts with forest follow elaborated plans, and few people actually live in the forest´s interior. Irrespective of forest activities, contacts with the forest are temporary and subordinated to an everyday life outside the forest, foremost because of urban dependencies. The forest is at a distance because of planned contacts and activities. However, in Swedish discourse on forest, "human influences on forest" constitutes a strong and a recurrent theme because of a long tradition of forestation. In this section, and the ones to follow, I present and analyze extracts from interviews that show several perspectives in conflict concerning this theme. Varying perspectives transcend national borders and other political bounderies. Instead, their sources must be sought in cultural experiences in general, e.g. recreation, economic planning, forestry, etc.

In all sections to follow, only English translations of Swedish extracts are discussed; the Swedish originals are listed in the appendix in the same order in which the English versions appear in the text. Swedish expressions have been translated word for word if important choice of words would be lost with proper translations. For example, Swedish idiomatic compounds that I judge to be important to the analysis have

been translated word for word. Slashes mark the boundaries between words in such compounds. More correct translations are presented or discussed in footnotes. Choice of words that are important to the analysis have in general been marked by italics. Because of limited time and space, many unique aspects of oral discourse must be omitted, e.g. sound qualities, repetitions, stutters, "pure" interjections and overlaps of speech. The extracts follow literate standards when the intention of an expression is obscure. The signs below are used in the extracts to mark aspects of speech that I deem relevant to "the flow of words":

word/word Swedish idiomatic compounds, translated word for word

[...] interrupted speech, hesitations and pauses,

[—] a shorter stretch of speech has been omitted

[———] a longer stretch of speech has been omitted between two passages in an extract, and it appears on a separate line.

CAPITALS mark stressed words

italics important choice of words, metaphors

The first extract to be dealt with concerns a group interview with three university students. There were two females, studying plant ecology and landscape architecture respectively, and a male student of economics. Their ages were between twenty and thirty. The initial question relates to the above mentioned theme, that is, "influences of culture on forest." In the extract, the following capitals mark the speakers: P (plant ecologist), L (landscape architect), E (economist) and I (interviewer, myself).

Extract 1

I: what is the difference between *natural forest* and *cultural forest* ? [...]

L: *cultural forest is influenced by humans*

P: yes

I: is that the most important definition? [...]

L: yes

I: do you think that too? [...]

E: yes but *EXTREMELY INFLUENCED* [...] I would probably define it I don't mean then [...] now if we take the example with Stenshuvud there is [...] if we then have *some trees* that have been *planted* there fifty years ago [...] single trees [...] then I think, it is still *natural forest* despite the fact that it has been influenced [...] *CULTURE* it is [...] if one pushes it it is thus *spruce/plantations*, down here in Skåne[12]

P: but if *they lay out planks* [...] is it then *cultural forest* too?

E: okay you mean [...] *GENERAL* [...] [—] really I only thought about *trees* [—]

P: yes but *BRIDGES* or [...]

L: yes *paths* and [...]

E: okay I understand what you mean but it can be *for handicapped* people who can drive their wheel chairs

L: no I look at [...] the culture concept as something [...] *a CULTURAL FOREST* [...] *is a forest* even if it has been used for *pasture* hundreds ofyears ago and then it has been *unaffected for hundreds of years* [...] it's *still a cultural forest* because it has once been *influenced by culture*

[————]

L: the texts that I've read about this [...] it is assumed that [...] *"influenced by culture"* is *the land*[13]that has once been influenced BY [...] humans or human [...] cattle [...] do you agree? [...] and then in fact the traces disappear after [...] the more time passes [...] so [—]

P: but then where does one draw the line?

L: actually I don't know it's difficult

P: I prefer the concept of *primeval forest primeval forest speaks for itself* it is sort of [...] *primeval forest is primeval*

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[12]In Swedish, "spruce/plantations" is an idiomatic compound referring to cultivated forests of spruce, and it also has a pejorative meaning because the cultivation of spruce is assumed to result in dark and unfriendly forests.

[13]There is a single word in Swedish that can be used in the sense of both "land," "ground" and "soil," that is, "mark," and it is rather difficult to know how to translate the word in this context. On the one hand, "influence" makes "land" a good translation, on the other, "cattle" and "trace" strengthen the idea of "ground."

forest nothing has been touched that is ever as far as we know

L: *primeval forest is natural forest*

(L's last utterance is a comment occurring in the middle of P´s speech.)

[———]

E: I like that [—] *primeval forest* is [—] *pure nature* [...] *natural forest* [...] it is then the *occasional tree* that has come about through *human hand* and then CULTURE to me *cultural forest* would then be in fact [...] *cultivated*

P: *use/unit*[14]

Evidently, the main theme in the extract concerns what counts as a cultural influence on forest. Depending on educational background, different and conflicting aspects are emphasized. However, before going into particular choices of words that reflect the perspectives, I must recapitulate some well-known metaphorical formulations of the relationship between nature and culture. They reveal cultural problems of interpretation that also the students in the interview must confront and work with.[15]

If there is a common word to describe the relationship between nature and culture, or between civilization and environment, it is "influence." Culture influences nature. In the contexts of humanity and vegetation, but not with respect to animals, nature relates to origins, culture to growth.[16]

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[14]*"Use/unit"* refers to any piece of land on which continuous cultivation occurs. The reason for a word for word translation stems from a special Swedish word that relates to "continuous use and production," that is, "bruk." This word in the context of forestry is rather revealing when it comes to Swedish views on forestry. As a noun, "bruk" refers to the continuous use of something to make something else, e.g. cultivation of land. By combining the word with other nouns, one gets words for forestry, farming, mill, and many more. I have translated "bruk" into "use," but I find it very difficult to find an English word that also captures the very Swedish sense.

[15]I have dealt with metaphorial discourse on nature in chapter 2, but it overlaps very little with the present discussion.

[16]Animals can be tamed, but still, they do not form "cultures;" the word "cultural animal" sounds very strange. The reason is probably that animals constitute a mental boundary between humanity and nature that must be kept clean; animals are too similar to humans to

Humanity is central to the distinction, which is evident in the extract above by the alternations between the words "humans" and "culture." Humans cultivate nature, but animals and plants do not cultivate themselves. These relationships could be depicted as "*NATURE » HUMANITY » CULTURE » NATURE*," i.e. nature gives rise to humanity, humanity forms cultures, cultures influence nature. "Nature" excludes human beings and their everyday life, but because of influences, it is a matter of degree; nature is something relatively unaffected by culture and humanity. Thus, cultural influences on nature create problems of interpretation; when does nature become culture through human influence, or when do cultures arise because of human influence? These are basic questions that the students try to answer, but conflicting perspectives give rise to conflicting answers.

The student of landscape architecture (L) answered the question about the difference between natural and cultural forests by saying that "*cultural forest is influenced by humans*." (L's) answer is not surprising considering her object of study. The interplay between nature and culture in sceneries is basic to her. After (L's) initial definition, (E) found "*human influence*" to be too weak a statement, and he thinks that cultural forests are "*extremely influenced*," which he exemplifies with "*spruce plantations*." Economists do not usually study either nature, or culture. Therefore, to give "*human influence*" a concrete form, (E) stressed monocultural "*plantations of trees*." (P), and later also (L), questioned the perspective by pointing out that other human activities create problems of interpretation. If people "*lay out planks*," or if there are "*bridges*" or "*paths*", culture may be present. (E) then defended his position in a most interesting way; planks or bridges might be "*for handicapped*." He did not accept the idea of a "*general*" influence, but considered the specific intentions involved; bridges may not be meant to influence the forest. Since national and economic planning is basic work for economists, it seems quite consistent to be specific with respect to human activities when dealing with human influence. Forests are made up of trees, and consequently, (E)

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mentally compare them in all respects, for which reason, the quality of cultivation is reserved for pure domains of nature and humanity.

interpreted the question about natural versus cultural forest in terms of forestation.

With a focus on the landscape or on vegetation, human influence is an important aspect in a much more general way, but still, in a concrete way. Landscapes are, and plant species could be, shaped by many diverse kinds of human activities. (L) confirmed the landscape perspective in her reference to some kind of human presence on *"land,"* e.g. *"pasture"* and *"cattle"* are cultural influences on land. These metaphors indicate that "culture" may be extended to rather broad areas of human activity. (P) questioned this view because of the lack of delimitation. She preferred the concept of *"primeval forest."* *"Primeval speaks for itself, primeval forest is primeval forest."* (P's) choice of words excludes all kinds of human influence on nature, e.g. *"nothing has been touched."* The perspective implies that human influences in general disturb the primeval forest. Nature is nature, and human influence changes nature into something else. (L's) remark that *"primeval forest is natural forest"* was consistent with her focus on the landscape; both "primeval" and "natural forests" mean something beyond cultural life. In contrast to (P), human influence was not disturbing to (L's) object of study, on the contrary, it actually constitutes the object of study.

(E) found the idea of primeval forests stimulating, and he incorporated it into his own perspective. The idea of primeval forest caused no problems to him because (P) depicted it in a very specific way, i.e. *"nothing has been touched."* However, (E) did not interpret "touching" in the extended sense that (P) did, but related the idea to trees and plantations. *"Human hands"* might have influenced *"natural forests"* in the form of some *"planted trees,"* but primeval forests are *"pure nature."* When (E) said that *"cultural forests"* are *"cultivated,"* (P) found the idea of truly cultivated forests strange, and restated the idea in words of *"units of use."*

The different attitudes may depend on the different objects of study. The students stress different aspects of human influence on forest because of contrasting cultural experiences. To ecologists, human activities in general might disturb their object of study, whereas effects of human influences on land actually constitute objects of study to landscape architects. In

contrast, material values are of greater concern to economists when deciding on viable economic plans. No doubt, *"land," "plantation,"* and *"touch"* are choice of words that express, not only varying degrees of sensitivity to human influence on forest, but also the students' perspectives, i.e. what they deem human influence on forest to be. Due to this analysis, one could begin to wonder why human influence is such an important topic in Swedish discourse on forest.

Horigan (1988) argues that the distinction between nature and culture relates to the development of professional knowledge. "Nature" and "culture" corresponds to the division of science into a natural versus a social/human one.[17] The analysis above supports his arguments by showing that the students use the words "culture" and "nature" in conflicting ways partly because of educational backgrounds. However, there is more to the terms "nature" and "culture" than being two social labels. In modern times, the human influence on the natural environment is a matter of physical and real transformations. In Western societies with high technology, cultural and social environments are easily transformed, and too high levels of change make people insecure. To put it in Douglas' (1984) terms, people want to maintain an "ordered" environment, but there is no chance of doing that if there is no physical stability. Consequently, there is every reason to believe that "nature," "culture" and "human influence" are important topics because of the rapid change of cultural environments.

In actual discourses, environmental concerns depend on actual experience, e.g. if people lack experience of real forest environments, they do not talk so much about it. However, in Sweden, human influence on forests becomes an important topic because forests are everyday environments of cultural kinds. The topic would probably be strange to the BaMbuti people who consider their forest to be their "caretaker." The relationship would rather be the reverse; when, where and

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[17]Anthropological research gives some support to his view in cultural studies which show that the distinction between nature and culture has been defined by Western societies (MacCormack and Strathern, 1980).

how does the forest hide its resources? To Canadian people, human influence on forest is, admittedly, important, but their discussions center more on the rights to resources and truly environmental issues, whereas Swedish discourse on forest is distinguished by questions concerning natural and cultural variation in accordance with tradition. The divergent perspectives in the extract above must be understood against the background of such a tradition.

6. Cultural Influences on Forest – 2

To elaborate on Swedish perspectives, I shall extend the discussion of the main theme in Swedish discourse on forest, that is, cultural influences, by presenting extracts from four interviews with persons who represent different institutions and organizations. The choice of words and their metaphors gives more proof of divergent perspectives on forest. One of the interviews involved a person who was, and had been, for some years a kind of information officer at one of the County Forestry Boards in Sweden. His tasks were not only to inform the public about Swedish forest policy and management, but also to instruct teachers in schools on these issues. The interviewee was a trained forester.

During the interview, the interviewee emphasized that his work was social, not a matter of supporting certain exploitations of forest. He referred to a slogan that he and his colleagues use: *"we are in it for the forest,"* Sw. *"vi arbetar för skogen."* The catch-phrase illuminates that the forest may not simply be an object of treatment, but also something "we" are submitted to. The national board of forestry and the county forestry boards have the shared task of ensuring that the forestry act is observed in practice in Sweden, for which reason, the submittment to the forest might actually be a metaphor for the national planning of forestry. The extract below, and the following discussion, illustrates this national perspective on forest. "I" and "A" mark the interviewer and the interviewee respectively.

Extract 4

A: *nature/care*[18] it is *to protect and to preserve an environment* [...] but many people do not know what it is so to speak [...] instead they follow *a programme* so to speak [...] it's the same let us say the forest owners may follow a programme [...] *that does not work all the way through* so to speak [...] all of us have a basic attitude but one can't be sure that the basic attitude works all the way through [—] this is true of all parties

I: [...] how come (A interrupts I)

A: we could as an example if we take *a forest owner* [...] who is very radical and [...] only *thinks in economic terms* [...] will *not survive* in the end so to speak [...] and *a nature/caretaker*[19] [...] who does *not even trample an ant* he will *starve to death* [...] if one goes to extremes

After this oral presentation, the interviewee continued to explain his view by drawing a kind of model of human influence. On paper, he depicted a "life-line," Sw. "livslinje," by drawing a line and writing "maximal use" and "preserve everything" at the ends. He went on explaining that all people are located on this line depending on some particular situation and some specific interest. An environmentalist wants to keep everything intact in a certain environment, whereas a user may want to exploit everything of interest, for example, mushrooms, without any concern for the rest of the environment, fauna, for example. They occupy opposing positions on the "life-line" in accordance with some particular

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[18]"Nature/care," "environment/care," and "forest/care" are idiomatic expressions in Swedish that correspond to institutionalized concerns, that is, nature conservation, control of the environment, and forestry respectively. The expressions in Swedish are "naturvård," "miljövård," and "skogsvård," and they cannot be translated without taking into consideration their close connection in meaning. The idioms are based on the very common verb "vård," Eng. "care," which may be extended to all sorts of social and practical activities aimed at keeping things in a good condition. See chapter 2 for a more elaborate analysis of this word which forms an important ingredient in Swedish ideology.

[19]"A nature/caretaker" corresponds to an idiomatic compound in Swedish that refers to a sort of official environmentalist, Sw. "naturvårdare."

environment and some particular interest. However, in other situations, they may have reversed interests.

The "life-line" is obviously practically oriented, e.g. *starvation or survival*. It does not include social consequences of human action, and therefore, human influence on forest is depicted in a rather atomistic way. When preserving an environment, the interviewee talked about rather separate and detached things that could be of some practical interest. For example, *"a nature/caretaker"* who does not even *"trample an ant"* will *"starve to death."* There is nothing surprising about this; forestry is mainly a matter of practical knowledge.

The interviewee also described human influence on forest in terms of *"programmes,"* and programmes are developed to establish and define future actions. The metaphor is fully consistent with work on a national level. Varying interests and values become programmes because national planning aims at creating standards of action. On a national level, pure environmentalists would starve to death because they want to preserve everything, and pure economic ideas would not survive either because there are non-economic conditions that should be taken into account, e.g. biological conditions of diverse kinds. No programme *"works all the way through"* because an environment is a matter of both use and preservation.

The interviewee's model of human influence seems to correspond well to the Swedish forestry act. The act prescribes practices of both "forest regeneration" and "production of lumber," i.e. the official idea is a sustainable use of the forest with respect to trees and lumber. Deforestation without regeneration is forbidden. The national policy concerning forest is very much a practical thing, e.g. the production of definite volumes of lumber, which is also the case with environmental issues, e.g. defined levels or rates of pollution. This national perspective gives the forest the form of a silvicultural plan that includes both aspects of use and preservation, and consequently, the focus is on very atomistic and specific things. In contrast, the official perspective in New Brunswick is more like a harvesting plan that is aimed at securing natural generation of forest. In section eight, I shall return to the forester's

perspective, and then, we shall see that the national perspective supports *"a good production of lumber,"* something the forestry act confirms to be a great national concern. For the moment, it is time to change perspective.

Environmentalists are a very diverse group of people. Their interests may range from local problems to ideological issues. Consequently, a generalization would be too far-fetched. However, there is a Swedish non-profit making association which deals with all kinds of environmental issues, and is held in high esteem in the media and among the public, that is, the Swedish Society for Nature Conservation. The following extract involves an interview with the information officer of the association.

Extract 5

I: which criteria are the most important for making forest into reservations?

A: [...] the most important definitely its importance to [...] *threatened animals and plant species*

I: and threatened?

A: [...] threat?!

I: when are they threatened?

A: when they are threatened [...] now one has to distinguish between *rare and threatened* [...] many species are rare because of quite *natural reasons* THREATENED species are then species that *naturally belong in the Swedish forest landscape* and which because of *human activities* [...] decrease [...] and threatened they have become when they [...] have *decreased to such an extent that their continued existence in the country is no longer guaranteed*

Interestingly, whereas the forester's national perspective related "preservation" to particular environments, the present interviewee emphasized *"animal and plant species,"* and later in the interview also *"population."* Whereas environments are close to, and centre around humans, threatened species and populations are located in *"the Swedish landscape,"* which is something seem from a much greater distance. The interviewee expressed concern for *"threatened animals and plant species that naturally belong in*

the Swedish landscape and whose continued existence in the country is no longer guaranteed." The choice of words reminds me of civil rights issues.

In another passage, the interviewee said that silviculture *"favours"* certain species at the *"expense"* of others, and that thereby, some species are *"treated unfairly."* Furthermore, humanity is *"an administrator"* of the earth's resources, for which reason humans should *"act in responsible ways."* With this civil perspective, the forest takes the form of *"a country,"* a land inhibited by animals and plants. Humans *"administer"* and should take care of the inhabitants. Their *"existence"* must be *"guaranteed."* Thus, boundaries of forest become dependent on all kinds of Swedish animals and plants, rather than on national planning of resource management. The perspective is consistent with combined recreational, and strong ecological interests. Being outdoors in forests observing animals or plants often relieves people of their social obligations, and they thereby get an opportunity to control their own actions. It is like projecting the state onto the forest and then reversing the roles; everyday people become official administrators, and the inhabitants of the forest become civilians. Actually, the notion of *"inhabitants"* is very common in ecological text books.

Any human influence that changes the forest in physical ways also assaults "the country." The civil perspective explains some expressions that appear in the media. There are many metaphors of too severe exploitation of forest and nature, such as, *"a rape on nature,"* or *"humanity impoverishes the forest of its richness,"* or *"impoverishes its inhabitants,"* Sw. *"människan utarmar skogen på dess rikedom,"* eller *"utarmar dess invånare."* The metaphors express a concern for civil rights to be observed, and actually, environmentalists are often fighting against large companies and developers who do not take the needs of civilians too seriously. However, in comparison with Canada, Swedish environmentalists do not seem to fight exploitations of forests with such drastic methods, e.g. nails in trees to stop cutting. The reason is perhaps the Swedish tradition of cultural forests that has made Swedes less sensitive to deforestation.

During the interview with the environmentalist, a discussion arose about the reason for maintaining biological diversity. The interviewee was of the opinion that the best argument is *"ethical"* in its character, rather than *"utilitarian."* He said that *"the association stands for diversity."* The ethical emphasis reinforces the civil perspective because of its social orientation, whereas utilitarian thinking is closer to national or economic planning. In contrast to the national perspective, preservation is not a matter of saving an environment, but of saving threatened inhabitants. However, the civil perspective is not only in conflict with the national perspective. Since the forest is administered by humans to protect civil rights, the civil perspective clashes with the cultural experience of private owners.

The National Federation of Swedish Forest Owners Association serves the interests of Swedish private owners of forest. There are two main groups of private owners in Sweden, i.e. forest companies and individual private owners, and the federation supports the latter. To get some idea of what an individual private owner considers to be important issues of forest, I conducted an interview with an official representative of the federation. Not only does the extract below show a perspective on forest centred around the individual owner, but the analysis also supports the analytic comparison between conceptions of forest in Sweden and New Brunswick. Private ownership of forest is a strong cultural tradition in Sweden which involves ideas of forest management that are quite different from the strategies related to industrial managament of forest. The following extract involves some marvellous choices of words that display the traditional, and the very Swedish, relationships between farming, forestry and private ownership.

Extract 6

I: *the public/right*[20] [...] what conflicts or [...] obstacles [...] do you see between the public/right and FOREST OWNERSHIP today [...] are there any obvious ones?

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[20]"The public/right" refers to the Swedish custom that people in general may walk and travel on private land that is not close to the owner's private residence, Sw. "allemansrätten." A hypothesis to be

A:	the public/right has [...] in its origin it is [...] it was *a protection of the owner* [...] the one *who OWNS land* [—] as they do not *take down his trees* or [...] *take away* [...] *break twigs* and things like these that can *destroy his FOREST* or [...] things that can cause fire and so on [...] the great difference is that now one wants to relate the public/right to [...] *THE RIGHT for the public to utilize the land*

[————]

that which should protect the forest owner as it should not become *too severe a trespass on him* [...] the result is so to say that [...] it's a big and important issue to us in the forest policy

The most interesting discovery that came out of this interview was the conflict in views on "the Swedish public/right." The idea of *"a protection of the owner"* came as a total surprise to me. The choice of words reveals a very close relation between the private owner and *"his forest."* The forest is the owner's private *"land,"* and in this private perspective, the public may actually be trespassing *"on him"* when they *"utilize the land."* The public/right was supposed to protect the owner against *"too severe trespass,"* e.g when the public *"take down his trees," "take away"* other things, or *"break twigs."* The metaphors remind me of children stealing apples from a garden; the forest owner must be protected against behaviour that *"destroys his forest."*

The private perspective stresses owners' rights to their forests, their land, which of course has profound consequences for conceptions of nature conservation and preservation. According to the interviewee, there would be no threat against "diversity" if the owners were left free to treat their forests according to their own experience. Government officials should assist with knowledge, but national planning should not regulate forest management in detail because conditions of forestry depend on some actual forest in question. The interviewee said that *"it is a natural thing to care for one's forest because one has inherited it and owns it,"*

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elaborated in future research is that this custom is an important source to the civil perspective.

Sw. *"det ligger något naturligt i att vårda sin skog eftersom man ärvt den och äger den."* The interviewee admitted that private owners cannot be acquainted with all knowledge that scientists bring forth, e.g. biological diversity, but knowledge is a matter of education, not regulation. Evidently, the private perspective on forest centres around the private land, and the next extract shows in another way how close this relation is between the owner and his forest.

Extract 7

I: how do the interests differ [...] a private forest owner from for example a forest company [...] I mean [...] a forest owner deals with *forest/use*[21] in Sweden to a large extent so

A: if we take forest companies in a TRADITIONAL sense that is [...] *owned by industry* [—] *the business strategy* in a forest company [...] it is primarily hand directed towards *industrial ownership* [...] where *THE FOREST* then *is only a part* [...] *a raw material* [...] whereas in [...] the business strategy in *a private forest/use* it is *THE RAW MATERIAL as such* [...] it is *THE FOREST* [—] that one sees first and foremost as the important thing [...] it implies that there are two ways of looking at this [...] the one looks at it as only *pure raw material* whereas the other looks at it as *a resource that one should cultivate continuously* [...] which does not prevent companies from having that attitude too but [...] it is carries another weight

Private owners of forest, in contrast to *"industrial ownership,"* take care of the forest *"at first hand,"* *"a resource that is cultivated continuously,"* *"the raw material as such."* When the forest is owned by the industry, it is *"is only a part,"* *"pure raw material."* Forest companies centre their forests around their industry, whereas to a private owner, the forest forms a personal property, and then it is the owner who is the centre of the forest. Even if the industry is a private owner, the forest does not form a personal belonging. In the private perspective, human influence on forest is a personal matter, neither a question of national planning, nor of civil rights.

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[21]"Forest/use" corresponds to a Swedish idiom that denotes all kinds of practice involving forestry, that is, "skogsbruk." It is based upon the already mentioned kernel word "bruk" in footnote 14.

The last perspective to be dealt with in this section stems from an interview with an information officer at the Swedish Association for Outdoor Life. This is a non-political association which aims at promoting outdoor life practically and socially. Outdoor life is a matter of both recreation and education. The association not only wants to help urban people to escape outdoors from a stressful city life, but it also promotes the education of children and young people. Consequently, issues concerning outdoor life, recreation and education came also to characterize the interview with the information officer of the association. From beginning to end, the interviewee stressed the importance of planning *"forest areas"* in accordance with urban needs. The following extract concerns explicitly this need of social planning, and in using "the town" as a point of reference, the interviewee indicates a truly urban perspective on forest.

Extract 8

A: one would never THINK OF [...] *laying a football ground* twelve miles *outside the town* [...] when it comes to outdoor establishments or a [...] so to speak, *forest area close to everyday living* then one would think of it [...] instead of keeping *a grove* [...] *a forest area* one would then *move the forest a little bit further away* [...] and some politicians also think that it's so funny this that [...] one can point out that [...] 'yes but you should know what a nice area we have got instead'

(The last utterance was made to quote some typical political utterance.)

The interviewee did not talk about any big forests, but *"forest areas,"* like *"a grove,"* and then, the comparison of forests with football grounds appears quite appropriate. *"A forest area"* should be *"layed"* close to everyday living, like *"a football ground,"* but instead, politicians *"move the forest further away."* Evidently, forests may be *"moved away"* by people, at least small forests. In the next extract, the interviewee has very specific ideas about where to locate them.

Extract 9

I: if you look at outdoor life [...] not specifically [...] that is the aim of the association but outdoor life What kinds of forest are important to it?

A: from our point of view we think that *important forests* are [...] it's where one [...] from one's residential area can walk right *out into* the forest [...] we have said then that [...] *around two three hundred metres up to eight hundred metres* [...] that one could think of then [...] is such *a distance* [...] but certainly not more

The compound preposition *"out into"* is no accident. The urban perspective is centred around urban dwellings from which one leaves to enter nature. *"Important forests"* are not bounded by national planning of forestry, ecological concerns, or ownership, but by town life. Human influence becomes a very natural thing indeed; forests should be a few *"hundred metres"* from the residential areas. The forest takes the form of a construction in a town plan that is moved around in accordance with the will of politicians. The urban perspective on forest is probably a very Swedish one. I doubt that Canadian urban people talk about forests in terms of suburban areas. Natural forests are rather wilderness, and it is a concept that lacks the sense of delimitation. The urban perspective would be even more strange to the BaMbuti. The forest is their home, their "caretaker," and that is not something to be moved around.

With the urban perspective, I end the presentation of perspectives on forest. I do not in any way claim to have made a thorough analysis, but then, I do not believe in such a thing. Discourse analysis could go on for ever due to an infinite number of perspectives. What makes the perspectives in the present article important are their institutional basis, for which reason, they are authorized in Swedish discourse on forest. Of course, other authorities could have been analyzed, but as with the forest, delimitations must be made, and I have tried to demontraste perspectives that clash in rather drastic ways in Swedish forest policy. Each of the perspectives, the national, the civil, the private, and the urban one, relates to rather specific interests, and therefore, they may result in problems of communication due to their

power to form standards of discourse. The perspectives organize metaphors and choice of words in contrasting ways, and thereby, several forest policies in conflict are defined.

The analysis has not been intended to define perspectives in any complete sense, but rather points to choice of words that people use to explain their perspectives to me as an ignorant interviewer. No claim is made that these verbal standards are the only ways, or even the main ones, in which the interviewees discuss forest policy. The standards correspond to some of their cultural experiences, not to their individual capacities to reason in varying ways. Perspectives are not blindfolds which cause people to think in only one way. They do affect choice of words, but words can both enhance and obscure communication between people. The two following sections are intended to show this general interplay between discourse and perspectives. So far, the analysis has only dealt with isolated perspectives, and has not related them to the ongoing discourse.

7. Relevant Questions, Relevant Answers

In this section, we shall take a closer look at the interviewer´s role in discourse. There is a tendency to underestimate the significance of the interviewer for the answers given by interviewees. An interview is a discourse in which the interviewer participates by formulating questions and making remarks on answers, and thus questions, like answers, depend on perspective (Mishler, 1986). Qualitative research involves interactive effects between the researcher and his/her informants. There is no way of trying to escape from this uncontrollable factor in discourse analysis since discourses are not based upon "truly scientific standards," e.g. total control by a researcher. Therefore, interviewers' questions are just as interesting objects of study as interviewees' answers. For example, the question about the difference between natural and cultural forests in section five is highly relevant to Swedish educated people, but I doubt its relevance to a farmer who has no urban view of a "pure"

nature. Neither would the question be as relevant to people in New Brunswick; there are very few cultural forests in Canada. Furthermore, the distinction between natural and cultural forests would simply be unintelligible in the forest-cosmology of the BaMbuti. Their forest, their "caretaker," is best described in terms of both nature and culture at the same time. Consequently, questions reveal cultural choice of words just as much as answers or statements.

In the last section, I introduced a forester and an environmentalist, and we shall return the interviews with them. I asked them what "a fine forest" meant. The question presupposes some experience of alternative forms of forest. Accordingly, some general conditions of relevance based on cultural experience must be fulfilled to render the choice of words appropriate. The answers to the question about "a fine forest" reveal such cultural foundations. The forester said that "a fine forest is many things; walking in a ninety years old *pine forest* that is *free from knots* and fine-looking, walking down a *hill of oaks*, or walking in a *beech forest*." He enumerated several types of forest, but still, they have a common core; there is a preference for forests with single species, and in forestry, trees *free from knots* are better trees to work with. In contrast, the environmentalist thought of "a forest with great *abundance of variation*, just as well with respect to tree species as to ages." He also emphasized that there should be a lot of bird song. The interviewee concluded his description by mentioning that it probably conforms to what is meant by "*a primeval forest*." Primeval and cultural forests are alternative forms of forest in the Swedish landscape, and depending on cultural experience, beauty connects to one of them. Actually, the Swedish contrast between natural and cultural forests was the main reason for asking the question in the first place.

To illustrate in another way the importance of perspectives and choice of words to both questions and answers, there is an extract below that shows explictly how questions are related to cultural experience. The extract concerns an interview that I initially experienced as a failure. The interviewee worked at the Swedish environmental protection agency, and was responsible for environmental issues concerning the forest industry. The following analysis

explains the reason for my frustration. The extract begins in the middle of a discussion about the interviewee's contacts with other institutions and organizations besides his own.

Extract 2

I: what about the national board of forestry?

A: [...] we have no contact with it [...] at least I don't

I: county forestry boards that is county administrative boards? [—]

A: [...] you know we deal with *different questions*

I: yes

A: they deal with *what happens IN the forest*

I: okay

A: it doesn't concern our department

The interviewee points out that my questions relate to *"what happens in the forest,"* which does not concern his department. The National Board of Forestry and the County Forestry Boards deal with the forest's interior, for which reason, they are external to his department. The interviewee's objection manifests a rather concrete perspective on both the forest and my questions; the forest has an inside to which my questions belong. Actually, I was rather surprised by his answers because from my point of view, things on the inside affect things on the outside . For example, the location of an industry depends on the location of the resource and on techniques of managing it. Still, despite these relationships, the interviewee did not deem my questions relevant. The reason is probably that I came to the interview with an "inside" perspective on forest, and it clashed with the interviewee's "inside" perspective on forest industry. His work concerns problems of pollution from the forest industry, and with respect to my perspective on forest, my perspective is beside the point. The clash of perspectives manifests itself even more clearly in the next extract.

Extract 3

I: do you think it strange that there is a division between [...] *nature/care* [...] *environment/care* [...] and *forest/care* [...]

> to [...] or what do you think about this dividing up of these three different areas of concern?[22]

A: [...] it is(A is interrupted by I)

I: WHY can't there be *an integration* so to speak?

A: it's a natural division that's what I think [...] The person who knows *a lot about industry* knows [—] much *less about* [...] *what happens in the forest* those are more *biological questions*

The interviewee reiterated the distinction between his industrial work and what happens in the forest. His choice of words reveals that he is only speaking about the particular agency that he is working for. He took my question to be a request for explanation of why the agency has not integrated these three areas of concern, but actually I was worried about the split between several institutions with respect to forest management. The clash of perspectives is confirmed by his statement that questions have a more biological character *"in"* the forest. Quietly, I disagreed; forestry concerns much more specialized and professional knowledge, not biological knowledge in general. However, the interviewee had another perspective; certain people within the agency deal with industrial issues, others are involved in what he called *"the green wing,"* biological questions, and consequently, the interviewee did not see any split of "forest management" between several institutions. Because of divergent perspectives, the interview did not last more than thirty minutes, in contrast to other interviews which lasted for an hour on the average. I have come to see this interview as one of the most important because it revealed how hard it is to be relevant if perspectives diverge from each other too much.

This section has shown that perspectives and choice of words extend to all participants in discourse, and that cultural experience affects discourse in a general way, and the interviewer is no exception. Choice of words that stem from such experience become metaphors of what is the proper discourse on forest, e.g. the inside of "the forest" is on the outside of a certain department. When, where, and how to

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[22]The compounds are explained in footnote 18.

aks questions to reveal conceptions of forest, thus, depend on perspectives themselves. For example, if we compare Sweden and New Brunswick with respect to what is considered relevant questioning concerning their forest policies, it is evident that Swedish perspectives are based on a long tradition of national planning of private forestry, whereas issues of silvicultural treatment are of marginal importance in New Brunswick. Since perspectives govern discourse in this general way, it follows that people must negotiate perspectives to establish common grounds.

8. Negotiations of Perspectives in Discourse

This article is based on two basic premises; on the one hand, words are used on the basis of cultural and social settings, and on the other, it is through these settings that words get their meanings (Wertsch, 1985). If people kept their words for themselves, not exchanging any information verbally, there would be no discourse. It is through verbal exchange that people share experience, and because of that, words take on meaning. *Words are not in dictionaries*. Since a single human being is not enough to create and maintain verbal exchange, at least two persons must be involved if a word should be of any use. Words draw attention to an environment, but there is no point in doing that alone. According to Rommetveit (1990), double and divergent perspectives are needed if verbal exchange is going to work. In a sense, understanding and misunderstanding are mutually dependent aspects of communication, and consequently, to establish common frames of reference and maintain social bonds, people must therefore negotiate meanings of words during discourse. Therefore, a discourse analysis of metaphor must also take verbal negotiations into account. On the whole, the task remains to be done, and future research will be directed at creating confrontations between varying perspectives. However, in this section, I shall illustrate the method by giving and discussing two examples.

The idea of verbal negotiation is a further elaboration of the earlier analysis that emphasized cultural choice of words and perspectives. Cultural metaphors, choice of words and perspectives are founded on both social and practical experience. The following discussion is an attempt to explain the role of metaphors in verbal negotiations. On the one hand, the extracts exemplify exchanges of metaphors and perspectives, on the other hand, they make it clear that negotiations are not made at any cost. Metaphors tend to be kept intact, whereas more conventional expressions are exchanged more easily. It would be rather impolite of me to oppose metaphors since I was actually looking for perspectives, even if the official purpose with all interviews had been stated in terms of "opinions and interests."

Extract 10

I: how should I classify you in the research if I put it in that way could one call you *forest expert* [...] FOREST EXPERT AT THE SWEDISH ENVIRONMENTAL PROTECTION AGENCY is that okay?

A: forest *industrial* expert

I: FOREST INDUSTRIAL EXPERT

A: there's a difference

I: forest [...]

A: our tests begin *when the wood enters the factories* [...] what happens *on the outside* [...] is of *no concern to our department*

I: okay

I have referred to this interview in the previous sections, the interviewee works with issues related to the forest industry. The present extract is taken from the beginning of the interview. I proposed to call the interviewee a *"forest expert,"* but the focus of his attention was on the *"industry."* The syntactic pattern of my proposed label is kept intact in the extract, but the interviewee inserted the kernel word "industry" in this pattern, and I accepted it. He then explains his choice of words by depicting his work. He deals with tests that begin when *"the wood enters the factories."* The things that happen *"on the outside"* of the industry is of no concern to his department. If I had proposed the label *"a person well-*

informed on forest" instead, he would probably have changed the label by inserting the key word *"industry."* The words "industry" and "forest" were metaphors that enabled both me and the interviewee to get to know each others' perspectives. If I had used a more personal label, perhaps, the interviewee would not have stressed his industrial point of view to such an extent during the interview, but then, I would not have learned about it.

Once more, and for the last time, I shall return to the forester at the county forestry board. Despite the fact that the interview with him was my first, I did not have much trouble in understanding his perspective, which is perhaps not too surprising considering another fact: he informed teachers in schools, and hence had some rather good pedagogical experience before meeting me. However, there was a passage during the interview where neither of us understood what the other meant. I asked the forester about his opinions on *"a better forest/treatment,"*[23] and in return, he asked me what I meant. His question made me simply confused, which the last extract clearly shows.

Extract 11

I: what *obstacles* [...] do you see or exist [...] to a good or to *a better forest/ treatment* than is the case at the present time?

A: what do you mean by [—] better forest/treatment?

I: it is I wonder if you think that it is possible to do it better or if it is as good as it can be and if it can be done better what obstacles are there?

A: but first I must know what you mean by forest/treatment?

I: I mean [...] I then think of [...]

A: better forest/treatment one can naturally always get better forest/ treatment [—] but that one can do from *different points of view* so to say one can [...] one has never

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[23]"Forest/treatment" is one of those idioms that is hard to translate into English, Sw. "skogsskötsel." The context is usually silviculture, but it often extended to all kinds of activities that make the forest into "a better place."

status quo so to say in such a case we would not have any scientists [—] FOREST/TREATMENT then you mean carrying on *forest/use*[24]?

I: yes

A: we shall thus carry out a forest/use to *produce* [...] *lumber* [...] and other *utilities* [...] isn't that so?

I: yes

[———]

I: HOW [...] does one take into [...] consideration [...] these different *objectives* [...] better that is [...] what is it that prevents one from taking [...] *integrating* these different [...] objectives [—] I mean do you see any so to speak obvious *obstacle* to an integration of these objectives?

A: NO [...] one does not [...] there are no obstacles but there is a "but" so to say [...] because [...] once more we are come back to this [...] that we shall *preserve everything* and in a way get [...] *flora and fauna* and [...] to spread themselves [...] then *this must be done at the expense of that*[25] and then the question is where is the balance? [...] and it must be a common interest to all people involved [...] but if one represents an organization and it is that that is [...] so problematic [—] one represents a thing

[———]

A: and then I mean by *better forest/treatment* then I mean that [...] then one should *manage all of this* [...] one should have a [...] get *a good production* [...] and one should *take into consideration flora and fauna* and one should be able to *get a good production from* [...] *different users*

To begin somewhere, the interviewee related *"forest/treatment"* to the national aims of forestry, that is, a continuous *"production of lumber"* that takes *"flora and fauna"* into consideration." I picked up the thread and asked if there are any obstacles to paying *"better"* regard to these goals. The interviewee did not think so, but he discerned problems when

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[24]See footnote 21.

[25]In this passage, the interviewee seems to refer to nothing special other than a potential conflict between silviculture and nature conservation. On the whole, the passages that followed this one are rather obscure and hard to interpret.

people stick to their own goals, and consequently, do not cooperate. He went on explaining his national perspective, and finally, he said that *"a better forest/treatment"* would be if one could *"manage all of this,"* *"take flora and fauna into consideration,"* and *"get a good production from different users."* The interviewee rejected the notion of *"obstacle,"* and I have no idea of why he did it, but an idea of *"better forest/treatment"* finally emerged through negotiations. I had accepted the national perspective on forest/treatment, and the interviewee had accepted my proposal of better treatment in the form of *"integrated goals."*

The extracts in this section demonstrate how verbal exchanges and negotiations are used to establish common perspectives. As an interviewer, I did not oppose the perspectives of the interviewees, and in this respect, the struggles to establish common frames of reference were pretty easy. More serious problems of communication are to be expected when perspectives in conflict confront each other in discourse, and it is towards such problems that my future research is directed. However, I want to stress that without perspectives in conflict, there would be no communication. A total and shared understanding is no good starting point in a conversation. Social psychologists have emphasized the importance of active cooperation when dealing with attitudes and conflicts (Cialdini, 1988), but the reverse also holds; if there is only one perspective, there is no reason to start cooperating with people. To conclude this article, I shall point to another Swedish conflict in perspective that may actually become a severe problem in the future.

9. Conclusions – The Future, The Great Spider

Scientific knowledge about environmental threats is increasing. Since decision-making and forest policy are greatly affected by scientific sources of information, a severe conflict confronts the future forest. On the one hand, Swedish forest policy is centred around private ownership and responsibility. On the other hand, adjustments to environmental problems

are not a private business, but something dictated by government officials and scientists. Due to both practical needs of private owners and national concerns, the application of scientific knowledge may serve many and diverse interests. The same problem does not seem to hold in Canada because forest management is a truly official business.

During my interviews, all interviewees accepted the idea of adjustment to environmental problems. However, I also discovered that a commission of forestry has been given the directive to promote a less regulated forest management, something that the interviewees in general thought was quite an important thing. I cannot help wondering if the real problem in the future is not the application of scientific knowledge, rather than a too detailed forestry act. How can something so complex, atomistic and fluid as scientific knowledge constitute a frame of reference when dealing with both forestry and environmental issues?

The main problem in the future is how and when to spread scientific knowledge to private forest owners when such knowledge is obviously based on a multitude of professional perspectives. For example, ideas of when and where to leave dead trees around in a forest have changed. Even if the forestry act becomes less detailed, the much more complicated question of education remains; are private owners prepared to be directed by scientific knowledge that cannot constitute a coherent standard of action because of the inherent conflicts due to professional and specialist interests? I have no answer, yet, but the question deserves serious attention in future research.

Epilogue – A Dialogue

A: – what's a forest?

B: – it´s a question of point of view, what´s the problem?

A: – there is no problem.

B: – you seek answers without solving anything, that's to seek definitions... are you writing a book?

A: – no, I simply want to know.

B: – that´s impressive, knowledge without use... if there is anything a forest really is, it´s a matter of practical knowledge.

Appendix

Extract 1

I: vad är skillnaden mellan naturskog och kulturskog ? [...]

L: kulturskog är påverkad av människan

P: mm

I: det är den viktigaste definitionen liksom ? [...]

L: mm

I: tycker du det också? [...]

E: nja EXTREMT PÅVERKAD [...] skulle jag nog definiera det jag menar inte då [...] om vi nu tar Stenshuvudexemplet där är [...] om vi nu har några träd som har blivit planterade där för femtio år sedan [...] enstaka träd [...] då tycker jag det är naturskog ändå trots att den är påverkad [...] KULTUR, det är [...] ska man hårdra det det är alltså granplanteringar här nere i Skåne

P: men om dem lägger ut plankor [...] är det också kulturskog då eller inte?

E: jaha du menar [...] ALLMÄN [...] [—] jag tänkte faktiskt bara på träd [—]

P: nejmen BROAR eller [...]

L: ja stigar och [...]

E: jo jag förstår vad du menar men det kan ju vara för handikappade som kan köra sin rullstol

L: nej jag ser [...] kulturbegreppet som någonting som [...] en KULTURSKOG [...] är en skog ävem där man har haft bete för hundra år sedan [...] men sedan har den stått orörd i hundra år [...] det är fortfarande en kulturskog för den har en en gång varit kulturpåverkad

[———]

L: den litteratur jag har läst på sånt [...] den utgår ifrån att [...] kulturpåverkad är den mark som någon gång har blivit påverkad AV [...] människan eller människans [...]

boskap [...] håller du med om det? [...] och sedan i och för sig försvinner ju spåren efter det [...] ju längre tiden går [...] så

P: men var ska man dra gränsen då?

L: det vet jag faktiskt inte det är svårt

P: jag går ju hellre på urskogsbegreppet urskog talar för sig det är liksom [...] urskog är urskog där har man inte rört någonting alltså någongång vad man vet

L: urskog är naturskog(Ls yttrande sker mitt under Ps föregående inlägg.)

[———]

E: det gillar jag [—] urskog är [—] ren natur [...] naturskog [...] det är då sånt där enstaka träd har kommit till genom mänsklig hand och sedan KULTUR för mig kulturskog skulle alltså vara [...] odlad

P: bruksenhet alltså

Extract 2

I: hur är det med skogsstyrelsen?

A: [...] den har vi ingen kontakt med [...] inte jag i alla fall

I: skogsvårdsstyrelser alltså länsstyrelser? [—]

A: [...] du vet det är andra frågor

I: ja

A: de har ju hand om de som händer I skogen

I: okey

A: det är inte vår avdelning

Extract 3

I: tycker du det är märkligt att man delar upp [...] naturvård [...] miljövård [...] och skogsvård [...] på [...] eller vad tycker du om den uppdelningen utav de här tre olika ansvarsområdena?

A: [...] det är (här avbryts A av I)

I: VARFÖR kan man inte integrera så att säga?

A: det är en naturlig uppdelning tycker jag [...] den som kan mycket om industri kan ju [—] mycket mindre om [...] det som händer i skogen det är mer biologiska frågor

Extract 4

A: naturvården det är att skydda och bevara en miljö [...] men många vet inte vad detta är så att säga [...] utan de går på ett program så att säga [...] det är likadant som vi säger skogsägarna kanske går på ett program [...] som inte håller ända ut så att säga [...] alla har vi en grundinställning, men det är inte säkert att den grundinställningen håller ända ut [—] det gäller för alla grupperna

I: [...] hur kommer det sig (här avbryts I av A)

A: du vi kan ta till exempel om vi tar då en skogsägare [...] som då är mycket radikal och [...] tänker bara ekonomiskt [...] kommer inte att överleva i längden så att säga [...] och en naturvårdare [...] som inte ens trampar en myra han kommer svälta ihjäl [...] om du går ytterligheterna

Extract 5

I: vilka kriterier är väsentligast för att avsätta skog till reservat?

A: [...] det väsentligaste definitivt dess betydelse för [...] hotade djur och växtarter

I: och hotade?

A: [...] hot!?

I: när är de hotade?

A: när är de hotade [...] ja alltså man får alltså skilja på sällsynt och hotad [...] många arter är ju sällsynta av helt naturliga skäl HOTADE arter är alltså arter som naturligen hör hemma i det svenska skogslandskapet och som på grund av människans aktiviteter [...] minskar [...] och hotade blir de ju då när de [...] har minskat till den grad att dess fortsatta existens i landet inte längre är säkerställd

Extract 6

I: allemansrätten [...] vilka konflikter eller [...] hinder [...] ser du mellan allemansrätten och skogsägandet idag [...] finns det några sådana påtagliga?

A: allemansrätten har [...] i sitt ursprung är den [...] har det varit ett skydd för ägaren [...] den som ÄGER mark [—] så att de inte går plockar ner träd för honom eller [...] plockar bort [...] bryter kvistar och sådana här saker som

kan förstöra hans SKOG eller [...] sånt som kan förorsaka eldsvåda, och så vidare [...] den stora skillnaden är nu att nu vill man föra allemansrätten till [...] RÄTTEN för allmänheten att utnyttja marken

[———]

A: det som skulle skydda skogsägaren så att det inte blev till ett för starkt intrång på honom [...] det gör liksom att att [...] där är en stor och viktig fråga för oss skogspolitiskt

Extract 7

I: hur skiljer sig intressena [...] från en privat skogsägare från till exempel ett skogsbolag [...] jag menar [...] en skogsägare sysslar med skogsbruk i Sverige i väldigt stor omfattning så

A: om du tar skogsbolag i TRADITIONELL mening alltså [...] industriägd [—] företagsstrategin i ett skogsbolag [...] det är i första hand inriktat mot industriägande [...] där är då SKOGEN endast en del [...] en råvara [...] medans i [...] företagsstrategin i ett privatskogsbruk det är RÅVARAN som sådan [...] det är SKOGEN [—] som man ser som första hand som det viktiga där [...] och det innebär att det blir två sätt att se det här [...] den ena ser det som ren råvara bara medans den andra ser det som en resurs som man skall kontinuerligt bruka [...] vilet inte hindar att bolagen också har den attityden men [...] det får en annan tyngd

Extract 8

A: man skulle aldrig komma på TANKEN [...] att lägga en fotbollsplan två mil utanför stan [...] när det gäller en friluftsgård eller ett [...] så att säga då ett vardagsnära skogsområde då skulle man komma på tanken [...] istället för att låta en skogsdunge [...] ett skogsområde vara kvar så skulle man FLYTTA då skogen lite längre ut [...] och en del politiker tycker det är så väldigt roligt också då det här att [...] man kan påpeka att [...] 'ja du ska veta vilket fint område vi har skaffat istället'

(Det sista yttrandet är en slags citat.)

Extract 9

I: om du ser till friluftslivet [...] inte speciellt [...] alltså föreningens syfte nu utan friluftslivet Vad är det för slags skogar som är viktiga där?

A: för våran del så menar vi då att de skogar är viktiga [...] det är där man [...] utifrån sitt eget bostadsområde kan gå direkt uti skogen [...] vi har sagt det då att [...] upp mellan två tre hundra meter upp till åtta hundra meter [...] det kan man tänka sig då [...] är ett sådant avstånd [...] men mer får det inte vara

Extract 10

I: hur kan jag beteckna dig i undersökningen om jag formulerar det så kan man kalla dig skogsexpert [...] SKOGSEXPERT PÅ NATURVÅRDSVERKET är det okey?

A: skogsindustriexpert

I: SKOGSINDUSTRIEXPERT

A: det är skillnad

I: skog [...]

A: våra tester börjar alltså när veden kommer in till fabrikslinjerna [...] det som händer utanför där [...] det är inte vår avdelning

I: okey

Extract 11

I: vilka hinder [...] ser du eller finns [...] för en bra eller för en bättre skogsskötsel än vad som finns idag?

A: vad menar du med [—] bättre skogsskötsel?

I: det är jag undrar om du tycker att det går att göra det bättre eller om det är så bra det kan bli och om det går att göra det bättre vilka hinder finns det då?

A: men jag måste först få veta vad du menar med skogsskötsel?

I: jag menar [...] jag tänker då på [...]

A: bättre skogsskötsel kan man naturligtvis alltid göra [—] men det kan man göra från olika synpunkter så att säga du kan [...] du har aldrig statuts quo så att säga då skulle

vi inte ha några forskare [—] SKOGSSKÖTSEL då menar du bedriver skogsbruk?

I: ja

A: vi ska alltså bedriva ett skogsbruk så att vi producerar [...] virke [...] och andra nyttigheter [...] eller hur?

I: mm

[———]

I: HUR [...] tar man [...] hänsyn [...] till de här olika målsättningarna [...] bättre alltså [...] vad är det som hindrar att man tar [...] integrerar de här olika [...] målsättningarna [—] jag menar ser du något så att säga uppenbart hinder att man integrerar de här målsättningarna?

A: NEJ [...] det gör man inte [...] det finns inget hinder men det finns ett aber om man säger så [...] därför att [...] vi kommer åter in på det här [...] att ska du alltså bevara allting och liksom få [...] flora och fauna och [...] utbreda sig [...] då måste det ske på bekostnad av detta och då är frågan: var ska vi lägga oss någonstans? [...] och det måste vara ett gemensamt intresse för alla inblandade [...] men företräder man organisation och det är väl det som är [...] så problematiskt [—] man företräder en sak

[———]

A: och då menar jag med bättre skogsskötsel då menar jag att [...] då ska du alltså klara alltihopa det här [...] du ska ha en [...] få en bra produktion [...] och du ska kunna ta de här hänsyn till flora och fauna och du ska kunna få en bra produktion ur [...] olika användare

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