

"GEESE ARE LIKE HUNTERS.

THEY KNOW THE LAND."

GEESE AS ICONS AND THE IMPLICATIONS FOR FORMULATING
A SEMIOTICS BETWEEN THE LITERAL AND THE FIGURATIVE

by

Christine M. Chun
McMaster University

ABSTRACT

The author examines the problem of the literal/figurative dichotomy in various semiotic theories of systems of knowledge and the man-animal distinction. It is proposed that theories of iconicity and forms of iconicity may help us to understand this dichotomy. An analysis is made of Cree hunting of geese using theories of iconicity, the interpretant point of view and conventions of reading. Finally, a suggestion is made as to how understanding Cree conventions of hunting may help semioticians transform the spatial typology between the two poles of the literal and figurative into a 'quality space'.

ABSTRAIT

"Les oies sont comme les chasseurs: elles connaissent l'habitat."
Les oies comme icônes et les implications qui en découlent pour énoncer une sémiotique entre le littéral et le figuratif.

L'auteur examine le problème de la dichotomie littéralité/figurativité de plusieurs théories sémiotiques de systèmes d'apprentissage et de la différence homme-animal. Il propose que les théories d'iconicité et les formes d'iconicité peuvent nous aider à comprendre cette dichotomie. Une analyse de la chasse aux oies chez les Cree est faite, utilisant les théories d'iconicité, le point de vue de l'interprétation et des conventions de lecture. Finalement, une suggestion apparaît montrant comment la compréhension des conventions de chasse chez les Cree peut aider les sémioticiens à transformer la typologie spatiale entre les deux pôles littéralité/figurativité en 'qualité de l'espace'.

The trick is to think like a goose.
 (Lafe Turlock in Michener 1978:18)

Geese are like hunters. They know the land.
 (A Cree Hunter in Scott 1983b:61)

We must change the metaphor with which we view the world...for meaning has a habitat.
 (Ghanotakis 1983)

The reader of the text knows that every sentence and every trope is 'open' to a multiplicity of meanings which he must hunt for and find. Indeed, according to how he feels at one particular moment, the reader might choose a possible interpretative key which strikes him as exemplary of this spiritual state.

(Umberto Eco 1979:55)

INTRODUCTION

An attempt will be made in this paper to analyse Cree conceptions of geese and their conventions of hunting as a convention of reading and interpretation. Theories from the interpretation of the visual arts and representational models will be utilized. The many ways in which the reader or hunter narrativizes the model presented, which gives him a certain presence and a type of logos for interpretation will be discussed.

Such an interpretive strategy is not without similarity in the scientific world of the non-native, or non-Cree community. Thus, a section of the paper will draw comparisons between Cree and non-Cree communities on their respective semiotic accounts of geese (and animal behavior) and how they derive potential meaning. Non-Cree interpretations will be analyzed in terms of their convention of reading and in relation to the Cree convention of reading.

The convention in the non-native community that is closest to the Cree convention that will be explored has its foundations in Pierce and in the concept of Umwelt (developed by Jacob Von Uexkull 1982; Seboek 1979).

I propose that hunting may be seen as analogous, in certain ways, to reading a text. Texts, as Pfeiffer (1983) defines them include various modes of symbolic interaction, the problematic of the indefiniteness of natural sub-systems, and meta-systems found in social action and nature. These modes are regulated by various conventions which are a "working-off" and "working-up" of inter-action and reaction and performing a communicative function.

Readers, Texts and Reading

There is, as Todorov (1980) has said, an unexplored area situated between the domain of cultural descriptions of readers and the reader as represented in certain texts --- and that is the "domain of the logic of reading of which there are many types" (Todorov 1980: 67). I will attempt to explore this domain of the convention of reading as it applies to the convention of hunting among the Cree. Thus, literary critics will also be utilized as interpretants in the study of the conventions of interpretation and the utilization of spatial metaphors, iconicity and narrativity among the Cree in the hunting of geese and the meta-semiotics of reading.

I am assuming, then, that reading is not merely an action of just decoding or encoding or as one form of the processing of information. In the context of this paper the reader is not simply a processor of language, but is also a reader of many codes and media which makes him, as Rogers (1982) puts it, the Amazing Reader, Amazing Listener, Amazing Viewer and Amazing Interpreter. "Amazing", because an important aspect of the interpretive process, to Rogers, is the ability of the reader to follow the maze-like qualities of a text and sometimes, in amazement, by "indirections find directions out" (as Polonius tells us) (Rogers 1982: 35). Interestingly, Rogers' Amazing Reader, does believe in the possibility of interpretive validation and "authenticating messages" by establishing the presence of "unambiguous patterns" in a text (Rogers 1982: 34).

Notions of text may be utilized in analyzing interpretations of the natural world or natural events because, as an object which is materially present, it may be an artifact which is in a situation in which there is, in Jakobson's terms, a relation de renvoi. As such, it is an object for semiotic investigation and meta-semiotic investigation (Winner 1981: 56).

As Winner (1981: 50) points out, the distinctions and characteristics of different ways of thinking and how the modes "interpenetrate" is the primary import of thinkers, such as Lotman and Levi-Strauss. Thus, the theme of this paper is the language and the metalanguage of "interpenetration" between man and nature among the Cree. Also, non-native thinkers and semioticians, who disagree with the dualisms of literal and figurative, seem to be searching for a way to formulate a new "invagination" of meaning. For example:

With the inevitable dividing of the trait that marks membership, the boundary of the set comes to form, by invagination, an internal pocket larger than the whole; and the outcome of this division and of this abounding remains as singular as it is limitless (Derrida 1980: 55).

The Possibilities of a Convention of Reading Between the Literal and the Figurative

Before an analysis of geese in the context of theories on iconicity is made, an attempt will be made to deal with the prominence of the opposition of literal vs. figurative (and all its various manifestations)² in our conventions of reading other cultures' texts and zoosemiotic texts.

Fish (1982) maintains that the distinction between literal and figurative in critical theory seems to have an "extraordinary appeal", often derived from the so-called "evidence of common sense". Thus, the literal is often characterized as a way of knowing that is direct, unmediated and pre-interpretive, whereas, the figurative is indirect, opaque, derivative and full of risk (Fish 1982: 697).

Myrona Gopnik (1977) characterizes the "problem" as one of "demarcation". How are we to find a criterion of demarcation to "distinguish" between the sign systems of scientific knowledge from other kinds of knowledge, she asks. She characterizes the present situation in a way that Lotman (1977: 204) characterizes as a state of ambivalence. Gopnik maintains that we must draw a relation (what kind of relation is the next question) between necessary relationships in the world and the properties of the representations of these necessary relationships. Another characteristic area of investigation, according to Gopnik ("from this point of view"), is the inbetweenness of the representations; for Gopnik, they are "in some sense arbitrary and in some sense not arbitrary". This means that the characterization of causal relationships is an "open problem" (Gopnik 1977: 224). Significantly, Gopnik connects this theme of the problems of inbetweenness (which I connect to the earlier one of "Interpenetration") to "why iconic signs are more highly valued than non-iconic signs".

Such dualism is also part of the tradition of the investigations in animal communication, as described by Percival (1982) in his examination of an eighteenth century contribution to the debate about the nature of man and his relation to the animal world. Percival takes note of the fact that the nature of human and animal communication was discussed at this time because it had a bearing on important philosophical and religious questions -- such as, how spirit and body in mind interact. Gabriel Daniel (a Jesuit priest in 1696) suggested that the animal soul was neither spirit nor matter, but a substance intermediate between the two (un entre mitoyen entre les deux) capable of perception and sensation, but incapable of thought and reasoning.

Bougeant, a 17th century philosopher, sought a solution in keeping with the dualism of Christian Theology, thus keeping the radical antithesis of spirit and matter, while eliminating the notion of animal automatism -- the "most, implausible feature" of the Cartesian position (Percival 1982: 60). Bougeant explained the phenomena of animal cognition and yet managed to maintain the demarcation between man and beast, ridding the Cartesian position of its "implausible feature" by substituting his own notion of the character of animals not as automata, but as creatures of God, endowed with the souls of rebellious spirits, or fallen angels. He criticizes Daniel's entre mitoyen, or intermediate substance, as a figment of the imagination, un être de raison, and a monstrosity which God could not have created (Percival 1982: 61).

In discussing other differences between man and animal, Bougeant constantly makes an attempt to maintain the demarcation between man and animal, and between his theory and Descartes', and yet, also, to allow the two systems to "interpenetrate" without, in turn, allowing a text to be created in between (Edmund Leach's monstrous intermediate substance).

Percival equates the dilemmas created by such configurations as resulting from the "essentially compromise nature of his theory" (Percival 1982: 60). Percival believes that Bougeant illustrates a familiar dilemma in the history of ideas; but I think he wrongly reduces it to Bougeant's

inability to "throw over Cartesian dualism and adopt a more graded concept of intelligence". Instead, for Percival Bougeant let the figure of Descartes "stand in the way" and thus, unwittingly Bougeant remained "clinging" to Cartesian dualism (Percival 1982: 69). An interesting attempt was formulated by Bougeant to eradicate, or grapple with, the state of ambivalence created by the Cartesian dualism between man and animal that is but one of the many manifestations of the dualistic structure often defined as literal/figurative which pervades semiotic analyses of the relationships between cultures, between texts (intertextuality), and between man and animal.

Now, suddenly, we see why it is that we cannot omit from biology the study of the theory of knowledge. For this, alone, teaches us to reduce our human indications to the simplest factors, and then to combine them once more (J. Von Uexkull in Seboek 1979: 198).

Primacy of the Image

A 20th Century solution to "unite the two solitudes" of art and science is proposed by Paivio (1983). Paivio feels that the concept of imagery may serve as point de repère, or conceptual peg, that may be "intuitively appealing" and may also contain "a core of truth" (Paivio 1983: 1). I.A. Richards (in Pfeiffer, 1983), in reviewing the history of literary uses of language and transitions between "rigid" and "fluid" languages, notes that they have often been dichotomized into more or less mimetic or aesthetic (Pfeiffer 1983: 170) forms.

As Juliet MacCannell (1981) points out, the Lotman and Vspensky hypothesis on the semiotic investigation of cultural forms has focussed discussion on the categories of the semiology of language itself - the dualism of synchronic and diachronic. MacCannell suggests a further revision of the Lotman/Vspensky hypothesis which she sees as part of the tradition in modern thought to "dislodge the primacy of the image in the semiotic of culture". MacCannell's revision would entail "a removal or denial of the myth of priority that is an obstacle to comprehending the 'pure rhetoricity' the relationships of sign (system) to sign (system) of thought to another thought, that is the heart of the semiotic evolution of culture" (MacCannell 1981: 297).³

Her revision seeks to rid us of this gap of inbetweenness contained in the placing of priority of one against another (too ambivalent?) through a "revolution upon an axis", which reinstitutes "the sign as value-free and arbitrary". And, thus, MacCannell, in conclusion and citing Kristeva, produces a citation on the configuration of what she envisions the "natural arrangement" of the "original" semiotic mechanism to be; "semiotics cannot develop, except as a critique of semiotics" (Kristeva 1969: 30-31 in MacCannell 1981: 300).

Differentiation and Dichotomisation of Interpretations

According to Seboek (1981), Pierce differentiated between different mental activities, characterizing one type as Pure Play, "with no rules except this very law of liberty", which was in contrast to those of logicians. "Musement", as Pierce finally called Pure Play is a process by which the mind searches for "some connection" between two of the three universes of experience, such that one

"...begins passively enough with drinking in the impression of some nook in one of the three universes. But impression soon passes into attentive observation, observation into musing, musing into a lively give-and-take of communion between self and self. If one's observations and reflections are allowed to specialize themselves too much, the Play will be converted into scientific study (6.459 in Sebeok 1981: 36).

Christine Brooke-Rose (in Britton 1982) attempts to explain the fascination with this dichotomization of two ways of relating to the world by arguing, in her own binary manner, that the devaluation of the perception of empirical reality as meaningful has led to an increased investment of meaning in the unreal -- madness, religion. This has created, according to Brooke-Rose (Britton 1982: 233), an "apparent and for the moment still partial (and perhaps transient) inversion of the real/unreal" (p. 4). Also, according to Britton, Brooke-Rose feels that "ambiguity" and "muddled thinking" leads to statements of rhetoric and paradox (e.g. that the real is non-significant, is significant).

Brooke-Rose postulates that "ambiguity results from the coexistence of two different fabulas within one sjuzhet, a coexistence made possible by gaps in information at both levels" (Britton 1982: 238). Brooke-Rose (1980) characterizes the ambiguous text as "dialogical" (e.g. Dostoevsky according to Bakhtin) in which characters are never "delimited"; no man ever "coincides with himself" or with another's "word" on him. There is a constant metatextual dialogue which is characteristic of ambiguous texts that are not of the pure fantastic, such as the novels of Robbe-Grillet. (Important connections will be made to this interesting observation of Brooke-Rose's later in the paper.)

Exploring the Possibilities of Musement for "crosstalk"

Perhaps, as W.J.T. Mitchell states, "a more fruitful line of inquiry is to cut across the grain of these oppositions" (W.J.T. Mitchell 1980: 451). However Richard Rorty (1979) would seem to disagree. He characterizes Derrida's deconstruction theories, which also ask the same question, as not about the topic of "literal vs. metaphorical" or, in Brooke-Rose's terms, real vs. unreal. According to Rorty, for Derrida,

"No such competition exists. There is no topic - and in particular not that between sign and signified, language and the world..." (Rorty 1978: 155-156)

Instead, Derrida's concern is with how this dualism, or this difference between two forms of interpretation, is determined by "normality or abnormality" (Rorty 1978: 156-164).

Rorty's summation, then, of this difference is that it is not about the "serious" and momentous issues of "Theory and Practice, Nature and History, Permanence and Change, Intellect and Intuition, the Sciences and the Arts, Kantian and non-Kantian" that others claim it to be. All these are, according to Rorty (1978: 156), as serious as the issue between normal and deviant sexual practices and about "hopes of the normal thrill of just the right piece fitting into just the right slot, with a shuddering resonance, which makes verbal commentary superfluous and inappropriate". For Rorty, then, it is not an issue that should be

"resolved". Instead, we should give up the notion of "first philosophy". But, as Rorty (1978: 159) puts it, we cannot simply "relax and split the difference"; "cross-talk" is all we are going to get.

I have tried to show how our misunderstandings of other semiotic systems and meta-semiotic systems tend to hinge on this problem of the duality of the literal and the figurative. I believe the following analysis of icons and Cree goose hunting conventions seems uniquely suited to showing us how we might create an intermediate space of theory that does not just swing from pole to pole.

Some of the differences in the characterization of the space inbetween, in regards to iconicity among critical theorists of the non-native community, must be noted here in order to properly utilize notions of space and iconicity, and to explore the full import and meaning of Cree conventions of goose hunting.

Others have been attempting to explore that space inbetween the "two ideal poles that are in a complex interacting relationship. And it is within the structural tension between these poles that the single complex semiotic whole that is culture unfolds" (Lotman 1977: 209). Methods of exploration differ fundamentally between non-natives and natives in their convention of exploration of the space between man and animal, fiction and reality.

Characters in Texts: "Figures of a Landscape"

Wilson's (1979) solution to reifying interpretations of texts is to focus on what he calls "The Bright Chimera of Character". For Wilson, characters have a reality analogous to metaphor, as an "instrument of verbal organization" and a "source of verbal energy" (William H. Gass in Wilson 1979). Thus, in Wilson's (1979: 433) view, "focusing on character and attempting an understanding of character have the potential to lead one into the analysis of language and away from a search for reference... 'out there' or ... 'in here'."

Significantly, Wilson (1979) commends an analysis of the "waxing and waning of the facets" of character in Forster's, A Passage to India, by pointing out Price's (1975) description of the qualities of character (which seem metaphorically important and applicable to the upcoming analysis of geese). Price states that:

the characters...are not quite figures in a landscape but figures of a landscape...The most fundamental metaphor for this problem (specifically the ambiguity and impassivity of Indian reality) is that of incarnation. The characters incarnate degrees of reality---different kinds of that reality (Price 1975: p. 610, 612, in Wilson 1979: 740).

Pictorial Signs: Inscription, Iconicity and Spatial Form

As Mitchell (1980) points out, most definitions of picturing treat it as an impoverished language (e.g. Kenneth Burke 1968). However, post-structuralists have begun to suggest that pictorial signs not be approached as a subset of the linguistic system, but instead suggest that we "return to the problem of writing as a chapter in a general theory of iconicity" (Ricoeur 1976: 40 cited in Mitchell 1980: 564). Also, Mitchell

points out that Derrida's conception of writing is different, but his renewal of the problems of iconicity also relates the question of iconicity and form to "the world as a space of inscription" (Derrida 1976:44 in Mitchell 1980: 565).

Thus, Mitchell sees potential in any discussion of the traditionally "deviant" or "mere metaphorical" categories (emblems, concrete poetry, icons, emblazons, hieroglyphics) because they suggest new paradigms (other than opposed categories of natural vs. imitative) for the understanding of pictorial space and verbal space.

According to Mitchell, in the study of texts, language still has the upper hand, with vision and spatial form treated as "merely metaphoric" aspects. What we should be doing, according to Mitchell, is to stop dealing in verbal "ticks and tocks". Instead, we should look at the "picturesque surprises and asymmetrics" and see the way form "moves" and "submerges in the texture of life. It is to see the fiction like the life it criticizes and represents, as an ecosystem, an organism, a human form" (Mitchell 1980: 567). This "iconology", as Mitchell calls it, would explore the ways in which temporal form is understood at the basic levels; how is inferred movement translated to narrativity? Iconology would explore the true reading by the mind's multisensory "eye", true reading being not merely visual, but a visionary experience.

Hasenmueller (1981) also proposes an alternative view of iconicity and space similar to Mitchell's for the possibilities of analysing pictorial or iconic texts. Since they invite new sets of models of interpretation developed around behavior rather than language, she intends to explore this point in the context of, not different to, literature, and as a parallel working (rather than a "dependent of literature"). Partly because she attempts to distance herself from the paradigm of arbitrary privileging on one side of the dichotomy, I intend to utilize Hasenmueller's concepts of the icon, to analyse geese as icons.

Hasenmueller (1981) utilizes Gombrich's notions, as regards the nature of representation and its relationship to subjects, and also his unique theories on the substitutability of function, in addition to the imitation of form in icons. Thus, according to Gombrich, a sign may be thought of as iconically related to its subject by its capacity to substitute for it under certain conditions.

Gombrich views such a likeness -- one based on likeness due to parallel functional roles -- as the basis of the formal likeness usually used to explain proper iconicity. Thus, formal likeness to a subject is an "extension" of functional likeness. Eco, however, differs with Gombrich's definition of such events. The events may give rise to the impression of iconism, but they are an "intrinsically coded act". Whatever resemblance the subject has to the object is the result of, not intended resemblance, but the apparent resemblance, resulting from the subject's desired use of the object.¹² Thus, Eco proposes a distinction between iconicity and an intrinsically coded act that Gombrich would acknowledge as existing, but finds the distinction as, not one of a kind, but of degree (the number of removes of extension). Thus, for Gombrich both types of representation -- one that imitates an object, and one that imitates (or is) part of the context in which the object functions -- are iconic. It is this latter interpretation that makes the notion of icons particularly applicable to the relationship between the Cree and geese.

However, unlike the case of imitation that Eco classified as an intrinsically coded act which metonymically related directly to the

subject, imitations of function are not metonymically related in the same way. As pointed out, such a utilization of icons has, as its ultimate motivation, the desire for the function of the goose, to "appropriate" certain functions (Hasenmueller 1981: 138). In this regard, Scott (1983b) relates how the Cree consider the capacity of geese to anticipate some phenomena as superior to that of hunters. Also, the Cree consider the geese capable of some "counterpart" by which humans predict future events, such as "dream images" or "corporeal symptoms" (Scott 1983b: 17).

Icons: Geese as Decoys

Such an icon, Gombrich maintains, is prior to elaboration of the "prop" into a representation. Thus, Gombrich deals with the extension of this primary icon, which does not necessarily have to have a formal relationship, into a representation that begins to resemble the object (decoys). Why do such icons arise? As Hasenmueller warns, it is not sufficient to see this icon as a coded statement that merely conveys messages or to regard it as the only ("or the primary") iconic text, a point of which the Cree, in their discussions of the use of the decoy, seem well aware. For instance, Scott (1983b) gives an example of message that is iconic but is not merely a "prop" or a coded statement. "The cartilage trachea, including the windpipe and voice organ of the goose, are hung from a tree branch where, poetically, the passing wind carries their call, beckoning geese in the future seasons to renew the cycle" (Scott 1983b: 19). F. a Cree hunter comments that

On a calm day, the geese can generally hear better...You can usually tell once the geese see the decoys. You stop calling them once they've made up their minds (Scott 1983a: 42).

I would maintain that, in order to make this representation a proper icon which the geese will recognize as not only a message, but also as part of an appropriate code, the Cree have to be aware of the kinds of meaning "conveyed" and "illustrated" by iconism. Thus, a degree of "Mutual participation in conventions is prerequisite to identification of the icon as a satisfactory element of the context" (Hasenmueller 1981: 146).

Scott (1983b) describes the Cree's emphasis during the goose feast on reciprocity within human society as enhancing reciprocity between humans and geese. Scott asks why inter-species reciprocity would depend on intra-species reciprocity? In addition to Scott's answer (based on intricacies of hunting territory strategy), I would add, also, that intra-species reciprocity is a kind of iconic text that explicates the intra-species reciprocity of the geese, in order to know how to construct a text of inter-species reciprocity.

As mentioned before, the interpreter who shares the requisites for recognition with the creator will receive the messages in the act of recognition. Must a creator of an icon invest it with more than the message that this is a goose? Must they also provide a definition of what kind of geese these are? I think many white hunters would answer in a much more limited fashion than the Cree to the second question.

Scott describes the use of decoys:

Decoys must be kept pointing into the wind, the direction geese would land, feed and take off. When the wind shifts, decoys are adjusted accordingly. If this is not done geese may take an initial look and 'sort of poke' at the decoys, but they will not come in to land (Scott 1983a: 67).

The Cree response to this question raises the question of whether iconicity is mere resemblance, or whether it is a phenomena that also requires an interpretation of a certain spatial organization, "a certain order of sign production far broader in scope" (Hasenmueller 1981: 142). The following is a description of the motive power of spatial sign production:

The sight of wild ducks flying in their carefully organized patterns exerted an attraction on my entire being that made me tremble...The first time I saw them flying overhead I found their appeal irresistible (Gros-Louis 1973: 84).

Icons, Text Formation and the Sharing of Conventions

According to Hasenmueller (1981), an interpretation of icons (like the one that I think the Cree are making) extends definitions of communication between animals and man beyond conceptions of desired meaning as imitation in the forms of iconic references. As Hasenmueller elaborates further, an icon can lead us to another text. "Before a representation one is not only the interpreter of an extant text, but also involved in formulating a new one. The function of the icon is, in semiotic terms, its role in text formation...we must look at the capacity to substitute for the represented" (Hasenmueller 1981: 142). Is this not what the Cree are stating when they discuss the ability of the geese to read the land and the Cree's stressing of the importance in creating and utilizing the decoys properly, so that the geese read the text "The figure of the landscape" in the way the Cree hope they will (see Scott 1983b: 10).

Scott states that "the observation of Cree hunters suggest that geese are quite apt at learning in what contexts to expect predation, at distinguishing human predators from non-predatory humans..." (Scott 1983b: 11).

I imitated the sound to make them fly lower and inspect the ground. It appeared that I had all the necessary conditions to ensure a good hunt...If it had been still I would not have used my gun because the noise would have travelled so far that other birds would have been warned of the danger...the same thing happens if the birds are shot on the ground, and a hunter who is ignorant of this fact can ruin a whole season of hunting (Gros-Louis 1973: 85 (See Also Scott 1983a and Scott 1983b: 12-14)).

As mentioned before, such a complex semiotic activity requires however, a sharing of conventions -- an understanding between creator and interpreter in their capacity for reading.

Icons: Geese as Interpretants

This means that the creator of the icon must also be an interpreter of the world that the geese inhabit in order to properly "substitute for the represented". The next question would seem to be: Is there an icon that would allow the Cree to understand this other domain, to cross the boundaries of human space and animal space? It would seem that a sign based on metaphorical relationships would be better suited to this task of crossing boundaries of each space (see Scott 1983b: 15). It would seem at first that icons would be inappropriate since, according to most semioticians, they are largely metonymic in character. Yet as mentioned previously, Gombrich has already opened up the possibilities of an icon based on function rather than resemblance (the primary icon discussed previously). Gombrich's approach may allow us to see the Cree utilization of geese as icons of "interpretants" of their own world and of the world which the Cree, at some level, do not share, but another level, would like to share ("an equality of space", Scott 1984, p.c.). As Hasenmueller states, the icon produces meanings which derive from the participation of the iconic separate from that of the thing imitated, as well as marking the connection of the 'substitute' with its 'subject' (Hasenmueller 1981: 139).

According to the Peircian notion (in Savan, 1980), the Third Principle characterizes the "interpretant". Thus, every sign is the object of another sign and its interpretant represents a rule or law, of which the interpretant is an instance. Each interpretant-sign as an instantiation of a law is also a member of a potentially infinite series of interpretants. In the case of the third type of interpretant -- the final interpretant -- the law appears in its instances as a norm which acts on its instances, not by compulsion, but by attraction. This attraction is not exact, but allows for numerous deviations.

The final interpretant is composed of (and composes) the interpretant series, but, as Ransdell (1980) points out, the series is not necessarily a "simple linear chain"; a notion that deserves more attention than theories of the interpretant have paid it and one that is especially applicable to signs in texts from the perspective of topological space, rather than language.

According to Savan, the final interpretant deserves more detailed study "as theoretical instrument" in that it often stimulates the formation of a new immediate interpretant which by acting "by attraction innovates an abductive immediate interpretant into harmony with an inductive dynamic interpretant" (Savan 1980: 261).

Cree Ethnosemiotics as a three-tiered structure

Cree ethnosemiotics seem particularly pertinent in that the symbols that are a part of the semiotic landscape are dependent upon a particular strategy. They can only be understood as an appropriate strategy through the sign-interpretant process. Hence the geese, as iconic interpretants, enable the Cree to interpret the symbols of the landscape. As the following quote illustrates the Cree hunter's attempt to achieve a primary iconic resemblance to the geese.

We were in V-shaped formations, with four hunters on each leg of the V which was open on the side where we expected the game. Their own formation copies that of

the flying birds. Everything was carefully made ready in advance: each hunter knew which birds were destined for him (Gros-Louis 1973: 87).

Such a complex three-tiered relationship does not fit the proper Piercian model of the interpretant since the goose, as an iconic sign of perspective (that of the interpretant), indicates a doubling back, or type of folding over, in the interpretant series that does not conform to the traditional interpretant-sign sequence.

Instead, it seems closer to the notion of the interpretant suggested by P. Ricoeur (1981) and N. Schor (1980). Ricoeur's interpretant is not just an interpretant of the sign, but also one that is an interpretant of the interpretant statements. This system is analogical to the structuralist mode of transposing laws of organization onto the plane of statements or to texts. Thus, for Ricoeur, the open series of interpretants "is grafted" onto the relation of a sign to an object, which brings to light a "triangular relation" which can then serve as a model for another triangle constituted at the level of the text. For Ricoeur, the new triangle has as its object, the text itself, and the series of interpretants is the chain of interpretations produced by the interpreting community. The series of interpretants belong to "the work of the text upon itself" and then "mediate" the "interpretation-appropriation" at the extremity of the "hermeneutical-arch" (Ricoeur 1981: 164).

The following is a description of such a configuration:

...two large flocks comprising ten to fifteen thousand birds, flying in parallel groups several miles apart. There are always several outriders that separate themselves from one flock to fly towards the others, veritable liaisons agents whose purpose we don't truly understand...Besides having observed all the signs of the Indian hunt I was certain that more geese would be coming (Gros-Louis 1973: 85, 86.)

Types of Interpretants

Naomi Schor's investigation of the various types of interpretants is framed within the question of whether or not "description and interpretation are mutually exclusive? Is the pursuit of the 'how' irreconcilable with the quest for the 'what'?" (Schor 1980: 167). Schor examines the way in which texts also represent and reflect upon interpretation as performance. For Schor, the interpretant is the interpreting character of a text.

Schor (1980) acknowledges and emphasizes the linkages between her use of interpretant and the term "analysand" because she is also implying that the two analytic situations are analogous. The interpretant "ranks" above the "narratee", and any "implied reader" in the text is considered "coextensive" with the main protagonist and is involved in a "double interpretive activity" with the interpreter. Thus, Schor (1980: 169) attempts to extend Pierce's notion of the interpretant by utilizing the "interpretant/analysand homophony". Schor then takes to task interpreters who have rushed into the "semiotic breach" of certain texts without taking into account the "allegory" of interpretation that the texts may

constitute.

The Interpretant and the Three-tiered Interpretative Process in Cree Ethnosemiotics.

Because of the presence of the character of the interpretant we arrive at, according to Schor, "a three-tiered interpretive process, the interpretants imputed with the decipherment of the text become the objects of the interpretants. And yet, as with the hunting situation, neither can claim priority to the interpretive process. The geese decipher the icons (decoys) in accordance with their interpretation of the text of the situation and impute their decipherment to themselves through an "autocommunication" as primary icons of interpretants. Thus in turn, they also become the objects of interpreters. And as such the interpreters create proper iconic texts in order that they might understand how to interpret the text of the figures of the landscape by imitating in fiction the primary icons (final interpretants).

What I am proposing is that what the goose represents in the "primary iconic" form within the preceding limits is the interpretant of the text of the space that both geese and Cree are a part of -- geese, for Pierce's notion of interpretant. The geese function as substitute interpretants which the Cree attempt to functionally imitate in order to achieve an understanding of a certain type of reading. The Cree hunter may then share the convention for the creation of appropriate iconic messages that the geese will be able to interpret as being a "kind" of goose. Such an icon's character (primary icon) is metaphoric in that the interpretant icon (denoting in its iconicity substitution and thus an understanding of the function of an interpretant to substitute) "simultaneously maintains identity with two discontinuous constructs or reality. In terms of a typology of signs it is a unit in which signifier and signified come from different contexts" (Hasenmueller 1981: 143).

Reciprocity of Contexts Between Cree Hunters and Geese

Also, in lieu of my preceding interpretations of the interpretant and of the following quotation, my belief that Cree conventions of hunting might help us with our tendency to privilege alternations between dichotomies and shy away from exploring the space inbetween should become more evident. As Hasenmueller states:

in addition, an icon's character can be metaphoric. It is a coherent object that simultaneously maintains identity with two discontinuous constructs or reality. In terms of a typology of signs, it is a unit in which signifier and signified come from different contexts (1981: 143).

Further, in this instance this type of icon is one in which the signifier and signified come from different contexts but there are dual signifiers (goose and human), thus establishing a metaphorical relationship through the one signified of interpretant. But the goose and human also share another quality in that dependence on each other as a part of the duality of the signifier, potentially "metonymically -- as the part to the whole" (Hasenmueller 1981: 142).

For example, Tanner writes:

On Thursday in October an old man, William E., died on his way to hospital in Chibougamau, and his body was returned the same day to Mistassini. The next day a goose from one of the several high flying flocks...descended to the village. Some people thought it was finally killed, but others told me it had got away. The following Monday a similar incident was reported to me as having occurred that day, but in this case I was told that the young men were instructed not to kill the bird because it was William E.'s 'pet' (1979: 140).

Thus, this icon in its emphasis on movement either metaphorically or metonymically between its various aspects, signifier-goose (and human)-signified-interpretant, also presents an icon that moves, not 'back and forth', from 'out there' to 'in there', but between three points or tiers. "In Abbot Suger's wonderful phrase, it is 'neither entirely in the slime of the earth' nor 'entirely in the light of heaven'. In that realm, metaphor and metonymy converge " (Hasenmueller 1981: 146).

By virtue of not a formal resemblance, but a functional resemblance, to the icon of the goose as interpretant, the Cree attempt to allow the goose to act as a guide in interpreting the world which the Cree inhabit. The goose, because of its valued interpretive abilities, becomes a part of this world from which geese as mere autonomic beings would be excluded. The assertion of equivalency between geese and Cree is done through iconicity. By utilizing the functional potential of the interpreting goose and by defining how to interpret (as an interpretant does) the goose presents to the Cree hunter a way that he can attempt to "imitate" in a functional way these abilities. The possibility of transcendence in interpretation and meta-interpretation from one world to the next is then up for explication through the utilization of the icon in hunting techniques.

An important aspect of such a system, then, is the implicit acknowledgement of interpretants in the world of the geese. Thus, the Cree view geese as potential "readers" of systems such that they are utilizing signs in a way that, in some ways, resembles our own use of sign systems in space. To establish that this is not mere religious worship (Martin 1978: 151), or just a predominant use of the figurative (Wagner 1977, and Scott 1983b for a critique of Wagner) but derived from a highly complex ethnosemiotics which depends on the utilization of iconic texts, has been one of the major aims of this paper.

Such an ethnosemiotics would seem important to our own configurations in semiotics since the utilization of geese as interpretants by their definition as icons, "consists in a point of intersection between two contexts: it is a mode that both acts as an agent of transcendence between discrete systems and affirms their underlying coherence" (Hasenmueller 1981: 144) (Scott 1983b:23 also makes this point).

Hunting as a dialogue through iconic Focalization

I will now attempt an analysis of how these icons indicate meaning as "part of a dialogue with their environment" in the context of the experience of hunting. Notions of icons also entail considerations of point of view according to Lotman's definition of complex communicative situations (Lotman 1977: 206). The aim in complex communicative situations is not just simple transmission, but also translation, which allows the "I" to become another through the enrichment of texts "bearing another's point of view". Thus the information is completed "only by the stereoscopic effect of different points of view towards the message" (Lotman 1977: 206).

Bal (1981) proposes a theory of focalization that deals with a spectator's use of point of view in interpreting signs and the significance this has for spatial narrativity. Thus, for Bal, chains of perception, which run in time and are logically related, create a fabula. Such a fabula (content) consists of signs that only have spatial relations to one another, which are in a relation to the total configuration. The relation between the configuration (the 'supersign', if you will) "and its contents (the fabula) .. [is] established by mediation of an interjacent layer, the view of the events" (Bal 1981: 203).

Thus, I would propose that the Cree hunter, through the use of 2 icons - the proper iconic text of the decoy and the primary icon of the goose as interpretant (the mediator that gives a view of the events) - allows the hunter to see the geese and "at the same time" he sees what the geese see and, thus, is capable of seeing the "complete picture". Or, in Bal's (1981: 204) words, the hunter has "at his disposal both levels of focalization".

Such a structure of focalization denotes an embedding of focalization which, according to Bal, fundamentally contributes to the meaning of not only a text but a narrative text. More significantly, in relation to my previous description of the interpretive movement of the primary icon (and also the discussion on the quality of the inbetween mediating space between two semiotic systems) Bal emphasizes the relevance of his distinction between three (and not two) layers in an embedded text. Bal (1981: 204) extends his analysis further and emphasizes what I defined as the denoting of the substitutibility of an interpretant icon in that he emphasizes that in a 3-layer structure one of the layers (but not the interjacent layer of focalization) can be replaced by another semiotic system.

Bal emphasizes that focalization is a part of the other aspect of signs, since signs do not only signify directly and are often difficult to describe (directly) but a fabula can be indicated approximately. "Focalization is also to register. As soon as a registration is accessible to a third 'person', there is indeed communication" (Bal 1981: 207).

As Bronzwaer (1981) points out, Bal's theory has even greater implications which are related to the earlier discussion on the use of icons by the Cree to understand what interpreting is about. Bronzwaer suggests that what is being told is not only a fable, but also it is a transformation into a story. Thus, the focalizations themselves are objects of narration and, as objects of the narrative process, they are concerned also with the "how" of narrative texts.

Winner's summary (1981) of Lotman's discussion (1973) of

autocommunication is similar to the description I have given here of what the Cree's semiotics of hunting may entail. This may be because Lotman's discussion of autocommunication is found in the context of analysing the mechanisms that operate in the presence of paired semiotic systems with the ultimate possibility of the mutual translation of texts. Such a structural pair is formed by communicative systems of the type "I-you" and "I-I".¹³

Cree Ethnosemiotics and 'Umwelt' Theory

Scott (1983b) mentions that there are certain non-native ethnologists' views of animal nature that are analogous to Cree views. I would like to mention another analysis (semiotic or otherwise) of animal behavior that also contains some of the same descriptions between man and animal that the Cree have.

The Umwelt theory of J. Von Uexküll emphasizes the complex levels of signs which are systematized into 'circles' (Kreise). In each of these circles there is a 'syntactic organization' which is in a relation of 'semantic organization' with other 'circles'. Therefore, the functional circle is a formula for the "dynamic unity of the processes of life --- the process of signs as a whole".

J. Von Uexküll, in formulating the methodology of Umwelt-research, compares man's interaction with nature to a composer who listens to his own compositions, which he plays on an instrument he has created himself. And what arises, then, is a

strangely reciprocal relationship between nature, which has created mankind, and man who creates nature, not only in his art and his science, but also in his subjective universe (Umwelt)...Thus the aim of Umwelt-research is to create a theory to the composition of nature...a score for the symphony of meanings that nature performs with the vast multiplicity of numberless Umwelts (subjective universes) (Von Uexküll 1982: 4).

Non-Cree Hunting: Limiting Interpretations

In this next section, I would like to mention briefly some non-native interpretations of the relationship between man and animal that rush into the "semiotic breach" between man and animal in a seemingly characteristic non-Cree-like manner; i.e. they take no account of the interpretive possibilities in considering the text as being about "How" to interpret. Thus, I am not distinguishing such analyses based on their being distinctively literal but on the limited manner in which they treat the above issue and the interpretive capacities and potential of animals as icons (Michener 1978; Degen 1983).

Such interpretations of the text of hunting geese, as those of James Michener and Terry Degen, have remarkable similarities to the type of construction of the text advocated in the roman a these (as defined by Beaujour 1980: 348) which seeks an ultimate origin behind the interpretive chains, "a paternal surrogate" through dialectical progress which downplays fantasy and protest. The addresser of these texts enjoys attenuated authority and stands in loco parentis. As Suleiman points out for this text, things fit in their proper claim of "parental slots".

Todorov (1980) states that in such a text the characters spend all their time searching for the truth, constructing facts and events. The text concludes with an ending that may be tragic --- "not because of impotence, but caused by ignorance and erroneous constructions". Some samples are:

Onk-or and his mate were unusual in the animal kingdom in that they were mated for life. They were as tightly married as any human couple in Patamoke; each cared desperately what happened to the other, and Onk-or would unhesitatingly sacrifice his life to protect that of his mate (Michener 1978: 8; or further examples, see pp. 9-10).

Also compare Cree comments and the comment of Gros-Louis (1973: 20) to the following comments by Michener's character, Lafe Turlock:

Canniest birds in the world. They have a sixth sense, a seventh and an eighth... 'A roast goose tastes so good because it's so dangd hard to shoot...But never one gaddamned goose where you want him. It's frustratin' ...I'm gonna get me so many geese..The trick is to think like a goose... This is guaranteed to get honkers...I laid out real money for them damned trolls, and I expect some honkers in return...Turlocks eat geese because we're smarter'n geese...(His sons wait) "how we gonna do it, pop?/'Strategy'. "Now!" Turlock signaled, and the guns blazed. Before the startled geese could take to the air, the six Turlocks dropped their guns, grabbed others and blazed away, dropped them and reached for their back-ups (Michener 1978: 3-24).

And as Terry Degen (1983) tells us, the main goal is to outwit the geese:

Against such an adversary, the main advantage a hunter has is the weather forecast... In other words, I've given up the notion that I'm enjoying myself...We had always been lucky on the late. The honkers couldn't wait to steam down to our decoys... We had outsmarted them alright, and the score was still: birds-100; hunters-0 (Degen 1983: 46).

Degen (1983), in analysing the mistakes of hunters (their misreading of the situation) tends to describe only the hunter's poor positioning within his own circle (or Umwelt) rather than the syntactical relations of the hunter's Umwelt with the goose's Umwelt in the topological space.

This is an example of what, I think, Lotman (1977) describes as the world of the extrasystemic classification as 'non-existent' (Lotman 1977: 198-200: 2.3.2, 2.3.3, 2.3.4, 2.3.5). Such texts, as part of the genre of "monological narrative" (Brooke-Rose 1980) overdetermine a stance which delimits its characters and ideological position in a way that produces the question: "Where does the author stand?"; something that cannot be asked of the dialogical text (Brooke-Rose 1980: 143).

The Hunter: Hunting as Movement Within a Dialogical Text

I propose, that the dialogical text requires a convention of reading, utilized by the Cree hunter to understand the text wherein they, as figures, move and geese fly. Might we not, then, see his dialogic text of ambivalence as having similarities in the dynamism of construction to that of another topological space, the text Topologie (Robbe-Grillet in Mistaccio 1980). At this juncture, I would like to review some of the insights that Mistaccio (1980) has regarding a convention of reading that follows the metaphor of topology.

This analogy is also being drawn in order to suggest a way in which the space between literal and figurative may be read. Thus, I am suggesting that this space may, in some cases, be a topological surface that requires a more demanding reading than that of merely constructing (only one of many methods of the reader's production of text; see Todorov: 1980) two "complementary" semiotic systems (literal and figurative).

According to Mistaccio (1980), G. Deleuze (1969) has characterized the topological surface as one wherein two series of signs become mutually resonant (but non-hierarchically). The topological model, according to Kristeva (in McCannell 1981) deals with the nonrepresentable, resulting from the signifier's lack of ultimate unity and finality. Thus, the text provokes a series of topological glissements (which can be ludic) and an "incessant sliding" from textual space. (For examples see Scott 1983a: 76, 119, 122).

Reminiscent of the use of the blind in hunting, as described by the Cree and Von Uexküll's Umwelt in a topological text, elements of one space can be propelled into another by means of a hole in the space represented -- such as a window. (Also, see Sebeok 1981: 53; Marin 1980: 309, on the importance of window or holes in the space for orienting representational modes; Scott 1983a: 66, 67, 75, 123).

As Mistaccio (1980) points out, such a text demands a new characterization of how naturalization occurs; "we must go beyond the 'conventionally natural'".¹⁴ Mistaccio is, however, indicating that this demands rather more than the use of the literally conventional as the precipitate for new metaphors which deliberately address differentiation, because of the utilization of the convention that she defines as ludism. Ludism, as a topological metaphor, subsumes generic considerations and, by playing with the fluid and interchangeable identities of the characteristic figures of narrator, narratee, scriptor, and implied reader. The emphasis is on the circulation of narrative roles and undermines the selection of any permanent narratees as possible intermediaries (see Scott 1983a: 42, 44, 28). "Understanding depends not on the ability to assume a 'persona', but to become a function".

There are shooting tactics that enhance other as well as one's own chances" (Scott 1983a: 80)... The problem for the shooter is not just to wait until the geese are in a position that allows him a good shot. He needs to think about what will give the maximum number of hunters in the circle a chance to shoot (Scott 1983a: 73; see also 70, 74, 114-120).

Thus, the scriptor (goose-human) and implied reader (human-goose) become "nomadic singularities whose separateness and identity are

simultaneously maintained and denied" (Mistaccio 1980: 382). This "one" can assume a variety of functions -- one can be collective and private, subjective and objective, focalizing and narrating. As Mistaccio says, quite aptly, "Having once again fallen into the hole", the "one" is free to pop up again later with a new narratee, a new "tu" (see also Scott 1983b: 133, 134, 123). This play between subjects and in subjects is also a part of the realm of the signifier and the signified (White 1984) which allows the text to "cohere" without betraying its fragmentation.¹⁵ There is resemblance with difference which accentuates memory through anticipation and retrospection (see Scott 1983b: 123, 124; Gros-Louis in this paper).

I suggest then that the land of the goose hunt has similarities to Topologie: in the same way that, for Mistaccio, the topological text is one wherein:

There is the inscription of mobility, of the incessant circulation of matter within and among texts...a stripping binary relationships of their dialectical force...a reflection of the reader's ambivalence...a conventionality not tied to a simple "I/you" opposition in the situation of enunciation...(a challenge) to the best theories of reading for revision... (Mistaccio 1980: 395-400).

CONCLUSION

In conclusion, what I have been suggesting is that the space between the literal and the figurative demands a convention of reading that semiotics has often shied away from interpreting; in the attempt to resurrect order from ambivalence often "all possibilities" (Lotman) are invoked. This creates descriptions of interpretation that reify the specialized tapestry of interlocking Umwelt's that connect and diverge in ways that are fantastically complex and Amazing -- more like a dance than the tick-tock of oscillation. Not wholly topological (also dialogical "fantastical", auto-communicative and iconic) the method of interpretation, presented in the Cree convention of hunting and inter-species communication, demonstrates that there are many ways of reading a text (and the text of Nature) that must be explored. One way is by indirection and by a sort of "lateral dance of interpretation" (Leitch 1980) away from the binary opposition of the literal and figurative; the one poses the other in ways that are still hidden to us, because the "pure-loined" "erotic hermeneutics" is still to be admitted to the systemic.

Even I -- who have been in Spaceland, and have had the privilege of understanding for twenty-four hours the meaning of 'height' -- even I cannot now comprehend it, nor realize it by the sense of sight or by any process of reason; I can but apprehend it by faith.

(Edwin A. Abbot, 1884, Flatland- A Romance of Many Dimensions, in Drid Williams 1978: 211).

NOTES

1. By utilizing the word convention of reading, I do not mean to imply that hunting, as reading, is purely conventional. I side, therefore, with Nelson Goodman, when he states that "such organization of discourse participates notably in the organization of a reality...In the denotational hierarchy and in chains of reference lie part of the structures of any worlds we have and we cannot find a world apart from all versions" (Goodman 1981: 131).
2. Stanley Fish (1982), in an examination of the epistemological premises underlying the question of distanced or orphaned speech, finds remarkable the number of issues in philosophy and critical theory that resolve to the issue raised by the privileging of proximate or anchored speech. Such an examination yields the following related and interdependent set of oppositions:

literal language vs. metaphorical language,
 determinate vs. indeterminate, brute facts vs.
 institutional facts, objective discourse vs.
 subjective discourse, real people vs. fictional
 characters, direct speech acts vs. indirect speech
 acts, real objects vs. fictional objects,
 scientific language vs. expressive language,
 explicit performance vs. implicit performance,
 locutionary vs. illocutionary, meaning vs.
 significance, perception vs. interpretation, real
 experience vs. aesthetic experience, constative vs.
 performative (Fish 1982: 697).
3. Utilizing similar metaphors, W.J.T. Mitchell (1980) recommends, not a cleansing or expunging, but an acceptance of the "contaminations" of crossing of lines of genre. Instead, the languages of criticism should work for an understanding of the ways in "which the infections are carried" (Mitchell 1980: 549).
4. Lotman points out, however, the limited qualities of conveying semiotic systems as belonging to one or the other pole. Since A.N. Kolmogorov demonstrated that, "in an artificial language which had no synonyms, poetry was impossible, then it is impossible for a natural language to exist unless there is poetry in it" (Lotman 1977: 209).
5. According to Winner (1981), Lotman (1973) has suggested that alongside Jakobson's model of communication, there should be the one of "autocommunication". Lotman proposes that the model "I-I", is evident when the subject addresses himself with a purpose, not just to remember. Through this transmission of the message to himself, the addresser restructures his essence (internally composed, socially significant roles) (Winner 1981: 55).

6. Goodman (1979) points out that ambiguity and metaphor are "closely akin. Metaphor differs in that a literal application precedes and influences a correlative metaphorical application" (Goodman 1979: 126).
7. Britton (1982) raises problems related to Brooke-Rose's theory which are ones evocative of Lotman's discussion of the transposition of centre and periphery (1977) of MacCannell's (1981) characterization of the revolution on the semiotic mechanism and of Bougeant's concern with accounting for the "interpenetration" (to mention a few). Britton is concerned with what it is in the base structure (this "injunction/transgression" structure) that enables it to encode the two fabulas together; is it because it is sufficiently "bare" (MacCannell's "pure", "natural" arrangement)? (Britton 1982: 238).
8. The topic: the applicability of space to the modeling of literary facts, would seem to be in danger of being analyzed within the old paradigms, rather than serving as a mechanism of edification, as Lotman and Mitchell would wish for. One critic (Johnson, 1982), while agreeing with Lotman's stressing of the spatial dimension with its topological properties, as the fundamental organizing axis or the modeling of literary facts, warns that the relationship between literary works and ontological spatial categories is not an immediate one. "Once again, we are reminded of the boundary between the linguistic system and the spatial system". According to Johnson, we must also remember that literature is a linguistic phenomena and "although it has reference to the real world, that connection is indirect". (Now hoisted on a difference of direct and indirect.) Any analysis of spatial concepts is relegated to the "specialized" linguistic category of "deixis". Like Bougeant, Johnson wants to have it all and, thus, after implementing the boundary, he proposes an area of mediation, and that deixis be utilized as the "appropriate intermediate level" (Johnson 1982: 98). I think Mitchell and Lotman both envision a mediator of more power (but then, as Leach 1979, has shown, powerful intermediates can easily become monsters).
9. Winner (1981: 52) describes Lotman's project as a rejection of dualism in its search for a meaningfully constituted object within a full natural and cultural context.
10. Bershad (1983) in her disucssion of the icon, prefers to utilize Pierce's definitions of indexicality, rather than iconicity based on her arbitrary division of the semiotics of the object into how things have meaning and what they mean. Thus, for Bershad, indexicality is a categorization of how things mean. Bershad's justification for this "artificial" "division" between signification and meaning is based on her desire to emphasize the "role of the subject in the production of meaning" (Bershad 1983: 288).

11. According to Hasenmueller (1981), Eco defines iconicity in terms of imitative action. He differentiates such likeness from the likeness due to parallel functional roles (Hasenmueller 1981: 136).
12. Similarly, Ricoeur has pointed out how the loss of an ostensive referent of the text does not mean the loss of a referential function. The text frees a system of second order references; the text does refer to a world according to Ricoeur: "To interpret is to explicate the type of being-in-the world unfold in front of the text" (Ricoeur 1981: 141). But as Wyschogrod (1983) points out, this 'mode of being' indicated in the text aims as explicating 'being' as the 'power to be' (Wyschogrod 1983: 314).
13. J. Von Uexküll developed rules for the observation of other living beings for the purpose of drawing up a theory of the composition of nature which bears a metaphorical resemblance to Lotman's auto-communication theory, Christine Brooke-Rose's dialogic texts, and my preceding analysis of the Cree's use of iconic resemblances. According to J. Von Uexküll (1982), he constructed a model which he called the 'functional circle' which attempts to describe "the subject (as 'self') embracing the object like a forceps with its two claws on one hand as receiver (receptor), which receives stimuli and transposes them into signs, thus structuring the 'nonself' with perceptual cues (properties of an object), on the other hand as operator (effector), which changes or erases the perceptual cues. We reduce this process to its simplest form by describing it as 'self-stimulation' that is modified by the alteration of the 'nonself' (between stimulating operator effector and stimulated receiver receptor)" (T. Von Uexküll 1982: 19).
14. Mistaccio (1980) also points out that a text like Topologie renders the theories based on the communicative scheme elaborated by linguists involving interaction between two identities only marginally useful.
15. Nattiez (1977) states that it "is easy to see that a work of art is never static, but is part of an unending process: and a semiotics of music must especially endeavor to bring out this symbolic dynamism, this swirl of interpretants" (Nattiez 1977: 137 in Sebeok 1977). Interesting analogies could be made between textual space in music, pictorial representations and kinetic movement. (See Hatten 1980; Lo Bue 1982 on topological space in music - something I believe Glenn Gould explored in his interpretations.)

BIBLIOGRAPHY

- Bal, Mieke
 1982 The Laughing Mice: or On Focalization. *Poetics Today* 2 (2): 202-210.
- Berensen, Paul S.
 1972 *The North American Waterfowler*. Seattle: Superior Publishing Company (consulted only).
- Bershad, Deborah
 1983 Icon as index: Middle Byzantine art and architecture. *Semiotica* 43 (3/4): 275-320.
- Britton, Celia
 1982 Review of Christine Brooke-Rose, ed., *A Rhetoric of the Unreal: Studies in Narrative and Structure, especially of the Fantastic*. *Poetics Today*, 3 (3): 233-238.
- Bronzwaer, W.
 1981 Mieke Bal's Concept of Focalization. *Poetics Today* 2 (2): 193-201.
- Brooke-Rose, Christine
 1980 The Readerhood of Man. In *The Reader in the Text*. Susan Suleiman and Inge Crosman, eds., pp. 120-149. Princeton: Princeton University Press.
- Degen, Terry
 1983 Outwitting Eastern Honkers. *Outdoor Canada* 2 (7): 42-48.
- Eco, Umberto
 1978 Semiotics: A Discipline or an Interdisciplinary Method. In *Sight, Sound and Sense*. Thomas A. Sebeok, ed. Bloomington: Indiana University Press.
- Feit, Harvey
 1973 The Ethno-Ecology of the Waswanipi Cree; or How Hunters Can Manage Their Resources. In *Cultural Ecology: Readings on the Canadian Indians and Eskimos*. Bruce Cox ed. Toronto: McClelland and Stewart Ltd.
- Fish, Stanley E.
 1982 On Austin and Derrida. *Critical Inquiry* (Summer) 696-697.
- Francis, Daniel and Toby Morantz
 1983 *Partners in Furs. A History of the Fur Trade in Eastern James Bay: 1600-1870*. Kingston: McGill-Queen's University Press.
- Ghanotakis, G.
 1983 The Ecology of Meaning. Paper presented at The Search for Meaning: A Conference on Paul Ricoeur. October 21, 1983.

- Gilbert, Anthony
 1981 Musical Space: A Composer's View. *Critical Inquiry* (Spring): 605-611 (consulted only).
- Goodman, Nelson
 1979 Metaphor as Moonlighting. *Critical Inquiry* (Autumn): 125-129.
 1981 Routes of Reference. *Critical Inquiry* (Autumn): 121-132.
- Gopnik, M.
 1977 Scientific Theories as Meta-Semiotic Systems. *Semiotica* 21 (3/4): 211-225.
- Gros-Louis, Max
 1973 *First Among the Hurons*. Sheila Fischman (transl.). Montreal: Harvest House Ltd.
- Grossberg, Lawrence
 1982 Experience, signification and reality: the boundaries of cultural semiotics. *Semiotica* 41 (1/4): 73-106 (consulted only).
- Hasenmueller, A. Christine
 1981 The function of art as 'iconic text': An alternative strategy for a semiotic of art. *Semiotica* 36 (1/2): 135-152.
- Hatten, Robert
 1980 Nattiez's Semiology of Music: Flaws in the new science. *Semiotica* 31 (1/2): 139-155.
- Holland, Norman H.
 1980 Re-covering "The Purloined Letter": Reading as a Personal Transaction. *In The Reader in the Text*, Susan Suleiman and Inge Crosman, eds. pp. 350-351. Princeton: Princeton University Press.
- Johnson, D.B.
 1982 Spatial Modeling and Deixis: Nabokov's Invitation to a Beheading. *Poetics Today* 3 (1): 81-98.
- Leitch, V.B.
 1980 The Lateral Dance. *Critical Inquiry* (Summer): 593-606.
- LoBue, E.F.
 1982 John Cage's Writings. *Poetics Today* 3 (3): 67-77.
- Lodge, David
 1982 Review of the Reader in the Text. *Poetics Today* 3 (1): 185-189.
- Lotman, Ju. M.
 1975 Theses on the Semiotic Study of Cultures. *In The Tell-Tale Sign*. Thomas A. Sebeok, ed. Lisse: The Peter de Ridder Press.

- Lotman, Ju. M.
 1975 On the Metalanguage of a Typological Description of Culture. *Semiotica* 97-123.
- 1977 The Dynamic Model of a Semiotic System. *Semiotica* 21 (3/4): 193-210.
- MacCannell, Juliet Flower
 1981 The Semiotic of Modern Culture. *Semiotica* 35 (3/4): 287-301.
- Marin, Louis
 1980 Toward a Theory of Reading in the Visual Arts: Poussin's The Arcadian Shepherds. In *The Reader in the Text*. S. Suleiman and I. Crosman, eds., pp. 293-325. Princeton: Princeton University Press.
- Marsh, J.L.
 1983 The Irony and Ambiguity of Freedom. *Poetics Today* 4 (3): 479-492 (Consulted only).
- Martin, Calvin
 1978 *Keepers of the Game. Indian Animal Relationships and the Fur Trade*. Berkeley: University of California Press.
- Michener, James
 1978 *The Water-men*. New York: Random House.
- Mistacco, Vicki
 1980 The Theory and Practice of Reading *Nouveaux Romans*: Robbe-Grillet's *Topologie d'une cite fantome*. In *The Reader in the Text*. S. Suleiman and Inge Crosman, eds., pp. 371-401. Princeton: Princeton University Press.
- Mitchell, W.J.T.
 1980 *Spatial Form in Literature: Toward a General Theory*. *Critical Inquiry* (Spring): 539-567.
- Morgan, Robert P.
 1980 *Musical Time/Musical Space*. *Critical Inquiry* (Spring): 527-538 (consulted only).
- O'Toole, Lawrence
 1980 *Dimensions of Semiotic Space in Narrative*. *Poetics Today* 14: 135-149.
- Paivio, A.
 1983 *The Mind's Eye in Arts and Science*. *Poetics* 12: 1-18.
- Percival, W. Keith
 1982 *An Eighteenth-Century View of Animal Communication*. *Semiotica* 39 (1/2): 55-73.

- Pfeiffer, Ludwig K.
 1983 Interpretation: Anthropology and the Ecology of Mind. Poetics 12: 165-183.
- Pirog, G.
 1982 Iconicity and narrative. Semiotica 39 (3/4): 304-305.
- Preston, Richard
 1975 Cree Narrative: Expressing the personal meanings of events. Canadian Ethnology Service Paper No. 30. National Museums of Canada (consulted only).
- Randsdell, Joseph
 1980 Semiotic and Linguistics. The Signifying Animal. Irmengard Rauch and Gerald F. Carr. eds. pp. 186-201. Bloomington: Indian University Press.
- Ricoeur, Paul
 1981 Hermeneutics and the Human Sciences: Essays on Language, Action and Interpretation. John B. Thompson, ed. and transl. Cambridge: Cambridge University Press.
- Rogers, R.
 1982 Amazing Reader in the Labyrinth of Literature. Poetics Today 3 (2): 31-46.
- Rorty, R.
 1979 Philosophy as a Kind of Writing: An Essay on Derrida. New Literary History 10: 141-159.
- Savan, David
 1980 Abduction and Semiotics. In The Signifying Animal. Irmengard Rauch and Gerald F. Carr, eds., pp. 252-263. Bloomington: Indiana University Press.
- Schor, Naomi
 1980 Fiction as Interpretation, Interpretation as Fiction. In The Reader in the Text. S. Suleiman and I. Crosman, eds., pp. 165-183. Princeton: Princeton University Press.
- Scott, Colin
 1983a The Semiotics of Material Life Among Wemindji Cree Hunters. Unpublished Ph.d. dissertation. Montreal: McGill University.
 1983b Signs of Reciprocity: James Bay Cree Knowledge Construction and Exchanges with Canada Geese. Paper presented at Toronto Semiotic Circle (Nov. 19, 1983).
- Sebeok, Thomas A.
 1975 Contributions to the Doctrine of Signs. Bloomington: Indiana University Press.
 1977 A Perfusion of Signs. Bloomington: Indiana University Press.

- Sebeok, Thomas A.
 1978 The Sign and Its Masters. Austin: University of Texas Press.
 1981 The Play of Musement. Bloomington: Indiana University Press.
- Sebeok, T.A. and Harriet Margolis
 1982 Captain Nemo's Porthole: Semiotics of Windows in Sherlock Holmes. Poetics Today 3 (1): 110-139.
- Tanner, Adrian
 1979 Bringing Home Animals. Religious Ideology and Mode of Production of Mistassini Cree Hunters. Memorial University: Institute of Social and Economic Research, No. 23.
- Todorov, Tzvetan
 1980 Reading as Construction. In The Reader in the Text. S. Suleiman and Inge Crosman, eds., pp. 67-83. Princeton: Princeton University Press.
- Von Uexküll, Thure
 1982 Introduction: Meaning and Science in Jakob von Uexküll's concept of biology. Semiotica 42 (1): 1-24.
- Wagner, Roy
 1977 Scientific and Indigenous Papuan Conceptualizations of the Innate: A Semiotic Critique of the Ecological Perspective. In Subsistence and Survival: Rural Ecology in the Pacific. Timothy F. Baliss-Smith and Richard G. Fedcham, eds., New York: Academic Press.
- White, Allon
 1984 Why Were the Signifiers Free to Play? --- The Advent of Modernism. Paper presented at McMaster University, Hamilton, Ontario (February 22, 1984).
- Williams, Drid
 1978 Deep Structures of the Dance. In The Yearbook of Symbolic Anthropology. pp.211-230. Montreal: McGill-Queen's University Press.
- Wilson, R.
 1979 The Bright Chimera: Character as a Literary Term. Critical Inquiry (Summer): 725-749.
- Winner, Irene Portis
 1981 The State of the Art. Brown University: Centre for Research in Semiotics.
- Wyschogrod, E.
 1983 From being to meaning: Toward a phenomenological hermeneutics. Semiotica 44 (3/4): 371-382.