Atmospheric Disturbances in the IMP Interaction Model:

Introducing Semiosphere into Business Interaction:

Competitive paper for the 23nd IMP Conference, Manchester 2007

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Abstract

Relationship atmosphere is a key concept in the IMP interaction model and approach to business marketing. Atmosphere is the outcome of as well as the condition for human interaction, and comprises from this viewpoint power-dependence, conflict-cooperation, closeness-distance and mutual expectations.

In research it is treated as a "catch-all" category and a "soft", human-to-human aspect of communication in interactive processes in business encounters. Social capital and communicative skills of the interacting actors, as well as cultural sensitivity in increasingly complex and multi-cultural contexts are needed in contemporary business. Individual actors also represent their organisations, and are influenced by these organisations and act accordingly in their roles. Human communication lies at the heart of interaction, where sensemaking and emotions, trust and commitment develop between individual interactants.

Being able to empathize with counterparts in relation their resources and their commitment to joint activities and potential for mutual success in the business where the interaction takes place lies at the heart of relationship atmosphere. There is room to develop this concept and use new avenues for improving our understanding of this key concept. This gives reasons to dig deeper into the actors' ability to interact through sensing and sensemaking processes as well as intuition related to future outcome of interaction. These issues are closely connected to interactive business processes. In the paper a semiotic approach in developing an understanding of business interaction is taken. Starting from different "spheres" relevant for business interaction we will specifically deal with the perceptive (cognitive) sphere, the spatiosphere of interaction (through the notion of Umwelt) as well as the semiosphere connecting the spatio-temporal and cognitive spheres of interactants. Spheres of influence and connectivity of individual businesspeople in this process are scrutinized in the paper. Semiosphere is an extension, a substitution or a complementary concept for understanding of what social atmosphere deals with in business interaction. The paper aims to extend our knowledge of business interaction and the role of individual actors in the process.

Key words: Interaction, atmosphere, cognition, process, semiosphere, business markets.

1. INTRODUCTION

IMP studies of business markets have been based on the idea of interaction as the key theoretical construct. The idea of process and development is inherently embedded in this view of business markets. It is not based on action but rather on interactions between interdependent companies (Ford 2006, 2). The basic stepping-stone was introduced in Håkansson (1982). In a recent article two proponents of the interaction and network approach still tackle the role of interaction and relationships in business markets (Ford & Håkansson 2006).

The authors note five areas that pose significant problem areas for research using a relationship approach for understanding business markets. The areas they put forth concern time, interdependence, jointness, relativity and subjective interpretation. It is easy to agree that these are all tricky issues and need to develop further. Here we aim to tackle the basic interactive perspective of the IMP-Group, the interaction model of dyadic business relationships first presented in Håkansson and the IMP group from 1982. As well known, the interaction model is based on four main elements, the interacting parties, the interaction process, the environment of interaction and the interaction atmosphere.

In this paper we aim to look more closely at the concept of relationship atmosphere presented by IMP-related research to see how well it has been defined and used in studies of business interaction. We feel that the atmosphere notion in this type of setting related to many of the problem areas noted by Ford & Håkansson (2006). The notions of interdependence, connectivity, process relativity and subject interpretation all are present when people interact with each other in business markets. But how well has the atmosphere concept been defined and empirically validated? Is there room still to improve the role played by human actors in business relationships using and interactive viewpoint? We think that this issue is important and still to a great extent underdeveloped.

The paper starts with a conceptual analysis and discussion concerning the atmosphere concept. We proceed thereafter by developing the idea of atmospheres and human interaction in relationships using a semiotic approach. In doing this we introduce new concepts and issues in order to improve study processes about business interaction. Basic concepts used in semiotics are introduced like the concepts of sign, signifier and signified. Umwelt and semiosphere are described and defined here in order to come to terms with interaction from another angle than has been done previously. (for a notable exception see Rinallo & Borghini 2003, 2006).

2. RELATIONSHIPS AND THE INTERACTION APPROACH: AN OUTLINE

We start this outline with taking out remarks and utterances directly related to the concept of atmosphere as it has been presented in the book "Industrial Marketing and Purchasing of Industrial Goods – an Interaction Approach" (Håkansson 1982). The atmosphere concept is presented in chapter two in the book as follows:

1. The establishment of satisfying exchange relations (an atmosphere) modifies and is modified by the transactions.

2. Often a specific atmosphere has evolved that is characterized both by environmental and human factors.

3. In this view the concept of atmosphere is related to a sum of environmental factors affecting a

specific business relationship (e.g. strikes, competitive moves, logistical problems or new technological developments affecting the specific industry where interaction resides) (Håkansson 1982, chapter 2)

Another issue in addition to these put forth in the books is:

4. The relationships between buying and selling firms are dynamic in being affected by the individual episodes which take place within them. At the same time they have the stability which derives from the length of the relationship, its routinization and the clear expectations which become held by both parties. The relationship is influenced by the characteristics of the parties involved and the nature of the interaction itself. This in turn is a function of the technology involved and the environment within which the interaction takes place. Organizational strategy can also affect both the short-term episodes and the long-term relationship between the parties. (Håkansson 1982,)

This viewpoint takes a processual element into consideration concerning the atmosphere. Atmosphere is formed through an interplay between counterparts and the history of the relation in question. It seems plausible to note that developed routines diminish the influence of atmosphere in interaction, whereas changes in the business or in the relationship itself make the impact of atmosphere more pronounced.

And further:
5. This atmosphere can be described in terms of the power–dependence relationship which exists between the companies, the state of conflict or co-operation and overall closeness or distance of the relationship as well as by the companies' mutual expectations.

6. There are reasons for the buying and selling firm to both develop a high degree of closeness with their counterpart as well as to avoid such closeness. There are both advantages and disadvantages connected with different atmospheres. We can analyse the reasons involved with regard to an economic (cost–benefit) dimension and a control dimension.

Closer collaboration and relational investments have an economic as well as a control dimension according to the interaction approach. Intense collaboration can lead to cost savings and smooth operations and logistics. On the other hand closeness is also safeguarding the relation and being able to control the situation and also create interdependence.

Still one more suggestion from the book:

7. Finally we include 'Atmosphere'. As the company's relationship develops so the parties' views of their relative power may change. Previous research has shown quite clearly that the interaction between buying and selling companies is conditioned by a clear and commonly held view of the relative power of the parties to the interaction and the areas to which this power extends. At the same time we have noted that conflict can characterize these relationships as well as co-operation. Thus it is quite possible for a company to have one relationship with a particular buyer–seller which is characterized by co-operation. It is also possible for the company to have a relationship with another company which is characterized by co-operation on the minimum level, in order for transactions to take place but thereafter is marked by frequent conflict over means and allocations of resources. Thus

the detailed interaction process is subject to the perceptions of both parties of the overall state of relations between them – power–dependence and conflict–co-operation. (Håkansson 1982).

Based on this some issues are worth mentioning. When analysing and summing up the writings about relationship atmosphere in the basic IMP book we have difficulties in getting a clear view about the atmosphere notion. Is the atmosphere residing in relation to the *companies* as actors or acting *individuals* or *departments* as actors, or are they all present? Can companies as actors create and have an "atmosphere" with each other as a result of interaction and through other forces coming from the environment? The fairly elusive character of the concept has been also noted by others. Möller & Wilson (1991, p.88) note that "It is obvious that atmosphere is a complex construct which has yet to be fully conceptualized and operationalized".

Another issue is the role of opposites, i.e. co-operation-conflict, or closeness vs. distance. Are they two separate entities (either or) or can they be seen to co-exist (both-and) at a certain degree in most relationships? It is not clearly described or analysed, according to our reading in the text referred to above. This issue also poses challenges to how the atmospheric issues and concepts are and could be handled in such a setting. This concerns also methods to use in studying business relationships.

A third dimension is the lack of a generic definition of the atmosphere concept in this text. It seems to form a messy and all-affects-all notion, but still it has been delineated to have five key characteristics. Hence, there is room for further development and refinement.

Hallén and Sandström (1991) take a more thorough approach concerning interaction atmosphere in business. They view it exclusively as a matter of a state of affairs existing between human actors but also affected by the environment where business takes place. Different definitions and notions concerning the concept in business market management settings from an interactive perspective are presented here in the following table with comments.

Sutton-Brady (2001) has studied the atmosphere notion in detail in her study. She follows the five basic notions and concepts related to atmosphere as presented in Håkansson (1982). She looks at diverse parts of relationship atmosphere. Those were: trust, power, dependency and commitment. In the study data from the IMP2 project was used. She then develops the ideas, and was able to find an alternative way of viewing atmosphere in the interaction model. She then postulates that atmosphere is "… a perception of each actor in the relationship (i.e., a perceived atmosphere.)" (Sutton-Brady 2001). Thereafter the perceptions of each counterpart's perceptions in her study were compared and she could find some similar perceptions and somewhat different perceptions as well as divergent perceptions about the atmosphere in dyadic buyer-seller relationships.

Author(s)	The atmosphere concept	Comments
Håkansson (1982)	"... the atmosphere is considered as a group of intervening variables, defined by various combinations of environmental, company, specific, and interaction process characteristics" p. 21 "This atmosphere can be described in terms of the power–dependence relationship which exists between the companies, the state of conflict or co-operation and overall closeness or distance of the relationship as well as by the companies' mutual expectations. Instead the *atmosphere is considered as a group of intervening variables, defined by various combinations of environmental, company specific, and interaction process characteristics. The atmosphere is a product of the relationship, and it also mediates the influence of the groups of variables*. P. 21 (italics by authors) "Thus the detailed interaction process is subject to the *perceptions* of both parties of the overall state of relations between them – power–dependence and conflict–co-operation" (italicized by authors)	Atmosphere is a composite construct both used in relation to companies as well as at a personal level. The concept is presented as having a perceptual characteristic. It is something that is a result of what takes place in-between the counterparts and the environment where interaction is embedded.
Möller & Wilson (1991) p. 115-116	"… atmosphere is seen as a perceptual construct describing the emotions of the parties towards each other and towards the relationship between them"	The term relates to individuals as mediators of the existing atmosphere between business partners
Hallén & Sandström (1991), p. 108	"… it is obvious that the interaction between business people does not take place in an emotional vacuum. This setting of the business interaction can be termed atmosphere" p. 108. ".. it is defined here as the emotional setting, in which business is conducted. It constitutes the working environment for the individuals in their interaction with each other" p. 113.	Atmosphere in business interaction is a perceptual and an emotional notion based on personal experiences and feelings. It is also noted that it is feeling about one self as well as in relation to the other party, it is a relational construct and also affected by the environment and business and events surrounding interaction
Canning & Hanmer-Lloyd (1998)	"… the way in which companies or individuals deal with each other is determined by the "emotional" atmosphere of the relationship. The intentions, negotiations and eventual agreements which are experienced and enacted by managers reflect the state of power/dependence, co-operation/conflict and social distance/closeness of a relationship"	Atmosphere is seen as a composite construct residing both in individuals as well as in a relations between companies, however enacted and coming into being through individual managers reflections and perceptions
Sutton-Brady (2001)	What are the dimensions that make up what is commonly known as relationship atmosphere? Although discussion of these dimensions has taken place over time, a need exists for a stronger definition of relationship atmosphere and its apparently multi-dimensional, multi-faceted nature.(p. 6)	The paper does not reveal what this stronger definition is all about. The author seems strongly to support the five dimensions of atmosphere proposed by the IMP-group.

Table 1. The atmosphere concept used in business marketing studies.

The atmosphere concept seems not to have been studied in recent years to a notable degree. Very few hits have been made using the internet search engines with "relationship atmosphere" dealing with business-to-business matters. There is reason to presume that its relevance is still valid and important.

Concerning relationship atmosphere somewhat differing viewpoints about what atmosphere contains have been presented. There is, however, a consensus that atmosphere is an important part of business. Atmosphere is mainly related to "soft" issues between counterparts in business relationships. Trust, commitment, adaptation, and other issues related to *interpersonal perceptions and emotions* are key issues. Both a control aspect and economic issues form parts of the atmosphere. It is composed of different elements (human: emotions, trust, commitment, social: social interaction and adaptation, technical, power dimensions, mutual expectations etc.) It is enacted through human communication and affected by what takes place in the relation as well as affected by events from outside-the-relationship that has an effect on the specific business relationship. It can be said that it comprises *the mental state* between the counterparts at a specific point in time. The following point can be put forth in relation to this:

1. Each actor (person and/or group) can have *their own perceptions* about the state of the relationship between companies (mutual feel and/or state)
2. This state can be felt as something *common between* counterparts interacting through the key persons who mediate these to other actors in the company they are working for
3. Events from the business environment, especially within the industry where the relation is embedded as well as other societal and natural forces from outside the relation impact on the atmosphere

We ask ourselves if relationships between companies have atmospheres (in the plural)? We deal here with those studies that focus on the individual managers and their perceptions in this case. Emotional and social characteristics play an important role in how the atmospheric notion is felt, understood and presented in interaction. The people-dimension is at the heart of interaction because people represent the company they are working for either as a seller or a buyer. Of course environmental issues and events in the relational landscape also affect interaction atmosphere, directly or indirectly. Also these issues are handled through negotiation between companies through inter-personal interaction.

In the IMP-related discourse relationship atmosphere has been defined as existing at:

1. Both a personal level, group level and at a company level in interactive relationships
2. Atmosphere is mediated through human actors through perceptions and feelings/emotions
3. Mainly as a personal characteristic of feeling and emotion through perceptual mechanisms affected by the interactive processes managers are involved in and affected also by events surrounding the relationship as well as other environmental factors. Here the ability to also take the other counterpart into consideration is noted. Atmosphere is a common ground of a mental state at a specific point in time existing between the interactants.

We are developing the ideas from here noting that atmosphere is a key perceptual concept dealing with the feeling and social emotional state of business partners both individually and in relation to the other party through interaction processes at a specific point in time. Atmosphere is processual

and mediated through human actors who represent their firms in relation to other actors they deal with and represented by other human beings. Business relationship atmosphere is further affected by events from outside the relationship in the economic landscape and network where the relation positions itself.

Now it seems plausible to turn to the following steps in the paper. This means to develop ideas with a semiotic approach concerning relational atmosphere and looking at how we can use some of the basic logic from semiotics to aim at a better understanding of interpersonal communication and the role of signs in order to sense the atmosphere in relationships where individual actors play the leading role.

To sum up. Atmosphere is here defined as a mental and social state of emotions between human counterparts doing business and representing their firms. Relationship atmosphere is felt and mediated through them. It is understandable that environmental issues and the companies interacting have an influence on the atmosphere between the counterparts. However, if atmosphere is the state of trust and commitment between counterparts at a specific point in time it resides in the human-mental domain, certainly affected by non-human and e.g. nature-based events. This follows the line of reasoning by Hallén & Sandström (1991, p. 109-110).

In what follows we aim to dig deeper into a human perspective of interaction from a semiotic perspective. This is made in order to use a novel avenue to come to terms with the role of human interaction in business markets (cp. Medlin & Saren (forthcoming), Medlin & Törnroos 2006).

3. SEMIOTIC APPROACHES FOR UNDERSTANDING BUSINESS ATMOSPHERE.

In a figurative sense, atmosphere usually connotes a mood, ambience, style or emotional setting. Lay people will recognize adjectives to atmosphere such as: friendly, hostile, warm, intimate, exciting, boring, informal or formal, respectful, harsh, colourful, competitive, cooperative, and supportive. Whereas, for example, power-dependence rarely will be used as adjectives to atmosphere.

The treatment of atmosphere in the IMP literature must also be understood figuratively (i.e. not literally), sometimes in the singular, sometimes in the plural (atmospheres). But the atmospheric sub-concepts in the interaction model are not only mood or emotional descriptors. So it looks more as dumping place for relational aspects, which did not fit into the core of the model like exchanges, interaction participants, and episodes. The constituent parts, or intervening variables, was originally dealt with as bipolar opposites: power vs. dependence; conflict vs. cooperation; closeness vs. distance, with mutual expectations somewhat in a different linguistic category. Later Roehrich & Spencer (2001) have added: trust vs. opportunism; understanding vs. misunderstanding; and commitment vs. non-commitment ("with each of the above dimensions lying on a continuum").

Furthermore, in some contributions an observer value approach sneaks in: the atmosphere 'deteriorates' or 'improves' after certain critical events. Obviously it is assumed that cooperation is better than conflict, closeness better than distance etc. But why the one side of the bipolar dimensions is better than the other is not substantiated in the text, neither is it clear for whom the situation is better or worse.

3.1. Greimas' semiotic square:

Algirdas Julius Greimas (1917-1992) was an influential linguist who made important contributions to the theory of semiotics, including narrative grammar as in "the actant model", and applying Aristotle's square of logical oppositions in "the semiotic square". In the square the elements and their relationships are (http://plato.stanford.edu/entries/square/)

NAME	FORM	TITLE
A	Every *S* is *P*	Universal Affirmative
E	No *S* is *P*	Universal Negative
I	Some *S* is *P*	Particular Affirmative
O	Some *S* is not *P*	Particular Negative

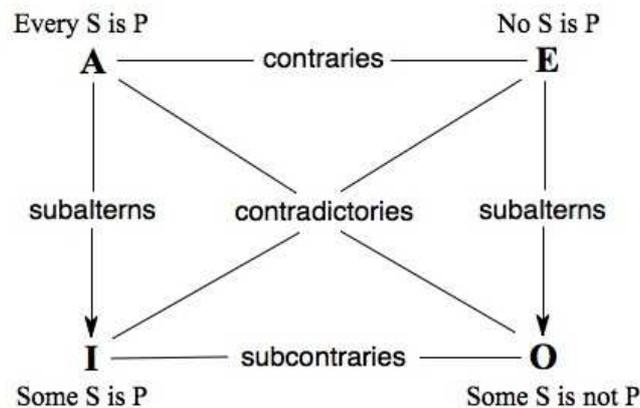This can be illustrated in the diagram below:

Fig. 1: The diagram for the traditional square of opposition.

The interesting contribution to the study of atmospheres is that oppositions are the quadropartioning of the semiotic space instead of the simpler treatment of bipolar opposites. So, for example, the opposite of conflict is not only cooperation but also non-conflict.

The semiotic square has been applied in Rinallo & Borghini (2003 IMP conference) in their study of fashion trade shows, where exhibitors need simultaneously to be both closed in relation to competitors and open toward customers. So, the interaction variables in the arena of trade fairs are not of the type either-or, but rather both-and.

By limiting observations and descriptions of atmosphere variables to conceptual bi-polars interesting phenomena are ignored. This largely bypasses the prevailing ongoing routine parts of interaction, in stead emphasizing critical events and the drivers of change. Most of the time buyers and sellers do not think about power, conflict, distance and other constituent parts of the IMP-

atmosphere. They just perform their daily routines of ordering and delivering, invoicing and paying, and so on.

3.2 What is semiotics?

We live in a world of signs: words, gestures, cultural artefacts, pictures, sounds, colours, smells, scenery, events, and patterns, etc., which all are perceived through our highly specialized senses. The perceived sense data are interpreted by complicated brain processes that eventually direct our attitude ↔ behaviour, and tell us what to approach, what to avoid, and what to ignore. Our sensing and interpretations of phenomena in contexts are the foundations of our meaning making. Semiotics is the science studying these aspects of our lives: sensing and interpreting signs in various situations.

According to the On-line Etymological Dictionary semiotics stems from Greek *semeiotikos* "observant of signs," adj. form of *semeiosis* "indication", from *semeioun* "to signal" from *sema* "sign."

1. the study of signs and symbols as elements of communicative behavior; the analysis of systems of communication, as language, gestures, or clothing.
2. a general theory of signs and symbolism, usually divided into the branches of pragmatics, semantics, and syntactics.

[semiotics. (n.d.). *Dictionary.com Unabridged (v 1.1).* Retrieved March 11, 2007, from Dictionary.com website: http://dictionary.reference.com/browse/semiotics]

In short: Semiotics is the study and theory of signs in contexts, and how meanings are constructed and understood. Interaction may be seen as a semiotic exchange. The 'atmosphere' in the IMP interaction model may be seen as part of the semiotic context. In semiotics, the configuration of signs is often denoted text. Text needs a context to be or become meaningful for 'readers' (cf. we also read situations and faces, and strategic moves). For example, we hope this paper (text) will be meaningful in the IMP conference (context), but we feel quite sure that the same text would not be meaningful in the context of a meeting with practicing managers.

According to Pierce the basic semiotic model consists of three elements (the fundamental trichotomy):

1) the sign (sign vehicle or representamen)
2) what the sign stands for (the object)
3) the acting observer (the interpretant)

In Pierce's famous dictum: "A sign, or *representamen,* is something which stands to somebody for something in some respect or capacity" (Innis, 1985 p. 3).

Morris (1964) denotes the variables in semiotics with the last letters in the alphabet: the five-term relation v, w, x, y, z; - in which v sets up in w the disposition to react in a certain kind of way, x, to a certain kind of object, y, under certain conditions, z. The v's are signs, the w's are interpreters, the

x's are interpretants, the y's are significations, and the z's are the context in which the signs occur. (A better mnemotechnical device is wanted, for who can remember what theses letters stand for?!)

An example: You are walking around in the trade show. You observe a stand with solar panels. It reminds you of your earlier thinking about the need for better energy conservation in your house. You go the stand and pick up a brochure. The v is the stand and the brochures. The w is you. The x is your reaction to pick up the brochure. The y is your memory of energy conservations and renewed interest. And the z is the exhibition hall. (This scenario is of course different from the point of view of the staff at the stand).

3.3 Social semiotics

Whereas semiotics originally dealt with the formal and structural aspects of signs and sign systems, social semiotics are about social processes in which signs are exchanged, and in which they create meaning and stimulate social action for people. In this sense social semiotics belongs to a family of social philosophies and sciences including ethnomethodology, symbolic interactionism, conversation analysis and discourse analysis, social interaction, social constructionism, phenomenology, memetics, and sensemaking. However, it is beyond the scope of this paper (and possibly even beyond our intellectual capability) to make a comparative analysis of these variations of social scientific communities.

Lemke (1990, chapter 8) defines social semiotics as "basically a theory of how people make meaning. It asks how we make sense of and to one another and how we make sense of the world. It concerns itself with everything people do that is socially meaningful in a community: talking, writing, drawing pictures and diagrams, gesturing, dancing, dressing, sculpting, building – in effect, everything."

Context and contextualization are the most important aspects of semiotic practices. In the IMP interaction model several people and many departments are involved in interorganizational business over time, with different issues on the agenda, and in different situations. Contexts define the appropriate semiotic practices, i.e. the ways people perform actions in the social setting; e.g. the context of buying and selling, of mutual adaptations in business processes, of trouble shooting, and R&D co-operations.

Lemke suggest three generic contexts:

i)   Syntagmatic context: activity structures in time-space arrangements.
ii)   Paradigmatic context: what might have been (an area for improvement and innovation).
iii) Indexical context: pointing to the performer of semiotic acts, i.e. who speaks how to whom, when?).

Lemke posits that we deploy semiotic resources strategically when we perform meaningful social action. Semiotic resources are the menu from which we can choose the signs we want to display or exchange in a given context. This seems to open up for an expanded understanding of the IMP ARA model, with semiotic resources in an indexical context influencing or influenced by the syntagmatic context. However, we postpone a more detailed discussion hereof to a later opportunity.

Furthermore, Lemke identifies five semiotic functions of the semiotic resource system:

a) representations (what signs stand for, and what utterances refer to)
b) relation (how activities are connected)
c) interaction (dialogue)
d) orientation (expressing positive, neutral or negative attitudes and values)
e) organization (binding together actions into coherent wholes)

The social semiotic approach to business interactions allows more details and nuances to description and analysis of 'what really goes on in interaction" as a supplement to predominant synoptic views (i.e. the outcome rather than the process) of interorganizational business relationships.

4. VON UEXKÜLL'S CONCEPT OF UMWELT.

Contrarily to the meaning of a literal translation of the German 'Umwelt' to the English 'Environment', the concept in Uexküll refers to the *subjective* universe of individual organisms. Umwelt is what an individual organism perceives and reacts to. By perceiving and reacting to the Umwelt organisms are not only adapting to it, but also changing it through repeated interactions with the world. What is perceived are not objects, but meaningful signs. Different organisms living in the same environment or ecology live in different Umwelts. The signs in the Umwelts are subjectively sorted out and categorized according to their potential usefulness for the organism: predator (better run or hide), prey (attack and eat), mate (approach and enjoy), rival (scare, fight), edible or poisoning food, shelters and nests; but many signs can be ignored because they make no difference to the organism in question. Signs are selectively perceived.

Torsten Rüting offers this explanation of Uexküll's importance and influence (http://www.math.uni-hamburg.de/home/rueting/UexECMTB.doc):

"Uexküll's approach became influential on the development of the *Organismic Biology* and *System Theory* of Ludwig von Bertalanffy (1901-1972) and the ethology of Konrad Lorenz (1903-1989) and Nico Tinbergen (1907-1988). Uexküll's concepts were mainly based on neuro-physiological studies of the movements of invertebrate animals and developed under the influence of Kant's philosophy. Already at the beginning of the 20th century Uexküll recognized the important role of negative feedback and reafferent control in organisms. He used the concept of the *Funktionskreis* (functional cycle) to illustrate behavior as a regulated process. Uexküll's models can be seen as predecessors of cybernetic models. Recently Uexküll has been discussed as a pioneer of cybernetics and Artificial Intelligence."

Uexküll's functional cycle is an extension of John Dewey's reflex arc. Reflex arc describes the flow from receptors to sensor cells to motor cells to effectors. Reflex arc is the basis of Skinner's famous Stimulus – Organism – Response (S-O-R) model.

The extension to the reflex arc is the explicit inclusion of the Umwelt, from which objects emit signals sensed by the subject, who in turn by action makes an impact on the Umwelt. The cyclic aspect also means possible repetitions and learning/experience through feed-back.

Uexküll exemplified the process of three functional cycles in his "stroll through the worlds of animal and men" of the Umwelts of a female tick (here quoted from: Macinnes, Ian and Ezequiel Di Paolo (2005)):

"The tick waits on a twig until a mammal moves close to the tick. The tick then jumps onto the mammal and burrows around in the mammal's fur until the tick finds a suitable place on its skin to bite a hole and suck blood from.

First of all, the tick positions itself upon a suitable twig. If a mammal passes close by, the butyric acid emitted by the mammal provides a stimulus for the tick's smell receptor organ. This initiates a functional circle whose perceptual sign is the smell of the acid. A corresponding perceptual cue is produced, meaning that the mammal exists as an object in the tick's *Umwelt*. The resultant *effector cue* causes the tick to drop from the twig. The shock of the tick landing on the body of the mammal extinguishes the activation of the first functional circle. This means that the smell of the butyric acid no longer serves as a perceptual sign.

However, the shock of landing serves as the perceptual sign of a second functional circle. This initiates the behavior in the tick of burrowing around in the mammal's fur until it encounters a patch of bare skin. The heat of the skin extinguishes the second functional circle, so the perceptual sign of the recent shock of the tick landing on the mammal no longer causes a perceptual cue and so the tick stops burrowing.

The third functional circle has the heat of the patch of skin serving as the perceptual sign. The heat produces a perceptual cue and so the patch of skin is experienced in the tick's *Umwelt*. The effector cue is produced and results in biting motions of the tick's mouth parts."

This point to the facts that the IMP atmosphere is not a state, but a process, and that the atmosphere should be in the plural: atmospheres. Since many people are involved from various departments in various situations over time/space, a static picture of the constituent parts of the atmosphere is not adequately describing what goes on in business relationships.

So, Uexküll's Umwelts change and are changed in consecutive functional cycles depending on what is useful for the organism. All the rest is pragmatically ignored, and from a semiotic point of view, does not exist. Even for the individual organism there are many Umwelts over time.

5. THE SEMIOSPHERE

According to Kull (1988) Yuri Lotman was the first to coin the term 'semiosphere' in his essay on cultural semiotics 'O semiosfere' in 1984. Later, and interdependently hereof, the Danish biologist Jesper Hoffmeyer introduced the concept of semiosphere in the realm of biology in his 1993 book 'En snegl på vejen'. The year after the following definition was presented at the 5th Congress for the International Association for Semiotic Studies:

"The semiosphere penetrates all dimensions of life and consists in complexity of communication: sounds, odour, movements, colours, electro-magnetic fields, waves of any kind, chemical signals, touch, speech, etc. The semiosphere poses both constraints to the *umwelt* of populations (since these are forced to occupy specific semiotic niches, i.e. they will have to master a set of signs of visual, acoustic, olfactory, tactile, bio-chemical and social origin in order to survive in the semiosphere) and opportunities for their further evolution (growth, adaptation and transformation)".

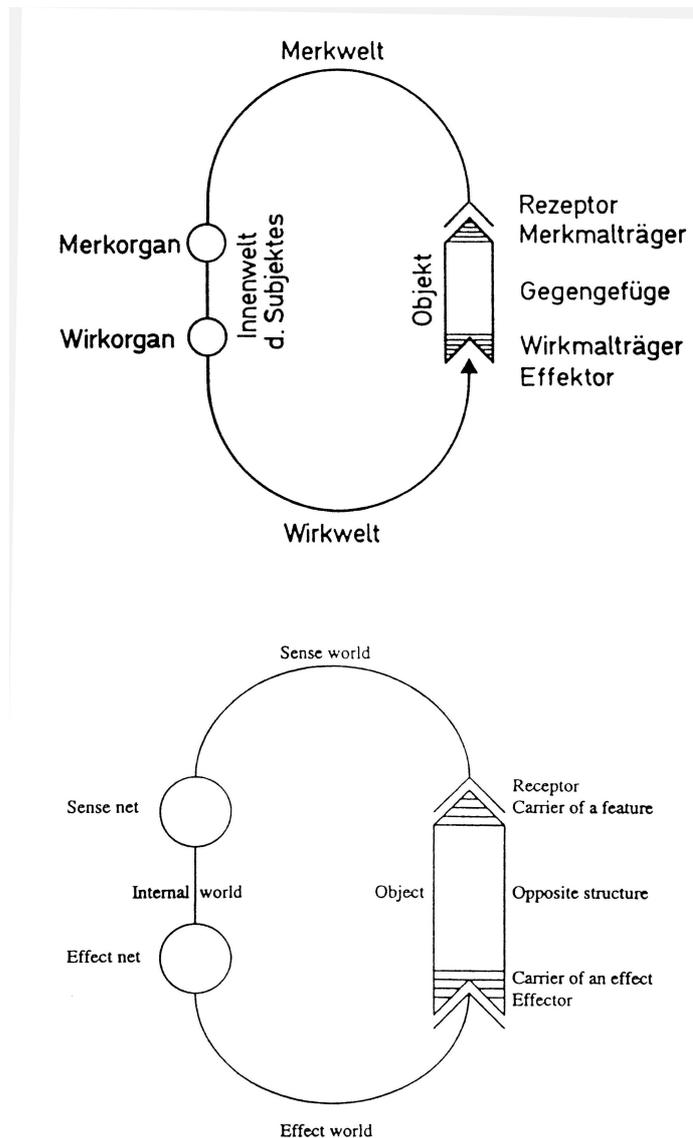Fig. 2: *Funktionskreis* or functional cycle with German and English terms (Uexküll 1921 and Kull 2001, translated terms by Urmas Sutrop)

Kull (1998) posits that semiosphere is the set of all interconnected Umwelts, so two Umwelts, when interacting, are part of the same semiosphere. Hence, for a buyer and a seller to interact they have to combine and overlap their Umwelts, and in doing so create, not an atmosphere, but a semiosphere for whatever they are up to and are able to do.

As Umwelts change with new situations, and the identities of involved interactants change, so are different semiospheres created. Like Heraclitus' "you cannot step in the same river twice" the dynamic features of business-to-business interactions over time, agency, and place make new

Umwelts, and hence new semiospheres. Through exposition and exchange of signs new meanings are made for every new context which in turn create new variations of the semiosphere.

Applying semiotics and the notion of semiosphere to the IMP interaction model's atmosphere, we may ask questions like:

i) What are the signs of one party having power over another party, and if power relationships change, what are the signs of gaining or losing power?
ii) What are the signs of one party being dependent on the other party, and if dependency relationships change, what are the sign of increasing or decreasing dependency?
iii) What are the signs of conflicts between parties, and of conflicts escalating or de-escalating?
iv) What are the signs of co-operation between parties, and of changes in the strengthening or weakening hereof?
v) What are the signs of closeness between parties, and changes herein?
vi) What are the signs of distance between parties, and changes herein?

And so on, and so forth, remembering Greimas' semiotic square, that these variables are not logically bipolar opposites.

Furthermore, with empirical observations of many people and several departments from both parties involved in business-to-business interaction, we are dealing with many Umwelts and Semiospheres, and we my find that all the intervening variables from the 'atmosphere' may exist in all forms simultaneously in one B2B supplier-customer relationship.

If this is correct, it may be very difficult (or even impossible) to communicate and understand the synoptic conclusion that the atmosphere has deteriorated or come closer, or whatever linguistic means are applied.

5.1. Complexity of communication.

Hoffmeyer (1993) "The semiosphere penetrates all dimensions of life and *consists in complexity of communication*: sounds, odour, movements, colours, electro-magnetic fields, waves of any kind, chemical signals, touch, speech, etc." [our emphasis].

The dictionary definition of communication in biology (Hoffmeyer's scientific field) is:

a. activity by one organism that changes or has the potential to change the behaviour of other organisms.

b. transfer of information from one cell or molecule to another, as by chemical or electrical signals.

Etymologically 'communication' has its origin in Latin: communicare "to impart, share," lit. "to make common". Therefore, to say that the semiosphere consists of complex communication seems well placed, especially when the semiosphere also can be defined as overlapping Umwelts.

We involve all our senses in communication processes: In range from far reaching eyes, over ears, nose, and skin to the intimate tongue. Each of these senses is highly specialized, but together they can get a more complete picture of their Umwelts than each of them can get in isolation. What the senses do is to detect signs, so we can make meanings of the perceptions we have sorted out as salient, i.e., that carries important information. Bateson (1972) has defined information as "a difference that makes a difference". This further emphasizes the importance of studying the process of changes in various intervening variables of the 'atmosphere(s)'.

Popular literatures on selling techniques are awash with management of signs, both the signs to emit and the signs to be aware of: dress codes, body language, facial expressions, buying signals, office artefacts to identify small talk topics, closing techniques, and so on. However, much information and many signs go directly to our subconscious, right brain intuitions. They may hardly be noticed, but still make an impression or a (gut-) feeling of something going right or wrong.

4.2 Pragmatics of Human Communication

This is the title of Paul Watzlawick, Janet Beavin Bavelas and Don D. Jackson's 1967 book. We will here draw on their 5 Tentative Axioms of Communication, which fit pretty well with the concept of semiosphere.

Axiom 1: *One cannot not communicate* (p. 51).
Whether we open our mouths or keep them closed we send signs open for interpretations of participants in the communication acts. What is not said or reacted to also make meaning to the other party. Absent signs may talk as loud as present signs. And in ambiguous situations behaviour may contradict the words.

Axiom 2*: Every communication has a content and a relationship aspect such that the latter classifies the former and is therefore metacommunication* (p. 54).
It is a different way of saying that a text needs a context to become meaningful.
The content part is *what* is communicated. The relationship part is *how* it is communicated. The style of message delivery is a qualifier of the substance in the message. So, if you say that you admire the professionalism of the buying department you may simultaneously express that you couldn't care less in the way you say it.

Axiom 3: *The nature of a relationship is contingent upon the punctuation of the communicational sequences between the communicants* (p. 59).
This may be described as a situation of mutual blame or praise. The axiom points to the equivocality of beginnings: who started this? Often there are no sharp beginnings of a communication sequence, but still parties can point to the each other as an originator of a new trajectory of positive or negative exchange events. In an example from the book (56-7) the quarrel between wife and husband is described in a sequence of wife nagging and husband withdrawing. The way an outsider punctuate the sequence determines the tools to remedy the deteriorating relationship. Did it begin with nagging or with withdrawing?

Axiom 4*: Human beings communicate both digitally and analogically*. Digital language has a highly complex and powerful logical syntax but lacks adequate semantics in the field of

relationships, while analogical language possess the semantics but has no adequate syntax for the unambiguous definition of the nature of relationships (p. 66-7).

This is what Hoffmeyer (1993) calls 'dual coding' in his discussion of vertical and horizontal communication. Vertical communication takes place over generations through the digital coding of the genes, which is passed on as a recipe for the formation of the off-spring. An equivalent in organizations is the "the way we do things here", the organizational culture, hierarchies of authority, and historical documents, and other media for keeping track of evolution of routines, models and methods. Horizontal communication takes place in the present and is mostly analogical. Horizontal communication appears as a totality or gestalt for participants that potentially appeal to all our senses. Caldwell's (2005) book 'Blink: The Power of Thinking without Thinking' is about how immediate (analogical) impressions often give better interpretation of situations than slow analytical approaches. Similarly, Giegerenzer and colleagues from the ABC Research Group have developed a theory of fast and frugal decision making, where only a few cues can lead to correct conclusions. Our interpretation of body language and non-verbal expressions are one area for analogical interaction.

Ekman faces (dealt with in Caldwell 2005, chapter six) have been applied to samples of all human beings across many cultures to conclude, that we all can identify with inter-subjective certainty seven emotions from facial expressions: anger, fear, disgust, surprise, sadness, happiness and contempt.

Axiom 5: *All communicational interchanges are either symmetrical or complementary, depending on whether they are based on equality or difference* (p.70).

"To avoid a frequent misunderstanding, it cannot be emphasized too strongly that symmetry and complementarities in communication are not in and by themselves 'good' or 'bad', 'normal' or abnormal,' etc." (p. 107). Symmetry tends toward competition as interactants mirror each other and try to outdo each other. Complementarities happen for example when a superior interacts with a subordinate, or a buyer with a seller. "In healthy relationships both categories are needed, although in mutual alternation or operation in different areas."

6. SUMMARY AND CONCLUSIONS

The atmosphere in the IMP interaction model is an ambiguous concept, which has not stimulated much research since the inception of the model in 1982. It has not been operationalized very well, and probably it connotes different sub-concepts from what has been suggested by IMP group in a 1982. It appears to us to be a placeholder for relational aspects that did not fit into the core of the interaction model. So the model's atmosphere has likely produced more confusion than clarity for latecomers to the IMP scientific community. In normal parlance, and figuratively speaking, an atmosphere of a place or a situation is about mood, ambience and emotional evocation.

From ancient times spheres have been pictured as concentric phenomena, layers circumscribing a core. This is also the way the IMP model has been pictured: Atmosphere surrounding exchanges and with an environment, strangely enough, outside the atmosphere. This has created a mental picture of one stable kind of surrounding, and hence *not* pointing to the idea that many atmospheres exist simultaneously in each interorganizational relationship, and finally overlooking that the surrounding has process rather than state characteristics, such as suggested by Uexküll's functional cycle.

Replacing atmosphere with semiosphere might stimulate more research on complicated communication phenomena in seller-buyer relationships, which strangely enough hardly have been stressed as a category in the IMP community. If atmosphere were to be a useful concept in future interaction research it should be reserved as a category of emotions, and be held in the plural: atmospheres.

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