

**LANGUAGE AS COMMITMENT IN CONTEXT**

**WITH IN INTRODUCTION A REVIEW OF THE BOOK**

**"UNDERSTANDING COMPUTERS AND COGNITION"**

**Terry Winograd and Fernando Flores**

**Addison-Wesley Publishing Company, Inc.1986-87**

**November 23, 1991 - September 14, 1992**

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## **BOOK REVIEW**

The book is relevant to current issues of Social Sciences which influence Organizational theory and practice. It gives practical applications to key concepts in the context of communication in organisations. The book is an attempt to show the non-obviousness of the rationalistic orientation and to reveal the blindness that it generates. Only certain topics are being reviewed.

## **THE RATIONALISTIC TRADITION**

### **Thought**

The rationalistic tradition has been the mainspring of Western science and technology going back to Kant and as far as Aristotle. Its highest form is found in mathematics and logic. Its belief is that knowledge consists of explicit theories similar to its own sort, with an emphasis on the formulation of systematic rules. The rationalistic tradition serves as a basis for our culture's commonsense understanding of language, thought, and rationality. It is based on questions such as "What do you do when faced with some problem whose solution you care about?" and deals with the question in the following steps:

1. Define the situation in terms of identifiable objects.
2. Find general rules that apply to situations related to those objects.
3. Apply the rules logically to the situation to reach a conclusion.

### **Science**

The rationalistic tradition is in strong correlation with the approach of organized science. The steps in analysis are similar:

1. Observation.
2. Proposition of explanatory hypothesis.
3. Proposition of a predictable process.
4. Observation of the predicted phenomenon.

Science is interested in recurring patterns from which conceptual systems can be set in order to be manipulated to make predictions.

### **Language**

In the rationalistic tradition, language is regarded as a system of symbols. It is assumed that thought is the manipulation of representation structures in the mind.

## Management

The management science is embodied in this tradition in that it is concerned with mathematical analyses of decision making and with behavioral analyses of human conduct. It is characterized as a process of information gathering and processing in order to choose among alternatives. Choice or decision is what is called a strategy.

Rational decision making involves the following steps:

1. Listing all the alternative strategies.
2. Determining all the consequences that follow upon each of these strategies.
3. Comparatively evaluating these sets of consequences.

Of course the word all (for all alternative strategies) is used with caution for it is clear that there is always an infinite number of alternatives.

The rationality lies in choosing all alternatives, but since it is impossible to do so, the selection made will always be arbitrary, thus irrational.

## Phenomenology

Phenomenology (the philosophical examination of the foundations of experience and action) is concerned with the relation of the individual to the context - especially the social context - in which he or she lives. The dualistic orientation of our tradition separates the world into an objective world of physical reality and a subjective mental world of thoughts, imagination and feelings. It take for granted that:

1. We live in a world of objects bearing properties. Ours actions take place in that world.
2. There are objective facts about that world not dependant on interpretation.
3. Perception is a process by which facts are registered in our thoughts and feelings.
4. Thoughts and intentions about action can somehow cause physical motion of our bodies.

Next the book explores concepts challenging the rationalistic tradition.

## Heidegger

Heidegger argues that the separation of subject and object denies the more fundamental unity of "Being in the world". The rationalistic tradition is individual-centered. For Heidegger, a person is not an individual subject or ego, but a manifestation of Dasein within a space of possibilities, situated within a world and within a tradition. By drawing a distinction that I(subject) am perceiving something else (object), I have stepped back from the primacy of experience and understanding that operates without reflection. Object and subject can not exist without each other. The interpreter and the interpreted do not exist independently: existence is interpretation, and interpretation is existence.

Prejudice is not a condition in which the subject is led to interpret the world falsely, but the necessary condition of having a background for interpretation. There is no neutral viewpoint from which we can see our beliefs as things, since we always operate within the framework they provide. Our implicit beliefs and assumptions cannot all be made explicit. Practical understanding is more

fundamental than detached theoretical understanding. We have primary access to the world through practical involvement with the ready-to-hand world.

Heidegger's concept of thrownness rejects the idea of mental representations. To illustrate his point, he describes the way we use tools, in this case a hammer, by saying that the ability to act comes from the familiarity with hammering, not the knowledge of a hammer. The tool becomes an extension of the hand of which one is not aware until something goes wrong. In other words, "reality is what trips you up when you don't pay attention to it". To give a concrete example of what is meant by thrownness, let's imagine a meeting at which some important decision needs to be made. Due to the immediacy of the situation and the resulting lack of perspective, the following observations can be made:

Imagine a meeting of fifteen people:

1. You cannot avoid acting
2. You cannot step back and reflect on your actions
3. The effects of actions cannot be predicted
4. You do not have a stable representation of the situation
5. Every representation is an interpretation
6. Language is action, it is not used to describe the situation, but to create it.

Models of rationalistic problem solving do not reflect how actions are really determined. It is meaningless to talk about the existence of objects and their properties in the absence of a context of activity, with its potential for breaking down. Cognition is not based on the systematic manipulation of representations.

### **Maturana**

Maturana is a biologist who came to the conclusion that perception must be studied from the inside rather than from the outside, in the sense that the nervous system defines how and what it is capable of perceiving. What affects the system from the outside is not what determines what happens to it on the inside, it just triggers changes of states. A biological system is a collection of interlocking parts constituting a unity which can live or die, and which is fundamentally closed. What is relevant is not the behavior of the system as a unity, but the interlocking behaviors of its parts and with its surroundings. A system keeps its organization constant and defines its boundaries by continuously updating its components. The system by its existence specifies the space in which it exists, thus it cannot be considered separately from its environment. The phenomena of interpretation arise as a necessary consequence of the structure of biological beings.

Heidegger says we do not exist apart from the context, Maturana that the perceived context is dependant on the biological make-up of the organism.

### **Hermeneutics**

Hermeneutics, the study of interpretation of sacred texts, is concerned with the transmitted meaning of a text which has existed over many centuries. Important questions are raised:

Is there some absolute meaning independent of the context in which the text was written?

Is it definable only in that particular context? If so can one transcend his or her own context to interpret the text?

Is meaning in the text itself or in the context it was written?

The view taken by Gadamer is that interpretation is an interaction between the horizon provided by the text and the horizon that the interpreter brings to it. He says " In fact history does not belong to us, we belong to it. Long before we understand ourselves through the process of self-examination, we understand ourselves in a self-evident way in the family, society and state in which we live." Also " To acquire an awareness of a situation... means that we are not standing outside it and hence are unable to have any objective knowledge of it." Prejudices is something we can become aware of and can to some extent emancipate ourselves from, but we can never free ourselves of all prejudice.

## LANGUAGE

Action comes first, then language plays the central role. If a sentence had literal meaning, it would be the meaning it has independantly of any context. (No context is a context!) Every speech occurs in a context. Meaning is dependant on circonstances. A background is the space of possibilities which allows us to listen to both what is spoken and what is unspoken. Meaning is created by an active listening, in which the linguistic form triggers interpretation. The world is encountered as something always already lived in, worked in, lived upon. In the process of communicating, the emphasis is on action and commitment, commitment in term of a specific engagement on the part of the speaker in the act of speech. In order to understand how meaning is shared, we must look at the social rather than at the mental dimention.

The complete rationalistic analysis of meaning implies that we can explicate each utterance by showing how it is built up systematically from smaller elements, each with its own determinate meaning. Although language grows out of mutual coupling among language users, not individual to the external reality, we can not give a network of definitions of conditions concerning language, we can only find an appropriate domain of recurrence. The domain of relevant regularities is not in individual speech acts or agreement about meaning, but in the domain of conversation. Like Maturana's cognitive domain, the regularities are relevant to a pattern of acts through time.

## LANGUAGE AS COMMITMENT IN CONTEXT.

"MANAGEMENT IS THE PROCESS OF LEADING ORGANIZATIONAL EFFORT IN PURSUIT OF ORGANIZATIONAL GOALS"

"When I die, the world dies with me" Cheyenne saying

"Reality is what trip you out when you don't pay attention to it" Heidegger

To resume the first part in the context of organizational management:

1. There is no absolute rules of conduct; everything is relative to a context.
2. Context is made of interactions which are limited by the kind of elements (technology) which define it, and the kind of people involved in its maintenance.
3. Organizations are closed systems similar to organic systems.
4. Systems always exist in a context. It is impossible for the one to exist without the other.
5. The process of the system in its context is done by language interactions.
6. Language is a process of change, commitment and action. It is the creative tool, not a descriptive one.

### System

context 1 the parts of a sentence, paragraph, discourse, etc. immediately next to or surrounding a specified word or passage and determining its exact meaning 2 the whole situation, background, or environment relevant to a particular event, personality, creation, etc.

An organization needs to be approached as a complete, self-contained, complex entity always situated in a contextual environment. It is blind to itself, generates its own prejudice, views the surrounding environment with filters created by its own existence. The way in which the organization differentiates itself from that environment and from similar systems is defined by its limited structure. The condition which guaranty survival is to maintain a strong identity of that structure. The physical reality of the organisation is a choice of the individuals involved, is the result of their vision of what is needed to bring a project to life. It is limited by their understanding of what fits for their goal. The physical elements which constitute the spacial reality of the system will be its limitations, its "biological boundaries"(referring to buildings, machinery, land, etc..) but what makes it live is people.

## Adaptation

**adaptation** 1 an adapting or being adapted 2 a thing resulting from adapting 3 a change in structure, function, or form that improves the chance of survival for an animal or plant within a given environment 4 the natural reactions of a sense organ to variations in the degree of stimulation 5 sociology a gradual change in behavior to conform to the prevailing cultural patterns.

The process of existing implies constant adaptation (within and to the environment). The way of adaptation is to influence, expand, etc. An organization consists like any biological system, of a physical body, a nervous system, and interaction tools. It is similar to a living organism which evolves over time. It is not something which can be matched, duplicated, or reproduced in its complexity and the context it is attached to, in the sense that it is something which constantly evolves. The system is something to be fitted, meaning that it is through a process of adaptation that it will change. It is the nervous system which determines what kind of perturbation will occur, what it is sensitive to, what can perturb it. It is not dependant on the outside context but on its structural sensitivity, in other words perturbation does not determine what happens in the nervous system. The system will tolerate a certain amount of perturbances coming from within and from the outside. In fact every interaction is a form of perturbation, which when positive, reinforce and feeds the system, and when negative can threatens up to the point of deintegration. (absorbed by other systems, unfulfilled goals, non-existence as a system, becoming a collection of parts).

**fit** 1 to be suitable or adapted to; be in accord with 2 to be the proper size, shape, etc. for 3 to make or alter so to fit 4 to make suitable or qualified.

**match** 1 any person or thing equal or similar to another in some way a) a person, group, or thing able to cope with or oppose another as an equal in power, size, etc.

"When you go into the street, do you not always bring back dust on your shoes?"

The implication of being thrown into the world or in other words to be totally involved in being and doing, with the resulting lack of perspective or blindness, is that at all time the heart of the organization must ask itself how it goes out (something which exist exists to influence and expend) and how it comes back in (spiral feed-back, "when you go into the street, do you not always bring back dust on your shoes?"), and make constant adjustment to direct all efforts to its goal. We cannot look outside of ourselves (in term of the organisation) for answers or causes just because the way something is handled is dependant on the perception of the doer. How one reacts to outside pressure is up to ones perception and capacity of adaptation. On the inside, since every changes, every movement creates a new reality of perception of the onlooker, the corporation evolves as a result of those experiences.

## Hiring

When hiring someone, the responsibility is not only to find someone capable of performing a task, but more importantly to have someone who will be capable to adapt to the environment and contribute in a way reaffirming the goals, mission, culture of the organisation. The human resources serving the organization must be chosen in accordance with the finality for which it was created. The organization must keep its center constant by continuously renewing and updating all of its resources, maintaining its rules of conduct, keep to the laws and ethics, secure a culture favorable with the appropriate educational and professional levels.



## **Rules**

The essential characteristic of the rules which govern a closed system (when speaking of a closed system, it is with the sense that it is complete and interacting with its environment) is that it must be available to all organizational levels involved, to be as clear to the manager as to the specialist, administrators, cleaners, etc... Consequently the rules must have the flexibility to secure everybody's interests, meaning that at all moment the goals of the system must be covered while keeping the people involved satisfied in following those goals. To guaranty no diversion from its original purpose, the human resources must be continuously evaluated and trained.

## **Training**

Training is one essential filter which will guaranty continuity of the system in every possible context or situation. Careful identification of the attributes characterizing members of the system such as educational, professional, cultural background is essential in order to select incoming persons. Training then insures that the selected persons will be able to use more of their personal resources toward the organizational goals. For each finality, training must be precisely defined and the curriculum carefully selected in order to give both specialization and awareness of the functionable whole. The trainer must teach and evaluate always keeping in mind that the person or group of persons will come out of training with a precise baguage. In other words, the person coming out of training is not the same than when coming in.

## **Context**

A system holds constant its organization and defines its boundaries through the continuous production of its components. An organization exists because it differenciates itself as a unity within its environment. There is no question of separating the one from the other as it would just stop existing. The organization grows out of transactions with its context and vice versa. The members of the organization going out into the world ( the organization is a closed and complete system) must be open to influences and be able to select and bring back those which will reinforce the identity of the system.

That is why it is so essential for each member of the system to be clear as to what their mission is in the organization as well as outside.

## **Knowing**

Knowing is not a search for representation of reality but one for fitting ways of behaving and thinking. People are not just going around with pictures of reality in their brain, they created every instant, with every interaction. The fact that we experience the world in similar ways is not due to absolute laws of reality affecting observers, but to a share background of understanding, which is built by repetition over time. Intelligence is in the ability to act in the moment, not in reflection. The possibility of prediction is only possible because there is a repetition through time of similar actions. The members of the system must be chosen and trained when possible to always act in the present of a situation.

## Communication

**commitment** 1 a committing or being committed 2 official consignment by court order of a person as to prison or mental hospital 3 a pledge or promise to do something 4 dedication to a long-term course of action; engagement, involvement 5 a financial liability under taken, as an agreement to buy or sell securities 6 the act of sending proposed legislation to a committee.

It is with language interaction that the system continuously up-dates its components, thus it is the most sensitive element of the organism. One must remember that each interaction is a commitment, the creation of a context, of a situation. In this creative process, one must be aware of motivations involved and must always keep in mind the reality of each member (context) so that whatever is communicated is easily interpreted. What is important to be communicated is the why and why not which will give meaning to one's actions.

## Conclusion

Adaptation is the rule of survival for an organization. How well one survives is dependant on knowing oneself (in context) and knowing one's goals. In a complex organization, the knowing of the identity and goals of the system is the common denominator for all components. How successful the organization is depends on its ability to communicate to all parts what it is and what it exists for and direct all efforts in the maintenance of this center. The center is made known by its parts (a monarch does not exist without its subjects). The way those parts communicate between themselves and to the environment is determinant for the survival and success of expansion of the system as a whole.

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