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The Fuzziness of Communication A Catalyst for Seeking Consensus

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Human beings differ in ways of understanding, interpreting, describing or sharing experience. On the basis of experience we construct our own conceptual systems (beliefs and values) that are neither consistent nor monolithic. "Alternative conceptual systems exist, whether one likes it or not. They are not likely to go away, since they arise from a fundamental human capacity to conceptualise experience...A refusal to recognise conceptual relativism where it exists does have ethical consequences. It leads directly to conceptual elitism and imperialism - to the assumption that our behaviour is rational and that of other people is not, and to attempts to impose our way of thinking on others" (Lakoff, 1987; p.337).

No one is justified in believing that they have a correct understanding of the world and that others are wrong - there are not clear and unequivocal criteria for 'correctness' in human communication. "If we want to coexist with the other person, we must see that *his certainty - however undesirable it may seem to us - is as legitimate and valid as our own...*" (Maturana and Varela 1988; p.245).

How do people who think differently manage to communicate with one another? There should be something in our language which helps us to reduce misunderstanding and soften or avoid verbal conflict. This 'something' is its intrinsic fuzziness.

Paradoxically, it is the ubiquitous fuzziness of language through which we *clarify* what is meaningful for us in every day communication. We communicate not to exchange accurate information, nor to look for a *single* comprehension of meaning, but to interact using the largest possible variety of fuzzy linguistic facets co-existing in parallel and

complementing one another. The fuzziness of our 'languaging' (Maturana and Varela 1988) imposes complementarity and serves to foster our interactions. It makes categorical oppositions in human communication lose their strength and even dissolve in favour of a never completely finished process of *production of meaning.*

We are born with the potentiality to understand and manage fuzziness in communication - to learn how to reduce or enlarge it, how to reinvent and re-shape it, how to analyse or synthesise it anew, in order to be understood better (in a way they/we want to) or to make others' viewpoints clearer and more meaningful for us.

The fuzziness of language provides keys to better understanding and practical use of the concept of *difference* - a central concept in the discourse of post modernism: 'form of self-reference in which linguistic terms contain their opposites and thus refuse any singular grasp of their meaning' (Derrida 1973). Fuzziness works where classical 'yes' or 'no' logic ends - where contradictions begin and opposites fuse in a paradoxical ambiguity.

The Incompatibility Principle (Zadeh 1973) reveals the necessity for fuzziness when explaining and understanding the social reality in which we exist: as its complexity rises, precise categorical statements lose meaning and meaningful statements cease to be precise and categorical.

The Incompatibility Principle is a corner-stone of the theory of fuzzy sets and systems. But it is also very practical: it plays a critical role in the functioning of any *consensus seeking enterprise*, where the issues of common concern have neither ultimate precisely defined answers nor unique scientific solutions (such are most environmental and socio-ecological issues of public concern). To deal with such issues, consensus seeking parties must develop an ability for a broad 'poly-ocular' vision, encompassing large variety of different images, attitudes, and opinions.

Second Order Consensus

The search for mutual understanding under conditions of fuzziness, knowing that there is no ultimate answer and solution, becomes a creative learning process which is sufficiently open to involve all participating agents (stakeholders). It is exactly this process which drives a consensus-seeking enterprise and helps public participation to work.

Consensus is no longer considered as a similarity cluster of clearly articulated and unambiguously defined stakeholders' viewpoints. This is simply because such viewpoints are hardly ever found in the

turbidity of human interactions. Consensus ceases to be a peaceful long-term commonality of stakeholders' interests. Such commonality grows on determinacy and stability. Unfortunately, neither determinacy nor stability characterise complexity of human interactions and communication. The more we reach for commonality in human interactions, the farther away it seems to be. No wonder that, in the post modernist framework, 'consensus is a horizon that is never reached' (Lyotard 1984).

An irreducible indeterminacy constantly emerges when we explore deeper both variety and uncertainty of decision-making. Paradoxically, instead of consensus being the power house of common social action, it is 'dissensus' which operates in a consensus seeking enterprise, permanently implanting chaotic vibrations in the process of communication. However the chaos does not necessarily cause the communication network to dissipate, rather it eventually gives birth to an emerging order in the form of a *new type* of consensus between stakeholders: **a consensus for seeking a consensus**.

This type can be defined as a '*second order consensus*' - the stakeholders agree to seek consensus, to explore different ways that might lead to consensus, to get prepared to move together, to make the next step into the fuzziness of common expectation. It does not matter that consensus in our society is 'condemned' to be momentary and transient - what can endure in time is human anticipation and aspiration for it, the impulse to act together, the natural desire to interact and communicate, to share with and care for others. In other words, not only a search for common actualisation of meaning, but strong emotional factors (sharing and caring) catalyse the emergence of second order consensus out of the chaos of dissent and disagreement, contradictions and conflict.

Consensus Building versus Consensus Seeking

Traditionally, stakeholders' consensus building includes:

- setting a 'common ground': finding overlaps in stakeholders' interests, values, and goals

- building, on that common ground, an 'edifice of collaboration' which inevitably requires changes of stakeholders' views and positions (to fit into an accepted collaborative scheme)

- actions towards achievement of preliminary assigned common goals.

Consensus building is a rational, outcome-oriented process which

follows carefully planned and logically 'weighted' strategies, as much as possible deprived of any unexpected (spontaneously arisen) situations, contradicting the agenda adopted by stakeholders. Often, building a consensus uses the logic of 'shuttle' - repeatedly conducted meetings between stakeholders and a capable mediator (facilitator).

Consensus seeking differs essentially from the process of consensus building. When seeking consensus stakeholders do not necessarily look for a 'common ground'. On the contrary, they underline and study the differences between them, trying to understand social mechanisms which make stakeholders differ in their interests, values, goals, etc.

No constraints on stakeholders' views and opinions, no forcibly imposed changes of their values and beliefs are required as preliminary conditions for seeking a consensus. The process is entirely open for emergence of new features and unpredictable situations - the *spontaneity* is the most important characteristic of this process. No preliminary assigned goals exist - every pre-imposed goal, constraint or requirement can inevitably narrow the scope of the stakeholders' search.

The search for consensus is motivated by the stakeholders' drive to be mutually complementary in their efforts to understand better the complexity of issues with which they are concerned, to find out how to act together in order to benefit from the differences in their knowledge. Being aware of inevitable fuzziness and uncertainty of this knowledge, stakeholders *agree* to explore it together, and create it anew. Thus, a *consensus emerges* - not simply in a form of an overlap of stakeholders' interests, values, goals, positions, views, etc., but as a *shared understanding* of complexity and preparedness to act together in accordance with this understanding.

Preparedness to Act Together

Stakeholder's preparedness to act together (i.e. 'consensus for seeking a consensus') can be expressed as a fuzzy composition of three major components:

- willingness to change
- mutual trust
- willingness to share power.

The *willingness to change* implies willingness to acknowledge the validity of different statements or positions on an issue of stakeholders' concern - not closure in a pre-defined rigid conceptual framework, but the search for a *fuzzy logic* based context, where stakeholders' intentions and anticipations have fuzzy, easily

changeable formulations - able to be re-shaped, to move into opposites, to shrink or to grow within a tree-like prolific structure. What matters in this streamlined and vague decision-making context is the stakeholders' willingness to *keep moving together* - to explore options for consensus building, to share knowledge and experience, to learn together how to create and implement group decisions, when tolerating, appreciating, and even 'celebrating' the differences in people's thoughts and actions.

The *mutual trust* crystallises in acting together: it ceases to be a derivative of the past only and appears as a property of stakeholders' togetherness, of their ability for collaborative actions.

The *willingness to share power* helps mutual relationships to continue under conditions of justice and fairness, with equal status in regard to the stakeholders' ability for decision-making and their granted responsibilities.

The higher the **willingness to change** in the direction of a higher degree of **mutual trust** and fair **power sharing**, the higher the estimation of the stakeholders' **preparedness to act together** towards consensus.

The interaction (communication) between stakeholders is considered as a process of change described as follows:

IF A interacts with B THEN A is changing to A' AND B is changing to B' SO THAT A' keeps interacting with B':

$$(A \ B) \ (A \ A') \ \& \ (B \ B'): (A'B') \qquad\qquad (1)$$

This IF/THEN rule is of a *fuzzy* type as neither the interaction between stakeholders A and B, nor the process of changing both A and B can be defined precisely. (They inevitably include a complex spectrum of interrelated processes, pregnant with uncertainty and vagueness, such as: learning together, being aware and open for understanding one another, sharing experience, knowledge and power, self-reflecting and self-educating, feeling, thinking, etc.).

The recurrent form of (1) is:

$$(A_i \ B_i) \ (A_i \ A_{i+1}) \ \& \ (B_i \ B_{i+1}): (A_{i+1}B_{i+1}), \qquad (2)$$

where

i denotes the i-th stage of interaction between stakeholders A and B, A_i, B_i denote A and B at the i-the stage of interaction, A_{i+1}, B_{i+1} denote A and B in a process of changing as a result of the i-th stage of interaction.

Each stage of interaction i ($i = 0, 1, 2,..., m$) is considered as the i-th step in some m steps of the second order consensus seeking process.

The rule (1) is easily extended for n (n>2) stakeholders S1, S2, ..., Sn:

$$\text{(S1S2 ...Sn) (S1 S'1) \& (S2 S'2) \&...(Sn S'n):} \quad \text{(3)}$$
$$\text{(S'1 S'2 ...S'n)}$$

At each step i of a consensus seeking process, such conditions of interaction (social 'climate') have to be created, under which stakeholders S1i, S2i,...,Sni appear to be more prepared to take together the next step in the process than S1i-1,S2i-1,...,Sni-1.

Computer Assisted Consensus Seeking

A consensus seeking enterprise can improve its functioning by using a computer assisted support system. A prototype of such a system: FLOCK (Fuzzy Logic Oriented Consensus Knitting), is in a process of design.

The FLOCK data base contains information about stakeholders' interests, needs, objectives, positions, projections, values, beliefs, feelings, anticipations, hopes, etc. The data for each of the stakeholders are grouped into *fuzzy clusters*.

In the process of interactions and communication, changes can occur in the structure of stakeholders' fuzzy clusters and in the relationships between them; these changes affect the information generated by FLOCK about the possible ways for seeking a consensus.

Different 'user-friendly' algorithms reflect the social 'climate' (conditions of interaction and communication between stakeholders) in the consensus seeking process, and can be used:

- to display the list of possible options for consensus at each stage of the interaction

- to display the *internal structure* of stakeholders' clusters at each stage of the interaction

- to build a *map of structural relationship*s between stakeholders' clusters for each stage of the interaction

- to show how the changes of relationships i*nfluence* the stakeholders' preparedness to act together.

FLOCK can serve as a 'navigator' used by public participation practitioners (facilitators, consultants, mediators), as well as by managers, in the stunning complexity of the multi-stakeholder

decision-making process, impregnated with inherent fuzziness and uncertainty, contradictory interests and conflicting goals, unpredictable constraints and difficult-to-overcome obstructions and barriers.

References

Derrida, J. (1973) Theory of Signs, Northwestern University Press, Evanston.

Lakoff, G. (1987) Women, Fire, and Dangerous Things, University of Chicago Press.

Lyotard, J. F. (1984) The Postmodern Condition: A Report of Knowledge, Manchester University Press.

Maturana, H. and F. Varela (1988) The Tree of Knowledge, Shambala, London.

Zadeh, L. (1973) Outline of a new approach to the analysis of complex systems and decision processes, IEEE Trans. SMC, SMC-3 (1), January, 1973, pp. 28-44.