

Maturana and Checkland's Weltanschauung: paradigmatics

The Weltanschauung

So what is different about Maturana's position? In the following quote, Maturana lays out the primacy of being in language¹:

"For a living system in its operation as a closed system there is no inside or outside, it has no way of making the distinction. Yet, in language such a distinction arises as a particular consensual co-ordination of actions in which the participants are recursively brought forth as distinctions of systems of distinctions. When this happens self-consciousness arises as a domain of distinctions in which the observers participate in the consensual distinctions of their participations in language through languaging. It follows from this that the individual exists only in language, that the self exists only in language, and that self-consciousness as a phenomenon of self distinction takes place only in language. Furthermore, it also follows that since language as a domain of consensual co-ordinations of actions is a social phenomenon, self-consciousness is a social phenomenon, and as such it does not take place within the anatomical confines of the bodyhood of the living systems that generate it, on the contrary, it is external to them and pertains to their domain of interactions as a matter of coexistence. " (p.63)

Maturana builds this being-in-language as a 3rd order closure on the basis of 1st and second order closures²:

"The nervous system participates in cognitive phenomena in two complementary ways. These have to do with its particular mode of operation as a neuronal network with operational closing as part of a metacellular system.... The presence or absence of a nervous system determines any discontinuity between organisms that have a cognition relatively restricted and those that are open-ended, as in human beings... (p175)

We call social phenomena those phenomena that arise in the spontaneous constitution of third-order couplings, and social systems the third order unities that are thus constituted. The form embodied by unities of this class varies considerably from insects to ungulates to primates. What is common to them all is that whenever they arise - if only to last a short time - they generate a

¹HUMBERTO MATURANA & FRANCISCO VARELA (1987) *The Tree of Knowledge: The Biological Roots of Human Understanding*. New Science Library.

²ibid

particular internal phenomenology, namely, one in which *the individual ontogenies of all the participating organisms occur fundamentally as part of the network of co-ontogenies that they bring about in constituting third-order unities.* " (p193)

although "languaging" here extends across a wide range of behaviour starting from simple semiotics. In Maturana's third-order closure languaging is operative in support of a linguistic operational coherence. Speaking of a fifteen-year-old patient named Paul from New York, who had his corpus callosum (two brain hemispheres) severed, Maturana³ recounts how:

"In Paul's case, we see the operational intersection of three different persons in one body. At some time, these persons can be independent, self-conscious beings. This dramatically shows that it is in language that the self, the *I*, arises as the social singularity defined by the operational intersection in the human body of the recursive linguistic distinctions in which it is distinguished. This tells us that in the network of linguistic interactions in which we move, *we maintain an ongoing descriptive recursion which we call the "I". It enables us to conserve our linguistic operational coherence and our adaptation in the domain of language.* (p231)"

I will leave the question of where Maturana stops short of Lacan to another paper⁴, but what are the implications of this view of autonomous systems, in contrast to the systems which Checkland appears to be dealing with?

Systems

If we take Maturana's notion of a composite system as one which has its own 'internal' organisation of systems and subsystems, then we have the following:

	simple unity	composite unity	
		composition context determined	composition context independent
context independent	passive	allonomous	autonomous
in-relation- to-context	reactive	goal-seeking	autopoietic

³ibid

⁴Lacan and Maturana: constructivist origins for a 3⁰ Cybernetics with J.V. Kenny . Communication and Cognition Vol 25. Number 1 pp73-100 1992

In effect, an observer can 'bring forth' different types of system, depending on the nature of the system's own internal organisation and on the interactions and relations the system has with other systems 'outside' it and in its context. From this, a number of points follow:

- Checkland's concern with naming relevant systems in terms of "the core purpose of purposeful activity systems" therefore places the SSM methodology firmly as goal-seeking; and
- Maturana's concern is with autopoietic systems. The "linguistic operational coherence" (LOC) which is the observer-as-subject is an epistemology.

This identification between the subject and the LOC has a number of implications. Starting from Maturana's definitions:

- *viability* as conservation of fit - structural coupling with the medium is maintained in co-ontogenic drift; and
- *identity* as conservation of closure - a particular form of organisation of structural coupling is maintained.

we can formulate two concepts which arise directly as a consequence of this:

- primary task - closure (identity) conserving task
- primary risk - experience of the possibility of loss of fit (viability) by an identity.

This approach brings us to see the Weltanschauung in terms of a paradigmatics in terms of which the subject may 'invent' himself as an identity; and in terms of which the whole problematics of closure and fit arise. It also returns us to the problematics of the linguistic/languageing medium in which this 'invention' is taking place.

If we return to looking at organisations in these terms, do we find ourselves 'bringing forth' something different?

Organisations

Viewed in these terms, the subject *qua* system+epistemology+identification arises as a result of

- the making of a distinction (the 'cut'); and
- an identification (a naming).

If we define a *symptom* as something taken by the subject as being problematic in relation to primary task and/or problematised by primary risk, then we get the following⁵:

⁵This is a big shift in the basis of the ontology of the subject - I am where my symptoms were.... 'inside' and 'outside' are also in a Moebian relation to each other

symptoms external to the system extimate	WHO/M supply/demand structure	WHY demand organisation	<i>the 'cut'</i>
	WHAT system structure	HOW system organisation	
symptoms internal to the system intimate	viability	identity	

Not only do we have the internal structure and organisation which we are used to modelling. We also have a structure of identity - actors in relations of supply and demand to each other; and an organisation of demand - the paradigmatics of supply and demand.

Levels

The 'cut' therefore is what 'brings forth' the organisation-in-relation-to-its-context, and in the act of doing so, becomes also a formulation of a symptomatics. If we order these in terms of Maturana's orders, we get the following series, with the notion of *intersection* - a combination of the effects of a 'cut' and identification - defining different 'levels':

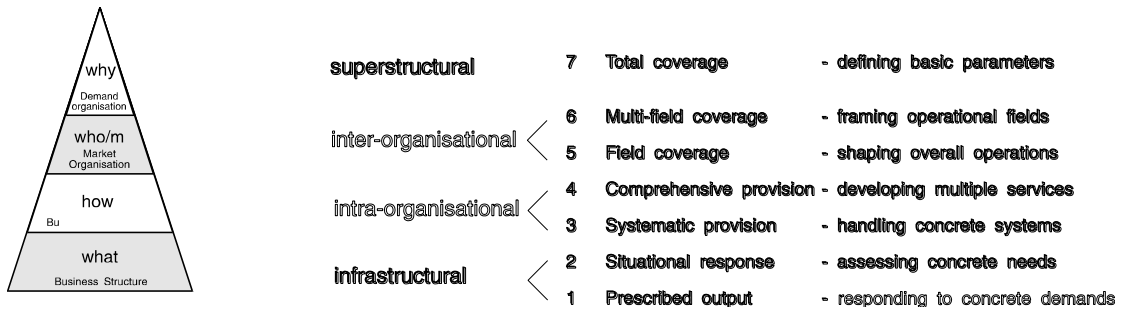
Levels	Maturana's Orders			
	1 ⁰ unity	2 ⁰ unity	3 ⁰ unity	4 ⁰ unity
extimate identity				paradigmatic WHY
extimate viability			social WHO/M	
intimate identity		subject HOW		
intimate viability	body WHAT			

**Intersection/
Identification**

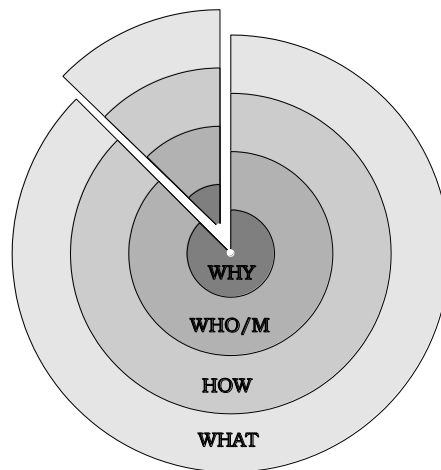
In this, Maturana's progressive and recursive identification of closures are identified with the 'bodies' which can intersect with the 'levels' of context brought forth by an identification in a linguistic/languageing medium.

These embedded layers of system provide a hierarchical version of the relations these embedded levels have to each other. This hierarchical representation

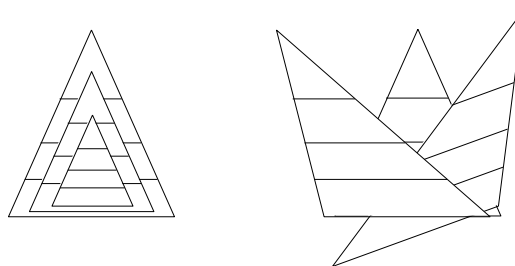
of the structure corresponds with the Jaques levels, if level-of-complexity is taken as prime, rather than level-of-timeframe⁶:



At this point it is crucial to remember that we are not dealing with a hierarchy, but with some form of unfolding which has at its heart a *desire* which can be formulated as a something-left-to-be-desired of the Weltanschauung. It would be more appropriate to think in terms of an *unfolding*:



Although it is convenient to represent it as a hierarchy, when actually working in organisations, as implied by SSM's Analysis 3, we encounter a *fractalisation* of hierarchies, insofar as each observer's desire affects the nature of the hierarchy s/he brings forth:



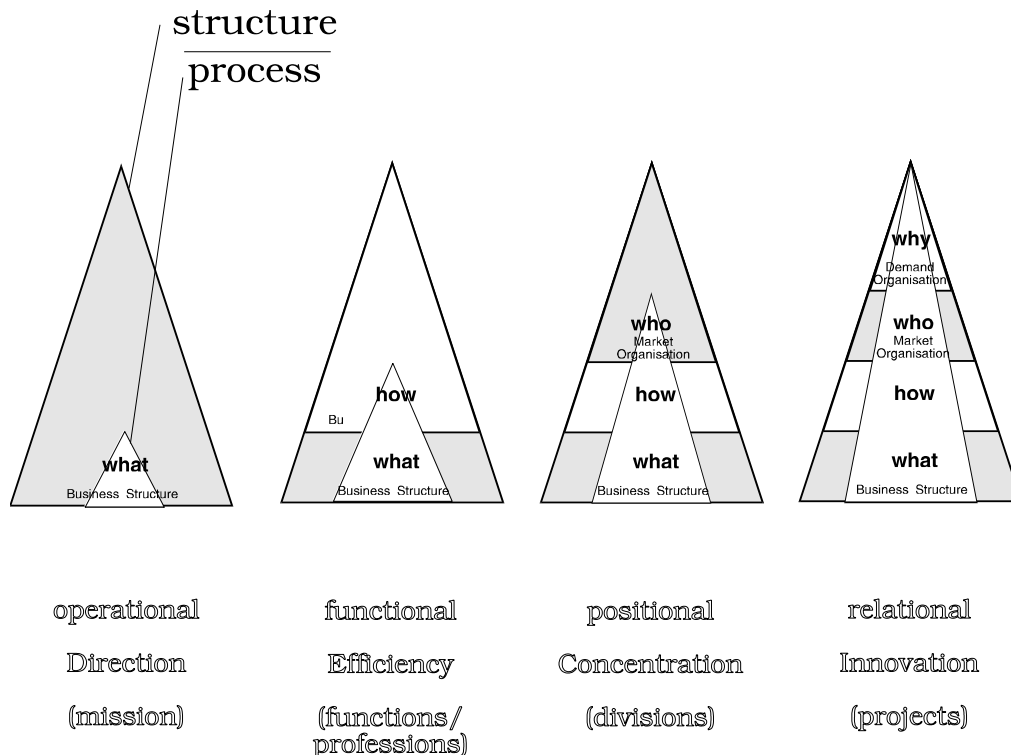
So where does this leave us? We now have more complexity to contend with, insofar as we are now including a relation to context in the way we describe an

⁶The justification for doing this rests on Jaques' derivation of his levels from a *kairos//chronos* distinction corresponding to a pleasure//reality principle distinction which he makes in "Form of Time".... his timespan of discretion is a way of 'measuring' the kairos dimension.

organisation. But it is not our experience that this complexity is addressed explicitly in most organisations. How then is this complexity mastered?

Mastering Complexity

All 'levels' of structure are always present, but not all of them are necessarily explicit in the processes of the organisation⁷. As a result we can use the notion of a *strategy ceiling* to describe the characteristic forms of *currency* of the organisation. This *currency* defines the forms of power/knowledge⁸:



These different currencies have differing implications for the forms of competitive behaviour which the organisation is capable of. There is a whole elaboration of this question possible, but, insofar as a movement towards the *relational* becomes a question of the *good* of the organisation, intervention to "raise" the strategy ceiling becomes a crucial factor in changing the way in which the organisation competes⁹.

⁷where is 'the cut' in each case? In operational it is the transaction boundary, in functional/professional it is the knowledge domain, in positional it is the organisational unit, and in relational it is the p-domain.

⁸The reference to Foucault's genealogical approach is intentional: "Power/Knowledge. Selected Interviews and other writings by Michel Foucault 1972-1977" by Colin Gordon (Ed). Harvester Press 1980. I am identifying the Weltanschauung with Foucault's discursive formation, elaborated in his "Order of Things" and "Archaeology of Knowledge". Foucault went on to elaborate the nature of non-discursive formations using the same analytical methods. By problematising the places taken up by subjects in relation to these discursive and non-discursive formations, he introduced notions of power in the way these formations over-determined the 'choices' of individuals..... *currency* is therefore a currency of power, and can be analysed in the same terms as used by Foucault.

⁹Intent and the future of Identity in Richard Boot, Jean Lawrence and John Morris (eds) "Creating New Futures: A Manager's Guide to the Unknown" McGraw-Hill. 1994

Conclusion

So we have established that Maturana is dealing with a different *order* of system which has its basis in the linguistic/languageing medium of the observer. Under these circumstances, the Weltanschauung becomes a discursive formation, which Checkland is trying to intervene on.

If we now problematise the nature of this Weltanschauung/discursive formation, insofar as it over-determines the nature of the subject/observer positions which can be taken up, then we arrive at an understanding of organisations as *currencies* of power/knowledge, in which a question of the choices open to the organisation ultimately become a questioning of these currencies.