



## ON THE SUBJECT OF AUTOPOIESIS AND IT'S BOUNDARIES:

### Does The Subject Matter?

by

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#### **Abstract**

Two arguments are unfolded against the viability and advisability of applying the notion of autopoiesis to third-order systems. The first argument comes from the domain of psychotherapeutic praxis and elaborates a critique of 'boundary' and 'family' as third-order phenomena. The second argument, coming from the domain of ethics, uses the paramount individuality of personal consciousness to demonstrate that any third-order human system configured on the metaphor of autopoiesis would necessarily be oppressive, inhuman, and parasocial.

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### INTRODUCTION AND CONVERSATIONAL POSITIONING

Given the 'conversational' format of this journal issue, I want to begin by identifying some of the speaking and listening positions as they seem to be located at the outset. In their focal article Zeleny and Hufford<sup>1</sup> have clearly delineated their intent to establish the applicability of the notion of autopoiesis for third-order systems. What they have remained almost silent about are the clear statements of objection to the depiction of third-order systems as autopoietic. Since it is my intention to propose a double argument against third-order autopoiesis (3°A), I want to breach the silence by quoting two passages which are relevant to the development of my doubled argument. The first quotation is a well-known one from Varela<sup>2</sup> :

"Thus the idea of autopoiesis is, by definition, restricted to relations of productions of some kind, and refers to topological boundaries. These two conditions are clearly unsatisfactory for other systems exhibiting autonomy. Consider for example an animal society: certainly the unity's boundaries are not topological, and it seems very farfetched to describe social interactions in terms of 'production' of components. ... Similarly, there have been some proposals suggesting that certain human systems, such as an institution, should be understood as autopoietic ( Beer, 1975; Zeleny and Pierre, 1976; Zeleny, 1977). From what I said above, I believe that these characterizations are category mistakes:they confuse autopoiesis with autonomy"<sup>3</sup>

My first argument against 3°A will elaborate on the 'farfetchedness' of applying the notion of 'boundary' to third-order systems, and is an argument from the domain of psychotherapeutic praxis. My second argument against 3°A is an elaboration of the notion that, in third-order social systems, what is paramount is the individual properties of the components. This is an argument from the ethical domain, one which I will introduce by way of a lesser-known quotation from Maturana<sup>4</sup> :

"There are not actual distinctions that could bring forth an autopoietic system in the domain of human social relations as relations through which human beings constitute a system in which they realize themselves as individual human beings through these relations. If human beings as biological entities would constitute an autopoietic system through relations of productions of human beings, such a system would not be a social system because such a system would not be defined in terms of the conservation of its human components but in terms of the conservation of the system as a whole. *The individual characteristics of the components of an autopoietic system other than those through which they participate in its autopoiesis are irrelevant, while those are fundamental in a social system which is a system of individual realization of living beings*"  
5 .

Taken together, my twin objections to 'autopoieticising' third-order systems (families, clubs, businesses, nations) arise from a basic inimicability and incompatibility between what I regard as constitutive to human social existence on the one hand, and what I take to be characteristic of autopoietic systems on the other. The rest of my paper will unfold this mutual exclusion.

## **THE ARGUMENT FROM PSYCHOTHERAPEUTIC PRAXIS**

There are major problems in attempting to transfer the notion of "boundary" from the first- and second-order to third-order systems. The biological cell (as the first-order system), has a clearly identifiable boundary, as does the individual person ( the second-order system being an aggregation of cells ), but the third-order system ( being an aggregation of individuals) is obviously different from these first two levels. The obvious shift from a tangible, physical, and generally self-evident boundary to something that is invisible, non-tangible, and generally not much in evidence stretches the capacity of the term 'boundary' so much that it might be better to take up Bateson's<sup>6</sup> suggestion to use the term 'interface' instead - i.e., the surface that is formed where two domains (which may not be closed) meet in transaction, e.g., that between the 'old' and the 'young' generations.

### **The Boundaries Of Sense**

If we define a 'boundary' as that which we first encounter when we bring forth a system, then what can we notice when a therapist first encounters a family referred for consultations? What he must do is try to establish what the 'family' consists of ; there is no tangible family 'boundary' to help him in his task. If there is such a 'boundary', it is certainly not the first thing he encounters with the new family. The interviewing therapist does not even know, without explicitly asking, how many constituting members are required to make this a family 'system'. Depending on the particular family therapy approach, we will find a different

family 'system' defined by the operations of distinction of the therapist, and this includes a different specification of the constituting members and where the putative family 'boundary' must be drawn. Thus, in 'the family' as a third-order system, the 'boundary' and the 'system' brought forth are entirely observer-dependent. To paraphrase, " A boundary is what is distinguished as a boundary by some observer with an intent".

When we shift from identifying the boundaries of first- and second-order systems to those of third-order systems, the status of 'boundary' involves a shift from a 'self-saying' tangibility to a set of phenomena involving -

(a) observer-dependent intentions,

(b) generation of a consensual boundary through conversations among selected participants, and

(c) falling out of existence (disappearance or non-continuity) of such a constructed 'boundary' when said participants are no longer interacting conversationally in the manner necessary for the constitution of the third-order system.

### **Delimiting The Family**

In the same way that the notion of a third-order system 'boundary' can seem quite nebulous once we bring into question the observer's ontology, so too the 'solidity' and 'objectivity' of the notion of the 'family' is easily undermined by bringing into question the observer and his particular intents. The relativity of the concept of 'family' can be seen from the changes which it has undergone over the recent past as indicated by this passage from Jacoby<sup>7</sup> :

"The bourgeois family - and monogamy - as instruments of authority are being eclipsed by more efficient means: schools, television, etc. The father, as the wielder of the absolute power of condemnation or inheritance, is being phased out. The erosion of the economic content of the family unit ultimately saps its authoritarian structure in favour of complete fragmentation. Important in this context is that the family in its 'classic' form was not merely a tool of society, but contained an anti-authoritarian moment"<sup>8</sup> .

Where each of the various family therapy approaches assumes an objective status for its preferred version of the 'family', they all inevitably obscure the complex social oppressions which act upon each individual member of society, usually by reducing , and therefore trivializing, the larger third-order societal relations to the immediate nexus of the 'family'. Mistaking the 'boundaries' of the 'family' usually means mistaking (or replacing) the context of societal change with the praxis of psychotherapy. This is a very serious misdirection of effort.

The notion of 'family' is something which exists as a simple unity in a domain of social descriptions. This domain is a symbolic one within which we, as human

actors, cannot enact anything. We do not move in this symbolic domain. *From Maturana's point of view, a family is not a living system.* We can only interact with the 'family' as a composite unity, i.e., only through its particular individual members. A 'family' cannot be 'spoken to' - only individual actors can listen to us. We cannot 'shake hands with', or 'give a kiss to' a 'family'.

The constructs of 'family' and 'boundary' are both observer-dependent. Their clinical usefulness is arguable, as we can infer from the diverse ways in which different therapists specify these concepts. New definitions arise because of dissatisfactions with earlier attempts. What relevance to family therapy can the concept of 'boundary' hold -

(a) when there is not some observer-independent entity which can help us initially to distinguish a particular family - ( accomplished only through entering into the conversational complex of the participants) ;

(b) when it does not aid us in generating the therapeutic drift between therapist and 'family' - ( we can speak and listen only as individual intersubjective participants ); and

(c) when it does not help us in triggering therapeutic change in the 'family system' - (achieved only by the therapist focussing on the disintegration of the particular conversational organization sustained within this particular group of participants)

We may contrast this dubious relevance of a third-order 'boundary' with the immense significance that the notion of 'individual boundary' has for psychotherapeutic change at the second-order level. Much of the process of individual psychotherapy is taken up with the manner in which individuals generate their 'Self' by projecting and executing their idiosyncratic sense-making across a presumed 'boundary' between 'Self' and 'Other'.

That is, we each presume a particular location of the 'boundary' that delimits one's 'Self' from all else. By making recurrent experiments with 'self-generated' material (e.g., particular social anticipations) in the space where we locate the 'Other' we continually redefine our sense of 'Self' . The task of survival involves the dual conservation both of our organizational closure and of our structural coupling with the medium. This conservation is unified by the constructive transitions which we make back and forth across the presumed 'boundary' between 'Self' and 'Others'.

The type of phenomena presented in individual psychotherapy may be understood as problems of 'boundedness', from the 'anorexic' who says "I shrink therefore I am", to the 'schizophrenic' for whom there be no delimitation of self from others at all. Many people experience psychological distress because their 'Self/Other boundary' has been erected in a non-viable position; e.g., in a place where it includes too little of a viable 'Self' (over-constriction), or where it includes too much of the non-self (over-dilation). Therapy at the second-order involves the specification and re-location of viable 'boundaries' as well as the reconstruction of the manner and means whereby the individual transacts across this presumed difference between 'Self' and 'Others'.

While the individual 'proves' his existence and existential location by enacting constructive 'boundary' transitions, it is difficult to imagine how a third-order system could do this. If we take as an example of a third-order system the case of a national identity e.g., being 'Italian', then to conserve the existence of this identity would involve the third-order system enacting transitions across its geographical 'boundary'. However, it is obvious that such transitions are something which only individuals can do - nations do not take vacations! It is individuals who cross and re-cross the state confines, and who generate in their national networks of conversations the on-going differences between 'Italians' and all others. Here we see the problematic nature of a third-order 'boundary' in its most simple form, and the dependence of the third-order system on its second-order constituents for its constant materialization and conservation.

Within initial therapeutic conversations, the notion of 'boundary' arises in the context of specific issues within the therapeutic enterprise: in terms -

of 'confidentiality' (who is privileged to listen),

of revelations (who is privileged to speak),

of intent (why they are undertaking this therapy),

of loyalty (what may or may not be revealed to the therapist and to themselves),

of ethics (the legitimate ways in which they may attempt to coordinate relational changes), and so forth.

Once this superordinating context has been negotiated, the issue of 'boundaries' may never arise again. Does this mean that the therapist is now 'inside' the 'boundary' and so has become 'one of the family'? Indeed no! If such a thing should occur, the therapist will be unable to trigger any constructive changes in the problem system which is the 'family'.

From all that I have said so far, it is obvious that my preferred definition of 'family' is in terms of its predominant feature, namely, its languaging coordinations. What distinguishes a 'family' over time is its unique manner of mutual orientation and coordination of joint actions. In other words, *I see the 'family system' constituted as a unity by its particular networks of conversations.*

The ways in which these networks of conversations are composed, generated, and conserved allow us to construe them as being oriented either to the maximization of their mutual individual elaborations, or to their minimization, the ignoring or outright negation of individual elaborations. Minimization is achieved by twin conversational features :

(a) the development of ignorance, and

(b) the ignorance of developments.

The former involves oppressions for establishing the 'truth' of various lies in the networks of conversations. The latter, focussing on the 'preferred' invariances brought forth in the conversational system, involves the active negation and

exclusion of changes that are ongoing in the system, changes which make it ever more difficult to recover and reproduce the 'preferred' invariances.

From the therapeutic point of view, therefore, it makes more sense to specify a 'family' as that 'conflict-generated conversational system' with which the therapist must conversationally interact, rather than as a system for which boundary delimitation, components, and ontological status are problematic.

My second argument now follows and elaborates the 'component' problematique in the sense of its uniquely individual properties.

## **THE ARGUMENT FROM ETHICS**

A major difference between a third-order social system and a first-order biological autopoietic system is found in the status of their individual components . For the autopoietic system the individual properties of its components are irrelevant beyond having the capacity to materialize the organization. However, for the genuine social system the opposite is the case: the properties of the individual components are paramount because a genuine human social system is a space for the realization of individual human beings.

### **The Proprietor Of Properties**

Central to our individual development and realization is our capacity for self-consciousness, emphasised here by Verden-Zoller<sup>9</sup> :

"Moreover, it is only if a human child attains self-consciousness ... that he or she can separate... with the actual bodyhood of a secure, self accepting and self respecting social individual. ... as a child grows in self-consciousness in the human domain of space and time relations, he or she has the possibility and is capable of growing as an adult that does not fear that his or her individuality will be lost or destroyed through his or her social integration" <sup>10</sup>.

The disruption of this process of generating self-consciousness (as in many 'pathological families'), or the assault upon an already-established capacity for self-consciousness (as in many 'pathological societies'), produces not only individual suffering but at the same time a non-social community, i.e., one based upon parasocial relations. In contrast, the generation of genuine social relations requires the fostering of self-consciousness and the recurrent enactment of individual consciousness within a framework of intersubjective accountability. Giddens<sup>11</sup> describes such enactment as follows :

"This view depends upon stressing the importance of the 'reflexive monitoring of conduct' as a chronic feature of the enactment of social life. In this conception, reasons and

intentions are not definite 'presences' which lurk behind human social activity, but are routinely and chronically ... instantiated in that activity" <sup>12</sup> .

While I agree with Zeleny and Hufford that "judgmental social agents do not need physical 'walls' ( or barbed-wire fences) in order to establish strong social boundaries ", they do need to acknowledge the primacy of recurrent enactment of self-consciousness in the reflexive monitoring of interactions as Giddens describes above. It is my claim that a society based on the assumption of autopoiesis would eradicate just this human reflexivity.

### **The Parasocial System**

From my point of view, a social system is characterised by the subordination of society's institutional structures and rules to the realization of the humans who constitute it. We find non-social or parasocial relations in its corollary, i.e., where humans undertake relations and interactions which do not give priority to their own individual realization but require only their behavior. Hence, most relations within the context of 'work' are not social relations. To quote Maturana once more:

"This is why I say that work relations as relations in which the only important element are the actions, as is apparent in the fact that in these relations the humans can be replaced by robots, are not social relations. According to what I say, in work relations the human condition of the workers is an impertinence, and that systems of work relations are always open to human abuse of the human beings that realize them" <sup>13</sup> .

Thus in defining third-order systems as "social" or "parasocial" we are making an ethical selection based on our valuing the realization of human properties as paramount. In terms of Kelly's personal construct psychology<sup>14</sup> we are choosing between a 'psychology of understandings' (the search for novelty, differences, evolving relations) or a 'psychology of manipulation' (the search for certainty, control, final solutions). In so doing we elect as genuine social systems those evolving in a co-ontogenic structural drift, or we choose to reduce the living to a mere succession of disconnected events in *parasocial systems* constituted by what von Foerster calls 'trivial machines' <sup>15</sup> .

### **Autopoietic Phenomena**

If we examine the phenomena of first-order autopoiesis, we find a system that is characterized by a very specific relationship to its components i.e., they are irrelevant beyond their capacity to realize the autopoietic organization. If we use this model for human social systems, then its necessary consequence is the irrelevance of component individuality in the 3°A system, along with individual



properties and requirements for their realization. What type of living system would this be? The central feature of the autopoietic system in relation to its components is that it renders those components **'allopoietic'**. The more a human system acts as if it is autopoietic, the more allopoietic its members become: the personal properties of the participants are ignored, abused, or actively negated.

Psychiatry can be viewed as a methodology for the curtailment of the autonomous self-specifying feature of humanity. When an individual's specification of his own identity comes into conflict with ( no longer 'fits' with ) the range of identities offered by the particular society he constitutes, then he is defined as 'disturbed' . Whether or not he *feels* disturbed , others who are disturbed by him will make requests that he should be 'helped'. The implementation of psychiatric interventions (diagnosis, medication, hospitalization, surgery, etc.) are aimed at limitation of the individual's powers of self-specification. This is primarily achieved by transforming the individual into an 'allopoietic machine' by virtue of making a legally-binding diagnosis ( "schizophrenia", etc.) which effectively states that this person is disqualified from self-specifications and that we may ignore any such further inventions on his part. Asylums are full of 'patients' who have been ex-communicated from participating in the ongoing generation of the observer community's consensuality. *Asylums are not social systems, since the members are legislated out of any true social existence.*

Asylums are not constructed with the primacy of the individual's autopoiesis in mind. Rather, they are deliberately intended as mechanisms of social control - achieved through existential reduction of the inmates to mere ciphers.

It seems to me that this is an as if third-order autopoietic system. The members of such a 3<sup>o</sup>A system are necessarily "patients". According to Harre's<sup>16</sup> definition, a "patient" is someone who must be prodded into action. In the absence of any perturbation, "patients" will remain quiescent. These *allopoietic subjects* must be specified and controlled in detail if they are to 'work' effectively. Such allopoietic subjects (who can neither manifest new properties within themselves nor trigger a change in anything outside themselves) *cannot generate a genuine social system as long as they remain within the context of the third-order specifying system.*

The alternative to being a "patient" is to be an "agent". An "agent" is defined as someone who will execute actions upon having restraints removed. An "agent" needs only to be released for self-specifying enactments to emerge. The capacity to act reflexively upon oneself and upon others is intrinsic to the generation of genuine social processes.

### **Autopoietic Asylum**

The constitution of first-order autopoiesis in relation to its components is totalitarian, conservative, absolute, and invariant. It subjugates all of the activities of the system to its own production. Transposed to a human setting, this is a blueprint for a parasocial system of abuse. In order to generate a 3<sup>o</sup>A

system, one must obliterate self-conscious self-specification. In a word, one must eradicate the agentic Self-Observer. The more a family attempts to act as if it were an autopoietic system, the more allonomously the participants must behave, and the less evident is reflexive monitoring of conduct. Laing<sup>17</sup> pointed out the typical rules of family life which provide a mechanism for this simultaneous erosion of intersubjective reflexivity and increasing allonomy as follows:

**Rule A:** Don't.

**Rule A1:** Rule A does not exist.

**Rule A2:** Do not discuss the existence or non-existence of Rules A, A1, or A2<sup>18</sup>.

The pervasiveness of such rules for the destruction of subjectivity are obvious in many systems. When the participants follow them, they will 'forget' that these rules exist: their levels of consciousness are diminished. The continuous elaboration of such rule systems places extreme constraints on the limits of one's world. Coercive limits are quickly reached regarding what may be said and, eventually, what may be imagined. Laing comments:

"... it would never even occur to a perfectly brainwashed person to think certain unmentionably filthy thoughts. Such cleanliness, however, requires constant vigilance: vigilance against what? The answer is strictly unthinkable. To have clean memories, reveries, desires, dreams, imagination, one must keep clean company, and guard all senses against pollution. If one only overhears someone else talking filthy, one has been polluted. Even if one can forget one ever heard it, right away. But one has to remember to continue to forget and remember to remember to avoid that person in future" <sup>19</sup>.

Here we see the consciousness-paralyzing process in the allonomous subject. This process is characteristic of all third-order systems which pretend to be autopoietic, whether a family, an asylum, a business, a concentration camp, or a totalitarian state. The current slogan of the Chinese gerontocracy (those responsible for the massacre in Tiananmen Square in Beijing last year) is "Stability Before Everything". Thus governmental stability, the conservation of the power of those gerontocrats, "justified" the mass killings. In the Maoist era, 'mindless sloganeering' was systematically used to render consciousness impossible. Death, of course, is another method.

## **The Survival Of The Concentration Camp**

Zeleny and Hufford make a distinction between 'autopoietic' social systems and 'engineered social designs', using the concepts of 'spontaneously emergent' versus 'deliberately engineered' and 'self-sustaining' versus 'sustained through coercion' to differentiate between them. From my point of view, neither of these

constructs is particularly useful in attempting to distinguish between the 'autopoietic' social system and the engineered system. Furthermore, I would be inclined to think that these systems are fundamentally indistinguishable from the point of view of the participants who must sustain them. Since concentration camps are mentioned several times in the focal article, I will use them to illustrate my point.

To claim that a system is 'artificial' is to operate on an assumption which privileges non-intentional (non-subjective) developments, i.e., that are 'objective' in some way not requiring an observer. There seems to be a separating value that associates 'spontaneous/ natural' with an objectivity independent of the human observer, and that associates 'artificial/rational' with subjectivity (intentionality) and human meddlesomeness.

However, since there is no 'natural nature', and since, from the constructivist point of view, we live entirely in a man-made languaging medium from which we can never escape, the use of the term 'spontaneous' must be construed with some suspicion.

We are 'spontaneous' as subject-agents in a way which is like the 'spontaneous' behavior of a post-hypnotic subject who suddenly executes a performance - but only following a careful and deliberate period of induction and forgetting. In order to appear 'spontaneous', the actor must have 'forgotten' the deliberate step-wise construction of his role. That is, he 'forgets' his subjective invention of the enactments, object, technique, tool, concept, environment, etc. . The performance, event, or object seems to have come 'out of nowhere', that is, as if it were always entirely present and needing no explanation: it is self-evidently true and genuine. Thus the subject appears to engage in the 'spontaneous assumption of roles' as Zeleny and Hufford claim, but this can occur only after many years of repetitive induction.

Concentration camps emerged from the long history of conversations within German nationalism and followed the lethal 'immunological' logic of distinguishing 'self' from 'non-self' - in this case, a 'superior Aryan self' established by the active negation of its chosen opposite. The affirmed 'self-identity' required and prescribed the genocidal extinction of the German Jews. To argue that the 'boundaries' of these camps were 'artificial' fences, etc., is quite beside the point. These were clearly parasocial systems which were constitutive of the total Nazi network of conversations. From my point of view, these camps represent the maximal effort to construct a third-order autopoietic system, and the completely 'inhuman' nature of these camps is its inevitable result. Not only were they constructed on the principle that individual components were irrelevant with respect to the whole, but more: the national identity was to be conserved on the basis of extinguishing many of the individual participants. Of course, this was also a context in which the self-consciousness of the victims was brutally deleted. Survivors of this process can provide clinically precise descriptions of the destruction of consciousness, as illustrated by this quote from de Wind<sup>20</sup> .

"The ex-prisoners can remember nothing of their very first days in the camp. The memory is lost. During that time, secondary-process thinking is switched off and the more

sophisticated ego-functions, such as reality-testing, are suppressed, since to experience the whole reality at once would be overwhelming and would cause chaos. ... Sometimes the process of regression goes too far. Then there remains only what might be called a rudimentary psycho-motoric ego. If this state prevails, the end will soon follow. The most necessary reactions, every kind of warning and adaptive activity, have been lost " <sup>21</sup> .

Here were systems composed of human beings *allopoeitically* specified within a terrifying metaphor of an as if 3°A system. No individuals are likely to have survived these circumstances in the sense of being the 'same' organizational identity. Once individuals undergo the psychologically destructive changes of organization mentioned above, they become other types of system/identity. For the duration of the camps, such reduced psychological identities (e.g., the past and future cease to exist) functioned for the conservation of biological autopoiesis; after being released, the person could begin the re-construction of a human social identity, and most likely not what or who the person was before. Unfortunately, while individuals are unlikely to survive these camps, the 'camps' themselves have survived in their form and intent, and are to be seen in many places around our world at this present moment. Dangers lie in the types of conversational networks that we enter into and engage with in our daily praxis. These include our ignoring conversations which are explicitly for the abuse and reduction of other humans.

Bearing in mind the importance of context and timing for the emergence of particular theories, I have often wondered if the theory of autopoiesis - being generated within the conditions of Pinochet's Chilean dictatorship which included the murder of untold thousands of innocent men, women, and children - was not in fact a transformation and transposition of the living conditions of the inventors to the characterization of life itself. In any event, from my reading I would think that transposing this model of the living from first-order to third-order will inevitably produce something like a dictatorship.

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