Revisiting the Need for a Third-Order Cybernetics

Vincent Kenny Accademia Costruttivista di Terapia Sistemica <kenny@acts-psicologia.it>

- ▶ Purpose: To argue for the need to generate a third-order cybernetics to deal with the problematics of second-order cybernetics. ▶ **Problem:** The recent exponential increase in the use of the internet and other "media" to influence and shape dominant cultural experiences via "virtual reality" exploits a core facility of human psychology - that of being able to accept "substitutions" for the "Real Thing." In this paper, I want to raise some basic questions and dilemmas for our living in the space of a third-order contextualisation that uses "virtuality" in an ever-increasing manner for the configuring and homogenisation of human experiences. In doing so, I also raise the question of the need for us to develop an adequate model of a "third-order cybernetics" for dealing with the ways in which human experience is contextualised and configured by phenomena that constitute the third-order system. ▶ Solution: Ernst von Glasersfeld's work makes it clear that psychologists and others enter into a great deal of confusion when they use terms like "self," "consciousness," "emotions," "memory," "the environment," and even "experience," because, as he points out, there is no convincing model for any of these commonly taken-for-granted phenomena of human living. His writings are taken as a unique source for the generation of an effective third-order cybernetics where the need for constant self-critical monitoring in regard to psychological praxis and third-order phenomena may take place. "Self-critical monitoring" means, in the first place, monitoring in a critical manner our tendencies to take for granted the notion of "self." One of the main problematics to deal with in secondorder cybernetics is the way that "subjectivity" is taken for granted.
- ▶ Benefits: The temptation to collapse back down from a second-order cybernetics to first-order cybernetics will be resolved by creating an effective platform for third-order cybernetics that problematises the issue of "subjectivity" of the observer in the second-order cybernetics framework. This involves putting into question many of the common assumptions held about "who" it is that makes the observations at the second-order cybernetics. In other words, I attempt to highlight what is problematic regarding the observer's subjectivity and how this analysis of what is taken for granted by the second-order cybernetics framework creates the basis of a framework for a third-order cybernetics.
- ► Key words: Subjectivity, observer, self, rational knowing.

In this philosophy imagination that is sustained is called knowledge, illusion that is coherent is called truth, and will that is systematic is called virtue.

George Santayana 1916: 31 criticising Fichte and Hegel

Introduction

The beginning quote above from Santayana seems to me to capture well the dilemma and dangers implicit in second-order cybernetics (2°C) – and in radical constructivism as part of that development – in regard to the necessity to bring into question the status of the

"subject," "self" or "observer" who is supposed to be busily observing observers.

We need a shift to a third-order cybernetics (3°C) to escape from the tendency to collapse back down through the second order cybernetics to the first order (1°C) – as described by Boxer and Kenny (1990) where they give the example of the difficulties of sustaining a second-order cybernetics stance in their consultancy work.

The framework of the 2°C contains a number of "traps" or "open manholes" in its foundations, through which the unwary can easily fall. These "manholes" are opened up by taking certain things for granted within

the 2°C framework. Among these things are the following:

- A. The 2°C observers can come to believe that they inhabit a domain of "meta-perspectives" from which they may see a whole lot more than at the 1°C.
- B. Further, it may be assumed not only that they inhabit a domain of meta-perspectives but that this domain is located at the "top" of a hierarchy of perspectives and thus is a "privileged" vantage point that transcends the domain of ordinary observers operating at the 1°C.
- C. Also that from this observation platform they have a "privileged overview" that allows them to observe *better than* those observations made at other observation posts further "down" the hierarchy of observing.
- D. It is a short step from believing that one's observations are "better than..." to slide onto the slippery slope of believing that one's observations are "more true than..."

These assumptions of superior "meta-perspectives" and "privileged" observational vantage points lead to the further assumption that it is somehow possible to extricate oneself from the ongoing network of conversations in which one is a co-participant. In other words, that it is possible to get "outside of" one's "languaging" community, to be "apart from" rather than a "part of" one's group communication system. Here, there is the illusion that one can "descend" from one's privileged overview to return to the network of conversations such as to interact with it in a manipulative way and to "steer" its processes in the way you believe best. This, of course, cannot happen in practice because one's participation within the network requires a moment to moment spontaneous interrelationship with what is actually going on within the group process.

These assumptions open up the manholes through which one may fall, to find oneself operating (unbeknownst) once again at the

1°C level of naïve realism. This is because these assumptions (a) negate the rationale of the 2°C framework ("no one can know best"; "reality is not accessible"; "no one can have the ultimate perspective" etc.) and also (b) lead the observers into believing that their perspective is better, truer etc. This leads them back to operating at the 1°C level, where the observer is not problematised and what is "seen" and "described" and "explained" is assumed to be a "true" and "accurate" description of "reality." Because the 2°C does not problematise the "subject," it allows the observers to slip into these comfortable assumptions outlined above, which by negating the epistemological framework of the 2°C lead the observer back into realist behaviours and attitudes that characterise the 1°C outlook. From this point of view we can imagine these movements from one epistemological framework to another as a perspectival game of snakes and ladders - where we "ascend" the ladders of cybernetic progress, only to slip back down to the start again by tripping over a slippery assumptive snake.

Ernst von Glasersfeld (1995) has pointed out many times how the realist language that we have all grown up with makes it very difficult for one to take up the alternative radical constructivist (RC) position. This is because one must use the available common language to try to express epistemological attitudes that run counter to the implicit realism embedded in the very language terms we are having to use. Through these habits of language, one falls into the ontic trap unbeknownst to oneself. Many of the criticisms made of von Glasersfeld's RC opus are simply pointings out of occasional "language lapses" that occur from time to time.

In this paper I want to take seriously von Glasersfeld's warnings in this regard to say that we need to take another step beyond second order cybernetics to formulate a third-order cybernetics that will allow us to take up a more effective RC positioning that may prevent us from sliding back down the constructivist ladder to land once more upon our hardened assumptions of realist ontology.

"There's nothing like the real thing" is the phrase I am humorously using to illustrate the need for a shift to a third-order cybernetics, following my original publications with Boxer (1990, 1992), where we laid out the argument noting the necessary problematis-

ing to be achieved in order to shift from one order of cybernetics to the next.

"There's nothing like the real thing," as the title of my paper, is analysed into three main issues for Radical Constructivism (RC), and these 3 "sub-titles" are used to differentiate a first-order, a second-order and a third-order cybernetics. This paper is in three parts: the first part having to do with first-order cybernetics (1°C), in which I discuss the problem of "desire" to highlight some of the features of the 1°C regarding "reality"; the second part relating to second-order cybernetics (2°C), where I discuss the problem of accessing either the external world or the internal world in order to problematise the 2°C; and the third part dealing with the need for a third-order cybernetics (3°C), where I discuss the problem of the subjectivity of the observer to problematise the 3°C tasks to be achieved.

Part I: "There's nothing like the Real Thing"

"Has anybody seen the Observer?"

"There's nothing like the real thing" is a phrase that is often pronounced to express our satisfaction with what we are consuming, such as, for example, during a delicious meal. Desire may be seen to be oriented around "nothing," that is, it has "nothing" as its object. In other words, it is a sense of a "lack" — an absence, something missing — that is taken as an object. A particular "nothing" becomes a "something." "Nothing" is given the status of a "real thing" (RT).

We can outline the sequence in this way: Firstly, we come to feel a "lack" – that we are lacking something – that something is "missing" or "absent" from our experience. Therefore in the place of *some thing* we feel that there is no thing. We have no "thing." This *nothing* acts as a prompt or "drive" to seek and find what is missing. As we will see in what follows, this is how the "MacGuffin" functions in driving film plots and actors' reciprocal coordinations within a drama. The *no-thing* orients the actors and channels their efforts in a predetermined direction.

Advertising and marketing promise to "fill the gap" where there is presently *no-thing* with a *some-thing* that will fit into the "gap-ing hole." In other words, their "products" claim

to be that no-thing that is missing. But as we know, such products cannot "fill that existential gap," and all attempts to find a solution in the consumption of "products" lead inevitably to dissatisfactions, frustrations, and disillusionment. This process of consumption, instead of providing a satisfying "something," rather strengthens the sense of there being "something missing." In other words, the feeling that there is a "no-thing" becomes more pronounced and urgent. The experience of the lack is intensified, as when a loveless person who has been desperately searching for his "soul mate" or "perfect partner" realises yet again, for the nth time, that his most recently met girlfriend is "sadly lacking" in those crucial qualities that defines his ideal partner.

In this case, we can reconstrue the title "*There's* nothing like the Real Thing" to mean that we believe that we have identified ("There it is!") a "nothing" (what is lacking, absent) as being a RT, or *like* a RT – by which I mean to say: "I have found what I am missing, lacking, or needing and I have a desire for it."

This is one of the mechanisms that marketing uses in attempting to motivate potential customers to buy their product – a product that promises to transform this "nothing" that is desired into a "something" that can "fill the gap" or "complete what is missing."

Operating on the assumption of a RT, we come to substitute the notion of a "lack" (we lack the RT) with that of a "nothing" (I have "nothing" instead of having *that* RT) to drive an insatiable hunger for what is "lacking." Much of advertising operates on this substitution to generate "false desires" or "hungers" to drive people to consume ever more quantities of rubbish.

The MacGuffin

Here I wish to take the Hitchcockian notion of the *MacGuffin* as an example of the "lack" that creates desire and activation. A "MacGuffin" is a term used by Alfred Hitchcock for any device that serves to drive the plot and the actions of the actors. It could be a person, an object, or an event that the characters of the story take for granted—or take as "really existing." He adopted the term from an old joke which tells of a conversation on a train in Scotland. One passenger notices a strange package in the overhead luggage rack and asks

what it is. The owner replies that it is a "MacGuffin." When asked to explain what it is for he replies that it is "for hunting lions in the Scottish Highlands." The first passenger observes that there *are* no lions in the Scottish Highlands, and the other replies "Well, you see how effective it is!"

Many of Hitchcock's films use this plot device, for example in his film "North by Northwest" American counter-espionage agents invent a non-existent agent called George Kaplan in order to create confusion in local Russian agents. The American spies achieve this invention by using the fictitious name "George Kaplan" to make hotel reservations, phone calls and other arrangements as if "he" really existed - instead of being a "nothing," an "absence," or a "lack." Into the middle of this invented semantic space walks the unsuspecting Madison Avenue advertising executive Roger Thornhill, who is mistaken by the Russians for being the non-existent Kaplan. Desperate to prove who he really is, Thornhill sets out to locate the "real" Kaplan! All the subsequent action of the film is driven by this "miss-take" - taking as "really existing" something that has been invented or created out of nothing.

Perhaps it is just another Hitchcockian "coincidence" that Roger Thornhill is a Madison Avenue advertising executive, since the marketing and advertising business seeks to create just this type of ambiguous situation by attempting to put potential consumers in the position of the Russians in this film who "miss-take" a given object for something that does not exist. In the case of advertising—notwithstanding the legislation that attempts to protect the public from false claims, misleading descriptions and a myriad of dishonest practices—it frequently claims to offer a product that is supposed to be a non-existent "Real Thing."

Advertising often relies upon implying that there exists a "Real Thing" – which we *lack* – and that the product being advertised *is* this missing "Real Thing." For example, Coca Cola has actually described itself as the "Real Thing." Where the product in question does not actually claim to *be* the original "Real Thing" it often claims to be *like* the missing original so that it serves as a valid, true substitute. This exploits the human capacities for "serial substitutions" whereby we can replace a "Real Thing" with an alternative.

Some famous examples of advertising products that dip into this technique of using slogans that reassure us that they are indeed the "real thing" – in case we had any doubts – "It's the real thing" – Coca Cola (1941); "The one and only" – Cheerios (USA, 2000s); "A taste of paradise" – Bounty; "Do what tastes right" – Wendy's Restaurants;

"The happiest place on Earth" – Disneyland;
"Pure. Natural. Unspoiled. Iceland. The Way
Life Should Be" – Iceland Tourist Board;
"Obsessed with perfection since 1897" –

"Obsessed with perfection since 1897" – Skoda.

Serial substitutions as viability or liability

Here I have used the example of advertising to illustrate the common manipulative use of the notion of a "real thing" to induce the further consumption of goods. Selling this notion of the "real thing" depends on our human capacity for "serial substitutions," which comes into play in infancy when the mother begins to wean the baby from breast milk to commercial products that promise to feed the baby even better. Here we have an emblematic illustration of an original "real thing" (mother's milk) being substituted by a "man-made product."

Our ability for serial substitutions leaves us vulnerable to manipulative marketing influences. The process of serial substitutions – which enhances our viability and ongoing survival by allowing us to structurally couple with a changing environment – is exploited by the marketing machines for the purposes of industrial profit. From this point of view, our capacity for serial substitutions can produce *liability*, and not only *viability*, because our consuming habits are connected in the end with the damaging of the whole food-chain and the eco-system in general, poisoning the environment with which we must make ever more toxic substitutions.

There is nothing *like* the Real Thing because either it does not exist or even if it does we cannot have access to it. Consumerism offers many "things" that are supposed to be like some original desired object but that only turn out to be poor substitutes for whatever may or may not have been the original Real Thing. The substitutes are "poor" because the desire for the Real Thing cannot be satisfied. The impossibility of satisfying desire is, of course, used as a deliberate strategy for fuelling consumer behaviour.

The *gap* always remains between our imagined real thing and the proffered objects that are supposed to close this gap of desiring. The *gap* is the unbridgeable *lack*. "Fill that gap with Cadbury's snack" was a sales slogan when I was a kid. At the time I did not realise that the "gap" they were talking about was the gap between meal times. I thought the gap in question was that in my stomach! Now of course I see that it was the existential gap of impossibility between "desire/lack" and "putative solution" that promises to meet the desire and fill the lack.

Supplanting the real. While Lacan and von Glasersfeld claim that it is impossible to access or "know" the "real thing" by definition, Baudrillard says that we have no "access" to any real thing because "models have taken precedence over things." The simulations have devoured reality. Simulations have taken over as "reality" and now generate nothing but more simulations. Consequently, reality has lost its status, and the power of simulation is greater than the power of "reality." Should radical constructivists be happy with this?

Baudrillard's work invites us to see that this process of serial substitutions has arrived at its most extreme form in noting how we have substituted "models" or "maps" for the "real thing." We have become trapped in a domain of poor substitutes. Each one of which only strengthens one's (impossible) desire for the Real Thing - leading us to seeking out yet other substitutes which might promise to be more approximate to the Real Thing. From a constructivist point of view there can be no "successive approximations" (Kelly 1955) where we can get "nearer and nearer" to the Real Thing. Baudrillard points out that we are stuck on the "map" or "surfaces" because now there is only the map and there is no longer any territory - no Real Thing that is "represented" by the map. The map now represents nothing (no-thing). So all "things," or "objects" are a "cheat," a "deception," or "illusion" in that they cannot possibly claim to be "like" the Real Thing since there is no longer any "real thing" to compare the substitutions with.

"Abstraction today is no longer that of the map, the double, the mirror or the concept. Simulation is no longer that of a territory, a referential being or a substance. It

is the generation by models of a real without origin or reality: a hyperreal. The territory no longer precedes the map, nor survives it. Henceforth, it is the map that precedes the territory – precession of simulacra – it is the map that engenders the territory and if we were to revive the fable today, it would be the territory whose shreds are slowly rotting across the map. It is the real, and not the map, whose vestiges subsist here and there, in the deserts which are no longer those of the Empire, but our own. The desert of the real itself" (Baudrillard 1988: 1).

GMO dangers

To end Part 1 of this paper I want to underline that in the era of "GMO" dangers – that is of the risks to consumers in eating products that contain "genetically modified organisms" – it may be more important to bear in mind that we are also becoming "Gnosiologically Manipulated Observers."

Maturana (1988) warns us that the use of the notion of "reality" – the Real Thing – is a step in an argument to persuade, induce or compel agreement in another who already does not agree with your position. Advertising often attempts to trigger compliance in consumers by evoking the "real thing" as we have seen above. This is insidious; and from an RC point of view we may soon have to ask for consumer protection by legislating labels warning us about this form of "GMO" manipulation, perhaps in the form of an "Epistemological Health Warning" such as the following:

Radical Constructivist Product Warning Label: Because knowledge is defined for the purpose of this product literature as "justified true belief," the manufacturer cannot prove that they "know" any of the information provided with this product to be true, correct, complete, or consistent because they cannot demonstrate their internal belief states through the principle of Philosophic Privacy.¹

In this first part of my paper I have been looking at the problematising of 1°C assumptions of there being a *Real Thing* and of having direct access to such a *Real Thing*. Problematising ontic reality and the observer allowed us to generate 2°C – the cybernetics of cybernetics – as Heinz von Foerster (1984) showed in his book *Observing Systems*.

Part II: "There's no-thing like the real thing"

"Has the OBSERVER seen anybody?"

Here the title of this paper is rephrased as "There's no-thing like the real thing" in order to say that the "thing" that we bring forth is at best our own observer theoretical construction in the domain of explanations as opposed to some presumed "RT" that exists in the domain of experiencing. The term "No-Thing" here is used because we could not know any "thing" to "be like" the Real Thing since we have no privileged access to any such RT domain.

It is not possible to make any comparison between the "thing" we construct through our observer operations of distinctions on the one hand, and some putative "Real Thing" that may exist beyond the reach of our knowing processes on the other. As von Glasersfeld tells us, we can only rationally know our own constructions. Put even more strongly, we can say that anything that we call a "thing" is our own construction - or, as Maturana says, is brought forth by our own observer operations of distinctions, and does not exist independently of these observer operations. So there is no-thing with which to "compare" our "thing" (Maturana). Or if there was, it lies beyond our rational knowing powers (Glasersfeld 1987). Put again more strongly, I can say that the "thing" that I bring forth is the only thing existing, and it is neither a "representation" nor a "version" of the "real thing" that is assumed to be the existent "real thing" that somehow originates my efforts to "construct" or "reconstruct" it.

Epistemological cheating

Here we must note the dangers of falling back down the constructivist ladder into the land of realism when we give in to the temptation of "epistemological cheating." Epistemological cheating is imagining that we can peer around the edges of our "constructivist goggles" to sneak a look at the "real thing" to check how well we are "matching up." George Kelly (1955) criticised this temptation as the belief in "successive approximations" — believing that little by little we could improve our constructions so that they "matched up" to "reality" better and better.

So we cannot have any "thing" that we "know" to be like the "Real Thing" – because we have no privileged access to the Real Thing, whatever it may be – and cannot make "comparisons." Here we have the 2°C task of problematising the Observer observing the observed system.

Two non-collapsible domains – and their unbridgeable gap

According to Maturana (1980), we live in two non-collapsible domains – the domain of experience and the domain of explanations. There cannot be less than these two and they cannot be reduced one to the other. Harley Shands (1971) once described language as being like a "parasite" that, once it has invaded the human body, cannot be got rid of. We are not "aware" we have it, but we must suffer the consequences, made explicit by this gap. Maturana made a similar point by insisting that we cannot get outside of "languaging."

Our being human (the state of being the "humans" we are) on the one hand, and the kinds of experiences that necessarily follow our form of humanness on the other, is produced by our being stretched across this impossible gap between the domain of experiencing and the domain of explanations. It is our own bodyhood that must act as the "bridge" across this gap. This leaves us saturated with impossibility and paradox, and, of course, a myriad of irresolvable dilemmas. We ourselves are the "bridging material" stretched across the impossible gap – and so we both constitute the gap and are constituted by its non-collapsibility. Complicating our uncomfortable "over-stretched" bridging position is the fact that it is also our own bodyhood that is stretched as the temporal bridging across the present time to connect the past with the future towards which we are always moving.

Common examples of an "unbridgeable gap" as part of our mundane human existence are readily seen in the dilemmas of Theory vs Praxis, Scientist vs Practitioner, and the Coach vs Athlete relationship. The Coach is strong on the theory of game strategy but the Athletes are embroiled in complex sequences of un-anticipatable actions and reactions with their opponents. They are always too close to the ultimate consequences of what they have just done to be able to extricate

themselves from the action to "decide" to do something different. The player cannot simply "choose an alternative action" because they must deal with their competitors' responses to what they have just finished doing! Like a boxer who "hears" his trainer's shouted advice ("keep your left up") but who in the onrushing events of combat is not able to enact the advice.

This gap is unbridgeable because what we do (our "theory-in-use," or our "know-how") happens spontaneously on a moment-tomoment basis of interactional relating with others in one's network of conversations. This occurs largely out of awareness due to the way our attention is necessarily focused as a participant in the conversational flux. This is always different to what our theoretical model prescribes and anticipates (our "espoused theory" or our "say-how"). For example, when we make a videotape of a therapy session we find that we have at least three different descriptions of what has occurred. Firstly, we have the therapist's anticipations of what (according to his model) he intended to do with his client family. Secondly, after interviewing the therapist following the session, we have what the therapist believes he actually did during the session, and his estimations regarding whether or not this coincides with his pre-session intentions. Thirdly, we have what can be seen on the videotape, which usually is radically different from both the anticipations of what the therapist intended to do and what afterwards he believes to have done. In this third version the therapist can be seen to be flowing within his domain of experiencing with his clients. In the other two versions (before and afterwards) the therapist is flowing in his domain of explanations. This is an example of the impossibility of bridging these two domains. The therapist's model is, at best, his way of attempting to organise his own experiences arising in therapeutic praxis. It is not a "reliable description of the actual events."

It follows that there are different "orders of construction" operating in the two different domains of experience and explanations. Generally, I can say that in the domain of explanations, the orders of construction are those associated with language use, concepts, constructs, cognitive mappings, metaphoric descriptions and other abstractions. In the domain of experience, the operations involve

what we call non-verbal communications, pre-verbal construings, and generally the coordinations of actions and emotions in the network. I would say that the different forms of viability that von Glasersfeld delineates in Piaget's work could be allocated to these two different domains of human existence. To quote von Glasersfeld (1995: 68) on Piaget:

"His theory of cognition involves two kinds of 'viability' and therefore a twofold instrumentalism. On the sensorimotor level, viable action schemes are instrumental in helping organisms to achieve goals - sensory equilibrium and survival in their interaction with the world they experience. On the level of reflexive abstraction, however, operative schemes are instrumental in helping organisms achieve a relatively coherent conceptual network of structures that reflect the paths of acting as well as thinking, which, at their present point of experience, have turned out to be viable. The viability of concepts on this higher, more comprehensive level of abstraction is not measured by their practical value, but by their non-contradictory fit into the largest possible conceptual network."

What is here referred to as "sensorimotor and survival" goals can be seen to operate in the domain of experience, while the goals of reflexive abstraction can be seen to operate in the domain of explanations. There are, therefore, two different forms of viability associated with the two domains of experience and explanations.

So at the end of part 2, I want to clarify just what must be problematised here at the 2°C in order to begin to generate a third-order cybernetics. As Boxer & Kenny (1990:7) put it,

"We see the need for a 3° cybernetics emerging out of self-referentiality in the 2° domain. The question must be raised as to what this 'self' is that is being referred to. Whereas the 1° mistakenly assumed 'objectivity,' we now claim that the 2° mistakenly assumes 'subjectivity.' Whereas the 1° mistakenly assumed a separation of the observer and the observed, we now claim that the 2° mistakenly assumes an identity between the observer and the observing process. The problematic self-reference must be taken beyond paradoxical circularity. For this we need to create a 3° cybernetics."

In other words, we need to put in question the very existence of an "Observer" who is brought forth in the second-order cybernetics. This launches us towards the creation of a third-order cybernetics.

The Being-Knowing-Acting Circularity. While the realists' task is to ensure that their representations match up to reality, von Glasersfeld redefines representations as being "re-presentations" and substitutes his idea of "fit" for that of the realist "matching up." Maturana, on the other hand, radically eliminates "representations" as an irrelevancy, and substitutes it with his idea of biological co-ontogenic structural drift. This means that we know what we do because that is what our structure-determined system is. Thence his catch-phrase that "all knowing is doing" whereby he emphasises the unbroken circularity of being-knowing-acting.

"This circularity, this connection between action and experience, this inseparability between a particular way of being and how the world appears to us, tells us that every act of knowing brings forth a world ... [A]ll doing is knowing, and all knowing is doing" (Maturana & Varela 1987: 26).

This is a very important epistemological break from the usual dichotomies of Idealism vs. Realism, and their related oppositional contrasts. Ernst von Glasersfeld, in his efforts to clarify what is *rationally knowable*, emphasises the radical split of "inside vs. outside," and the further inner split of "mind vs. body." He consequently has to deal with some of the classical dilemmas of epistemology — being commonly accused of being a "solipsist" and of denying that there is no "external reality" — something which his work actually never implies.

Once we construct these "splittings," we are obliged to enter into discussions as to whether realism is the opposite pole of idealism, and is thus aligned along the same epistemological dimension, or whether these two outlooks are different epistemologies and exist on different planes of discourse. *However* one decides between these abstract choices, there remains the necessity of positioning one's observer differently in relation to the "Inside/Outside" split that one has already constructed. Once the split is made, we must necessarily take up a position in relation to the inside vs. outside worlds.

However, both Kelly and Maturana, in different ways, attempted to take up an alternative position here and to dissolve the relevance of this discriminative splitting. Kelly in his early attempts to move in this direction of healing unviable "splittings" of person vs. world, for his part, says that:

"I am quite ready to assume – indeed it seems important to assume – that there is a reality out there, or if you prefer, a truth deep inside all of us. If you are talking about psychology I suppose it helps to think of its being inside. Just where it is probably does not matter much at this stage of the game. The point is that our grasp of it is approximate only. Moreover, it may be a little further out there or a little deeper inside than we have led ourselves to believe" (Kelly 1969: 210).

Furthermore, Kelly's definition of the term "construct" – frequently taken to be a precursor of cognitive psychology – has nothing at all to do with the usual "mind-body" splitting but is rather a way of describing a whole-person psychology.

"Now what I am describing is not conceptualization as psychologists and logicians commonly understand that notion. It may not even be very good logic. But it is descriptive of the way man starts to make sense out of his blooming buzzing confusion. Instead of trying to classify this particular process loosely as one of 'conception' or 'cognition' let us abandon these formalistic notions altogether and designate it as the psychological process of construing or of forming personal constructs. And I must insist that the elemental construct I am postulating bears little resemblance to a concept and that construing is a far cry from cognition" (Kelly 1969: 197f).

Maturana's efforts go much further towards the dissolution of these splits in experiential being (Mind/Body, and Inside/Outside). In underlining the importance of his distinction that the living system exists in two phenomenal domains he explains how his approach dissolves the "mind-body" problem.

"...I wish to remark that viewed in this manner this phenomenal distinction dissolves the mind-body problem: a) by providing an understanding from the perspective that the so-called 'mind phenom-

ena' pertain as descriptive relations to the operation of the organism as a simple unity, and that the 'body phenomena' pertain as descriptive relations to the operation of the components of the organism as a composite unity (Maturana, 1978), and b) by showing that the operational connection between these two nonintersecting but complementary phenomenal domains lays in a metadomain of reciprocal structural selections. Or, in other words, that while the actual operation of the organism as a simple unity in the 'mental' phenomenal domain selects through structural interactions the path of its structural changes as a composite unity in the 'body' phenomenal domain, recursively, its operation as a composite unity in the 'body' phenomenal domain selects its actual interactions in the 'mental' phenomenal domain" (Maturana 1980: 77f).

While for realists the map can be improved by successive approximations to *match up* better with the territory they are representing, for von Glasersfeld the map is *not* the territory and the best we can hope to do is to *fit* with the constraints of the medium. For Maturana's more radical thesis, however, *the map is the territory* – there being no separation between the two because the world is *brought forth* into existence by the operations of distinctions of the observer. There is no splitting discrimination here. For Maturana, therefore, *reality is neither "objective" (realism) nor is it "individual" (idealism)*.

To supersede the realist language and all of the implicit "splittings" of the world that it contains is a very difficult task. Maturana was obliged to invent a new word - "autopoiesis" - to draw attention to the fact that his view of the biological cell was very different to the usual view taken by the dominant biological paradigm. He also wrote his texts in a "circular" manner, embodying in the form of his writing many of the cybernetic, recursive features of his model. What he was attempting to say was beyond the reach of our usual realistbased language framework. He spent the first 20 years or more patiently explaining what he was not saying, in efforts to redirect the readers' attention to what he was saying - as opposed to what the readers' realist understandings were predisposed to hearing.

This dilemma of communication is something like what we experience when we discover a new food in a foreign continent. We do not know what the food is called (the local language name does not signify anything to us), we do not know if it is a vegetable or a fruit, if it is to be eaten raw or cooked, and worse still, we cannot describe its different taste because it is nothing like any of the usual referents we have for describing food tastes. So apart from showing our friends a photo of this new food, we cannot describe our experience of a new taste. This also underlines the fact that our experience is not a "directly knowable" entity; we must always construct some sense out of it, especially if we wish to communicate our "experience" to others in the domain of explanations.

So constructivist theories in general, and Maturana's theory in particular, suffer because of this gap in terms of what the realist language allows us to express regarding that which is radically different.

Here is another example of an author trying to dissolve some of our habitual assumptions made in relation to the cell.

"The cell membrane is not a wall or a sieve. It is an active and responsive part of the cell; it decides what is inside and what is outside and what the outside does to the inside. Cell membranes have "faces" that enable cells to recognise and influence one another. The membranes are also communications systems. Things outside a cell do not necessarily act on the cell interior by passing through the membrane; they may simply change the membrane in some way that causes the membrane, in turn, to make changes in the cell interior" (Mazia 1974).

And here is Maturana's (2000) related version, where he is trying to highlight the importance of understanding that the system does not have "inputs" and "outputs."

"If one does not see how it is that living systems do not have inputs and outputs, it is not possible to understand cognition as a natural phenomenon, and one does not see that that which we call cognition is the effective operation of a living system in a domain of structural coupling. Moreover, if one does not understand that living systems do not have inputs or outputs, one cannot understand how the domain of structural coupling of a living system, as the domain in which it realizes its living (autopoiesis), is indeed its domain of cognition."

His own comment on the epistemologies involved here is this:

"To conclude, I wish to insist that the epistemological shift in the notions of autopoiesis and the biology of cognition that I have developed lies in abandoning the question of reality while turning to explain the experience of the observer with the experience of the observer. This is a fundamental move away from a domain of transcendental ontologies to a domain of constitutive ontologies" (Maturana 2000).)

Part III: "There IS nothing like the real thing"

"Has any-body seen its Observer?""

So in this last section I want to briefly outline the problematic of the notion of the "subject" in 4 preliminary ways:

- A. Recalling von Glasersfeld's analysis, which shows that there is no way to "observe the self."
- B. Similarly recalling Varela's views on the fact that the "Self" is not found when we try to locate it or pin it down.
- C. Recalling that we have no privileged access to the outside world via the sense of touch.
- D. As a corollary to the previous point, stressing that we have no privileged access to our "inside world" either.

Now I will briefly unpack each of these four points about "subjectivity" in sequence, bearing in mind that the adequate resolution of these confusions, and habits of ignoring what we take for granted in our speaking and listening, is a necessary condition for the generation of an adequate platform for a 3°C.

A. "Self-observation" is impossible

Ernst von Glasersfeld and Francisco Varela (1987) described the impossibility of observing our "self" in terms of our being unable to "double-up" — to be simultaneously the "object" of study and at the same time to be the "observer" making the study.

"Anything known is known by an experiencer. If 'to know' is to make distinctions in experience and then to set up relations between the parts of experience that have been distinguished, it follows quite inescapably (1) that we can know ourselves only to the extent to which we experience ourselves, and (2) that the self we do experience and incorporate into our cognitive structures, by that very act of construction, ceases to be the self that does the experiencing." (Glasersfeld & Varela 1987: 40).

Whether or not an observer decides to construct an "inner world" for themselves (in contrast to an "outer world"), and to populate this "inner world" with constructions that are called "self" (or even "multiple selves"), all of this world is the result of one's best efforts to organise one's experiences. A third-order cybernetics would be very careful to recall this, and especially to recall that where one decides to make a distinction between one's "experience" on the one hand and "oneselfas-experiencer" or rather as "observer of this experiencing" on the other, that this can never be mistaken for a distinction between oneselfas-observer on the one hand, and one's experience-as-an-independently-existing-object" on the other. This whole complex, separated internally by convenient distinctions, remains wholly subjective as the domain of our experiencing - and our efforts to describe it in the domain of explanations do not and cannot make it any the less "subjective."

Reflexivity . It has become commonplace for scientists to speak about "participative observation" and to take into account the idea that the very act of observing operates to change the phenomena under observation. However, this situation is especially complicated when it comes to humans observing other humans, or indeed themselves. What George Kelly (1955) described as the issue of "reflexivity" in relation to humans observing humans contains some very particular features which distinguish it from that of scientists observing non-human phenomena.

Kelly's theory of personal constructs is a meta-theory, or a theory of theories, which is focused on how individuals come to create their constructions of their world. Insisting on the importance of reflexivity in humans he used to say that *all people are scientists, and all scientists are people*. In other words, that there can be no double-standard of having one theory for "subjects" (or "patients") and a different theory for the scientists (or "therapists"). The theory that the therapist uses to describe

and understand his clients must be the same theory that he uses to describe himself. "All persons are scientists" means that each one of us is busy trying to construct a viable mental map of our world in a way that permits an efficiency of anticipations. "All scientists are persons" means that there is an ineradicable personal subjectivity at the core of the individual scientist and thus in everything that he perceives, chooses, describes, prefers, and ignores. Whatever theory the observer espouses has to recursively account for the fact that this observer has espoused this particular theory. There is no way that the constructivist can pretend that they have merely espoused "the best" or the "most objective" theory available. Further, to understand human beings it is not enough to merely "observe" what they get up to. The only way to come to an understanding is to ask people what it was they were intending to do or attempting to experiment with. For Kelly, our human actions are our ways of interrogating the world, of making experiments and of asking important questions. Our actions are, therefore, not our "conclusions" about what has gone before but rather our ways of opening up new areas of questioning and questing.

One of the important effects of reflexivity is to "parenthesise" the observer, to use Maturana's term. What follows from this is a series of important implications as to the conduct of the observer, which include the following:

Firstly, that the observer is the same type of phenomenon as that which he is observing. There can be no double standard created by the observer by pretending that he is in some way "different" from his "experimental subject" or that he possesses some "privilege" which exempts him from the same considerations as those under which the subject is constrained. Secondly, that there is no longer any way for observers to extricate themselves from the issues of "being a subject" experimenting with other "subjects." Intersubjectivity becomes a prime focus.

Usually the scientific observer uses one theory or model to describe his universe of observations (e.g., quarks, sub-atomic particles etc) and a very different model to think about and describe himself and his personal experiences. However, in the realm of psychology and psychotherapy this is never possible. Reflexivity implies that while the observer is trying to make sense out of what

his psychological subject is up to in the experiment, so at the same time the subject of the experiment is trying to make some sense out of what the experimenter is up to, and, particularly, what he appears to be expecting from the "subject." Don Bannister puts it like this:

"There may be no onus on the chemist when he writes his papers on the nature of acids and alkalis to account in terms of his acid-alkali distinction for his behaviour in writing a journal paper. But psychologists are in no such fortunate position. Turning this issue of reflexivity the other way around, I am reminded of a recurrent theme in certain types of science fiction story. The master-chemist has finally produced a bubbling green slime in his test tubes, the potential of which is great but the properties of which are mysterious. He sits alone in his laboratory, test tube in hand, brooding about what to do with the bubbling green slime. Then it slowly dawns on him that the bubbling green slime is sitting alone in the test tube brooding about what to do with him. This special nightmare of the chemist is the permanent work-a-day world of the psychologist - the bubbling green slime is always wondering what to do about you" (Bannister & Fransella 1971: 189).

Another implication of reflexivity is that there is no longer any way that the observer can rely upon independently existing sources of validation. Instead, attention must shift to the consensual agreements in the observer community regarding the criteria for acceptability of any given affirmation or negation.

Yet a further implication is that the observer is not only responsible for bringing forth a world, but also for the process of "self-invention" – both in the sense of inventing the notion of "being a self" as a *convenient fiction*, and also in the sense of continuously reproducing the characteristics which identify him as the "self-same" person recognisable to himself and to others as that person living at the same experiential address.

The above implications can be summarised by saying that within this approach there is the determination to not have double standards, "expert" hierarchies, "privileged" speakers, or professional attitudes which disempower the "users." There is no way to escape from the network of intersubjectivity

within which each observer lives as a constitutive participant. Anthony Giddens defines reflexivity as being not merely "self-consciousness" but rather as "the monitored character of the ongoing flow of social life" (Giddens 1984: 3). In discussing "codependence" Giddens says that:

"The development of reflexive attention entails, as a basic beginning point, the *recognition of choice*. Choice ... means an appraisal of one's limits, and the constraints to which one is subject: the reflexive moment is called by one author 'self talk'....Compulsive relationships ... preclude the reflexive exploration of self-identity" (Giddens 1992: 91f).

B. The "Self" is never home when we come to call

Cognitive science has shown that the assumption of a central agent or "self" is not viable. Mind is revealed to be selfless – that is, without a self that is a centralised and an all-powerful agent. Realising that we cannot locate a fixed self creates a serious experiential dislodgement in two directions: firstly, outwards where we are no longer sure to be able to locate and find "reality; and secondly, inwards, where we find only a groundlessness – a selfless mind – that prevents us from looking outwards towards a world that we have heretofore defined as "non-self." If we cannot located the "inner self," how can we define the outer world as all that which is "non-self"?

Varela in his collaboration with Thompson and Rosch (1996: 60–61) elaborates further as follows:

"Moment by moment new experiences happen and are gone. It is a rapidly shifting stream of momentary mental occurrences. Furthermore, the shiftiness includes the perceiver as much as the perceptions. There is no experiencer, just as Hume noticed, who remains constant to receive experiences, no landing platform for experience. This actual experiential sense of no one home is called *selflessness* or *egolessness*.

"The tension between the ongoing sense of self in ordinary experience and the failure to find that self in reflection is of central importance in Buddhism – the origin of human suffering is just this tendency to grasp onto and build a sense of self, an ego, where there is none."

The 2°C literature is replete with hyphenated references to the "self." Frequently we read professional cybernetic and systems discussions involving such phrases as "self-referencing," "self-producing," "self-correction," "self-control," "self-specifying," etc. In common parlance we hear other phrases such as "self-satisfied," "self-centred," "self-obsessed," "self-negating," "self-indulgent," destructive," "self-sabotaging," "self-critical," "self-contradicting," etc. Nonetheless, there is an exceptional vagueness in both the professional and in the common usage of this term, and what this "self" entity might be. It is interesting to note that Maturana (1987) distanced himself from this morass of ambiguity by stating that the use of the phrase "self-organising" in relation to autopoiesis was a mistake. Organisation is a spontaneous phenomenon that remains invariant as long as the system conserves its class identity. In other words, there is no "self" entity that operates upon itself as if at a distance from itself-as-a-system - as if making efforts to maintain its organisational coherence intact. This whole conception is in error.

C. We have no privileged access to reality via subjective "touch"

Operating within second order cybernetics, we must still learn to abandon the last vestiges of "privileging" our own "knowing." This privileging takes two forms: (i) Firstly, in terms of our "privileged access" to the outside world. Even though this is explicitly precluded by RC it still tacitly occurs via the implicit privileging of the "sense of touch" to "know" that we have "bumped into" some obstacle. (ii) Secondly, as we will see in point D below, in terms of privileging our "inner access" to our own experiencing (by blurring the fact that we still have to "construct" our experiences in order for them to have a "certain meaning").

Both of these forms of tacit "privileging" arise because of old habits of language usage that tacitly obscure differences in the way we define "experience" as we move from one conversation to another. Specifically, we tend to vary our definition of "experience" when we are talking about how we come to "know" our own "experiential reality," and secondly, we shift the "meaning" of experience when we describe how we "know" that we have bumped up against an obstacle" in the external world.

The blind epistemologist. Unlike the blind man who trusts his stick to "tell him" about obstacles in his pathway, the blind epistemologist cannot say he "knows" that there is an "obstacle" because he has felt it by "bumping into" it and hurting his knees. He cannot even directly "know" that he has engaged in activity that we call "bumping into." This is something he has to construct out of his experience after it has "happened" — and such constructions could be merely hallucinatory.

Radical constructivists sometimes talk about the way we "bump into" constraints, like a blind man bumping into furniture in a strange room until he learns a viable pathway. However, we cannot know that we have "bumped into" some "object" or "barrier" or "constraint." We cannot know that it is a barrier or "impediment" or "obstacle." It is not that the "world" tells me, via the "bumpedinto object," that here there is a barrier or a constraint that I have not succeeded in navigating around. It is "I" who must construct my experience as that of "encountering a barrier, constraint, limitation, or obstacle." That is, I construe my experience of the situation as having felt a limit to the operational usefulness of my understanding.

We find an example from von Glasersfeld (2006) in giving a response to an on-line question where he says this:

"... We may have (a point of view) but we have no 'ontic' knowledge of what may have constrained it. If you say it was the object we used to make the cast, well that is no less our construct than the table we bump into when we want to sit down. The fact that objects resist our movements and those of plaster is part of the experiential reality we have constructed on the basis of experience and with concepts and relations derived from experience and not from ontology. You may indeed refer to the 'outer' world as ONE limit of all our possible viable constructions, but there is also the limit of our ability to construct. And, more importantly, viability is not an absolute, it always depends on the goals we happen to have chosen."

My point here is that while we are correctly wary about privileging the other senses of sight, smell etc. we must beware a tendency to tacitly privilege our senses of touch, proprioception and kinaesthetics to think that we "rationally know" something about reality

(e.g., "that there is a sharp obstacle"). We cannot privilege the "sense of touch" as being "different" to the other exteroceptive senses (sight, taste, smell, hearing and balance) in relation to perceiving or "coming into contact with" our outside world. "Coming into contact" with the "reality" of our experiences in the world therefore always requires us to make a construction. I find Lacan's notion of what he calls the "Real" is very useful here. His definition is that the "Real" is absolutely resistant to symbolisation. The Real is "the domain of whatever subsists outside symbolisation" (Lacan 1977). In other words, at the precise point where we have finished making our most exhaustive descriptions (symbolisations, constructions) of the Real, that is where the domain of the Real begins.

D. We have no privileged access to our own "inside" either

The problem is not only that of not having any privileged access to the outer world or "reality" – but also that, I would claim, of not having any privileged access to our own inner world, either. This is because we must always construct our experience of events in order to produce what von Glasersfeld calls "experiential reality." From my point of view, this constructed "experiential reality" necessarily leaves out all the rest of "experience" that occurred during the event.

The mere succession of experiences is not enough to "tell us like it is." Each individual must segment or punctuate the flow of experiencing into replications (Kelly 1955) and thence construct relations of relevance between the selected segments of experiencing. For Kelly, a "construct" is something that simultaneously affirms one state of affairs and denies certain others. The individual observer must be highly active in the process whereby they make relevant selections of experience and consign all the rest of the unselected experiencing to what I call the domain of ignorance.

As Kenneth Burke puts it: "Language is not a reflection of the world, but rather it is a selection of the world, and thereby functions as a deflection of the world." (Burke 1966: 45–46).

These processes of *selection*, *punctuation* and *sense-giving* pre-empt any possibility of "directly knowing" one's own experiencing, since what is presented to cognitive reflection for consideration and analysis is already a

highly filtered sample of experiential replications. In fact this is the main source of the common complaint that "life is boring," that "we keep on doing the same old things" – i.e., these selected replications of experiencing act recursively to channel one's living processes within these well-worn grooves.

In the same way that we cannot privilege the "sense of touch" to directly know something about the external world, we cannot privilege our sense of proprioception in its tasks of informing us about the relative position of parts of our body. This is especially the case when we consider clinical examples where proprioception tells the person that an arm or leg is not "his."

Disturbances of "the sense of touch". While a variety of disturbances in the sense of touch are well known (e.g., numbness, or sensations of tingling etc), there are other phenomena less well known where the proprioceptive sense creates very disturbing experiences such as where people experience a part of their own body as if it belonged to someone else. We not only live in the two non-collapsible domains of Experience and Explanations, as Maturana repeats; he also maintains that we are unable to distinguish "perception" from "hallucination" at the moment of experiencing an event - not even in matters corporeal. It is afterwards, often in conversations with others, that we decide that an experience was "real" ("You saw it too!") or that it was an "illusion" ("my mind must have been playing tricks on me").

This issue comes to the fore in the clinical events cited below, where people demand a surgical reconstruction of their body based on their conclusions that one or more of their actual limbs are "non-self" – or belong to someone else, not to them (Johnston & Elliott 2002; First 2005).

"There are many examples of clinical problems that raise important questions about having 'privileged access' to our own inner experiences. At the root of many disturbing clinical presentations lie confused epistemological assumptions about 'bodyhood' and 'experiencing.' The bodily sense of 'touch' can be subject to a range of unusual psychophysiological experiences, ranging from dilemmas in the area of transsexualism and sex-reassignment, to the well-known phenomena of the ampu-

tee who 'feels' his limb to still be present (phantom limb), and to the less well-known phenomena where a person feels that his actual limb is not 'his own' but is entirely 'other' to his bodyhood — and engages in a medico-legal struggle to have the offending limb amputated. In recent years new medico-legal issues have been raised when there were cases of able-bodied persons who had succeeded in having perfectly healthy limbs amputated.

"I believe that many problems and confusions are generated out of the common but erroneous assumption that we *do* have a privileged access to our own *inner world* of experiencing that our senses generate in our bodyhood. It becomes crucially important in each clinical case to distinguish between, on the one hand, 'distortions of bodily experiencing' and, on the other hand, 'cognitive distortions' in the domain of explanations" (Kenny 2008: 77).

From the point of view of a clinician, these experiential phenomena may be judged to be a "hallucination" or an "illusion," rather than an "accurate perception." In other words, the status of the patient's construction of their own experiencing is judged to be "faulty" – e.g., to be "delusional" or at least "too idiosyncratic" – because it is seen as a request to wilfully disable healthy and functioning parts of the body (self-mutilation). I cite the above to underline that the fact that our experience occurs in our own bodyhood does *not* guarantee a privileged access to knowing what is "really going on there."

Slippage. In the same way that the "Self" slips out from under the observer's eye when we try to observe our "self" (who is doing the observing?), and in the same way that the "self" slips out from any localised positioning (in neurological studies), our own experience slips out from under the constructions that we make in order to try to understand our ongoing experiences. For this reason, just as we have no privileged access to the "self" as observed object, or the "self" as a neuropsychological entity, we cannot have any privileged access to our own "inner world of self-experiencing."

As Kenny & Boxer (1992: 20) emphasised: "...we have the capacity for 'self-consciousness,' meaning that we can become

aware of our own mental processes, and furthermore, that each individual knows unerringly that these mental states are his own. It is precisely this sense of *own-ership* of the mental processes occurring within the bodyhood [existential address] of the human person that we wish to bring into question.

"This is not merely to make a critique of the concept of 'self-consciousness' as 'self'contradictory, i.e., a phenomenon which 'owns' the mental states cannot at the same time be manifested as a mental state. We wish to go much further than this and insist that this certainty of 'own-ership' is the final resort of realism, of objectivity without parenthesis. Accordingly, we want to insist that the notion of the 'Self' functions, at best, as a type of fictive hypothesis which, perhaps over time, is expanded into a comprehensive theory (or even paradigm) which pragmatically 'works' to cover or encompass the greatly diverse experiences which flow through our bodyhood as we live from moment-to-moment and day by day. The theory acts to render this diversity as order and relative harmony."

In relation to our efforts at such constructions von Glasersfeld (1998) says:

"We cannot say that it represents the ontological reality traditional philosophers want to talk about. At best, we can say that the experiential reality we construct seems to be viable for our purposes; i.e., the unknowable 'real' world seems to allow it."

In saying that we have no privileged access to our own inner world of experiencing – just as we have no privileged access to "external reality" – I want to say that the "unknowable 'real'" mentioned in this quote applies to and includes our own domain of experience.

There is no "real" that we can come to know – neither in relation to what we call the "outside world" nor in relation to that which we call the "inner world." So we can only *rationally know* our own constructions in the domain of explanations that we create in relation to our felt experiences.

This is because myself-as-observer must always *construct* what I take to be my "own experiences" into what von Glasersfeld calls "experiential reality." That is, "my experiences" must be constructed as "experiential reality." In other words, the *gap* between "my



Vincent Kenny was born and educated in Ireland, taking degrees in Mental & Moral Science, nowadays known as Psychology & Philosophy. He is registered as a professional psychotherapist and chartered psychologist in Ireland, England, Italy and in Europe generally. He is also a Chartered Scientist of the Science Council of the United Kingdom. Reflecting his work in sports psychology, he is also a founder member of the Division of Sport & Exercise Psychology and a founder member of the Special Group of Coaching Psychology of the British Psychological Society. His work is spread evenly over 3 different areas: (i) the area of clinical psychology and psychotherapy; (ii) the area of organisational consulting; and (iii) sports psychology activities, especially in the domain of professional tennis on the ATP and WTA world circuits. He has frequently worked as the tennis psychologist with the Italian Davis Cup team. Having been the director of psychotherapy training at the Department of Psychiatry at University College Dublin for many years, he is now the director of the Accademia Costruttivista di Terapia Sistemica in Rome, which offers consultancy to organisations and to professional athletes worldwide.

experience in the domain of experiencing" and what I *make* out of this in my "domain of explanations" remains a gap not only between myself and others, but also as a fundamental "splitting" within myself.

We may see an example of this in the experience of dreaming, which shows that this form of "inner experience" eludes analysis, categorisation or even description – and in any case we are obliged to interpret it, to construct is as "something in particular," even if we are only half awake – if we wish to "make sense out of it." The observer is in the same position both in regard to the "external world" as well as in regard to his own "internal world."

A third-order cybernetics problematises, therefore, both the selfhood (subjectivity) of the observer and also the relationship of this subjectivity to any observed system (which can be in either the "external" or the "internal" worlds) – and questions any claims, tacit or explicit, relating to a privileged access to these worlds. The focus of a 3°C is necessarily on "foundationlessness" – of having nowhere to "stand" and also on the uncertainty and undecidability of what we may claim to "know."

Conclusion: The need for a third-order cybernetics

The management of ignorance: It is January 2009 as I finish this paper, amidst the ongoing worldwide financial collapse, where the very few observers who had seen it coming as far back as 2006 were dubbed "pessimists" and worse. Mostly, it was business as usual, which meant largely deciding to *ignore* certain business data and certain features of the world markets. As Boxer & Kenny (1990: 5) put it:

"Businesses have a tendency to ignore things. It's their way of keeping life simple. After a while they forget what they are ignoring, so that when things start going wrong, they find it difficult to change because they get stuck within what they know. So we begin by helping them recognise what they are ignoring; ultimately helping them to develop ways of managing their ignorance."

Or to put it more succinctly: "What you see is what you get, and what you don't see is what gets you!"

What we do not see within the frame of the 2°C is the problematic of the "self," of the "subjectivity of the observer." In this paper I have presented some suggestions regarding the need to shift fully into a 3°C frame in order to be able to effectively problematise the dilemmas of the observer's taken-forgranted "subjectivity." Remaining within the 2°C frame, we are inclined to ignore or be blind to this problematic. As the world banking system has demonstrated with disastrous consequences, apart from rampant greed and unconscionable risk-taking with others' moneys, there was a total failure of the regulatory system. The existing "self-regulation" was equivalent to no regulation. This also is a problematic within the 2°C, which loses its "systemic" perceptiveness by coming to ignore what it takes for granted. In other words, "self-regulation" is a notion that contains another of the imponderables of selfreference from which emerges very little that is rational and lucid.

The importance of the second order cybernetics was to switch attention from detailing the contents of our knowledge to paying attention to describing the mechanisms whereby we come to invent a particular reality ("how" it is that we bring forth a given reality). The "observer" is taken for granted as an independently existing entity who may unilaterally bring forth a particular reality. Apart from this "taken-for-granted" observer, the 2°C also ignored the ways in which different observers are coordinated together in their computing of realities. Here we can see a serious falling-short of the task of the 2° cyberneticians who, by concentrating on the task of how "observers" come to compute a reality, ignored the task of completing the assault upon "realism" by following it to its ultimate location in the privileged "self-hood" of the individual observer. So the 2°C failed in its attempts to parenthesise "reality" - the escape from the realist illusion was merely another realist illusion.

As I described above, there are many open manholes along the avenues and walkways of the 2°C, generated by the illusionary assumptions of having a privileged metaperspective and a privileged power of getting outside the network of conversations of

which one is a constitutive component. The overall effect of these assumptions is to fall down through these manholes and to find oneself once again operating at the 1°C. From the RC point of view there *is* no hierarchy of meta-perspectives, there *is* no "up & down," there *is* no panoramic overview, and there *is* no privileged observing vantage point.

However, the problem of shifting one's praxis into a 3°C frame is not only one of how to avoid slipping back down the semantic snake in this game of epistemological snakes and ladders – from 3°C through 2°C all the way down to 1°C. There is also this warning of another more fundamental type of problem sounded by von Foerster (1984) in relation to the readiness of people to engage in this level of reflexive monitoring, and in relation to getting them shifting to a different epistemological stance. From my own point of view it describes the enormous task involved in the *management of ignorance*.

"...it has been observed that the majority of the American people cannot speak. This is interpreted by saying that they are 'silent.' I say they are *mute*. However, as you all know very well, there is nothing wrong with the vocal tract of those who are mute: the cause of their muteness is *deaf*ness. Hence, the so-called 'silent majority' is *de facto* a 'deaf majority'.

"However, the most distressing thing in this observation is that there is again nothing wrong with their auditory system; they could hear if they wanted to: but they don't want to. Their deafness is voluntary, and in others it is their blindness...

"... The tragedy in these examples is that the victims of 'dysgnosis' not only do not know that they don't see, hear, or feel, they also do not want to" (Foerster, 1984: 200–201).

Note

 See Bert Christensen's Truth & Humour Collection. Retrieved from http:// bertc.com/subfour/truth/warninglabels.htm on 6 March 2009.

References

- Bannister D. & Fransella F. (1971) Inquiring man: The theory of personal constructs. Penguin, Harmondsworth.
- Baudrillard J. (1988) Simulacra and simulations. In: Poster M. (ed.) Jean Baudrillard: Selected writings. Stanford University Press, Stanford: 166–184. Retrieved from: http://www.stanford.edu/dept/HPS/Baudrillard/Baudrillard_Simulacra.html on 26 February 2009.
- Boxer P. & Kenny V. (1990) The economy of discourses: A third-order cybernetics?
 Human Systems Management 9(4): 205–224. Retrieved from http://www.brl.com/pdfs/discourses.pdf on 26 February 2009.
- Burke K. (1966) Language as symbolic action. University of California Press, Berkeley.
- First M. B. (2005) Desire for amputation of a limb: Paraphilia, psychosis, or a new type of identity disorder. Psychological Medicine 35(6): 919–928.
- Foerster H. von (1984) Observing systems. Intersystems Publications, Seaside CA.
- Giddens A. (1984) The constitution of society. Polity Press, Cambridge.
- Giddens A. (1992) The transformation of intimacy. Polity Press, Cambridge.
- Glasersfeld E. von (1987) The construction of knowledge: Contributions to conceptual semantics. Intersystems Publications: Salinas CA.
- Glasersfeld E. von (1995) Radical constructivism: A way of knowing and learning.

- Falmer Press: London.
- Glasersfeld E. von (1998) Ernst von Glasersfeld's answers April 1998. Retrieved from: http://www.oikos.org/answerapr.htm on 6 March 2009.
- Glasersfeld E. von (2006) Von Glasersfeld's answers May II 2006. Retrieved from: http://www.oikos.org/
 - vonansmayII06.htm on 26 February 2009.
- Glasersfeld E. von & Varela F. (1987) Problems of knowledge and cognizing organisms. Methodologia 1: 29–46. Originally published in 1985 in Aprendizagem/ Desenvolvimento 2(6): 17–23.
- Johnston J. & Elliott C. (2002) Healthy limb amputation: Ethical and legal aspects. Clinical Medicine 2(5): 431–435.
- Kelly G. (1955) The psychology of personal constructs. 2 Volumes. Norton, New York.
- Kelly G. (1969) Clinical psychology & personality. In: Maher B. (ed.) The selected papers of George Kelly. Wiley, New York.
- Kenny V. (2008) "Things that go bump in the night." Constructivist Foundations 3(2): 76–77.
- Kenny V. & Boxer P. (1992) Lacan and Maturana: Constructivist origins for a third-order cybernetics. Communication and Cognition 25(1): 73–100.
- Lacan J. (1977) Ecrits: A selection. Translated by Alan Sheridan. Tavistock, London.
- Maturana H. (2000) Autopoiesis, structural coupling and cognition. Retrieved from: http://www.isss.org/maturana.htm on 6 March 2009.

- Maturana H. & Varela F. (1987) The tree of knowledge. Shambhala, Boston.
- Maturana H. R. (1980) Autopoiesis: Reproduction, heredity and evolution. In: Zeleny M. (ed.) Autopoiesis, dissipative structures, and spontaneous social orders. Westview Press, Boulder CO: 45–79.
- Maturana H. R. (1980) Biology of cognition. In: Maturana H. R. & Varela F. J., Autopoiesis and cognition. Reidel, Boston: 2–58
- Maturana H. R. (1987) The biological foundations of self-consciousness and the physical domain of existence. In: Caianiello E. R. (ed) Physics of cognitive processes. World Scientific, Singapore: 324–379.
- Maturana H. R. (1988) Reality: The search for objectivity or the quest for a compelling argument. Irish Journal of Psychology 9(1): 25–82.
- Mazia D. (1974) The cell cycle. Scientific American 230(1): 55–64.
- Santayana G. (1916) Egotism in German philosophy. Charles Scribner's & Sons, New York.
- Shands H. (1971) The war with words: Structure and transcendence. Mouton, The Hague.
- Varela F. J., Thompson E. & Rosch E. (1996) The embodied mind. MIT Press, Cambridge MA.

Received: 1 February 2009 Accepted: 4 March 2009