



ASC

American Society for Cybernetics
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Mutual Arisings: Conversations with Humberto

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In this guest ASC column I want to offer some reflections of a personal nature based on my encounters with Humberto Maturana in the years since we first met in 1988. It seems fitting to offer this reflection as a contribution to a special edition devoted to him. This is not the first time I have offered public reflections, and gratitude, for who I have become, and what I understand, due in large part to my conversations with Humberto (e.g., Ison, 2019). What follows is a kaleidoscope of moments of authentic conversation (Krippendorff, 2009), in a mutual arising of love in conversation—that is in the experience of being a legitimate other. The events are largely chronological. Please treat them as critical incidents (Flanagan, 1954), or significant moments in a 35 year punctuated conversation.



Figure 1. A hand drawing of Humberto Maturana done as part of an exercise at ASC 2001.

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Have you ever sat down opposite someone—on chairs facing each other—and attempted to draw what you see? In 2001 at the ASC conference in Vancouver I did this exercise with my partner, Humberto. The sketch (Figure 1) is what I produced, with the realization that people tend to forget that they also see their own lap and their drawing in progress. No doubt the designers of the exercise had particular motives in asking us to participate, though if I knew the reasons I am afraid I have forgotten. I can however say that I was left with a very precious memento signed by Humberto which now sits, framed on my Melbourne desk. It is a reminder of how much we see of others, and how little of ourselves, in intimate interactions if we are genuinely open to the other. I arise in my relations with others. If you wear glasses, as I do, then as the picture conveys one can be triggered to reflect on the means of one's own seeing. These considerations don't inform how we humans understand ourselves, especially through the lens of the totally misguided framing of humans as *Homo economicus* or as COVID-denying or vaccine-rejecting humans who mistakenly believe it is possible to be "free."

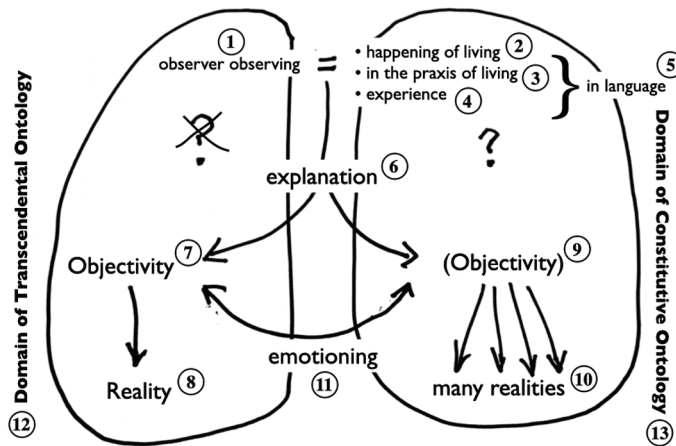


Figure 2. The design of one of Maturana's 'classic' workshops. The numbers indicate the order of development of the ideas. (drawn by Pille Bunnell, based on a Maturana Workshop).

Humberto and I first met in Melbourne at one of his classic workshops where his presentation largely followed the schema in Figure 2. It proved a profound experience which heavily influenced the research I undertook with David Russell during the period 1989-2000 (see Ison & Russell, 2000; Russell & Ison, 2004, 2005). Humberto's development of a constitutive ontology continues to resonate in my current teaching and research.

In April 2022 I and some close colleagues will run the 10th of our Systems Thinking in Postgraduate Research systemic co-inquiries (Blackmore, Sriskandarajah,

& Ison, 2018), this time in conjunction with the 14th European Farming System Research conference in Evora, Portugal. Humberto's classic workshop sits at the core of our program design as it conjures an invitation to move from the pathway of objectivity to a pathway of responsibility in the doing of research. Rather than observers observing (Figure 2: number 1) the participants are invited to become researchers researching in an active, embodied way and thus to reflect on where they see themselves in their research situation: within, outside, or straddling a boundary. The possible pathways to that moment of a researcher arising as a researcher are then explored to reveal the pathways of objectivity or the pathways of responsibility (objectivity in parenthesis) and the choices one has as a researcher.

In 1997 Humberto accepted my invitation to visit the Systems Group at the Open University (UK). We have a filmed interview made during his visit; these YouTube segments come from an edited conversation between Humberto Maturana, myself and Raul Espejo (see [Raul's paper in this volume](#)). The original filming was probably on Wednesday 12th March 1997. Humberto then presented a three-day workshop at Walton Hall from the 13-15th March. His visit to the OU is described in a Press Release (see below). I commend the first interview segment (Humberto Maturana's understanding and use of the term *system*) to those hung-up, or unclear about the ontological status of the concept system.

Press Release

March 1997 06

Humberto Maturana

One of the world's most eminent and radical biologists, epistemologist and systems thinker, is in the UK in the week beginning March 10 for an interdisciplinary event hosted by the Systems Department at the Open University. Maturana, Professor of Neuro-biology at the University of Chile is the central figure in what Fritjof Capra describes as the "Santiago School of Cognition." Maturana's work challenges many of the everyday things that we tend to take for granted but which, it could be argued, are at the heart of some of our contemporary ills. These include:

(i) **Objectivity** – Maturana's studies of cognition and his concern with the role of the observer, observing challenge notions of objectivity as currently held up by the scientific community. Maturana says "objectivity is a means to avoid responsibility."

(ii) **Information** – we live amongst pervasive metaphors which suggest we are in the "information revolution or age" and that better communication is about "information transfer." From a cognitive perspective these are unhelpful—information is derived from the latin *in formare* or "formed within." Maturana's research reveals just this—that there is no information from an external world but through our cognitive processes we impose patterns on the stimulatory signals we receive from the environment. Thus the environment triggers but does not determine what we call information. These insights pose major challenges to professions ranging from advertising to family therapy and teaching.

(iii) **Emotioning** – Maturana argues that our cognition derives from a braiding of our languaging and emotioning. Emotioning has a physiological basis. If emotioning is central to our cognition then this challenges the notions, common in science, that emotions are outside its domain of practice.

(iv) **Evolution** – Maturana's book *The Tree of Knowledge* (with Francisco Varela) challenged the dominant paradigm of evolution when it was first published in 1988.

Maturana's visit to the UK is a rare opportunity to discuss these themes at a time when they are subject to renewed focus following publication of Capra's new book—*The Web of Life*. Maturana is also recognised internationally as a radical epistemologist. His work has major implications for the ethics of action. As such Maturana's work has offered thinking that has the power to change the way we interact with the world.

Humberto was again a guest of the Open University and the SPMC (Systems Practice for Managing Complexity) Network in 2004. At St Anne's College Oxford on 6th September he led a one day workshop entitled "Fundamentalism, Ethics and Leadership" and on the same evening participated in a facilitated public conversation called "Biology, Love and Social Responsibility" with the OU's professor of biology, Stephen Rose. As the on-stage facilitator my memory is of a conversation that did not gel. There were several reasons for this, one of the main one's being Rose's lack of appreciation of Humberto's work beyond the concept autopoiesis. Recordings from this event are currently being digitised and will be available on the Systems Thinking in Practice Hub on the OU's OpenLearn platform² where all resources are free.

My meaningful memory from his 2004 visit was the conversation we had as I drove him from Heathrow to Oxford. Among diverse topics we agreed to agree on an explanation that God was a human invention designed to avoid responsibility.

A year later Humberto and I met in Quito, Ecuador where we had both been invited to give keynotes at the First International Congress in Systems Science & Technology (Systems Approach and Systems Research in Knowledge Management). In my talk "Epistemic Change in a Learning System: Curriculum Design for Managing Complexity" I spoke about the doing of systems thinking in practice as an activity very much like juggling. This notion became a metaphor that continues to guide our teaching praxis. After my talk Humberto introduced me to his concept of isophor which, he said, best described my juggler because a metaphor was a displacement of a concept from one domain to another rather than an evocation of the same dynamic in two different domains (e.g., juggling and doing systems). It took me some time to warm to his suggestion of isophor so that for my 2010 book (Ison, 2010) I sat on the fence but by the second edition I more assertively claimed that my use of the juggler was an isophor rather than a metaphor (Ison, 2017).

2. <https://www.open.edu/openlearn/systems-thinking-hub>



Figure 3. Maturana and his colleague from Matriztica, Ximena Dávila, in Sardinia, 2011. They are flanked by the author and Pille Bunnell.

We then met in Sardinia in 2011 (Figure 3) and California in 2012; after that, time, distance and opportunity intervened and kept our conversation muted. A conversation about theory in relation to practice, and thus praxis, remained in the mode of “to be continued” but it never was. There was much that we might have conversed about, had the moment arisen. Now I am left with my own responsibility, captured in Figure 4.

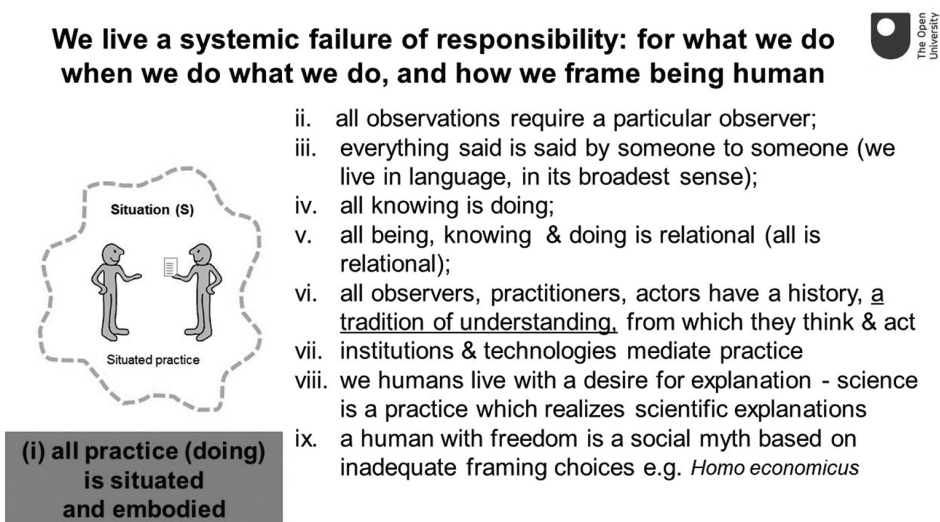


Figure 4: Ison's key elements of responsibility, a basis of a praxeology for being a systems thinking practitioner, based on his Maturanan understandings

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