

## **Conditions of Human Meaning: Between Geometry and Finesse**

### **William Desmond**

I want to look at important strands in how the human being and its place in the cosmos is understood in our time, as well as with reference to constants in our condition. I will divide my remarks into two parts.

First, I will look at the ethos of being, broadly conceived, in which we currently live. I will speak of a long unfolding, often with a double stress: on the scientific front we dominantly objectivize being, while on the humanistic side we hugely subjectivize being. The contrast might be expressed in Pascal's distinction between the *l'esprit de géométrie* and *l'esprit de finesse*. We see an earlier configuration of the contrast expressed in the contrast of rational Enlightenment and imaginative Romanticism. We see it currently in the contrast of scientific-technological culture and anthropocentric ideology. Questions have to be raised about these configurations. What tends to be lost is an attunement to being, in its ethical and metaphysical dimensions.

Second, I want to reflect on the sources of human meaning at work in these configurations but also more constantly in the human condition. A basic porosity to reality as it gives itself finds expression in both the forms of "geometry" and "finesse." I want to speak of the constant need to return to the sources of both "geometry" and "finesse" and refresh them. I will speak of a primordial wonder at the origin of all our openness to reality and the different forms this can take, both humanistic and scientific. A certain reverence for reality as it offers itself is at work in these forms. Directly and indirectly, this reverence connects them to our religious nature as originally gifted with this open porosity to all being, divine being included. Some thoughts will be offered on these themes.

## **Does science need to redefine the nature of humanity with the coming of AI?**

### **Jim Al-Khalili**

We live at a unique period in human history. While we have known for some time now the AI revolution is coming, 2023 marked a watershed year with large language models like ChatGPT bursting on the scene and showing uncanny signs of satisfying the famous Turing test. Of course, these LLMs are not conscious, they are no more than algorithms that produce answers to our questions and converse with us in a way

that, while more impressive than Siri and Alexa, is nevertheless utterly unthinking. But we are also starting to see AIs showing signs of what many would regard as rudimentary intuition and creativity. Suddenly, we are being confronted with the real possibility that in our lifetimes we might see artificial intelligence showing signs of real intelligence – so-called Artificial General Intelligence – rather than simply being a tool for automation or solving complex problems. So, what does it mean for a machine to be sentient? Is this really the existential threat some would have us believe? And how does this reflect on what it means to be uniquely human? We have yet to understand the nature of consciousness and the nature of self. Science doesn't have all the answers, and probably never will, but we are learning to ask the right questions.

## **El arte como camino pedagógico para la enseñanza de la bioética**

**+Fernando Chomali Garib.**

La tarea del profesor en general y de bioética en particular se torna cada vez compleja debido a que cada vez es más difícil encontrar alumnos con sólidas bases de antropología filosófica y teológica, así como de ética fundamental. Por otro lado se percibe con mayor claridad la dificultad que tienen los alumnos de reconocer el vínculo que existe entre la libertad, el bien y la verdad, debido a una comprensión de la libertad como mera elección en torno a lo que resulta útil o mejor. Frente a ese escenario me hice la pregunta ¿cómo seguir enseñando una bioética basada en la dignidad de la persona como centro para tomar decisiones? ¿cómo enseñar la racionalidad y la belleza de los contenidos del magisterio de la Iglesia en un contexto donde se niega la posibilidad de verdades morales que valgan siempre y bajo todas las condiciones?

Es allí donde surgió la idea de pensar una pedagogía nueva para enseñar las materias de biótica, y me parecía que el arte en sus más variadas formas era una gran posibilidad. Esta conferencia pretende mostrar las distintas experiencias en ese campo durante mis años de profesor de bioética en la facultad de medicina de la Universidad católica de Chile, el Seminario Pontificia mayor de Santiago y la facultad de teología de la misma facultad.

## **Governing the economy for the common good**

### **Mariana Mazzucato**

The world is facing inter-connected crises: climate, biodiversity, water, and health. While such goals are global and inter-connected, we have failed to treat them as collective goals with common agendas. In my recent paper “Governing the Economics of the Common Good: from Correcting Market Failures to Shaping Collective Goals”, I put forth a new framing of the common good – as both, setting shared goals and working out how to achieve them. As Pope Francis recognizes in his ambitious Encyclical and *Laudato si*, this involves defending the dignity of the socially, politically, and economically marginalized – not just with words but with policies and new forms of collaboration between government, business, workers, and civil society. The SDGs for example can benefit from a common good perspective because their legitimacy requires negotiation of the objective at the global, national, and local level. Different voices must be brought to the table to discuss what it means to co-create a just and sustainable economy. Indeed, one big lesson from COVID-19 was that unless economic activity – such as the development of vaccines – is governed for the common good, many people remain excluded from its benefits. By emphasizing the how as much as the what, the common good offers opportunities to promote human solidarity, knowledge sharing, and collective distribution of rewards.

### **Modernity as a systematic “factory” of unworthy situations**

#### **Cynthia Fleury**

The imperative of dignity has established itself in recent years at the heart of numerous movements (from the Arab Spring to Black Lives Matter) and social debates (discrimination, work, animal conditions, etc.). But at the same time attacks on dignity have multiplied in social institutions and practices (hospitals, nursing homes, prisons, etc.). The promise of dignity that modernity announced thus seems to have been repeatedly betrayed.

Faced with this threat of an “unworthy future” of our societies, how can we lay the foundations for a "clinic of dignity", to establish a philosophical diagnosis and therapeutic solutions at the bedside of “unworthy lives”.

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## **PANEL 1 – Human Responsibility**

### **Olaf Blanke**

Neuroscience has always used technology. So what is so special about neurotechnology today? Why are ethics in neuroscience and neurotechnology important today? Over the last decade there has been an explosion of new methods and devices from engineering that have entered neuroscience. Neurotechnology can now be considered a single research area that is based on the combination of four previously somewhat separate academic fields: Neuroscience, Engineering, Medicine, Computer Science. Continued major advances are necessary if we ever want come close to understanding the human brain and to develop new therapies for many devastating neurological and mental diseases. Neurotech may also offer unprecedented opportunities in well-being, education, creativity.

However, Neurotech poses many ethical challenges, some may be unprecedented. I will illustrate the impact of Neurotech first with a clinical application using invasive neurotech in Parkinson's disease (PD). A powerful and frequently applied neurotech therapy in PD is deep brain stimulation (DBS), for which a neurosurgeon implants electrodes in specific brain structures. Electrical stimulation applied via the DBS implant allows treating severe motor deficits, already in over 200'000 patients worldwide. Recent systems can also record brain activity via the implant, analyze the signals, and be used in real-time to adapt DBS. These close-loop systems that are being developed to optimize brain stimulation. Future closed-loop systems will record from many more regions with thousands of implanted electrodes, will stimulate several brain regions, and will be applied to other neurological and mental diseases (i.e. Alzheimer's disease).

I will continue by briefly highlighting 3 specific neuroethical questions.

First, who has access to closed-loop neurotech? Who has access to such DBS therapies in PD or AD that improve memory? Only severe AD patients or also other patients with milder memory deficits? Where do we draw the line? How are we inclusive within countries and globally for these very expensive therapies?

Second, future neurotechnology may not just restore memory, but it may enhance memory. A mild AD patient who has received neurotech memory enhancement may one day outperform a normal healthy age-matched individual? Will those healthy adults wishing to improve their memory be denied access?

Three, most critically, neurotech is special and poses unprecedented challenges: Future successful neurotech will change who we are. For example: each person's identity is based on memory systems in our brain: our memories are a fundamental building block of our identity: neurotechnology that repairs/changes/augments memory will change/modify/enhance the person's identity (not just repair it) and may change this person's sense of self and identity.

A detailed example will be presented that is based on recent experiments from our group using closed-loop neurotech in a tetraplegic patient caused by a severe stroke, leaving him unable to move. Neurotech allowed him to control movements, but also altered his sense of agency. However, we experimentally investigated the patient's motor control for those movements enabled by neurotech and we were able to decode brain signals for the patient's sense of agency and movement intentions (Serino et al., 2022) , making these data of relevance for neuroethical debate.

I conclude that (1) we need to strongly support the development of neurotechnology so that we can understand one of the greatest mysteries: the human mind and brain. (2) We need neurotech to improve the restoration of lost brain functions to counteract tremendous human suffering caused by devastating neurodegenerative and neuropsychiatric diseases that remain today without cure. (3) In order to better understand the unprecedented ethical challenges of neurotechnology we need to establish experimental Neuroethics. Experimental Neuroethics carries out experiments in the neurotechnology context that are of direct relevance for neuroethical problems and may inform policy in an evidence-based way, in association with the already existing approaches in neuroethics.

## **Sigrid Müller**

Christian anthropology is holistic. People are creatures who experience and shape their lives (personal realization of life), who are committed to successful coexistence (morality) and are open to the question of meaning or God (transcendence). Technical interventions in human beings must be tested against this view of humanity. Whether such an intervention can be authorised depends on the moral goodness of the goal and the availability and choice of proportionate means. In the context of brain implants, it is therefore also necessary to weigh up which difficulties can be remedied and which side effects may arise. Ultimately, the decision is also dependent on the meaningful perspectives of the individual undergoing treatment,

as the perception of the meaningfulness of life is not always and necessarily linked to the functionality of physical abilities.

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## **PANEL 2 – Interdisciplinary Approach and rethinking humancentrism**

### **Jacques Simpore**

From the sovereign Creator's command, "*Subdue the earth, cultivate the Garden of Eden*" (Gen 1:28; 2:15), through the exclamation of the author of the book of Wisdom "*You formed man by your Wisdom to be master of your creatures, to govern the world with justice and holiness*" (Wis 9: 2-3), up to the integral ecology of "*Laudato si*" (§ 10), *Homo sapiens* and all living beings act and interact in the same ecosystem. According to molecular and cellular biology, the theory of the Last Universal Common Ancestor (LUCA), and genetics, which advocates the universal genetic code, everything living on earth comes from the combination of the 20 types of amino acids and nucleic acids containing the 4 bases that combine to form microorganisms, plants, animals and human beings. However, man is different from all other creatures in that he has received the divine breath (Gen 2: 7). This communication will focus on three themes: (1) Genetics/epigenetics and the evolution of living beings; (2) *Homo sapiens* seen from the genetic point of view and the challenges of coexistence with other living organisms; (3) Man as ecological intendant and the "*One Health*" concept.

### **Penser le vivant à l'ère des bio-objets: vers un décentrement vital**

#### **Celine Lafontaine**

À l'heure où l'on s'inquiète de l'avenir de la biodiversité, de nouvelles formes de vie éclosent chaque jour dans les laboratoires du monde globalisé. À mi-chemin entre le biologique et l'artificiel, ces bio-objets (cellules souches, organoïdes, embryons, gamètes, etc.) sont les descendants directs des technologies *in vitro* qui ont permis de cultiver des cellules et des tissus vivants. Or ces entités biologiques sont, malgré leur omniprésence, des objets insaisissables dont la vitalité brouillent de manière concrète les frontières entre sujet et objet, entre nature et artifice, entre humain et non humain. Dotés d'une très grande plasticité, les bio-objets peuvent être congelés, modifiés, transplantés, transportés et échangés. Comment leur production croissante transforme-t-elle notre rapport à nous-mêmes et à l'ensemble du monde vivant ? Quelles implications matérielles, symboliques, économiques et environnementales sous-tendent la prolifération des bio-objets ? À partir d'une

réflexion sur la matérialité concrète de ces objet-vivants, cette conférence insistera sur le fait que les produits de la culture *in vitro* ne sont justement pas des objets comme les autres, du seul fait de leur vitalité biologique. Plus globalement, cette présentation soulignera les défis épistémologiques et éthiques fondamentaux portés par la civilisation *in vitro*.

### Reimagining Life in the Era of Bio-Objects: Toward a vital de-centering

At a time when concerns about the future of biodiversity are growing, new forms of life are proliferating daily in laboratories across the globalized world. Between the biological and the artificial, these bio-objects (such as stem cells, organoids, embryos, gametes, etc.) are direct descendants of *in vitro* technologies that have enabled the cultivation of living cells and tissues. However, these biological entities, despite their omnipresence, remain elusive objects whose vitality tangibly blurs the boundaries between subject and object, between nature and artifice, between the human and the non-human. Bearing significant plasticity, bio-objects can be frozen, modified, transplanted, transported, and exchanged. How does their increasing production transform our relationship with ourselves and the entirety of the living world? What material, symbolic, economic, and environmental implications underlie the proliferation of bio-objects? Drawing from an examination of the tangible essence of these living entities, this conference will emphasize that *in vitro*-cultivated products diverge significantly from ordinary objects, solely due to their inherent biological vitality. Moreover, this presentation will emphasize the fundamental epistemological and ethical challenges brought about by the *in vitro* civilization on a broader scale.

### **HUMAN IMPERFECTION AND THE ETHICS OF RESPONSIBILITY – Telmo Pievani**

The most recent scientific evidence shows how far biological and human evolution is from a march of progress towards perfection. The richness of life is promoted by diversity, at all levels, not by proximity to ideal standards. Our natural history was contingent, it could have gone differently, and this discovery is a source of gratitude for the gift we have received. Historical and structural constraints mean that every living being is the outcome of compromises and ingenious tinkering. We human beings owe our creativity to imperfections and fragilities, which have unleashed unprecedented potential. Imperfection is also a call to responsibility and a criticism of humancentrism. A further reason for human imperfection is in fact linked to the fact that in recent millennia (and in particular with the “great acceleration” of the

last century) Homo sapiens has profoundly altered ecosystems, impoverishing them and exploiting them in a reckless way. Now, therefore, future generations will have to adapt, with more difficulty, to a world that we have changed. This is unfair, because we are dumping a growing environmental debt on those who have not contributed to the problem (future generations as well as the poorest people in the world). Human imperfection teaches us the “evolutionary humility”: we are not the masters of the planet, but passengers on a common adventure of life and knowledge. We need a “humanist ecologism”, not against humanity, but in favor of the common interests between the human species and the rest of the living world. The imperfect human mind struggles to be far-sighted, but we will have to make an additional effort of imagination. An ethical and cognitive leap to return to feeling part of and responsible for a fairer future.

### **Can we survive the Anthropocene?**

#### **H.J. Schellhuber**

The Industrial Revolution, driven by fossil fuels and pervasive mechanization, has established humanity as a dominant, quasi-geological force on Earth. However, this success story is about to turn into self-destruction since our natural life-support systems (climate, biodiversity, freshwater, soils etc.) are rapidly degraded and disrupted (see, particularly, *Laudato si'*). This implies that humanity needs to quickly transform itself from exploiters to stewards of Creation. My intervention will sketch where we currently stand and where we need to go for preventing the collapse of our civilization.”

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### **Created Isch Ischà: a theo-poetics of the human body**

#### **Maria Clara Lucchetti Bingemer**

La creación, en el relato del Génesis, tiene lugar en plural, y no es de un individuo, ni mucho menos da a ningún individuo más importancia que a los demás. El verbo está en plural: "Hagamos al hombre ('ādām=ser humano) a nuestra imagen, a nuestra semejanza, y que gobierne...". (Gn 1:26). Sin embargo este plural es comunitario. El "adam" creado no es uno o varios dispersos y separados, sino un colectivo singular, que significa "ser humano", "humanidad". La configuración de este colectivo también queda clara cuando el texto dice que él (el Creador) "los creó varón [zākār] y hembra [neqēbāh]" (Gn 1:27). La diferencia que hace los cuerpos humanos



sexuados es lo que posibilita la comunión> La sexualidad por lo tanto está vocacionada a ser fuente de comunión

Creation, in the Genesis account, takes place in the plural, and is not of one individual, much less does it give any one individual more importance than the others. The verb is in the plural: "Let us make man ('ādām=human being) in our image, after our likeness, and let him rule..." (Gen 1:26). However this plural is communal. The created "adam" is not one or several scattered and separate, but a singular collective, meaning "human being," "humanity." The configuration of this collective is also clear when the text says that he (the Creator) "created them male [zākār] and female [neqēbāh]" (Gen 1:27). The difference that makes human bodies sexualized is what makes communion possible> Sexuality is therefore meant to be a source of communion.

## **On Being Human: Developmentally-Nurturant Relationships in Dynamic Systems**

**Richard M. Lerner**

All biological life is relational. No form of life comes into being independent of a relationship with another life. In addition, biological life is dependent on unfolding in a life-sustaining physical ecology as well as a supportive social relational context. As such, biological life is complex, non-linear, and dynamic; it is dependent on a system of mutually-beneficial social and physical ecological relationships that sustain both the other individuals and the physical ecology that are needed to sustain any individual life. The complexity of these relations is particularly challenging for human beings, who are the most slowly developing (most neotenus) of all organisms and, as well, the organisms that maintain child-like (paedomorphic) features for longer in their life spans than any other known form of life. For instance, infants and their caregivers must be attuned to and create a goodness of fit with each other if the extended periods of human infancy and childhood are to be optimally traversed and produce health and well-being for all members of an individual's proximal and distal systems of dynamic relationships. In short, a dynamic system of developmentally-nurturant relationships is the foundation of healthy and positive human development across the life span.

The complexity of developmentally-nurturant relationships, and of life-span human development more generally, have often been pursued in research derived from

scientific models that seek to avoid grappling with the theoretical and methodological challenges of dynamic complexity. This research involves the use of reductionist, counterfactual, and dehumanizing models based on either nature (e.g., genes) or nurture (e.g., classical and operant conditioning). In turn, dynamic, relational developmental systems-based models have embraced complexity and have explained that the foundations of human life provided by developmentally-nurturant relationships are part of a self-constructing (autopoietic) and open living system that is embodied and holistic and, as a consequence, involves mutually regulative (and hence dynamic) coactions between agentic and purposeful humans and their contexts (represented as individual  $\leftrightarrow$  context relations). Adding to human complexity is the fact that these coactions are specific to each individual, place, and time. This dynamism assures relative plasticity (i.e., the potential for meaningful change) for developments across time and place that may occur across the life span within and among humans. Accordingly, developmental methodologists working from a dynamic and relational perspective have created dynamic data analytic methods and measures that enable an integrative understanding of the structural and functional changes that occur as the dynamic process of development unfolds across the course of life.

This scholarship places developmental science at the threshold of obtaining a new capacity to describe, explain, and optimize the course of human life, both for groups and for individuals. By understanding the specific developmental range of an individual and the specific individual  $\leftrightarrow$  context coactions that enable the individual to function at the optimal level of their developmental range, developmental scientists will be able to contribute to social justice by helping to create growth in the developmentally-nurturant relationships that give meaning and purpose to an individual's life and that make human beings human.

## **The Spirituality of 'Being' Human: Towards a Cosmotheandric Vision**

**Anthoni Devasia**

In this paper my aim is to argue dialogically and cross-culturally for the thesis that the primordial nature of human being is spiritual and that this notion of spirituality is to be anchored and nurtured in a non-reductionist, inclusive, non-dualistic, integral and cosmotheandric vision, a vision that celebrates the oasis of inter-relatedness, unity and rhythm of *cosmos*, *theos* and *anthropos*. Given the hermeneutic pluralism of the notion of 'spirituality' as well as the rise and practice of various spiritual traditions which have nourished the soulful rhythm and the spiritual symphony of

‘human being’, I take the polyvalent word ‘spiritual’ to be a ‘family resemblance concept’ that weaves together body and mind, spirit and soul of human being. Being rooted in the Biblical tradition that sees the ‘human being’ as the image of God as well as the steward of God’s creation who has the sacred duty to ‘cultivate and take care of the earth’, I focus on the homological parallels of both the Abrahamic/Christian tradition with its emphasis on *lectio, meditatio, oratio* and *contemplatio* as well as the Indic/Asian *Brāhmaṇa* and *Śramaṇa* traditions of *darśana* that lay emphasis on *śravaṇa, manana* and *nididhyāsana*. Parenthetically I also indicate the challenges posed by some of the so-called secular rational enterprises like scientific physicalism, neuroscience and AI generated conceptual tools which seem to render traditional anthropogenetic spiritual praxis radically redundant. And I end the paper by briefly pointing out four spiritual icons who have trodden the road less travelled: Saint Francis of Assisi, Thomas Merton, Mother Teresa of Calcutta and Mahatma Gandhi.

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