PROCESS ONTOLOGIES (draft entry for posthuman encyclopaedia)

Process ontologies deny the priority of being over becoming, the priority of unchanging substance over change. They claim that reality is process rather than static existence and they claim that substances should give way to events. Process ontologies also deny the real existence of isolated individuals and they replace them with multiplicities of processes. Static beings are therefore redefined as illusions imposed over dynamic events and transformations. For example, for process ontologies a substance defined as a stable identity over time is really an event defined as the coming together of many transformations.

As opposed to philosophies of transcendence, where existence is divided into different realms with one ruling over the other, process ontologies favour the idea of immanence, where all events share the same realm. For process ontology, all real processes interact with one another on the same complex plane and there are no beings or processes that can claim independence from that plane, or special dominion over it. Process ontology is concrete rather than idealist ontology, if by idealism we understand belief in an independent sphere for ideas. This does not mean that ideas are denied, but rather that they function as processes rather than as abstract entities.

Immanence in process ontology must not be confused with uniformity. Process ontologies are pluralist, but not through a number of discrete individuals or categories or classes or essences. Instead, process ontology is a differential pluralism, that is, a pluralism of changing degrees or intensities among many connected processes of becoming. For instance, different intensities of feeling allow Whitehead to distinguish events from one another without treating them as separate substances. Instead of a reality constituted by many independent things, distributed according to essences, substances and species, process ontology describes a reality of interlinked processes that cross boundaries between categories.

Process ontologies are a minor line in the history of philosophy, where the major line is represented by the search for stable and self-identical substances rather than flux. The archetypal thinker for the substance line is Aristotle and the most influential recent philosopher of process is Whitehead. In the following pairs of thinkers, the first represent different kinds of process philosophy, the second different kinds of substance and identity philosophy: Heraclitus-Parmenides; Leibniz-Descartes; Hume-Kant; Bergson-Russell; Deleuze-Quine.

Differences between these lines are philosophical and logical, based around the argument that there must be some kind of enduring substance as support for judgements, properties and actions. Whitehead called this argument the fallacy of misplaced concreteness, because it mistakenly

attributed causal efficiency to substance, when in fact processes were the correct explanation for change. The opposition also plays out according to different views of physics, chemistry and biology, around whether the sciences confirm the existence of individual entities such as atoms, or processes such as emergence. For example, John Dupré's process philosophy of biology focuses on biological processes of stabilisation and destabilisation at the microbial level, rather than on fixed identities of substances, species or individuals.

American pragmatism can be included in the list of process ontologies and Peirce, Dewey and James have been associated with more familiar thinkers of process such as Bergson. Bergson introduced the concepts of multiplicity and duration into process ontology. Multiplicity is a definition of qualitative pluralism such that things are many due to differences of intensity (more, less) rather than differences between countable quantities (one, two). Duration is the definition of time as continuous multiplicity rather than discrete extension. When time is divided into parts, it is no longer the same as when it is considered as a continuous duration. There is therefore a parallel in process ontologies between the opposition of beings and processes and the opposition of continuous multiplicities and discrete parts.

Though there are many versions of humanism, the movement can be defined generally as based upon stable and finite human individuals sharing a common idea, essence, destiny, goal, reflective self-consciousness or form. Humanism cannot therefore be deduced from process ontological principles. This is because the commonness required to identify the human is replaced by changing and variable multiplicities of becoming across complex societies of interconnected transformations. Process ontologies are therefore important for ideas of the posthuman. For example, for her study of the posthuman, Rosi Braidotti develops process concepts such as the 'assemblage' from Deleuze and Guattari, and Isabelle Stengers develops her post-humanist constructivism following Whitehead, Deleuze and Guattari.

In humanisms, boundaries are described between human and animal, or human and plant life, or human and inert technology, in order to preserve the special status of humanity. Process ontologies discard these boundaries and emphasise the shared events that make for human-animal and human-technology assemblages. There are different intensities of processes across the human and animal. They work together such that an exclusive humanism cannot be entertained. For example, Donna Harraway describes the relation of human and animal as 'a knot of species coshaping one another in layers of reciprocating complexity' (Donna Harraway, <u>When Species Meet</u>, Minneapolis: University of Minnesota Press, 2008, p. 42)

Since stability is only ever relative for process ontologies, the idea of an independent and stable human life is not consistent with the view of interrelated processes. The idea of human finitude, important for existentialist ideas of death and human specialness, is replaced by many processes extending beyond the limits of an individual human life, body or mind. Many lives and processes

continue beyond each human death, extending in ways that refute theories of proper limits for human lives. Judith A. Jones describes this Whiteheadian view of life in terms of intensity and connection: 'A creative cosmos of vibratory intensities is a perpetual manifold of felt connectivity in an ever-changing array of worlds, and of potential contrasts where such worlds may be made one and rendered part of the perpetual many.' (211-12) Judith A. Jones, <u>Intensity: an Essay in Whitehead</u>

For process ontologies, 'post-human' does not necessarily imply the abandonment of human values or of a focus on human bodies and minds for ethics. Ideas such as feeling in Whitehead or intuition in Bergson, allow for attention to the human body or consciousness as processes extending outwards, but without claiming an essential superiority or independence for them. Process ontologies can be very close to the ethics and politics of some kinds of humanism, where positive values are associated with some qualities exhibited by actual humans as they extend into the world. This idea of extension draws process ontology close to theories in the philosophy of mind drawing variously on Clark, Varela and Thompson and describe mind as extended, embedded, embodied and enacted.

The humanism of the great poet, engaged political activist, committed reformer and investigator into humankind are not closed off from process ontology. Yet process ontology will also remove the illusory basis for a strong humanism, where the commonly defined and represented abstract human being is the general foundation for exclusive and bounded values. Process ontology can lead to a pragmatic anthropocentrism, though it will always be opposed to an idealist humanism and sensitive to shared processes with animals, plants and technology.

When reflecting on process ontology, Nicholas Rescher, whose work combines American pragmatism and process philosophy, explains why the ground of strong humanism is taken away: 'Based on a process-oriented approach, the self or ego … is simply a megaprocess – a structured system of processes, a cohesive and (relatively) stable center of agency.' (Nicholas Rescher, <u>Process Philosophy: a Survey of Basic Ideas</u>, University of Pittsburgh Press, 2000, p 15) In Rescher's ontology, the individual human consciousness, soul, identity, mind and body disappear as independent entities in favour of extended processes.

Simple observations allow us to understand the extent and variability of relative stability as megaprocess in process ontologies. Take the air as it sustains you with oxygen, yet also introduces harmful pollutants; the much filtered water you drink; the ambient temperature keeping you alive; the clothes made thousands of miles away; the language you use, developed by the speech of millions over thousands of years; the microbes in your gut keeping you healthy; the technologies of glass, silicon, threads, management, distribution, drugs and prosthetics. All are vital aspects of a relatively stable megaprocess which extends your illusory human boundaries of body, mind, character and soul. You are dissolved into the multiplicity of the non-human, just as those non-human processes reach out and dissolve into you.

James Williams, Edinburgh, February 2016