

**"ATTENTION! THIS BORDER
IS PATROLLED!":
ON NATURALS, ARTIFICIALS, AND THE
POIETIC DIFFERENCE**

Syed Mustafa Ali
Computing Department
The Open University
England (UK)

s.m.ali@open.ac.uk

ABSTRACT

According to Haraway (1991), all epistemologies and ontologies - including their negations - 'erase' or 'police' difference. Granted the validity of the previous assertion, it remains questionable whether axio-teleological orientation to difference, regardless of whether such orientation is destructive or conservative, or even difference as such can function as the ultimate ontological or/and epistemological ground of terms featuring in distinctions or dualities. This is because, contrary to Derrida, to the extent that there is difference - or *différance* (that is, endless differing and deferring) - there is a need for further grounding, specifically, the grounding of difference in Being. Appreciating this existential fact is critical since, as will be shown, it is decisive for resolving the debate on the ontological and epistemological status of artificials, that is, artifactual (or constructed) analogues of natural phenomena.

Previous investigations of the difference between naturals and artificials have almost invariably focused on the nature of the mimetic (or reproductive) correspondence relation between the two classes of phenomena regarded as conceptual constructs (for example, 'nature' and 'culture') under some general ontological-epistemological framework such as functionalism (Shanken 1998). Granted that such approaches play an important role in clarifying the nature of techno-science/techno-culture, it remains the case that their social-constructivist bias almost inevitably leads to problematic assertions such as the following: Either (a) the ontological status of the natural-artificial distinction is necessarily undecidable, a consequence of epistemological relativism, or (b) it is decidable - the distinction is a techno-cultural artifact - and only because ontology recapitulates technology. Both claims are contestable: the former because it commits the epistemic fallacy by assuming that epistemological relativism entails ontological relativism; and the latter because in decisively classifying the distinction as artificial (that is, artifactual or non-essential), the very essentialist distinction that such a classification was supposed to call into question is invoked, thereby

engendering a paradox. Although the existence of paradox and incommensurability is regarded as an existential reality (sic) under postmodernism, it is interesting, possibly even imperative (on methodological grounds), to consider alternative approaches which do not engender paradox, at least not at the very outset. In this connection, Negrotti's (1999) 'Theory of the Artificial' is highly significant. On his view, "an artificial object is an object, built by humans with materials and procedures different from those naturally occurring, that reproduces the essential performance of an exemplar based on a more or less shared representation from a certain observation level". The strength of this conception lies in the way it grounds the epistemology of the artificial in the ontology of the artificial without necessitating a (constructivist) bracketing of the natural. Unlike Becker (2000), who oscillates between social-constructivism and a phenomenology in which physicality is appealed to as the dynamic, recalcitrant material 'Other' that undermines the possibility of total control associated with the formistic 'Self' of artifactual specification, Negrotti is emphatic in drawing out the implications of epistemological relativism for artificiality in relation to natural reality: 'Transfiguration' and 'side-effects', that is, progressive bifurcation of the being of the artificial from the natural as a consequence of difference in their respective substrata (materials and forms) and originating in the selective (or abstracting) act that constitutes artifact specification. Given this fact, it is somewhat ironic that the principal weakness of his scheme lies in its failure to engage the question concerning naturalness, let alone provide a formulation of the natural that is adequate for the task in hand. This failure is all the more significant in that it invites the reduction - more precisely, 'collapse' - of naturalness onto the conceptual 'nature' of the constructivists, thereby engendering the very paradox that was to be avoided.

From a phenomenological vantage point, it is the failure to recognise what Heidegger has called the 'ontological difference' (between beings and the Being of beings) and the implications of this difference for any project that aims at distinguishing kinds of beings - in this context, naturals and artificials - that leads to problems such as those previously described. Although proposals calling for an 'emergent, postmodern hermeneutics of the thingly' (Ihde 1991) that attempts to address these problems have been forthcoming, it remains the case that such approaches almost invariably engage the question of Being and the ontological difference in techno-scientific or pragmatist-instrumentalist terms. In this respect, Ladrière's (1998) phenomenological investigation of technology from an ontological perspective is a

notable exception. On his view, the distinction between the natural and the technological (or artifactual) lies in the difference in their respective relations to Being which, implicitly following Heidegger, he identifies as the in-finite 'groundless ground' or 'abyss' of positing from pure possibility that manifests itself as determinate (actual or finite) beings. By conceiving the realm of determination (that is, of beings) in Leibnizian-Whiteheadian terms, it is possible to distinguish naturals and artificials (as artifactuals): the latter are other-constructed (or allopoietic) forms that (ultimately) supervene on a natural (that is, self-constructed or autopoietic) substrate. While this framework might suffice for distinguishing physical (or 'parapoietic') artificials from mimetically-correspondent naturals, it fails to identify purely formal artificials of the kind associated with metaphysical computationalism. It might be argued that this is a consequence of conceiving the distinction in terms of supervenience rather than in terms of Heideggerian 'unconcealment': On the latter conception, the distinction between naturals and artificials is mediated by Dasein, the 'there' of Being (that is, the 'site' within the realm of determination in which the Being of beings is disclosed). To the extent that Dasein is situated between naturality and artificiality, it belongs to neither; contrariwise, to the extent that purely formal beings can be shown to unconceal (come-forth, originate) through Dasein, they are correctly classified as artificials (or artifactuals).

Both Heidegger and Whitehead construe beings in processual terms ('things thing'). The difference in their approaches lies in the ontological status awarded to beings by Whitehead: On his view, metaphysical atomism, albeit of a fundamentally experiential kind, is correct ('there is a becoming of continuity, but no continuity of becoming'). For Heidegger, however, such an 'onto-theological' move fails to take into consideration a fundamental implication of the ontological difference for process: the need to ground natural and artificial processes in process as such. By grounding the Aristotelian 'poietic' distinction between naturals (as instances of physis or self-making) and artificials (as instances of techne or other-making) in the ontological difference between beings and Being, with the latter conceived poietically on the basis of radical (re-)interpretations of the pre-Socratic thought of Anaximander and Heraclitus, Heidegger has indirectly pointed the way towards the emergence of a genuine 'postmodern hermeneutics of the thingly', yet one that upholds the natural-artificial distinction without endorsing constructivism and, somewhat ironically, precisely because of the focus on poiesis. Following Heidegger's precedent, it is maintained that naturals and artificials (as artifactuals) can be ontically

distinguished (that is, differentiated as kinds of beings) because (1) Being and becoming stand in essential, unitary relation, (2) naturals and artificials (as artifactuals) are 'poietically' different (that is, distinct in their respective becomings), and (3) poiesis as such (Being as becoming) stands in continuous (or unmediated) relation to autopoiesis (beings as self-positing) and discontinuous (or mediated) relation to allopoiesis (beings as other-positing). In short, an ontical difference is entailed by the unitary relatedness of orthogonal ontological and poietic differences (Ali 1999). The implications of the poietic difference for various kinds of artificials (designed, emergent, tangible, abstract) can be investigated using a phenomenological framework of historical (a priori, a posteriori) ontic (productive, organizational) and epistemic (interpretative, observational) relations between phenomena (naturals, artificials) and the 'anthropic component', a historical thematic being corresponding to Dasein in the mode of artificer-interpreter, contextually-embedded within the realm of determination that is the Whiteheadian universe. Artificing (or making) can be interpreted in terms of a triadic relation between three components: productant (artificer), substratum (material) and product (artifact). This relation can, in turn, be analysed in terms of Aristotelian (material, formal, final, efficient) causality applied within an embedded, processual context.

Preliminary investigations using the above framework (Ali 1998) have shown that the artifactuality of the artificial renders it incapable of supporting ontological emergence, that is, the emergence of new kinds of Being. Heideggerian analysis of the essence of artificing (or artifact-construction) shows how the capacity for autopoiesis (self-manifestation) in naturals is radically subverted by the controlling supervenience of artificial forms. In terms of the triadic relation mentioned previously, artificing involves the productant standing in external relation to the substratum, as determining subject to determined object. However, in a Whiteheadian universe, (natural) beings are relationally constituted (that is, stand in internal relation to each other) and the order of determination is reversed: objects (partially) determine subjects. (Only partially because experiential events are fundamentally creative.) Clearly, as Ladière (1998) has maintained, the artificial engenders a 'rupture' of the natural. Whitehead, following Leibniz, distinguishes between two types of existential complex on the basis of organisation and capacity for self-(re-)organisation – 'compound individuals' and 'simple aggregates': In the former, wholes are experiential and composed of experiential parts; in the latter, wholes are non-experiential yet composed of experiential parts, a consequence of

the elimination of experience associated with statistical mereologies. In artificing, parts (components) of wholes (artifacts) either are aggregates or are viewed as aggregates. In the latter case, compound individuals or 'societies of events' are epistemically-transformed into aggregates, that is, beings defined in terms of external relations (efficient causation), by an act of 'selective-seeing' (Negrotti 1999): subjective responses (final causation) to incoming efficient causes are ignored and an average or aggregate response is assumed; in short, the 'spectrum' of final causation associated with each event is 'collapsed' onto a single final cause. (This has the effect of 'closing' the system down such that the contingency of intentionality is transformed into the necessity of determinism.) This 'collapse' can and does occur in naturals (for example, stones and clouds) at the level of the aggregate; however, in this case it takes the form of a self-initiated collapse, that is, an autopoietic process. In artifacts, by contrast, the collapse is allopoietic and either epistemic or ontic. In the latter case, aggregates are produced (artificed) from compound individuals via operations of analysis (selection) and synthesis; the former involves the dissociation of an experiential event from its nexus of experiential relations, while the latter leads to the emergence of an aggregate in which experience statistically 'cancels out'. Since both operations are carried out by a productant (artificer) relating to the substratum (primitive material) objectively (that is, externally), the product (artifact) is always an aggregate. Clearly, this fact has profound implications for artificial intelligence and the philosophy of mind (Ali 1999).

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