

On the Relation Between Ethics and Ontology in Hybrid Worlds

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Abstract

There is a philosophical theorem: 'Is' cannot imply 'ought'. However, theories of the world as being a hybrid one reframe ethics in a specific way; they are both ontology and ethics from the outset.

Three authors spanning five centuries may serve to illustrate the thesis of an intrinsic relation between ontology and ethics in theories of hybrid worlds: Carolus Bovillus at the height of Renaissance philosophy, Ernst Kapp, who coined the term philosophy of technology in the 19th century, and Bruno Latour—a prime inventor of hybrids in current technoscience. Each of them models a hybrid world of his time; each of them advocates ethical principles. Emphasis will be, in particular, on Kapp who proposed an original chiasm of the inner world and the world out there.

I shall argue that a similar pattern concerning the relation between ethics and ontology is traceable in all of the authors above. Moreover, by means of this brief synopsis I shall try to reveal not only (horizontal) sameness in the different castings of the authors' ontological ethics but a specific historical (vertical) transition of positions.

Introduction

There is a certain European tradition of speculatively modelling the world as a hybrid one. In this view, current theories of the hybrid world are heirs to age-old theories of the microcosm. This is my first thesis and I shall make it plausible by presenting some historical evidence, though I am neither a historian nor a philosopher by profession. The claims I present here were rather instigated, so to speak, by a certain professional scruple.

Being an engineer I wondered how ethics and ontology relate to one another. For me, this question seems to be problematic indeed or crucial insofar as I would assume that 'we' (e.g. the engineers) ought to know 'what' technology is before 'we' can decide on 'what we should do' in or with technology. This asking for a specific responsibility of those who

are acting in the professional realm of technology generation might be old-fashioned, but I do not think it is outdated.

Granted that asking 'what' something is (its being-what, the 'quidditas') aims at clarifying or producing the *essence* of an entity and, therefore, rightfully may be taken for a venture in speculative metaphysics or ontology: I think, in engineering practice, it is impossible to stay away from speculative thought on the inherent nature or essence of things. So, if it is impossible to have no metaphysics, you better have the appropriate metaphysics.

As I see it, an appropriate ontology of 'our technicized world' is an ontology of hybridization. However, in a peculiar amalgamation of both ethical and ontological thought, true theories of hybrid worlds incorporate more or less explicitly ethical claims. This is my second and main thesis: in theories of hybrid worlds ethics and ontology are inherently related to each other because they both emerge from the same conceptualising or framing 'movement of thought'. Hybrid worlds are being grasped by ontological set-ups pervaded by, at least, ethical speckles if not strands.

Certainly, there is historical variance among the theories of the hybrid world. Ernst Kapp inverts the frame of reference of Renaissance microcosm theory, as given in Carolus Bovillus, while retaining its basic structure. Bruno Latour, who dispenses with the 'self' and the 'subject', arrives at yet another relation between freedom and necessity in hybrid worlds. But they all expose ethical guidelines neither as an external appendage to their theory of *what is* nor do they derive their claims of *what should be* in a deductive way from ontological set-ups.

Pushing the point a bit further and beyond the scope of this essay, I dare say that a certain self-building and thus somehow ethical intuition of *the great chain of being* may be the driving force in the unfolding of ontologies of hybrid worlds that are ethical theories at the same time.

The Renaissance flavour of microcosm theory

In medieval philosophy the psychology of the 'inner man' was closely knit into cosmology. Inner forces were related to cosmic potencies, and the relation was a necessary one. In the Christian strand of philosophy,

the mighty celestial objects themselves were subjugated to the Creator, and particularly man and all creatures in the sub-lunar sphere were at His mercy. Destiny reigned human lives.

In the period of the Renaissance then, intellectual turmoil arose. The translation or shift of thought that happened in Old Europe around the year 1500 is perhaps most markedly reflected by a certain change in the metaphorical representation of Fortune. The German philosopher Ernst Cassirer, in his important study on Renaissance philosophy: *The Individual and the Cosmos*, points to it: 'The old image of Fortune with a wheel, seizing men and dragging them along, sometimes raising them, sometimes throwing them down into the abyss, now gives way to the depiction of Fortune with a *sailboat*. And this bark is not controlled by Fortune alone—man himself is steering it' (Cassirer 1963, 77).

Human beings took over command and control over themselves and their lives. This did not, of course, happen all of a sudden. In the transition period, ethics in particular became a topic of dispute. The strong parallelism and cast interrelation of metaphysical assumption and ethics was severed. Humans became responsible for themselves, at least to some degree. However, the medieval desire and lust for capturing the whole of the world in a structure of analogies was still a dominant intellectual force. Thus, a novel parallelism and interrelation of metaphysics and ethics was set up, allowing for a scope of action on the human side.

A striking example of that novel integration of ontology and ethics can be found in Carolus Bovillus' *Liber de Sapiente*. For Cassirer, 'Bovillus *De sapiente* (1509) is perhaps the most curious and in some respects the most characteristic creation of Renaissance philosophy. (...) The work is still nearly completely dominated by that basic tendency of medieval thought which tries to spin a thick web of analogies over the entire cosmos and to capture the whole physical and spiritual world in the network of these analogies. (...) And yet, in the midst of this schematic-allegorical presentation of the cosmos, there are thoughts (...) immediately reminiscent of the great systems of modern philosophical idealism (...) (Cassirer 1963, 88 f.).

Bovillus gives us a pyramidal structure of the world consisting of four different levels 'which represent, so to speak, the path from the object to the subject, from simple 'being' to 'consciousness of self'

(Cassirer 1993, 89). The first level 'est' denotes mere being. It is the level of existence which applies to everything that *is*. The second level 'vivit' denotes the level inhabited by plants. The third level 'sentit' is attained by animals. The fourth level 'intelligit' indicates the realm of mankind in this order of the sub-lunar world. This is the order of being.

With a daring structure of analogy Bovillus parallels the order of being with an order of value. A great woodcut in *De sapiente* renders that peculiar integration of metaphysics and ethics. On the steps of the pyramid, from the bottom left to the top, the ascending levels of being are depicted: a rock, a tree, a horse, a man. From the top to the bottom right, the descending levels of value are shown. On the uppermost level, 'homo studiosus' signifying 'virtus'; the narcissist (who bends down to 'luxuria') lives up only to the level of animals; those who wolf down too much food ('gula') attain just the level of plants; and he who falls prey to the vice of inertia ('acedia') is no better than a stone.

The novel freedom, to behave well (e.g. to study) or badly (e.g. to devour), was conceptualised as a potentiality of human action, fairly independent of constellations and the eternal movements of the heavenly bodies, but it still had to fit the older metaphysics. Man was looked upon as a microcosm. And according to a very old (hermetic) tradition, a strict parallelism between microcosm and macrocosm was assumed. The solution to the problem of the conceptual gap between the almighty heavenly bodies and the freedom of action of man was both new and old. The celestial objects continued to reign. In respect to man, however, they did not determine particular characters or actions but a range or scope of character or action.

In Renaissance philosophy the world continued to be a hybrid one. The individual was related, through bonds of essence and necessity, to objects both in the sub-lunar world and certainly in the supra-lunar spheres. This must have been a world full of hybrids—*associations of humans and non-human beings*—several of whom considered 'self-consciousness' already a supreme value.

An abundance of pictorial representations of hybrids dating from Renaissance science and philosophy dwells in our library archives, especially in those where special admission is required and books are labelled 'Rara'.

Books dedicated to medical topics may show depictions of human inner organs and body parts connected to constellations in a literal sense: by thick lines. Other books, especially of alchemical subjects, show human bodies or torsos that are amalgamated with both animal parts and technical artefacts to form one hybrid being. These are not fantasy beings as occasionally occur in fairy-tales; they are different, too, from mythical hybrids being for instance half lion and half dragon. Those Renaissance hybrids are literal renderings of real associations of humans and non-human beings.

Thus, I find conceptualisations and descriptions of true hybrid worlds in Renaissance philosophy. Some of the concepts are obviously mixed ones comprising both ontology and ethics. Bovillus' outstanding pyramidal order of the world, depicting both an order of *being* and of *value*, reveals the density and clarity of the integration or association of metaphysics and ethics attainable in the Renaissance. As I see it, this compact association also provides evidence that in theories of the hybrid world, ontological concepts and ethical claims may both originate from the very same conceptualising intellectual source or strand of thought.

Ernst Kapp reconsidered

Critics either swiftly bypassed or scorned the German geographer Ernst Kapp's theory of the *projection of organs* ever since its publication in 1877. I would like to suggest that much if not most of the derision was based on unjust premises. For my part, I do not wish to advocate or re-establish that particular philosophy of technology. However, I will try to make plausible that the works of Ernst Kapp should historically be seen and situated not just in the line of Karl Ritter and G.W.F. Hegel—as is usually done—but in the longstanding tradition of holistic thought. By so doing, it is to be hoped that some gross misunderstandings of basic arguments of Kapp will become both apparent and comprehensible. There is no need to name and number those who ridiculed Kapp. Maybe appreciation of the structure of his arguments, if not of their content, will grow in the near future. Ernst Kapp was a subtle and lively thinker of hybrid worlds.

Little attention has been given to the question of why Kapp termed the basic process of technology generation a *projection*. Everybody seems to understand well enough what *projection* specifically denotes. I am afraid, however, that we too readily impose an understanding originating from optical physics on Kapp's concept of *projection*.

In his seminal work *The Mechanization of the World Picture* the historian of science E.J. Dijksterhuis outlines 'as the central concept of alchemy the idea of a single refining agent which, when added to a base metal (in alchemistic terminology: projected on a base metal), was believed capable of transmuting it into silver or gold' (Dijksterhuis 1961, 82). It is exactly this sense and meaning of *projection* that is much closer to Kapp's basic concept than any analogy derived from the camera obscura and its offspring in the world of techniques. In optical physics *projection* relates two entities that are similar in form. A simple example may be a figure on a slide projected on a wall. The projected figure and the figure on the slide are look-alikes. This is *not* the bottom line in Ernst Kapp's theory of culture and technology.

Kapp says in his *Grundlinien einer Philosophie der Technik* that the human organism 'produces and projects itself according to the fundamental claim or axiom (*Ursatz*) that, out of whatever given, only that can emerge (*heraustreten*) which it is composed of (*was in ihm liegt*)' (Kapp 1877, 28). This does not refer to the type of sameness present in optical projection. Instead, on the background of some hints given by Kapp in his work I suggest this particular statement be read as being an expression and a rephrasing of a fundamental claim of that long-lived philosophy of nature, namely alchemy. Adherents to corpuscular theories about the structure of matter held by Greek physicists before Aristotle, the alchemists 'accepted it as an axiom that a compound which is formed from certain basic substances consists of these substances, and that it can also be decomposed into them again' (Dijksterhuis 1961, 207).

I do not want to suggest that Ernst Kapp was an 'alchemist' in any strong sense. However, I think that the basic premises (*Grundlinien*) of his philosophy of technology derive from the focal point of a specific theory of *microcosm*. Although Kapp makes no reference to Hegel whatsoever in his works—despite being frequently related to him today—Kapp more than

once states that he is in favour of what in his view are historical achievements concerning the gaining of insight into the association between the inner world and the world out there.¹ It is particularly through advocating a theory of the microcosm that Ernst Kapp becomes an original theoretician of hybrid worlds.

Kapp, who was not in the habit of citing himself, repeats in his *Grundlinien* a paragraph from his *Philosophy of Geography* on the philosophical implications of the evolution of nature. In a somewhat poetic, if explicit manner of speaking, Kapp states that ‘in total union with the whole of nature that itself is closely intertwined with him as in a relation of kinship / that itself spreads throughout him like kin, man is the concrete microcosm’² (Kapp 1877, 21). This line of thought, deeply rooted in antique traditions, flourishing in mysticism, is non-accidental in Kapp’s work and constitutes its basso continuo. Put in a nutshell: ‘Man is the inner part of nature, nature is his outer part’³ (Kapp 1845, 440). This type of interrelation between man and nature, respectively between man and technology, being ‘the other world out there’ (*die andere Außenwelt*), as conceptualised by Kapp cannot be captured—really by no means—in an analogy or metaphor of optical projection.

According to Kapp the evolution of man brings about ever greater self-knowledge. This thesis or assumption is also an ethical claim: as human beings perfecting themselves we must strive for ever greater self-knowledge. With Kapp, ontology and ethics are inseparably interrelated in a specific criss-crossed way of one being the basis of the other. That might be another fruit from the tree of Renaissance philosophy. Cassirer states in *The Individual and the Cosmos*: ‘The Renaissance version of the idea of the microcosm not only permits but even calls for (...) a transition from physics to ethics. In this transition, cosmology immediately joined not only with physiology and psychology, but with ethics as well. If this idea requires that the Ego of man be understood by means of the world, it also requires, conversely, that genuine and true knowledge of the world must pass through the medium of self-knowledge’ (Cassirer 1963, 112).

Exactly this figure of an intrinsic interrelation of the understanding of both the ego of man and the world is repeated and shared by Ernst Kapp in his *Grundlinien*. Cassirer elaborates on the relationship between physics

and ethics in Renaissance philosophy—i.e., the relation between knowledge of the world and self-knowledge—by stating that ‘in the work of Paracelsus, both requirements are still juxtaposed (...) he sees man as nothing but an ‘image in a mirror, put together out of the four elements’; and, just as the image in the mirror can never make his being understandable to anyone, can never let anyone know what he is, because he only stands there as a dead image, so, too, is man in himself; and nothing comes from him, but only from external knowledge, for whose configuration he is the mirror’ (Cassirer 1963, 112).

I readily admit that in Paracelsus’ metaphor of the ‘mirror’ the heuristics of optical physics is present, which indeed is traceable in Kapp too. Moreover, Kapp explicitly placed ‘Paracelsus’ basic concept of the macrocosm’ (*des Paracelsus Grundgedanke vom Makrokosmos*) in the line of early achievements concerning the understanding of both the human physis and the world (Kapp 1877, 5). And yet, in Kapp’s work the concept of *projection* extends beyond the enlightening power of metaphors rooted in optics. The philosophy of technology developed by Kapp is a true theory of the microcosm, comprising a basic metaphysical concept of man and the world as being one another. Exactly this structure of interrelation can be found in the works of eminent Renaissance thinkers.

Critics of Kapp rejected his main thesis of the *projection of organs* by pointing to techniques or artefacts that ‘obviously’ cannot be found in the human body, for instance the wheel, or bow and arrow. Far from Ernst Kapp’s original basic figure of argument those critics were ploughing a field too stony to yield any fruit. Kapp never claimed that every artefact of the outer world, whatsoever, would have its obvious counterpart in the human body, with part and counterpart easily recognisable due to sameness of form or function. Examples of *projection of organs* given by Kapp in his *Grundlinien* rather serve the purpose of providing evidence for a deep metaphysical conviction, which is ethical at the same time, namely the conviction of an ever growing self-knowledge of man through knowledge of the world.

Kapp actually points to the example of bow and arrow himself. But within Kapp’s framing this example supports the theory of projection: the bow is a ‘gatherer of force or strength’ (*ein Kraftsammler*) (Kapp 1877, 181).

According to Kapp, the bow, the pocket watch, and many other artefacts, ‘collect’ the power of muscles, which gives plain evidence for the relatedness of human organs and technology. The steam engine then is, for Kapp, another example for *projection*.

If read without taking into account its metaphysical sub-layer, Ernst Kapp’s theory of the *projection of organs* remains a set of unconvincing claims supported by an array of heterogeneous and sometimes far-fetched examples, linking artefacts quite arbitrarily to human physiological structures and organs. I have, however, suggested an alchemist reading of *projection*. According to the alchemists, some base material would be refined by means of *projection*. In the alchemist tradition, this refinement is achieved by a (secret) sequence of action, to which it is central that the base metal or ‘prima materia’ is brought in touch with the refining (magic) agent, for instance ‘lapis philosophorum’, the philosophers’ stone.

Being not only a geographer but a philosopher of geography and familiar with metals and mining, Kapp knew about alchemist traditions and gave expression to his belief ‘that chemistry one day will solve the problem of alchemy’, that is the transmutation of materials (Kapp 1845, 436). And indeed, in his *Grundlinien* (in the chapter on machine technology) Kapp spells out the principle of projection in an alchemist wording: ‘But nature being a prime or base material (*Robstoff*) gets refined if brought in touch with the human artistic drive (*Kunsttrieb*), whereby nature then, turned into an artefact, constitutes the other world out there, which is the realm of technical apparatus (...)’ (Kapp 1877, 169 f.). Refinement (*Veredelung*) in principle is, according to Kapp, the way in which technology comes into existence, in which culture proceeds, and man evolves. In Kapp’s figure of argument the role of e.g. the philosophers’ stone as a refining agent is played by the *Kunsttrieb*. According to Kapp the refining process does not yield silver or gold but something of equal worth: technology.

From this metaphysical point of view, the lived bodies of human beings are honourable and worthy, as is technology. Kapp praises both machine technology and the human body (*Leib*), as being factually the same. Within his frame of interpretation Kapp can say: ‘Let us add that, within the cosmos, the microcosm is incarnated (*eingeboren*); and man himself, as he lives and thrives, is the ideal machine system (*das ideal machinale System*)’ (Kapp 1877, 188).

Thus, for Kapp, nothing in nature, and no other creature, is like man. So to speak: *because* man is the machine sporting a body, he deserves to be the top of the pyramid of being. ‘Man is the general and final endpoint (*der Generalabschluss*) of a grand sequence of steps (*einer ganzen großen Stufenfolge*) of inorganic and organic creation (...)’ (Kapp 1877, 21).

In the *structure* of his metaphysical speculations, and particularly as an adherent to the pyramidal model of being, Kapp is a follower of Renaissance philosophy, of medieval philosophy and of even older hermetic traditions. But, in the elaboration of his theory of *projection* he *inverts* the focal point of Renaissance theory of the microcosm. In Renaissance philosophy, celestial objects were living individual beings. In Ernst Kapp’s work, the individual—being the world—becomes the point of reference.

Possibly Kapp was the first to suggest that individuals (human beings) *contain* their artefacts, their technologies, in a general and in a particular sense. Kapp delineated a general theory of humans and artefacts as being one another; and he drew lines of sameness between particular technologies and human organs. Who, if not Kapp, is a theoretician of hybrid worlds?

Ethical claims in hybrid technoscience

The French professor of sociology Bruno Latour is known in technoscience for gambling with provocative concepts of thought. He advocates a strong symmetry of humans and artefacts, or preferably: a symmetry of ‘humans and non-human beings’. According to the North American philosopher of technology Don Ihde, Latour is ‘the most symmetrical of all the symmetrists’ (Ihde & Selinger 2003, 137) in current technoscience. Whereas opposition to the dichotomy of ‘subject’ and ‘object’ has not developed recently but is rather almost traditional in various sections of society-culture-science-technology studies, Latour tops it (‘experimentally’) with radicalism at the expense of common sense.

In the particular type of symmetry that Latour employs, humans and non-humans are both seen as *actants*. This leads to scholarly deliberations on, for instance, the behaviour of speed bumps or the moral of keys, deliberations which confuse novices to the field. However, I think there is heuristic

value in the concept of radical symmetry, though the consequences of this idea do not seem to blend easily with good sense based on life-world experience.

If Don Ihde, the pragmatic phenomenologist, and Bruno Latour, the radical symmetrist, were ever to duel (most likely somewhere in North America) the gunslinger showdown might end sadly for Latour: 'The tension breaks as Ihde reaches for his gun. He draws and shoots with the experience of someone who has an embodied relation to his gun. His shot strikes Latour in the chest as Latour reaches for his non-human actant. Latour had attempted to form an actor-actant association with his gun, but simply took too long when compared in this most concrete and potentially lethal manner to Ihde's embodied relation'. Confusion would soon arise when the townspeople agree on taking the culprit to jail. 'Several corral Ihde. A few attempt to extract the bullet embedded in Latour. Others (...) grab the gun' (Smith 2003, 182).

I think this tongue-in-cheek tale does more justice to Ihde's theory of embodiment than it does to Latour's theory of actant action, but the plot points to difficulties concerning the ethical subject of action that are encountered by the 'common sense' if life-world situations are grasped in the light of a theory of strong hybridization. My impression is that Latour himself steers clear of the application of symmetry to 'situations' involving divergent (inner) perspectives of humans. The ethical strand in Latour's philosophy is not nourished through empathy.

Latour claims that 'technologies and moralities happen to be indissolubly mingled' because the term 'technology' 'applies to a regime of enunciation, or (...) to a mode of existence, a particular form of exploring existence, a particular form of the exploration of being' (Latour 2002, 248). The regime proper to technology is, in that instance, defined by his notion of *fold*.⁴ According to Latour, temporalities, space and the 'type of actants' are folded within technologies. Latour demonstrates this by using a most popular example from the philosophy of technology: the hammer. Concerning the usage of artefacts, especially tools, he then states that 'the claim that 'the organ creates the function' can be made about all tools (and about the hammer in particular). With it in hand, the possibilities are endless, providing whoever holds it with schemes of action that do not precede the moment it is grasped' (Latour 2002, 250).

According to Latour, however, the action of handling a tool is marked by *alterity*, the alteration of that folding; therefore, the 'theme of the tool as an 'extension of the organ' makes such little sense'. This other line of argument, that 'the organ creates the function', and in particular that tools are 'extensions of organs', had been elaborated by Ernst Kapp in a paradigmatic way (Kapp 1978, 40 f.). Latour, who nurtures a certain predilection for ambivalence in the deployment of arguments, allies with Kapp and opposes him at the same time. But the point of disagreement strikes me as being crucial in that it marks the borderline between types or species of hybrid worlds.

For Latour all entities are constantly transmuting, they are being translated, they are drifting through a non-geographical space of essence. In Latour's theory-sketches there is no 'self' to become ever more conscious, and that of course accounts for a huge difference between Bovillus and Kapp on the one side and Latour on the other side. Ignoring for once the difficult question from whence Bruno Latour, as an observer, is observing the drift and translation of actants, granting him the contented stance, it becomes apparent that his theory of symmetry aspires to almost mathematical abstraction—to a novel *topology* of the world or macrocosm.

However, there is little ethical content in mathematics but Latour's work is speckled with ethical claims. He often tells us *expressis verbis* what we should or should not do. This could be a stylistic particularity. Yet, I cannot help but read the pronouncedly repeated phrase 'progressive composition of a common world' as a decided proclamation of a supreme value or aim. At the same time it is, of course, an ontological claim. Here again the proximity or vicinity of ethics and ontology in theories of hybrid worlds becomes manifest.

But how can ethics be systematically included within the framework of a topological theory of the cosmos? Latour assumes a structural parallelism between technology and morality. This solution works, at least in terms of systematic need and intellectual reward. According to Latour, both technology and morality are 'modes of existence'. Both are occupied with the translation of entities, though in different ways. 'Morality comes to rework precisely *the same materials* as does technology, but by extracting from each of them *another form of alterity* (...)' (Latour 2002, 255).

Furthermore achieving a conceptual balance or dynamic equilibrium that justifies the relative stability of the world, Latour models the difference between the two ‘translating’ fields of force, *technology* and *morality*, as an antagonism. Technology is about enclosing an abyss of folded entities in black boxes, morality is concerned with ‘reopening of the tombs in which automatisms have been heaped, the redeployment of means into partial aims and aims into partial ends’ (Latour 2002, 258). Thus, according to Latour, morality in effect is the slowing down of the translation of something into a means.

Conclusions

In Renaissance philosophy, the action of man was governed to a great extent by the chiasm of the microcosm and the macrocosm. However, freedom of action sprouted. From Renaissance times onwards, the constellations, for instance, would only circumscribe a range of possible actions, a potentiality, and no longer determine the course of history. Ethics was freed from the spell of teleology, only to re-form another integral analogical structure with metaphysics. But in the novel structure the individual had gained importance, although those individuals were certainly hybrids—associations of humans and non-human beings.

In the days of Ernst Kapp the balance of power would already have been reversed. The individual ‘self’, being conscious, had become the focal point of conceptualisation. With Kapp the hybrid relation of being-mirror between the inner world and the outer world was sustained. However, now the world out there would become the mirror-image of man and not vice versa as it had been in Renaissance philosophy. In Kapp’s theory of the hybrid world there is a strong and intrinsic relation between ontology and ethics. For him, there is no doubt that the evolution of man towards greater self-consciousness is a must.

However, perhaps the strongest evidence for the thesis of an intrinsic relation between ethics and ontology in theories of the hybrid world can be found in the works of Bruno Latour. Within a theory where the ‘subject’ is dissolved or rather projected onto the world, there seems to be no obvious

need for ethics. And yet, Latour promises it would be ‘more rewarding’ if we would conceptualise the technicized macrocosm in the way he suggests. Latour’s work is permeated by ethical claims, frequently surfacing in ‘should’ phrasings. Moreover, I cannot help but interpret the phrase ‘the progressive composition of a common world’ as a kind of supreme *value*. That this formula is ontological at the same time only supports my thesis. The formula of ‘the progressive composition of a common world’, in a sense, equals that particular woodcut in Bovillus’ *De sapiente* which has so greatly impressed me: the depiction of a compact integration or association of an order of *being* which is an order of *value* at the same time.

Drawing on the examples given, it appears to me that theories of the world as being a hybrid one encompass ethics in one way or another, but never incidentally. In this view, the relation between ethics and ontology is indeed a necessary one insofar as there is always a joint occurrence of ethics and ontology in theories of the hybrid world. Concepts of *hybridity* do not, however, require a particular ethics. The structural figure *hybridity*, if deployed as a fundamental heuristic concept, comes along with (sometimes explicit) ethical claims, but does not include any *specific* ethical content as such. Yet, what we should do in a particular hybrid world, according to a particular author, would correspond to the *ontology of hybridity* adopted.

I would like to put forward the thesis that any given *ethics of hybridity*, corresponding to a certain ontology, is neither an extraction from ontological grounds nor a postscript, but flows directly and together with its related ontology from the same conceptualising intellectual source. In a longstanding (European) tradition, the world comprising inseparable associations of human and non-human beings—that is the world as being a hybrid one—has been envisaged as an ensemble and specific structure of freedom *and* necessity.

Notes

- ¹ Ernst Cassirer remarks in *The Individual and the Cosmos* that ‘Bovillus anticipates the Hegelian formula, according to which the meaning and aim of the mental process of development consists in the ‘substance’ becoming ‘subject’” (Cassirer

1963, 89). Thus, it becomes understandable why Kapp may be rightly regarded as a philosopher standing in the Hegelian tradition, and why that is nevertheless the wrong theory of descent. Maybe just as humankind, according to one line of anthropological research, did not directly descend from 'the ape' but both of them have common yet little known ancestors.

- 2 Der Mensch ist, 'im allseitigsten Verbande mit der ganzen Natur und verwandtschaftlich von ihr durchwachsen, der concrete Mikrokosmos'.
- 3 'Der Mensch ist das Innere der Natur, die Natur ist sein Aeußeres'.
- 4 The notion of *fold* occurs in Heidegger and may be traced back, at least, to medieval philosophy and German mysticism.

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