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DIGITALLY MEDIATED (DIS)EMBODIMENT

Plessner's concept of excentric positionality explained for cyborgs¹

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Abstract

This article aims to demonstrate that the philosophical anthropology of the German philosopher Helmuth Plessner (1892–1985) enables us to gain a better understanding of the experiential presuppositions and implications of information and communication technologies, such as telepresence and virtual reality, than we can obtain through interpretations that start from a dualistic, Cartesian ontology. With the help of Plessner's concept of 'excentric positionality', developed in *Stages of the Organic and Man* (1928), Hans Moravec's Utopian claims about the possibility of disembodied existence in cyberspace are criticized and an alternative, more adequate interpretation is presented. It is argued that the corporal 'poly-excentric positionality' that is inherent in the human experience of telepresence and virtual reality, radicalizes the existential 'homelessness' which characterizes human life.

Keywords

Plessner, Moravec, philosophical anthropology, telepresence, virtual reality, excentric positionality, poly-excentric positionality, ontology, dualism, Cartesianism

Those who want to find a home, a native soil, safety, must make the sacrifice of belief. Those who stick to the mind, do not return.

(Plessner 1975: 420)

Again and again we need new eyes, in order to make visible again that which has been seen before, but which could not be preserved.

(Helmuth Plessner)

In the last decade the work of the German philosopher and sociologist Helmuth Plessner (1892–1985), who for a long time remained in the shadow of his contemporary Martin Heidegger, has regained attention. In their announcement of the first International Plessner Congress that took place in 2000 in Freiburg, Germany, the organizers even talked about a Plessner Renaissance. However, in the case of the Anglo-Saxon world it would be a bit premature to speak

about a *revival*. Because only a few of his works have been translated,² in the past interest in Plessner's work has mainly been restricted to Germany and the Netherlands. We do not come across his name, for example, in the *Routledge Encyclopaedia of Philosophy*. However, the publication of *The Limits of Community: a Critique of Social Radicalism* (1999) – a translation of *Grenzen der Gemeinschaft: eine Kritik des sozialen Radikalismus* (1924) – and the forthcoming translation of his philosophical magnum opus, *Die Stufen des Organischen und der Mensch* [*Stages of the Organic and Man*] (1928), indicate that interest in Plessner's work is emerging in the Anglo-Saxon world.

One of the possible justifications for the renewed topicality of Plessner's philosophical anthropology lies in the fact that his concept of *excentric positionality* enables us to gain a better understanding of information and communication technologies, such as telepresence and virtual reality, than we can through most of the present interpretations of these technologies that predominantly start from a dualistic, Cartesian ontology. To demonstrate this I present a Plessner-inspired critique of Hans Moravec's Utopian claims about the possibility of disembodied existence in cyberspace. Plessner's phenomenological anthropology,³ which – like the later phenomenology of Merleau-Ponty (1962) – clarifies the fundamental corporal dimension of human life, enables us to develop a more plausible analysis of the specific forms of embodiment emerging in cyberspace. In the following exposition of Plessner's phenomenological anthropology and my application of his ideas on the phenomena of telepresence and virtual reality, I will attempt to show that Plessner's writings not only foreshadow more recent – phenomenological, hermeneutic and feminist – criticisms of rationalistic and instrumental approaches to information technology, but that they also contribute to a better understanding of the aforementioned phenomena in their own right.

In my interpretation telepresence and virtual reality – together with technologies such as robotics, artificial intelligence and artificial life research, and genetic engineering – are part of the (not necessarily intentional) informationistic program to create trans- and posthuman life forms. In order to develop an adequate Plessnerian interpretation of the particular new cyborg life form that emerges in telepresence and virtual reality, it will be necessary to make – to reformulate a well known statement by Dilthey about Kant – an 'Advancement on Plessner', or more precisely, to supplement Plessner's theory about the stages of the organic and man with an additional type of positionality in which yet another intentional 'boundary-realization' (*Grenzrealisierung*) can be discerned.

My account consists of five parts. As Plessner is not well known in the Anglo-Saxon world, first I shall briefly sketch Plessner's life and works and place him in the context of twentieth-century continental philosophy. Secondly

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I shall introduce the concept of 'positionality', which is central to Plessner's philosophical anthropology, and contrast this spatial concept with Heidegger's temporally oriented concept of *Dasein*, and then briefly comment on the synchronic nature of Plessner's anthropology. I shall then describe *telepresence* and *virtual reality* and some of the Utopian expectations raised by the Cartesian interpretation of these technologies. In the fourth part I shall interpret telepresence and virtual reality from the perspective of 'positionality' and elucidate the new type of cyborg-positionality – for which I propose the name 'poly-excentric positionality' – that emerges in these teletechnologies. However, on the basis of the three anthropological principles (*Grundgesetze*) introduced in the last chapter of *The Stages*, I shall also argue that this new type of positionality does not fulfil the Utopian expectations raised by the advocates of these new teletechnologies, but rather will radicalize the existential 'homelessness' which according to Plessner characterizes human life. I conclude my argument with a short reflection on the tendency towards the inhuman that characterizes human homelessness.

IN THE SHADOW OF TOMORROW: THE LIFE OF HELMUTH PLESSNER

Helmuth Plessner was born in 1892 in Wiesbaden in Germany into a well-to-do family of partly Jewish descent.⁴ His father was a doctor and director of a sanatorium. In prosperous Wiesbaden Helmuth witnessed the grandeur of the last years of the German Empire. After successfully completing his studies at the gymnasium in Wiesbaden, he studied medicine in Freiburg, and then zoology and philosophy in Heidelberg. In Heidelberg he met celebrities of German science such as Windelband, Weber and Troelsch. In 1914 he went to Göttingen to study phenomenology under Husserl and became fascinated by the philosophy of Kant. After taking his doctoral degree in Erlangen, in 1918 in Cologne under Max Scheler he wrote his *Habilitationsschrift*, the thesis which qualified him for a professorship (1920). It was not until 1926, however, that he was appointed professor of philosophy in Cologne. In the intervening years Plessner published his book *The Unity of the Senses [Die Einheit der Sinne]* (1923), and partly inspired by Max Scheler he worked on the first large-scale design of a philosophical anthropology. His *Stages of the Organic and Man*, written in rather obtuse German, appeared in 1928, a year after the publication of Heidegger's *Being and Time [Sein und Zeit]*, which sent shock waves through the world of continental philosophy, and almost at the same time as Scheler's short, compelling study *The Position of Man in the Cosmos [Die Stellung des Menschen in Kosmos]*.

It was not only because of the rather inaccessible style, however, that his philosophical anthropology met with little response. When the National Socialists took power in Germany in 1933 Plessner was dismissed because of his Jewish ancestry. He emigrated to Istanbul in Turkey, but when his attempt to obtain a professorship failed, on the invitation of his friend F.J.J. Buytendijk he went to Groningen, in the north of the Netherlands, where in 1939 he was appointed professor of sociology. This appointment was partly due to a number of sociology texts Plessner had previously written – the aforementioned *The Limits of Community: a Critique of Social Radicalism* (1924) and *The Fate of the German Spirit at the End of its Civil Era* [*Das Schicksal des Deutschen Geistes im Ausgang seiner bürgerlichen Epoche*] (1935), from the second edition in 1955 under the title *The Delayed Nation* [*Die verspätete Nation*] – in which he sharply criticized National Socialism. According to Plessner the political barbarism of National Socialism was due to the fact that, unlike most other states in Europe, in the nineteenth century Germany had not experienced a civil revolution; the German people followed the path of cultural emancipation instead of political revolution. Therefore, for Plessner philosophical anthropology had a clear practical meaning. In 1936 in Groningen he gave an address on the task of philosophical anthropology in which he argued that the degeneration of the classical and Christian legacy had created a cultural void which fundamentally threatened the humanity of humankind. The task of philosophical anthropology was to remind people of their possibilities in ‘the shadow of tomorrow’.

Philosophical anthropology remained important to Plessner during his sociology professorship, which can be seen from publications such as *Laughing and Crying: a Study of the Limits of Human Behaviour* [*Lachen und Weinen. Eine Untersuchung nach den Grenzen menschlichen Verhaltens*] (1941). In 1943 for the second time he was dismissed because of his Jewish ancestry and shortly afterwards he went into hiding. After the war he was again appointed to a post in Groningen, this time as professor of philosophy. In 1951 he returned to Germany and was appointed to a chair of philosophy and sociology in Göttingen. He carried out various administrative functions including that of dean, rector magnificus (vice chancellor) in Göttingen, and chairman of the German association of sociologists. At the invitation of Adorno and Horkheimer he also contributed to the research of the Institut für Sozialforschung (the Frankfurt School). In 1962 he was appointed for a year as visiting professor at the New York School for Social Research. In the last period of his academic career, from 1965 to 1972, he was professor of philosophy in Zürich in Switzerland. He died in Göttingen in 1985.

In the last decades of his life he achieved a certain reputation. His profound criticism of political and philosophical radicalism and totalitarianism influenced

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philosophers such as Habermas and Marquard. However, the application of his phenomenological anthropology in the field of information and communication technologies has hitherto been relatively under-developed.

EXCENTRIC POSITIONALITY

We can only understand the import of Plessner's concept 'excentric positionality' (exzentrische Positionalität) if we place it in the light of human finitude, a theme that dominates modern philosophy as no other (cf. De Mul 2003). Of course, the finitude of man is not an exclusively modern theme. It already played a prominent role in the thinking of the Middle Ages. However, as Odo Marquard has shown, in modern philosophy there has been an important shift in the meaning of the concept. Where the finite was first understood in contrast to a transcendent God, as that which is created – that is to say, that which does not have its ground in itself – in modern secularized culture it is defined immanently as that which is limited in space and time (Marquard 1981: 120). A crucial difference between Plessner and Heidegger lies in the fact that in their reflection on man they start from different dimensions of finitude. In *Being and Time*, Heidegger takes as his point of departure finitude in *time*. In this context finitude is primarily understood as mortality and the human way of being (*Dasein*, literary translated: there-being), characterized by the awareness of this mortality, consequently is defined as a Being-unto-death (*Sein zum Tode*). In the *Stages of the Organic and Man*, however, Plessner's point of departure is finitude in *space*, in which finitude is primarily defined as *positionality* and human life, in its specific relation to its positionality, as decentred, in his vocabulary *excentric* (*exzentrisch*).

Because Heidegger starts his analysis of the human *Dasein* with the experience of temporality, to a large extent he abstracts from the corporeality of man, and as a consequence shows an affinity to the idealistic rather than the materialistic tradition (cf. Schulz 1953–4). In contrast, by putting the emphasis on the spatial dimension Plessner assigns a central role to (our relationship with) our body. In relation to this, in Plessner's anthropology the biological dimension plays a crucial role, and an important part of his analysis aims at demarcating man from other – living and lifeless – bodies. This is not the place for an extensive discussion of Plessner's philosophical anthropology and his transcendental-phenomenological analysis of the material *a priori* of human life. I will restrict myself to a discussion of some of the key concepts that I will use in my analysis of telepresence and virtual reality. According to Plessner the living body distinguishes itself from the lifeless because, as opposed to the lifeless, it

not only possesses contours but is characterized by a boundary (*Grenze*), and consequently by the crossing of this boundary (*Grenzverkehr*). Moreover, the living body is characterized by a specific relationship to its boundary, that is, by a specific form of positionality. The positionality of living creatures is linked to their double aspectivity (*Doppelaspektivität*): they have a relationship to both sides of their constituting boundary, both to the inner and the outer side (Plessner 1975: 138f.). Anticipating Ryle's later critique, with this concept of double aspectivity Plessner explicitly opposes the Cartesian dualism of *res extensa* and *res cogitans*, in which both poles are fundamentalized ontologically. Conversely, Plessner considers life to be a physical-psychic unity, a lived body which – depending on which aspect is disclosed – appears as body or mind.

The manner in which positionality is organized determines the difference between plant, animal and human being. In the open organization of the plant, the organism is not yet in a relationship to its positionality. Neither the inner nor the outer have a centre. In other words, the plant is characterized by a boundary which has no-one or nothing on either side, neither subject nor object (Plessner 1975: 282f.). A relationship with its own positionality first appears in the closed organization of the animal. In the animal that which crosses the boundary is mediated by a centre, which at a physical level can be localized in the nervous system, and at the psychic level is characterized by awareness of the environment. As distinct from the plant, the animal is not only a body, it is also *in* its body. The human life form distinguishes itself from the animal because human beings also maintain a relationship with this centre. Although they also (always) take up a centrist position, they have a specific relationship to this centre too. There is therefore a second mediation: human beings are aware of their centre of experience and are, as such, ex-centric. 'Man not only lives (*lebt*) and experiences his life (*erlebt*), but he also experiences his experience of life' (Plessner 1975: 364). In other words: as excentric beings we are not where we experience, and we don't experience where we are.⁵

Expressed from the perspective of the body: 'A living person *is* a body, *is in* his body (as inner experience or soul) and at the same time outside his body as the perspective, from which he is both' (Plessner 1975: 365). Because of this tripartite determination of human existence human beings live in three worlds: an outer world (*Aussenwelt*), an inner world (*Innenwelt*), and the shared world of culture (*Mitwelt*).⁶ Because of double aspectivity, which is characteristic of life, each of these three worlds appears to human beings both from an inner and an outer perspective. Our body (as part of the outer world) is both body (*Körper*) – that is to say, a thing among things that takes up a specific place in an objective space-time continuum – and a lived body (*Leib*) that functions as

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the centre of our perception and actions. In its turn the inner world is both soul (*Seele*), the active source of our psychic life, and lived experience (*Erlebnis*), the theatre in which the psychic processes take place. With regard to the world of culture we are both an I (*Ich*) that creates this world, and a We (*Wir*) insofar as we are supported and formed by this world.

In closing this brief exposition of some of the key concepts of Plessner's philosophical anthropology I wish to make a critical comment. According to Plessner, excentric positionality is the highest level of positionality: 'A further development beyond this point is impossible, because the living thing here really has reached a position behind itself' (Plessner 1975: 363). On a formal level, Plessner's dialectics of life here seem to remain bound to the closed dialectics of German Idealism. Moreover, this comment is difficult to interpret other than as anthropocentric.⁷ Given Plessner's biological science background this is somewhat surprising. On the basis of the (Neo-)Darwinian theory of evolution it seems naïve to presuppose that evolution of life has reached its completion with man. Plessner undoubtedly had good methodological and political reasons for placing the diachronic dimension of life between parentheses in his *Stages of the Organic and Man*. His analysis is not so much directed at the evolutionary or historical development of life, but rather is a synchronic analysis of the conditions of the possibility of the different life forms on earth.

However, as Lolle Nauta has argued, this exclusively synchronic approach excludes the possibility of posing a number of important questions – for example, regarding the non-parallel historical development of the inner world (*Innenwelt*), the outer world (*Aussenwelt*) and the cultural world (*Mitwelt*). He therefore suggests supplementing Plessner's synchronic approach with a diachronic one (Nauta 1991). Following Norbert Elias, Nauta argues, for example, for an examination of the decentralizing processes, in order to clarify the historical discovery of the three mentioned domains of excentric positionality. In Nauta's view, however, Plessner's synchronic typology of the three life forms remains the conceptual framework. This implies that in Nauta's analysis too, the impact of evolutionary, historical and/or technological developments on the existing types of positionality unavoidably remains out of sight. This restriction is neither theoretically nor practically fruitful, as present-day biotechnology and information technology seem to affect the ontological structure of human positionality. I shall now illustrate this by showing that in teletechnologies such as telepresence and virtual reality a new type of positionality is emerging that no longer can be described adequately by the concept of excentric positionality.

JOS DE MUL

TELETECHNOLOGY

In Plessner's philosophical anthropology technology is inextricably linked with excentric positionality:

As an excentric being man is not in an equilibrium, he is without a place, he stands outside time in nothingness, his constitution lacks a fatherland (*konstitutiv heimatlos*). He always still has to become 'something' and create an equilibrium for himself.

(Plessner 1975: 385)

For this reason, as the first of the three basic laws of anthropology (which in the last chapter of the *Stages of the Organic and Man* Plessner derives from the notion of excentric positionality) states, human kind is *artificial by nature*.

Man tries to escape the unbearable excentricity of his being, he wants to compensate for the lack that constitutes his life form. Excentricity and the need for complements are one and the same. We should not understand 'need' in this context psychologically or as something subjective. It is something that is logically prior to every need, drive, tendency or will. In this fundamental need or nakedness we find the motive for everything that is specifically human, the focus on the *irrealis* and the use of artificial means, the ultimate foundation of the technical artefact and that which it serves: *culture*.

(Plessner 1975: 385)

In other words, technology and culture are not only – and not even in the first place – instruments of survival but an ontic necessity (*ontische Notwendigkeit*) (Plessner 1975: 396). In this sense, we are justified in claiming that human beings have always been cyborgs, that is, beings composed of both organic and technological components. Although technical and cultural artefacts such as knives, cars, books and computers are not part of the biological body, as soon as they become part of human life they also become part of the human body scheme and cognitive structure.

The world of technology and culture is the expression of the desire of human beings to bridge the distance that separates them from the world, their fellow humans and themselves. Since time immemorial technology has been directed at crossing the boundaries which are given in time and space with our finitude. This applies to 'alpha-technologies', such as writing, which compensates for our finitude in time by enabling us to make use of the knowledge and experience of our ancestors and to pass on our own knowledge and experience to our descendants, as well as to 'beta-technologies', which have been developed, particularly since the birth of natural science, in abundance. The telescope and the microscope, for example, have made it possible to (partially) overcome the

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spatial limitations of our senses. For this reason in his article 'New space in the electronic age', Peter Weibel argues that modern technology must be primarily understood as teletechnology:

Technology helps us to fill, to bridge, to overcome the insufficiency emerging from absence. Every form of technology is teletechnology and serves to overcome spatial and temporal distance. However, this victory over distance and time is only a phenomenological aspect of the (tele)media. The real effect of the media lies in overcoming the mental disturbance (fears, control mechanisms, castration complexes, etc.) caused by distance and time, by all forms of absence, leave, separation, disappearance, interruption, withdrawal and loss. By overcoming or shutting off the negative horizon of absence, the technical media become technologies of care and presence. By visualising the absent, making it symbolically present, the media also transform the damaging consequences of absence into pleasant ones. While overcoming distance and time, the media also help us to overcome the fear with which these inspire the psyche.

(Weibel 1992: 75)

It is in this light that we must also see the development of recent digital technologies such as *telepresence* and *virtual reality*. In telepresence a person is fitted with a data helmet, furnished with stereographic displays, and headphones and a *data glove* or *data suit*, items of clothing fitted with sensors which register bodily movements and can conjure up tactile experiences. Helmet, gloves and suit are connected to a robot that, in its turn, is fitted with cameras, microphones and sensors. Thanks to the visual displays and headphones we are able to see, hear and feel with the artificial senses of the robot, and thanks to the intermediary computer which registers our movements in (almost) 'real time' and translates them into instructions for the robot, the robot reacts to our movements. When we turn our head, the robot turns its head; when we reach out our hand to an object, the robot reaches out its grab.

Howard Rheingold's report in his book *Virtual Reality* concerning his first experience with telepresence technology is instructive. This took place in the laboratory of Dr Tachi in Tsukuba, in Japan, with the robot a few metres away from him:

The strangest moment was when Dr. Tachi told me to look to my right. There was a guy in a dark blue suit and light blue painted shoes reclining in a dentist's chair. He was looking to his right so I could see the bald spot on the back of his head. He looked like me, and abstractedly I understood that he was me, but I know who is me, and me is here. He, on the other hand, was there. It doesn't take a high degree of sensory verisimilitude to create a sense of remote presence. . . It was an out of the body experience, no doubt about it.

(Rheingold 1991: 264)

Technological telepresence is not altogether new. Established technologies such as the telephone, radio and television can be regarded as its primitive precursors. The difference with these earlier forms is that the user of telepresence technology is fully immersed in the telepresent environment and because her body is remote she is able to navigate in this environment and interact with it (cf. De Mul 1999a). Not only can a surgeon carry out an operation on a patient in another country, or a policewoman arrest a bank robber without putting herself in physical danger (assuming the bank robber is present 'in the flesh' and not himself telepresent) – to mention two already-existing applications of telepresence – but because this technology is not tied to human scale and the conditions of human life, in principle it also allows us to repair a defective link in a DNA chain or to walk on Venus.

Virtual reality is closely related to teletechnology. It retains the harness, but replaces the remote robot with a computer simulation of a body (an 'avatar') and its environment. When we are 'in' virtual reality, the environment we seem to inhabit does not exist in the usual physical sense, we are actually in a computer-generated world. Like telepresence, virtual reality already has wide-ranging applications. For example, pilots can be trained in flight simulators, architects can lead clients through their virtual designs, and archaeological and historical spaces – the caves of Lascaux, for example – can be simulated in virtual reality for educational purposes.

Virtual reality has also assumed a place in the amusement industry – for example, in the form of three-dimensional computer games such as *Dactyl Nightmare* that we find in amusement arcades (see Green 1997). In such games and in on-line virtual reality worlds such as *Alphaworld* we do not move alone but also interact with virtual actors and the representations (avatars) of other people. If the ultimate aim of technology is to overcome the spatial and temporal distance that characterize our finite life, it is difficult to overestimate the value of telepresence and virtual reality. Nonetheless, this still does not explain the almost euphoric manner in which Rheingold – and many other authors – describe these technologies. There is a deeper, almost religious element to this euphoria (cf. Midgley 1992; Noble 1997; Wertheim 1999; De Mul 1999c: 239f.). The ultimate dream is that one day telepresence and virtual reality will free man from his finitude and provide him with the attributes that in pre-modern times could only be ascribed to an infinite God: omnipresence, omniscience, omnipotence and immortality. Let me briefly elucidate this dream by referring to one of the most enthusiastic, if not euphoric, defenders of teletechnology, the roboticist Hans Moravec of the Carnegie Mellon University (Moravec 1988, 1995, 1998).

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Moravec believes that, thanks to telepresence and virtual reality teletechnology, in the not too distant future we shall live in a world in which we shall have continual access to a multiplicity of locations:

One might imagine a hybrid system where a virtual 'central station' is surrounded by portals which open on to views of multiple real locations. While in the station one inhabits a simulated body, but when one steps through a portal, the harness link is seamlessly switched from the simulation to a telepresence robot waiting at that location.

(Moravec 1995: 2)

According to Moravec, we might finally 'find ourselves distributed over many locations, one piece of our mind here, another piece there, and our sense of awareness at yet another place' (ibid.).

Furthermore, our omnipresence is not limited to real locations, but encompasses all possible virtual locations. Because we ourselves are the designers of these virtual worlds we shall hold sway over them as gods, and be the possessors of perfect knowledge. Moravec thinks that in order to achieve immortality we shall eventually decide to leave our body behind altogether and emigrate to cyberspace:

Ultimately our thinking procedures could be totally liberated from any traces of our original body, indeed of any body. But the bodiless mind that results, wonderful though it might be in its clarity of thought and breadth of understanding, could in no sense be considered any longer human. So, one way or another, the immensities of cyberspace will be teeming with very unhuman disembodied superminds, engaged in affairs of the future that are to human concerns as ours are to those of bacteria.

(Moravec 1995: 4)

Telepresence and virtual reality seem to revitalize the old Platonic and Cartesian dream of escaping the prison of the body. As Heim, in his book *The Metaphysics of Virtual Reality*, puts it:

Cyberspace is Platonism as a working product. The cybernaut seated before us, strapped into sensory-input devices, appears to be, and is indeed, lost to this world. Suspended in computer space, the cybernaut leaves the prison of the body and emerges in a world of digital sensation.

(Heim 1993: 89)

Where Cartesian tradition fundamentalizes the distinction between body and mind ontologically, telepresence and virtual reality seem to aim at realizing this Cartesian dualism technologically.

POLY-EXCENTRIC POSITIONALITY

Moravec's Faustian fantasy of manipulability can be criticized on several grounds – technical, socio-political, psychological and philosophical. On philosophical grounds it is, of course, the radical Cartesian dualism of body and mind, in particular, that invites criticism, and such criticism can be linked to a long series of critiques which have been directed at Descartes from various perspectives in the course of the twentieth century (phenomenology, hermeneutics, the philosophy of ordinary language, feminist theory, etc.). Many of these arguments appear in the second chapter of the *Stages of the Organic and Man*. Here, however, I do not so much want to criticize Moravec's dualistic project directly, as to criticize it by way of a hermeneutical interpretation of telepresence from a Plessnerian perspective. By doing this I hope to arrive at a non-dualistic description of the distinctive character of the telepresence experience.

First, I want to return to the description Rheingold gave of his experience with the telepresence robot. His description of this experience as an 'out of the body experience' does not necessarily need to be regarded as dualistic – it can also be seen as a consequence of the excentric positionality inherent in the human life form. During the experiment Rheingold not only was (and had) a body, but at the same time he was *outside* his body. Formulated in transcendental terms this means that excentric positionality is the condition of the possibility of experiencing telepresence.⁸ Only because excentric beings are always at the same time already both inside and outside their bodies are they able to experience telepresence.

This phenomenon is also part of our everyday experience. When we are elsewhere in our thoughts we also find ourselves outside our body. What distinguishes a telepresence experience from an everyday out of the body experience is that in a telepresence experience the excentricity is technologically objectified. This also applied to primitive forms of telepresence, such as the telephone, but it applies much more strongly to telepresence via the artificial body of a robot.

Rheingold, Moravec and Heim are right when they argue that telepresence allows us to step outside our body. From a phenomenological perspective it seems justified to argue that in telepresence we find ourselves in the body of the robot. The centre of my experience lies behind the robot's camera-eyes. *I* am the one who, with the aid of the artificial senses, observes my environment and interacts with it. When an object approaches the robot, *I* experience it as coming towards me and I move out of the way. *I* am also the one who stretches

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out his hand to grasp an object which is in front of the robot. In telepresence and virtual reality the artificial body has become part of our own body scheme. The double aspectivity that characterizes life is also experienced with regard to the artificial body. When I observe through the artificial senses of the robot I experience the artificial body from inside out (as an artificial lived body – *Leib*), but it is also part of the outside world (as an artificial body – *Körper*).

At the same time, however, it must be said that my out of the body experience is not complete for a number of reasons. In the first place certain aspects of the experience remain linked to the senses of my biological body. In present-day telepresence technology we only undergo visual, audio and tactile experiences through the artificial body and as far as smell, temperature and proprioception are concerned we remain dependent on our biological body. Even if tele-technology develops so far that these sensory impressions could be built into the artificial body too, we would still be dependent on our own body during telepresence experiences. Behind the displays and loudspeakers in my helmet are the eyes and ears of my biological body and these see and hear what the robot at the other location is observing. Following on from the famous ‘brain in a vat’ thought experiments so popular in the philosophy of mind, even if by means of a neuro-interface we could link the artificial senses of the robot to our brain, removed from our body and kept alive artificially, then at least this part of the biological body would still be necessary in order to undergo the experience.

Therefore, telepresence is not so much a question of displacing the centre of experience, but rather of doubling it. Or, to put it a better way, because in principle we can contract out, as it were, all our senses to various artificial bodies we may speak of a multiplication of the centre of experience. In this sense Moravec is right when he argues that ‘we find ourselves distributed over many locations’. But there is no question of a unifying experience of presence, rather of a fragmentation or a dissociation. We could call this a ‘poly-centric experience’.

That we should talk here of a ‘poly-centric experience’, and not simply of an artificial extension of the biological body, is suggested by the experience in flight simulators. Pilots exercising in such simulators often experience a dissociation between their biological and artificial bodies because the visual experience of movement and acceleration in the virtual body finds itself in conflict with the organ of equilibrium in the biological body. It takes the body a couple of hours to link both senses together again and during this period a pilot often has serious difficulties in maintaining his balance. For this reason many airlines do not allow their pilots to fly within a specified period after they

have been in a simulator. The notion of poly-centric experience also fits in with the neurological and psychological theories that argue that our psychological self is not a unity but 'rather a problematically yoked-together bundle of partly autonomous systems' (Dennett 1992), with the post-modern notion of the 'multiple self' (Turkle 1995) and with psychic disorders such as Multiple Personality Disorder. The difference here is that in telepresence and virtual reality multiplicity is no longer exclusively situated in the biological body but acquires a technological objectification in an additional artificial body.

What the phenomenological description of the experience of telepresence also makes clear is that doubling the centre of experience must not be understood as a doubling of a mere psychological experience and as an escape 'from the prison of the body'. On the contrary, what is doubled in telepresence is actually the body! Because of the double aspectivity of human life, this should not surprise us: without the body (as part of the physical outer world – *Aussenwelt*) there is no inner experience (*Innenwelt*). By the body I mean not only our physical body with its arms and legs and ability to move around the world, but also our moods that make things matter to us, and our location in a physical space and in a particular context of things interacting with us (cf. Dreyfus 2001: 4). This dependence on the body also applies to virtual reality, although in this case there is no question of the doubling of a physical body, rather that the biological body is supplemented with the representation of a body – or at least a finite, subjective perspective that constitutes an additional centre of experience (cf. Green 1997; Vasseleu 1997; Hayles 1999).

From the above we can also conclude that telepresence, as a technology that transcends our finitude, does not involve an escape from the body, but rather an escape in a multitude of bodies. The experience of excentricity is not overcome, but rather radicalized. As a transitional manifestation of the cyborg the telepresent person does not coincide with one body or the other. She is both as well in and outside one body as in and outside another body. Her spatial positionality can be described as both poly-centric and poly-excentric. This means that telepresence and virtual reality can partially compensate for the spatial finitude of human beings, but can never completely eradicate it. In a certain sense teletechnologies even strengthen our consciousness of finitude. Just as the telescope first taught us what spatial and temporal distance actually means, these technologies confront us with the inescapable radicality of our finitude. Where an excentric creature is homeless, poly-excentricity multiplies and radicalizes this homelessness. In this sense there can be no question of a divine omnipresence. To vary a famous statement by Adorno: once you have left your body, you're always on the wrong side.

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On the basis of Plessner's second anthropological law – that of indirect directness – there is also a comment to be made regarding the hope that virtual reality will allow us to achieve divine omnipotence. Plessner rightly points out that although human beings are the creators of their technology and culture, these acquire their own momentum:

Equally essential for the technical artefact is its inner weight, its objectivity that discloses the aspect of technology that only can be found or discovered, but never made. Everything that enters the sphere of culture shows its dependence on human creation. But at the same time (and to the same extent) it is independent from man.⁹

(Plessner 1975: 397)

Our experience of cyberspace until the present time establishes the validity of this second anthropological law. No less than in the real world acting in cyberspace brings all kinds of unintentional side-effects with it that place strict limits on predictability and controllability. The complexity of cyberspace and the unintentional interferences between computer programs will continually and endlessly frustrate the desire to take our fate into our own hands (cf. De Mul 1999b). Furthermore, as we are not alone in cyberspace but interact with other persons or digital personae we will, again no less than in the real world, be confronted continuously and endlessly with interests and powers that resist our desires. And whereas life as we know it remains dependent on finite, physical bodies, the dream of immortality will always remain a dream.

The conclusion that digital dreams of divine omnipresence, omniscience, omnipotence and immortality are doomed to remain Utopian would appear to be justified. This should not be surprising considering Plessner's third anthropological law, that of Utopian position. The promise to provide that which by definition man must do without – 'safety, reconciliation with fate, understanding reality, a native soil' (Plessner 1975: 420) – can be no other than a religious illusion. The fact that for many people in a society such as ours technology has taken over the Utopian role of religion does not make this law any less valid (cf. De Mul 1999c).

CONCLUSION

However, the fact that telepresence and virtual reality do not fulfil the Utopian expectations ascribed to these technologies by the technological Cartesians does not make them any less real. Moreover, as I remarked in my introduction, they form only a small part of the current trans- and posthumanistic program

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that underlies the new informationistic sciences which have been developed since the invention of the electronic computer (De Mul 1999b, 2001). Moravec's virtue is that he makes explicit the – (un)intended – aim of this program, which remains implicit or still unachievable in the present state of these technologies, namely – to use an expression Plessner uses in his essay 'The Inhuman' (*Unmenschlichkeit*) – 'a transformation of man on the biological level' (Plessner 1982: 200).

Although this poly-excentric project at present is largely confined to the inner world (*Innenwelt*) of scientists such as Moravec and is still only hesitantly making its appearance in the outer world (*Aussenwelt*) and the shared world of culture (*Mitwelt*), there can be no doubt that *Homo sapiens sapiens* is the first biological species that is able to create its own evolutionary descendants.

We might call this project to develop trans- and posthuman life forms inhuman, but we should not forget that inhumanity is inextricably linked with human excentricity. Or as Plessner expressed it in 'The Inhuman': 'The inhuman is not bound to any specific era, but a possibility which is inherent to human life: the possibility to negate itself' (Plessner 1982: 205).

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NOTES

1. An earlier version of this text has been presented at the International Congress 'Helmuth Plessner – Exzentrische Positionalität' on 2 November 2000. A Dutch version appeared in De Mul (2002: 223–36). I would like to thank the anonymous reviewers of *iCS* for their useful comments on the draft version of this article.
2. Until recently, except for some smaller texts (Plessner 1964, 1969a,b, 1970a,b), no works by Plessner had been translated into English. For an overview of Plessner's writings, translations in Dutch, French, Italian, Polish and Spanish, and secondary literature see the website of the Helmuth Plessner Gesellschaft: <http://www.helmuth-plessner.de/>
3. Phenomenology is a method of philosophical investigation which results in a radical ontological revision of Cartesian dualism. Phenomenology aims at a description of one's experiences of concrete phenomena putting aside – as much as possible – theoretical assumptions about the world's existence and character. Phenomena are not contents of the mind; they all involve an experiencing subject and an experienced object. Phenomenological description aims to make explicit essential features implicit in the 'lived world' – the world as we act in it prior to any theorizing about it. The phenomenological method reveals that practical knowledge is prior to propositional knowledge – knowing that arises from knowing how (cf. Craig 1998).

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4. This biographical sketch has largely been taken from the biographical notes of his Dutch student Jan Sperna Weiland (Sperna Weiland 1989).
5. With this emphasis on the decentred position of the subject Plessner's philosophical anthropology clearly anticipates the (neo)structuralist conception of man we find, for example, in the writings of Jacques Lacan (cf. De Mul 1999c: 154f.).
6. A similar distinction has been made by Popper (1972: 118f.).
7. Though Plessner in his anthropology speaks in a universalist and androcentric terminology about 'man', the notion of excentric positionality cannot be termed androcentric or ethnocentric. As we will see in the next section, the fundamental *openness* that characterizes the excentricity of human beings is the very condition of possibility of cultural and individual differences. In this sense Plessner's philosophical anthropology is a non-essentialistic ontology, 'for forms of life are not defined on the basis of distinctive attributes but in terms of realized scopes of action' (Kockelkoren 1992: 207).
8. The same can be said about various other types of 'out of the body experiences' that are the result of (artistic) fictionalizing, (day)dreaming, religious ecstasy, LSD, dissociative disorders, etc. All of these experiences presuppose human excentricity. As Wolfgang Iser puts it with reference to fictionalizing:

The fact that we seem to need this 'ecstatic' state of being beside, outside, and beyond ourselves, caught up in and yet detached from our own reality, derives from our inability to be present to ourselves. The ground out of which we are remains unavailable to us. Samuel Beckett's Malone says, 'live or invent', for as we do not know what it is to live, we must invent what eludes penetration. There is a similar dictum, equally pithy, by Helmuth Plessner, who corroborates Beckett from a rather different angle, that of social anthropology: 'I am, but I do not have myself'.

(Iser 1997/1998)

9. This makes clear that Plessner is defending a position beyond the unfruitful opposition between technological determinism and social constructivism. Although Plessner agrees with social constructivism that technologies are products of human design (and as such are not characterized by autonomous development), he holds that as soon as they have become a part of 'the sphere of culture' the effects of technology are no longer fully predictable and under human control. With regard to this stage of their development, technological determinism appears to be more adequate. Plessner's position seems to be similar to Hughes's theory of *technological momentum*:

A technological system can be both a cause and an effect; it can shape or be shaped by society. As they grow larger and more complex, systems tend to be more shaping of society and less shaped by it. Therefore, the momentum of technological systems is a concept that can be located somewhere between the poles of technological determinism and social constructivism. The social constructivists have a key to understanding the behavior of young systems; technological determinists come into their own with the mature ones. Technological momentum, however, provides a more flexible mode of interpretation and one that is in accord with the history of large systems.

(Hughes 1994: 112)

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