

The Fundamental Ontology of Developmental Psychology: The Development of the Self as a Systematic Relationship between the Concept of the World and the Concept of the Self in Orientation towards Absolute Infinity

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Abstract

In contemporary models of developmental psychology, human development is divided into a series of stages. All of these models are based on certain worldviews that create an overarching framework. This gives the world an arbitrary ontology as well as a limiting direction for development. In contrast, it is shown here that, following Jaspers, there is a need for the orientation towards absolute infinity and consequently an openness of worldviews, and that, following Heidegger, developmental psychology must necessarily build on fundamental ontology. This fundamental ontology of developmental psychology is then determined by, first, identifying the basic inner orientation of the self as the relation between the self and its most general essence and being, and, second, by describing the ontological nature of the most general essence of being and entity. Following this, a new development model based on the fundamental ontology is described.

Keywords: developmental psychology, fundamental ontology, absolute infinity, worldviews, being, entity

1. Contemporary models of developmental psychology: their orientation towards fixed worldviews and their lack of a relation to the being

Psychological models that consider the development of the self and its cognitive faculty extend Jean Piaget's stage model of cognitive development (Piaget 1964) to include further stages for the entire lifespan. These stage models primarily consider the entire course of ego or self-development without

focusing on specific areas of influence, as e.g. learning-theoretical, socio-biological or psychoanalytic approaches (e.g. Freud's drive satisfaction) do (Diem-Wille 2011; Gottlieb 1996; Maier 1988; Nielsen 1994). Piaget mainly looked at the human development of childhood and adolescence and considered development to be largely completed when the last stage of the adolescence was reached (Hasselhorn and Schneider 2007, chap. 3). The extended models, which examine the entire lifespan, are open-ended with regard to age, but, like Piaget's model for childhood and adolescence, they describe a fixed sequence of stages that is assumed to have a final stage. Examples of these models are: Jane Loevinger's model of ego development with nine stages (Hy and Loevinger 2014; Loevinger 1966), Cook-Greuter's extension of this model to ten stages (Susanne Regina Cook-Greuter 1999), Alexander's studies on higher levels of consciousness (Alexander, Boyer, and Alexander 1987), Gebser's stage model of the development of consciousness (Gebser 1985), Kegan's six-stage model (Kegan 1982), Kohlberg's six-stage model¹ (Kohlberg 1985), Maslow's hierarchy of human needs (Maslow and Lewis 1987), McClelland's model of motivation with three dominant needs², which is based on a personality theory by Henry Murray (McClelland 1961; Murray 1938), or Erikson's eight-level model (Erikson 2007). Although all of these development models attempt to provide a comprehensive system of human development, all of them have the characteristic in common that they are based on a specific worldview, i.e. consider a specific order of the world as given, whereby the respective worldview determines the development, its direction and possibilities, since there is agreement on the fact that the relationship between world and self is the dominant impulse for development.

However, neither the relation of the self to its being³ (including the relation of the self-development and the associated development of its cognitive faculty to their respective being), nor the nature of being, i.e. the fundamental ontological prerequisites of the world, are considered. This is necessary, since through its being-in-the-world every entity, and thus also every subject with its individual development, is bound to align itself with this respective being (Heidegger 1967, 104-106; Mühlenbeck 2021, 345). Hence, following Heidegger, it is shown that developmental psychology must necessarily be built on fundamental ontology. Heidegger pointed out how the individual sciences work within their own limited ontologies

and leave out their own question of being, which is why it is necessary to constitute them on a fundamental ontology - outside themselves: "The question of being therefore aims at an a priori condition of the possibility not only of Sciences that research entities as such and such entities and in doing so already move within an understanding of being, but on the condition of the possibility of the ontologies themselves that lie before the ontic sciences and that underpin them."⁴ (Heidegger 1967, 11) It is worth mentioning that the understanding of the terms 'subject' and 'self' are congruent in Heidegger's fundamental ontology and developmental psychology, because Heidegger no longer attributes a special position to the subject, since he highlights its being-in-the-world, i.e. the fundamental ontology is not derived from the subject, but must also be applied to it as it is applied to every other entity (Heidegger 2000, 72-73). The subject is thus understood as that which arises in relation to the specific being (the *Dasein*) and the most general being. Equivalently, in psychology the 'self' is that which emerges from the relation to its environment in the course of human development.

In addition, a predetermined direction of development, as implied in the stage models of development, creates an imbalance and an arbitrary limitation. Hence, following Jaspers, it is shown that there is a need for the orientation towards absolute infinity and consequently an openness of worldviews. When the direction and modality of one's own development are predetermined from the outside and can no longer be determined individually, the individual is disconnected from its natural, i.e. inner, orientation. Furthermore, an arbitrary determination of developmental stages and the associated identification with content of the worldview includes a form of fixation that C.G. Jung described as inflation (Jung 1999, 27-29), since for each stage a separation between subject- and object-contents is assumed, with which on the one hand an identification or on the other hand a differentiation is conducted (Mühlenbeck 2022, 202; Jaspers 1919; Kegan 1982). In addition, this determination of stages also includes a hierarchy of development, even though it is discussed whether this hierarchy should be understood as a vertical or horizontal direction of development or whether a higher development actually represents a 'better' development (Susanne Regina Cook-Greuter 1999; Susanne R Cook-Greuter 2000). If, however, a hierarchy is accepted in human development and consciousness in general, then it would have

to be accepted for all biological evolution as well, which is not the case within evolution. Despite the increase in complexity, evolution does not follow a development plan, but rather occupies all existing niches with suitable abilities, for which other living beings are less suitable (Darwin 1909). This assumption about the variety of evolution does not follow from a strict physicalism, in which chance is accepted as the only determining force besides the physical forces of nature, but rather from a strict ontological pluralism, in which no form of dominant determining force is assumed, as it applies to every form of development - and evolution is development *per se* - because there is no single determining essence of development. Instead, development is always the relationship between entities and their specific and most general being (Heidegger 1989, 407, 470, 494).

Therefore, Heidegger's and Jaspers' argumentation can be used to solve the existing problems, since the former exposed the limitations of the specific ontologies of the individual sciences and their associated necessity to be based on the fundamental ontology - as a condition of the possibility of the sciences in general - (Heidegger 1967, 11) and the latter highlighted, through his psychology of worldviews, not only the relationship between self, world and worldview but also our development within this relationship (Jaspers 1919, chap. 2-3). This will be used to determine the fundamental ontology of developmental psychology afterwards. Two things are necessary to be named and connected for this: on the one hand, the basic inner orientation of the self, which is already present before any specific orientation by worldviews and life cycles, i.e. the reference of the self to its most general essence and being, and on the other hand, the ontological nature of the most general essence of being and entity.

2. The necessity of the orientation towards absolute infinity and the openness of worldviews

First, we consider the relationship between every entity, and thus also every subject, to its most general essence and its most general being, i.e. the necessary anchoring of the subject in the being. Since every entity can be understood as a realm of being, the most general essence of entity and being coincide, so we can speak of the most general essence of being *and* entity (Heidegger 1989, 372; Lanzi 2013, 72; Mühlenbeck 2021, 348). That means, the essence of the subject already belongs to its

being, since the subject as an entity is constituted by any spatiotemporal background and foreground, whereby we arrive at absolute infinity in any direction (Heidegger 1967, 365-366; Mühlenbeck 2020, 261, 275), as we will see later in more detail. This constitution through absolute infinity characterizes the most general essence of being, which includes the being and the essence of any entity. And this most general essence of being (and entity) thus also constitutes the subject's natural inner orientation, as Jaspers described in his *Psychologie der Weltanschauungen* (Psychology of Worldviews) (Jaspers 1919, 129) and Heidegger explained in his *Contributions to Philosophy (of the Event)*: for him the relation between every entity and its most general essence and being is the necessary condition of every existence and intuition (Heidegger 1967, 101; 1989, 411; Mühlenbeck 2021, 363-364). With both it becomes clear that the most general essence of being and entity can be identified with absolute infinity (Heidegger 1967, 101; 1989, 408; Jaspers 1919, 130, 370-371; Mühlenbeck 2021, 362). In contrast to the stage models of development described above, Jaspers described the development of humans and their (self-) consciousness as a process of differentiation in different dimensions and for this process the subject-object separation as fundamental for the formation of a self-concept and of worldviews. However, subject and object only describe different perspectives within the self. Subjective contents are attitudes and objective, concrete contents are the knowledge that a person has about the world, they form the worldview. As a result, the self consists of the relationship between inside and outside, without a clear division into two realms. (Jaspers 1919, 122) Therefore, in his psychology, the concept of the subject-object-separation is not to be understood as in contemporary development models. Because of its relational nature, it cannot be identified with one realm, subject or object. However, the most important feature of his psychology of worldviews is that the self does not only have a relation to its worldview, but in addition always a superordinate relation to infinity, which Jaspers describes in detail as necessarily absolutely infinite (Jaspers 1919, 129-130). Thus, the individual is at the center of a periphery that is formed by the worldview. The attitudes are functions within the worldview, which on the one hand seize the objective, on the other hand are trapped in it. (Jaspers 1919, 122) During development, however, the relation to this outer horizon, and beyond, is differentiated. At first, Jaspers distinguishes three modes of existence of the worldview, which

always exist simultaneously in the human being and interpenetrate or influence one another (Jaspers 1919, 126-127): 1. the experienced world, which is connected or interwoven with the soul and which is not objectively known; 2. the objectified, known and experienced world about which information can be given; 3. the merely known but not experienced world. These three modes of existence always shape the worldview simultaneously, i.e. they constantly influence and transform each other (Jaspers 1919, 128). Jaspers then describes this transformation as a process of differentiation, which leads from the immediate, concrete, to the depleted, abstract, or, conversely, from a merely known worldview to a process of awakening the soul (Jaspers 1919, 128). He distinguishes four forms of this process of differentiation, whereby the first three describe the way of transformation and the fourth the overarching direction of transformation (Jaspers 1919, 128-129): 1. what is practiced unconsciously is structured and consciously aware - development from within; 2. the ability to experience spreads out, i.e. experiences multiply and knowledge is restructured and expanded from the outside through new experiences - development through new external information; 3. a combination of an ordered unfolding of the worldview along with a chaotic mass of new content structuring and shaping one another; and 4. finally, as a superordinate direction, the visible unfolding of a series “from the immediate horizon of the individually centered world to absolute infinity”⁵ (Jaspers 1919, 129). Since this sequence of development is superordinate, absolute infinity is always present as the ultimate or original orientation, even if it is not consciously experienced. Thus, in the three modes of existence of the worldview absolute infinity is, to different degrees, always present as subconscious, conscious (or at least partially conscious through influencing the horizon of the worldview) and merely known (without being experienced), but nevertheless always as a necessary part of the worldview and as its prerequisite (Jaspers 1919, 126-129). That means, the orientation always takes place towards absolute infinity, only the type of orientation is unconscious, conscious or known. Although the individual in a way always perceives the horizon of the worldview as absolutely given (Jaspers 1919, 122), the subconscious influence of the orientation towards absolute infinity remains (Jaspers 1919, 126, 129). It is necessary, because there is no totality of the world, since there is no totality of the being, as we will see later, and therefore

also no totality of worldviews. If this orientation towards absolute infinity did not exist, an arbitrary limitation would be set to the world and, thus, to the direction of development, the possibilities of development, and also to the cognitive possibilities of the mind, because this orientation towards absolute infinity is “describable as a function of the infinite moving mind”⁶ (Jaspers 1919, 129). Jaspers describes the mind itself as absolute infinity:

“A highest level of consciousness cannot be described at all, but only this vivid becoming of the self be paraphrased in becoming manifest, how it is visible beyond all rational consequences in the experience and very concrete reaction and action towards itself.”⁷ (Jaspers 1919, 370)

He describes the human being as a synthesis between infinity and finitude, that can recognize and *be* absolute infinity in every supposed finitude. Through this synthesis, the self is never finished, but always in the process of becoming. In this process, by self-reflection, the individual gains the consciousness of a self through the infinite abstraction of everything external, whereby the self is always a self in relation to *something*. Through the recognition of the absolute infinity of the world, the absolute infinity of the mind and of the self is also recognized, since the self is always measured in relation to which it is a self. The more awareness of absolute infinity, the more awareness of the self is obtained, and vice versa. (Jaspers 1919, 371) But, this recognition of the absolute infinity of the mind and the self is not a fixation or self-inflation, which happens through identification as described by C.G. Jung (Jung 1999, 27-29), since no identification occurs here. In Jaspers' description the self remains the synthesis between infinity and finitude, i.e. a synthesis between general and specific relations: a contour between the inside and the outside, between inner abilities and the world, between essence and being, without fixation on or preference for one side (Jaspers 1919, 371).

3. The necessity of the fundamental ontology of developmental psychology

Now we consider the ontological nature of the most general essence of being and entity, which we identified above as absolute infinity. The absolute infinity of the most general essence of being and entity forms the fundamental ontology, since only this possesses the greatest possible power, so that

the being itself is not an entity (Heidegger 1989, 411; Mühlenbeck 2021, 364), as we will now regard in more detail. In this way we can later anchor developmental psychology in its original orientation by connecting the inner orientation of the subject with the basic prerequisite of the most general essence of being and entity and, thus, characterizing the essential properties of a new development model, that builds on fundamental ontology and is freed from all limiting structures. Through this connection to the most general essence of being and entity developmental psychology is placed on its natural basis, since only in this orientation towards absolute infinity the maximum of openness and freedom is given, without specifying directions, hierarchies or limitations for development.

In his elaboration of the fundamental ontology (Heidegger 1967), and later in its revision (Heidegger 1989), Heidegger identifies the *time-space* (the space-time) as the fundamental ontological foundation (Heidegger 1967, 430) that constitutes being and entity and thus allows each entity to be identified as an area of being (Heidegger 1967, 104-106; 1989, 372) and that constitutes the essential occurrence [*Wesung*] of being (Heidegger 1989, 101), through which everything already belongs to the being: any continua of possibilities that include non-being, and all forms of time and space that include different qualities and quantities of materiality and magnitude, but also different qualities in time like time expansions or durations (Heidegger 1989, 372; Lanzi 2013, 68-72; Mühlenbeck 2021, 348-349). The space-time in turn is shown to be completely continuous (Heidegger 1967, 101) and consequently to be absolutely infinite (Heidegger 1989, 372, 411). Since only this absolute infinity of the space-time continuum can reflect the immensity of being (Heidegger 1989, 411), it forms the fundamental ontology. This means that the essence of being, i.e. the absolute infinity identified above, is the necessary prerequisite of every existence (Heidegger 1989, 408). It is important that this fundamental-ontological foundation through the essential occurrence of being, i.e. through the absolute infinity of the space-time continuum, comes before any subjectivity, as Heidegger makes clear with “the turning” [*der Kehre*] (Heidegger 2000, 72-73), because the founding of fundamental ontology on the *Dasein*, as he first described in *Being and Time* (Heidegger 1967, 12-13), encounters the problem of the subject-object dialectic. This consists in the centering of philosophy and ontology on the subject and the

subjectively imaginative thinking (Heidegger 2000, 72-73). However, the subject or the subjective imagination cannot rank first and constitute everything else, since the subject itself is a first object of imagination: “The subject is the first object of ontological representation in the order of the transcendental genesis of the object”⁸ (Heidegger 2000, 72). Thus, absolute infinity, as the fundamental ontology, necessarily also underlies every knowledge:

“This absolute infinity of the space-time continuum is the primary orientation of every subject in cognition, because the *extensio* of beings and their being forms 'the basic determination of the »world«' (Heidegger 1967, 101). The space-time continuum and its necessary nature is the condition of every cognition and thus lies before it, and not as '[...] with Kant simply attributed to the human subject! But all this without any idea of the time-space' (Heidegger 1989, 373)”⁹ (Mühlenbeck 2021, 363)

This dissolution of the subject-object dialectic in Heidegger also corresponds to the elimination of identification or fixation in Jaspers, because in both, the inner and outer primary orientation is aligned towards the most general being, i.e. towards absolute infinity, and thus places the human being back in the middle of the relationship between inner abilities and outer requirements, as a contour within the being (Lanzi 2013, 71; Mühlenbeck 2021, 348). In doing so, during the course of its history, the individual develops through various relationships within the orientation towards absolute infinity, instead of identifying with external or internal parts. The difference is that relationships (towards other people, activities, one's own culture, etc.) always appear in their respective backgrounds, both of specific and most general nature, and that, therefore, the connection to the three modes of existence and the four processes of differentiation of the worldview, as Jaspers described (Jaspers 1919, 128-129), is present again. Then, relationships are fixed points in infinity, which are perceived in their relation to absolute infinity, and not, as before, as absolute fixed points. Figuratively speaking, with the words of the graphic artist M.C. Escher, who had a very clear notion of infinity and described these fixed points in infinity as follows:

“Anyone who plunges into infinity, in both time and space, further and further without stopping, needs fixed points, mileposts, for otherwise his movement is indistinguishable from standing still. There must be stars past which he shoots, beacons from which he can measure the distance he has traversed. He must divide his universe into distances of a given length, into compartments recurring in an

endless sequence. Each time he passes a borderline between one compartment and the next, his clock ticks.” (Escher 1972, 37-40; Schattschneider 2010, 715)

4. The fundamental ontology of developmental psychology

As a result from the above argumentation we receive the following model of developmental psychology in dependence on the fundamental ontology (for an overview see Table 1). Due to its being-in-the-world, every entity and thus every living being is in constant interaction with its environment. In the course of evolutionary and individual development (phylogenesis and ontogenesis), living beings have become increasingly complex in their ability to form concepts. Due to the permanent confrontation with a flood of information from the environment, every living being has continuously refined and systematized the concept formation by filtering out necessary and helpful information:

“This filtering functions through the formation of concepts, which are becoming increasingly complex the more knowledge about the environment is processed. This applies not only to humans, but to all conscious species from the beginning of episodic and phenomenological memory (for an overview of the evolution of consciousness and concept formation see: Donald 1991, 2001).” (Mühlenbeck 2022, 203)

Concepts are not only formed and retrieved consciously, but also unconsciously, since also attitudes, for example to certain values and norms, are partly unconsciously adopted from our social environment such as family, school, society or culture, and these are also formed on the basis of concepts, i.e. mental representations (Largo 2017, 291). Just as Jaspers described the knowledge about the world as unconscious, conscious and known (Jaspers 1919, 126). In relation to phylogenesis the formation (and storage) of concepts has the following importance:

[...] during cultural evolution humans were enabled to store information in material symbols (Donald 1991; Mühlenbeck and Jacobsen 2020; Mühlenbeck et al. 2017), i.e. to form higher-order concepts that take part in semantic memory and material symbols, and to transfer this knowledge to others and to future generations and, thus, to cumulate knowledge. This cumulated knowledge allowed worldviews and the idea of an absolute to emerge, because knowledge about the surrounding world and the functioning of the

environment was collected, stored, refined and deepened, and structured in knowledge systems, which function on the same conceptual basis as any symbolic knowledge. Therefore, the complexity of individual development and the complexity of one's worldview can be put in relation to each other, where the knowledge of the self and the world are interrelated." (Mühlenbeck 2022, 203-204)

As mental representations of the environment, concepts are thus the basis for symbolic thinking, for the externalization of symbols in order to accumulate and transfer knowledge about the environment, and for the formation of higher-order concepts, encompassing multiple concepts themselves, such as worldviews and self-concepts. The concept formation works as a link between the world and the self, in which new knowledge about one side affects the further development of the other side, and which constitutes the differentiation processes. This means, that the relationship between the self and the world is differentiated through the formation of new knowledge and experience (Jaspers 1919, 128-129), whereby this knowledge is unconscious, conscious or only known (Jaspers 1919, 126), but always formed on the basis of mental representations. Due to the accumulation, but also modification of knowledge in the course of the individual and evolutionary development, the knowledge systems constantly change, which affects the basis on which further generations form their own individual concepts of the world, the self and the relation between both. Accordingly, a further development of the self, e.g. in personal skills, leads to a change in the worldview through the generation of new knowledge. At a superordinate level, this concept formation and differentiation of the worldview always takes place in an orientation towards absolute infinity, since the self (the individual) is oriented towards the most general being, which also constitutes the overarching direction in which the relation between self and world unfolds. Table 1 shows schematically this relation between self and world in orientation towards the most general being and under the influence of the specific being. The specific being, the *Dasein* (Heidegger 1967, 11), lies within the most general being and forms, through the basic needs and competences on the one hand and the environment on the other hand, further direct influencing factors for the development of the individual.

world (environment)	↔ relationship	self (individual)
<ul style="list-style-type: none"> • The individual has a relationship to its being: inner and outer relationship to its constituent backgrounds and foregrounds (Mühlenbeck 2020, 275) <ul style="list-style-type: none"> ⇒ inner and outer orientation towards absolute infinity • Superordinate direction of the development of the relationship: from the immediate horizon of the individually centered world to absolute infinity 		
<p style="text-align: center;">Specific being /</p> <p><i>Dasein:</i></p> <ul style="list-style-type: none"> • environment - family - partnership - friendships - workplace/school - economy - society - culture etc. <p>(Largo 2017, 346)</p>	<p style="text-align: center;">conceptual</p> <p>knowledge of the world (worldview) including the self (self-concept):</p> <ul style="list-style-type: none"> • type of relationship with the environment / three modes of existence of the worldview that always exist together: unconscious, conscious, known (Jaspers 1919, 126-127) • differentiation processes, type of transformation of the worldview through new knowledge: - what is practiced unconsciously is structured and consciously aware, development from within; - development through new external information; - a combination of an orderly unfolding of the worldview together with a chaotic mass of new content structuring and shaping each other (Jaspers 1919, 128-9) 	<p style="text-align: center;">Specific being /</p> <p><i>Dasein:</i></p> <ul style="list-style-type: none"> • basic needs (Largo 2017, chap. 4): - physical integrity - emotional security - social recognition, position - self-development - performance - existential security • competences / types of intelligence (Largo 2017, 218): - social skills - language - musical skills - figural-spatial skills - logical-mathematical skills - scheduling and planning skills - motor-kinaesthetic skills - physical skills

environment \Leftrightarrow conceptual knowledge \Leftrightarrow activities, creations Interaction of the individual with the environment, interplay between: individual competences \Leftrightarrow concepts (worldview: internal and external representations through language, art, mathematics etc. = symbols and symbol systems) \Leftrightarrow interaction with the environment through activities / creations (Largo 2017, 293)		

Table 1: Development model based on the fundamental ontology of developmental psychology: development takes place through constant concept formation, which as a connection between self and world permanently changes our image of both. On a superordinate level development takes place in orientation towards the most general being, on a subordinate level towards the specific being. On both, the individual and the environment are in constant interaction.

The single basic needs are differently pronounced in every human being and, following Remo Largo, can be summarized in the generic terms of physical integrity, emotional security, social recognition and position, self-development, the pursuit of performance and existential security (Largo 2017, chap. 4). According to him, the competences are different types of intelligence, which can be summarized under the generic terms of social skills, language, musical skills, figural-spatial skills, logical-mathematical skills, scheduling and planning skills, motor-kinaesthetic skills and physical skills (Largo 2017, 218). The individual manifestation of our basic needs, strengths and weaknesses then determines in our specific being the way in which we can or want to interact with our environment. The direct, influential environment consists, for example, of the family, partnership, friendships, workplace or school, the economy, society and culture (Largo 2017, 346), whereby the individual is in constant interaction and exchange with this environment. The environment affects the individual, but the individual also affects the environment through its activities and creations. In this way, the environment and the individual influence each other and the individual is itself the environment (being) for every other entity.

In conclusion, we can say that the development is oriented towards the specific being - namely one's own basic needs, competences, and the environment - and on a

superordinate level towards the most general being - the absolute infinity - and right from the beginning, constantly, unfolds through concept formation. In this process of unfolding the human being is always a contour within the specific and most general being, in the relations between inner basic needs and competences and external requirements of the environment, which are always referenced differently and which always exist in orientation towards absolute infinity. In this way, any dictated orientation to a defined, limited absolute, its associated hierarchy and, hence, also any limitations of the direction and possibilities of development are eliminated. When these limitations to the outside and inside no longer exist, the human being is thrown back to its own being - to the *Dasein* and the most general being. Thus, the “development, which is the occurrence of being itself, [contains] [...] at the same time the development of the *Dasein* and of the entity”¹⁰ (Lanzi 2013, 68) In addition to this:

“The appearance of the being through the entity, which consists of the project as the *Dasein* itself, presents itself as an opening of the entity and thus of the openness itself, in which the being appears as the entity. The opening [...] belongs to the unfolding of the occurrence of being itself and is therefore an inner aspect of the occurrence. This opening constitutes the time-space”¹¹ (Heidegger 1989, 372; Lanzi 2013, 72)

This means that this orientation towards the most general being, i.e. absolute infinity, be it unconscious, conscious or just known, is present in any moment as a necessary prerequisite for existence and forms our innermost natural orientation.

NOTES

¹ Lawrence Kohlberg also suggested a hypothetical seventh stage, in which the individual has developed a transcendental moral judgment. (Kohlberg and Ryncarz 1990)

² Robert Kegan suggested a fourth stage for McClelland's theory and highlighted the parallels between McClelland's/Murray's theory of needs and the stage models of development. (Kegan 1986, 123)

³ Although in the literature the word *being* is very often used for the German word 'Seiendes', we will use in the following the term *being* for the German word 'Sein' and the word *entity* for the German word 'Seiendes', in order to avoid ambiguities.

⁴ Translation by the author. Quote in the original language: “Die Seinsfrage zielt daher auf eine apriorische Bedingung der Möglichkeit nicht nur der Wissenschaften, die Seiendes als so und so Seiendes durchforschen und sich

dabei je schon in einem Seinsverständnis bewegen, sondern auf die Bedingung der Möglichkeit der vor den ontischen Wissenschaften liegenden und sie fundierenden Ontologien selbst.”

⁵ Translation by the author. Quote in the original language: “vom unmittelbaren Horizont individuell zentrierter Welt bis zur absoluten Unendlichkeit”.

⁶ Translation by the author. Quote in the original language: “[die] als Funktion des unendlichen bewegten Geistes beschreibbar ist”.

⁷ Translation by the author. Quote in the original language: “Eine höchste Stufe des Bewußtseins läßt sich gar nicht bezeichnen, sondern nur dieses lebendige Werden des Selbst im Offenbarwerden umschreiben, wie es über alle rationalen Konsequenzen hinaus im Erfahren und ganz konkreten Reagieren und Handeln sich selbst gegenüber sichtbar ist.”

⁸ Translation by the author. Quote in the original language: “Das Subjekt ist in der Ordnung der transzendentalen Genesis des Gegenstandes das erste Objekt des ontologischen Vorstellens”.

⁹ Translation by the author. Quote in the original language: “Diese absolute Unendlichkeit des Raumzeit-Kontinuums ist die primäre Orientierung jedes Subjekts in der Erkenntnis, denn die *extensio* des Seienden und des Seins bildet 'die Grundbestimmtheit der »Welt«' (Heidegger 1967, 101). Das Raumzeit-Kontinuum und seine notwendige Beschaffenheit ist die Bedingung jeder Erkenntnis und damit vor ihr liegend, und nicht wie '[...] bei Kant einfach dem menschlichen Subjekt zugesprochen! Doch all dieses ohne Ahnung des Zeit-Raums' (Heidegger 1989, 373)“.

¹⁰ Translation by the author. Quote in the original language: “Entfaltung, die die Wesung des Seins selbst ist, [...] zugleich die Entfaltung des Daseins und des Seienden.”

¹¹ Translation by the author. Quote in the original language: “Das Erscheinen des Seins durch das Seiende, das in dem Entwurf als dem Dasein selbst besteht, stellt sich als eine Eröffnung des Seienden und damit des Offenen selbst dar, in dem das Sein als das Seiende erscheint. Die Eröffnung [...] gehört zu der Entfaltung der Wesung des Seins selbst und ist also ein innerer Aspekt der Wesung. Diese Eröffnung macht den Zeit-Raum aus”.

REFERENCES

Alexander, Charles N, Robert W Boyer, and Victoria K Alexander. 1987. “Higher states of consciousness in the Vedic Psychology of Maharishi Mahesh Yogi: A theoretical introduction and research review.” *Modern science and Vedic science* 1(1): 89-126.

Cook-Greuter, Susanne R. 2000. "Mature ego development: A gateway to ego transcendence?" *Journal of Adult Development* 7 (4): 227-240.

Cook-Greuter, Susanne Regina. 1999. "Postautonomous ego development: A study of its nature and measurement.(habits of mind, transpersonal psychology, Worldview)." ProQuest Information & Learning.

Darwin, Charles. 1909. *The origin of species*. New York: PF Collier & Son.

Diem-Wille, Gertraud. 2011. *The early years of life: Psychoanalytical development theory according to Freud, Klein, and Bion*. London: Routledge.

Donald, Merlin. 1991. *Origins of the modern mind: Three stages in the evolution of culture and cognition*. Harvard University Press.

_____. 2001. *A mind so rare: The evolution of human consciousness*. New York: W.W. Norton & Company.

Erikson, Erik. 2007. *Identität und Lebenszyklus: drei Aufsätze*. Frankfurt am Main: Suhrkamp.

Escher, Maurits C. 1972. "Approaches to infinity." In *The World of M. C. Escher, J. L. Locher*, edited by Harry N. Abrams. New York: Abradale Press.

Gebser, Jean. 1985. *The ever-present origin*. Ohio: University Press.

Gottlieb, Gilbert. 1996. "Developmental psychobiological theory." In *Developmental science*, edited by G. H. Elder R. B. Cairns, Jr., & E. J. Costello, 63-77. Cambridge: Cambridge University Press.

Hasselhorn, Marcus, and Wolfgang Schneider. 2007. *Handbuch der Entwicklungspsychologie*. Vol. 7. Hogrefe Verlag.

Heidegger, Martin. 1967. *Sein und Zeit*. 3 ed. Vol. 11. edited by Thomas Rentsch. Tübingen: Max Niemeyer.

_____. 1989. *Beiträge zur Philosophie (vom Ereignis)*. Edited by Friedrich-Wilhelm von Hermann. Gesamtausgabe III.

Abteilung: Unveröffentlichte Abhandlungen, Vorträge - Gedachtes, Band 65 Beiträge zur Philosophie (vom Ereignis). Frankfurt am Main: Vittorio Klostermann.

_____. 2000. *Gesamtausgabe*. Band 7. Vorträge und Schriften. Frankfurt am Main: Vittorio Klostermann.

Hy, Le Xuan, and Jane Loevinger. 2014. *Measuring ego development*. Psychology Press.

Jaspers, Karl. 1919. *Psychologie der Weltanschauungen*. Berlin: Julius Springer.

Jung, Carl Gustav. 1999. *The psychology of Kundalini yoga: Notes of the seminar given in 1932*. Princeton University Press.

Kegan, Robert. 1982. *The evolving self*. Cambridge: Harvard University Press.

_____. 1986. *Die Entwicklungsstufen des Selbst: Fortschritte und Krisen im menschlichen Leben*. München: Kindt.

Kohlberg, Lawrence. 1985. "Kohlberg's stages of moral development." WC Crain, *Theories of development*: 118-136.

Kohlberg, Lawrence, and Robert A Ryncarz. 1990. "Beyond justice reasoning: Moral development and consideration of a seventh stage." In *Higher stages of human development: Perspectives on adult growth*, edited by C. N. Alexander & E. J. Langer, 191–207. Oxford: Oxford University Press.

Lanzi, Francesco. 2013. "Das Sein in Heideggers" Beiträgen zur Philosophie (Vom Ereignis)." Universität zu Köln.

Largo, Remo H. 2017. *Das passende Leben. Was unsere Individualität ausmacht und wie wir sie leben können*. Frankfurt am Main: S. Fischer.

Loevinger, Jane. 1966. "The meaning and measurement of ego development." *American Psychologist* 21 (3): 195.

Maier, Henry William. 1988. *Three theories of child development*. Pennsylvania State University: University Press of America.

Maslow, Abraham, and KJ Lewis. 1987. "Maslow's hierarchy of needs." *Salenger Incorporated* 14: 987.

McClelland, David Clarence. 1961. *The Achieving Society*. New York: The Free Press.

Mühlenbeck, Cordelia. 2020. "Die Unendlichkeit der Natur und der Einzeldinge - Husserls allseitig unendliches Erscheinungskontinuum und das Konzept des Kontinuums in der Philosophie der Mathematik." *META: Research in Hermeneutics, Phenomenology and Practical Philosophy* XII (2): 249-283.

_____. 2021. "Die absolute Unendlichkeit des Raumzeit-Kontinuums als grundlegende Fundamentalontologie." *META: Research in Hermeneutics, Phenomenology, and Practical Philosophy*. XIII (2): 343-366.

_____. 2022. "The orientation on absolute infinity and the openness of worldviews as the necessary foundation for models of developmental psychology." *META: Research in Hermeneutics, Phenomenology, and Practical Philosophy*. XIV (1): 201-223. www.metajournal.org

Mühlenbeck, Cordelia, and Thomas Jacobsen. 2020. "On the origin of visual symbols." *Journal of Comparative Psychology* 134 (4): 435.

Mühlenbeck, Cordelia, Thomas Jacobsen, Carla Pritsch, and Katja Liebal. 2017. "Cultural and species differences in gazing patterns for marked and decorated objects: A comparative eye-tracking study." *Frontiers in Psychology* 8.

Murray, Henry A. 1938. *Explorations in Personality*. New York: Oxford University Press.

Nielsen, Francois. 1994. "Sociobiology and sociology." *Annual Review of Sociology* 20 (1): 267-303.

Piaget, Jean. 1964. "Part I: Cognitive development in children: Piaget development and learning." *Journal of research in science teaching* 2 (3): 176-186.

Schattschneider, Doris. 2010. "The mathematical side of MC Escher." *Notices of the AMS* 57 (6): 706-718.

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