Re-Drawing the Lines of Reality:
The Ontography of Reversible *Gestalts*

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Today we enjoy the freedom a novel conception like the one of ›ontography‹ brings with it. Due to the fortunate fact that there is no authoritative theory or definition that holds this conception as just a further *.ism in its claws, we can regard ›ontography‹ as being an ›open source‹. This means at least three things: Firstly, in the spirit of open source software, the philosophical code with which theories implementing the conception of ontography are developed is—according to my experience—generally open for discussion and revision. In my book *Was heißt Ontographie?*, I give credit to this open source nature by indexing the suggested definition of ontography into 16 parameters (basically the ›code‹ of the definition),[1] by advocating different levels of elasticity for its application,[2] and by putting the label ›ontography‹ up for discussion at the very end.[3] My wish is that further investigations on this topic would keep and even enhance this collaborative, flexible and self-critical character in order to avoid closed systems and rigid stances. Secondly, ›open source‹ indicates that the sources from which we derive the conception are open in the sense that they are made visible in order to justify the resulting definitions and applications. It happens all too often that philosophers pull a definition or a whole system like a rabbit out of the hat, and nobody knows where it came from. Then the audience grants the seemingly wise magician the privilege of knowing more, i. e. of having more insight and mental sharpness than the others who simply couldn't ›see‹ the plausibility for the existence of the theory's axioms. But we should not be bedazzled by such practices: philosophy is not magic and the contents of philosophical thinking should never be taken for granted. The sources of an idea have to be laid bare, be ›opened‹ for the idea's stream to flow into the ocean of collaborative rethinking. In the case of ontography, we even have the advantage of being able to go beyond the few instances in

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[1] Cf. Michael Stadler: Was heißt Ontographie? Vorarbeit zu einer visuellen Ontologie, Würzburg 2014, p. 10.

[2] Cf. ibid., pp. 113–115; 187–189.

[3] Cf. ibid., pp. 236–238.

the history of philosophy in which this conception is mentioned *expressis verbis*.[4] What I want to propose in this paper is to open up another and this time implicit source of ontographical thinking in order to re-characterize it: E. G. Winkler's discourse on drawing a line (section 1). With this characterization, we can do justice to the first aspect of ›open source‹ by applying it to a domain in which there is ample space for joint discussion and empirical experimentation: the perception of ambiguous figures (section 2) and interdependent part-whole structures (section 3), thus the interdisciplinary domain of Gestalt theory. In the conclusion, I mention two ontological frameworks in which such an application makes sense, both already located in the just mentioned domain. It is not the complete coherence of the present argumentation, but exactly its tentative, adaptive nature that hopefully will result in the third meaning of ›open source‹: of ontography turning into an open source itself for further fields of philosophical explorations.

1. Minding the Lines of Being

Let us reapproach the question ›what does ontography mean?‹ to open up another source for its answering. To do so, it is helpful to look at already existing reflections on the intersection of—on the one hand—inquiries about the nature of being (onto-logy) and—on the other hand—the special role either the realm of the visual or the activity of inscribing, recording or gaining lore can play for being's sake. We will see that the following discourse is not only beneficial in its function as an additional, implicit source for ontographic thinking. It is also a testimony exactly of ontography's open source nature itself: its dependence on collaborative reflection and (self-)critical development as well as its openness for artistic practices for the sake of gaining philosophical insights.

In Eugen Gottlob Winkler's fictional dialogue *Die Erkundung der Linie* (1933), the three friends Constantin, Vigilius and Cosmas engage in a witty discussion about the importance of drawing lines for experiencing the nature of the world. Right in the beginning of the story, Vigilius stops listening to his friends, because he is occupied with silently drawing doodles on the backside of an envelope. Constantin does not approve of this seemingly absent-minded activity. He looks at them and calls out »nonsensical scribble!«[5] But Cosmas takes sides with Vigilius and explains that these lines »are like hieroglyphs: with a hidden meaning, but

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4   For example in K. C. F. Krause, J. Schlanger, A. Kojève, P. Sloterdijk, G. Harman and I. Bogost. Cf. ibid., pp. 13–22.
5   Eugen Winkler: Die Erkundung der Linie, in: Heinz Piontek (ed.): Die Dauer der Dinge, München 1985, pp. 29 [Own translation].

charged with meaning in such a way that they excite and magnetize my mind.«[6] Although Constantin might not understand these lines with his reason, he would have to switch his mindset in order to grasp the hidden meanings present to his eyes. It is this mental switch, as a condition to enter the meaning of the doodle, with which we could now refer to my previous definition of ontography as entailing both elements of reality that are given and not-given.[7] Given are the lines themselves, but at first sight they are insufficient to describe anything peculiar of reality. What is needed is exactly this mental operation of going beyond what is given to the senses in order to grasp the non-given, which would turn the lines into »[t]races of movement of a soul! Renunciation and longing; temptations, fear, silence, melancholy, desperation; confidences and fatigues! These lines define the movements of a world, which is based on nothing representative. The insertion of visible objects is left to the observer. […] And gladly we travel, freed of the constraint imposed by the representative, by means of the topographic plan formed by the lines, into the land of the unclouded, pure, better sensing.«[8] Already here we tap the source and open up the first current that flows into a re-characterization of ontography:

There are abstract drawings that require a mental switch to reveal their hidden meanings.

Vigilius replies that while Cosmas is right in postulating the need of a switch of mindset in order to grasp the hidden meanings of his doodle, it was less the domain of immediate feelings that he wanted to evoke, but »it was mainly about the sharpness of the mind«[9] itself. He asserts that prior to any kind of experience, there is a state of mind, a »germ cell of folly […] in which sense and nonsense form an inseparable unity.«[10] It is this pre-experiential state that is embodied in a blank sheet of paper, which »exists independently of an object, as if it shapes among all these impregnably in their objectiveness lingering things a realm of nothingness.«[11] In drawing a single line on or into this realm, Vigilius describes how he imprints on it the expression of his mental will to create by separating what had not been there into two halves, thereby overcoming nothingness gradually with every further line he sets. Only in doing so he is able to return to »the world of determinations«[12] and experiences. The line of the doodle itself is an »immediate mode of appearance of

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6 Ibid., p. 30.
7 Cf. Stadler: Was heißt Ontographie? (as note 1), p. 20, p. 27.
8 Winkler: Die Erkundung der Linie (as note 5), p. 31.
9 Ibid., p. 34.
10 Ibid.
11 Ibid., p. 35.
12 Ibid., p. 36.

the human mind: transcendent like it, because its thinness can be drawn at will and its existence is only confirmed by its activity and effect,—sensuous however in its being formed like any other real thing.«[13] This pre-experiential mindset, which requires a switch from nothingness towards being to determine the latter, must not be thought as implying a Cartesian dualism between mind and world. Exactly in being an operation of the mind that happens on a sheet of paper, »we can understand visual creation as the result of an agreement that mind and reality strike together. You can only conceive in your pictorial imagination what—albeit far away—you can think as really visible; and everything that is real has to turn into a conception of the mind first, thus enter the realm of the formlessness, before it can be actualized again via the artistic act.«[14] This statement about the mind as being the part of reality that draws determining lines into it adds a second current to the first one, namely the power of an ontographic doodle to inscribe itself via an operation of the mind into the nature of reality:

There are abstract drawings that require a mental switch to reveal their hidden meanings. These drawings display lines that mirror our mind's activity to determine reality.

Now we can take a closer look at the nature of the lines and the way they make visible what is either too abstract or too concrete on the first sight. If we notice merely the lines of a doodle, like an ornament without significance, then probably they appear to be random and arbitrary, too abstract to connect with anything real. Likewise, if we only perceive objects in reality and create a drawing that represents them, then the lines with which we do so only depict a particular, contingent object or scenery, no general trait of being, no *onto*-graphy. However, the lines of Vigilius' doodle are neither arbitrary, nor dependent on the particularity and perceptibility of the objects they are related to. In fact, they are like silhouettes of persons or maps of a landscape that only depict the most generic or essential borders. In their silhouette-like or map-like quality for areas and essential properties of being, into which the mind itself inscribes the lines heuristically, lies one of the main characteristics of what we can call ›ontographic doodles‹.[15] Such doodles might take as a starting point a particular idea, scenery or object. But in abstracting away from it and in displaying only the essential traits, they can make visible much more than a concrete entity or drawing that is true to the original.

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13   Ibid., p. 37.
14   Ibid., pp. 49–50.
15   On the characterization of ontography as ›Doodles of Being‹, cf. Michael Stadler: Doodles of Being: Surveying, Defining, and Identifying the Idea of Ontography, in: I castelli di yale 3/2 (2015), pp.101–133.

In fact, the ›hidden meanings‹ an ontographic doodle reveals refer to the many-sidedness of an entity, not just to the side that is visible in one single perspective. This is why Cosmas asks Vigilius: »Do you really think that the line can make us intuit and grasp not only what is enclosed by it, not only a part of the depicted object, but the complete form of its being?«[16] To which Vigilius answers: »Of this I am convinced. Yes, we can assess the value of a line according to its capability of making us believe in the existence of parts that are withdrawn from our perception, even if this happens unconsciously, in the same way as we believe in what is present to our eyes. We can evaluate a line according to how it prompts us to form an idea of the absent part that is equally clear as the view of the part that is turned towards us, so that instead of the half of a form, like the empirical perception offers, we have the whole in our mind.«[17] The quantitative simplicity of an ontographic doodle, being composed only of very basic lines or strokes or geometrical patterns, does not contradict, but even enforce its quality of enabling access to a much richer image of reality than either our senses or any representative drawing could offer. It is exactly the activity of our mind to switch the given lines into the non-given wholeness of the entity the lines refer to that makes the latter visible in its essence. It is also possible to say that by creating ontographic doodles, we enrich reality with our active, switching minds, *because of and in order to determine* the pre-experientially existing many-sidedness of one or more entities. ›Determine‹ thus means both to ›reveal‹ something already existing and to ›intervene‹ into the fabric of being by going beyond what is given to our senses. Thereby I prefer to use the term ›many-sidedness‹ over ›wholeness,‹ because there is no evidence that (only) by developing ontographies, we fully grasp what is essential for an entity or reality in its entirety. Let us therefore finalize the characterization of ontographic drawings derived from Winkler's text as an open source for further investigations as follows:

There are abstract drawings that require a mental switch to reveal their hidden meanings. These drawings display lines that mirror our mind's activity to determine reality. In so doing, the hidden meanings of reality, i. e. the essences of its entities, are revealed by our mind as being many-sided and as going beyond what is given in perception.

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16   Winkler: Die Erkundung der Linie (as note 5), p. 52.
17   Ibid.

2. *Gestalt*-Ontography I: Ambiguous Figures

After having formulated this characterization of ontographic drawings and the kind of mindset they presuppose, we can now turn to a domain in which the characterization could be applicable. To me it seems that one of the most plausible domains for its application is Gestalt theory, in particular its research on (a) ambiguous figures and (b) part–whole structures.[18] Whereas the former might provide a clearer picture of the mind's activity to reveal the many–sidedness of reality via switching the meanings of an image, the latter can show how the constellation of a given number of parts leads beyond itself towards a whole with different properties than the parts possess, either individually or as a sum. The consideration of such phenomena is not only important for psychological and empirical research, but also entails a philosophical or even ontological dimension that is in particular compelling when we discuss the importance of exploring the nature of reality by means of the visual.[19]

A reversible figure is a visual image that is able to display more than one meaningful side just by the way its elements are arranged (and not, for example, by the subjective interpretability of what it shows). It is thus ambiguous and ambivalent, because it is perceptible in more than one stable, meaningful pattern. Although such figures have been used for artistic purposes since antiquity,[20] probably the most groundbreaking research on reversible figures was done by E. Rubin and published in his book *Synsoplevede Figurer. Studier i psykologisk Analyse* (1915).[21] Rubin is mainly concerned with one special type of reversible figures, namely with figure–ground phenomena. In fact, everything we perceive contains this basic scheme of something being a figure on the ground of something else. For example, the black letters of this text are figures on the white ground of the paper and

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[18] The following thoughts are based on my yet unpublished PhD thesis *The Ontological Nature of Part-Whole-Oscillations: An Interdisciplinary Determination*.

[19] Given the year in which Winkler published his text, there is a high plausibility that he himself thought of Gestalts when he lets Vigilius say that ›we have the whole in our mind‹ even if only some of its parts are given. However, neither does he mention this concept explicitly, nor does he give examples from the Gestalt tradition. Therefore I refrain from the claim that ›Die Erkundung der Linie‹ is in any way connected to Gestaltist thought.

[20] Cf. Nicholas Wade: Artistic Precursors of Gestalt Principles, in: Gestalt Theory 34/3–4 (2012), pp. 329–348.

[21] Since to date only a few parts of *Visually perceived figures. Studies in psychological analysis* have been translated into English, most notably in Jörgen Pind: Edgar Rubin and Psychology in Denmark: Figure and Ground, Dordrecht e. a. 2014. Therefore I will use the German translation from 1921 and translate the quotes into English.

the paper is again a figure if we put it on the surface of a table.[22] In such cases, we can clearly distinguish figure and ground, mainly due to the shared border that determines the figure as shaped and the ground as shapeless in relation to the figure.[23] However, there are other cases in which such a demarcation is less clear, i. e. in which one and the same image (more precisely: one and the same arrangement of stimuli) is meaningful both when *a* is the figure and *b* the ground and vice versa. Rubin exemplifies this with the now well-known vase-

Fig. 1: Vase-Faces

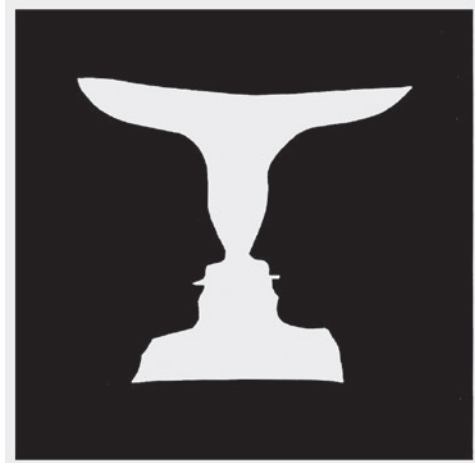faces figure (fig. 1), in which our mind can—willingly and unwillingly—reverse the relation between figure and ground.

In reference to Winkler's reflections on the quality of the line to let something come into existence by means of (literally) delineating the ground, a reversible figure–ground phenomenon like this one is very instructive. It demonstrates that even simple lines can serve as the contours for two or more layers of meaning alike. This implies the ontological paradox that what exists can at the same time be the ground for the existence of something else (and vice versa), which is proven in an ontographical manner. Our mind's activity to switch by means of fore-grounding (the vase / the faces) and simultaneously backgrounding (the faces / the vase) reveals the possibility of a certain bidirectionality of being and nothingness or existence and non-existence through which one can reverse into the other at any time. In this act of switching, we mentally realign the borderline by redetermining not its geometrical position as a stimulus, but its function as a border, its topographical role as a percept. In doing so and in accordance with ontography's (Winklerian) characteristic of inscribing lines into the fabric of reality to enrich the latter, our mind creates a novel meaning out of the meaning that is originally given, without however losing the former. In this regard, Rubin explains that compared to a ground, a figure is not only shaped, but has a much higher amount

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22 On this example cf. Kurt Koffka: Alte und neue Psychologie, in: Max Dessoir (ed.): Die Philosophie in ihren Einzelgebieten, Berlin 1925, p. 556.

23 Cf. on this aspect also Mary Peterson: Low-level and high-level contributions to figure-ground organization, in: Johan Wagemans (ed.): The Oxford Handbook of Perceptual Organization, Oxford 2015, p. 259.

of form, reality and perceptual meaning.[24] But if the ground switches into the figure, then a novel entity to which form, reality and meaning can be attributed comes into existence or appears as existent. The ontologically interesting aspect of this switching is the fact that, according to Rubin, the mental switching *enriches* the experienced or experienceable reality, or we could also say in more recent terms, it extents the ›ontological inventory‹ in which the reversible image is listed. Such enrichment would not take place if there would be only an exchange of the form, reality and meaning of the to-be-backgrounded figure with the to-be-foregrounded ground. Rubin states that instead of an either/or-relation, what we experience is rather the togetherness of an either/or-relation and a both/and-relation. Let me clarify this with another reversible image: a multivalent circle system that includes four layers of spatial meaning:

In a two-dimensional perspective, it is possible to regard each one of the four ovals in the circle as a figure on top of the remaining three as grounds. In a three-dimensional perspective, it is furthermore possible to regard each one of the four circles within the globe as surrounding the other three. There is no stagnancy in
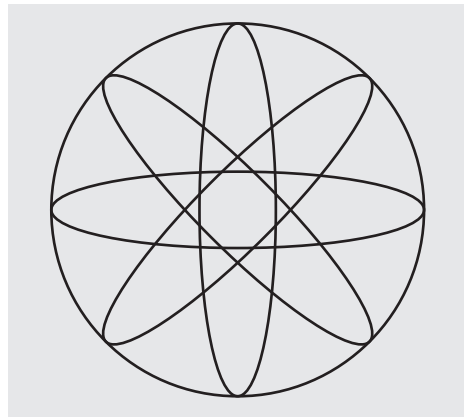

Fig. 2: Multivalent Circle System

which one of the elements would remain the figure and the others the ground. Our mind re-determines this ontographic image constantly by re-drawing its lines. But former determinations are only partly substituted by later determinations. In a certain way, they, i.e. their form, reality and meaning, are kept latent instead of absent exactly in being backgrounded for the moment. As Rubin states, the ground that was a figure before is never exclusively ground, but retains its figural character in a certain way: »Also, there can be a non-intuitive knowledge of how the field looks like as figure, a knowledge that is not easily kept apart from what is given directly to our senses […].«[25] Our mind thus goes beyond the per-

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24 Cf. Edgar Rubin: Visuell wahrgenommene Figuren. Studien in psychologischer Analyse, Kopenhagen e. a. 1921, p. 36, p. 45, p. 74. For an overview on which properties Rubin ascribes to figures in relation to grounds see Lothar Spillmann: The Current Status of Gestalt Rules in Perceptual Research: Psychophysics and Neurophysiology, in: Lothar Spillmann (ed.): On Perceived Motion and Figural Organization, Cambridge e. a. 2012, p. 273.
25 Rubin: Visuell wahrgenommene Figuren (as note 24), p. 33.

ceptible world in re-determining the many-sidedness of the given entity. Likewise, we can also anticipate the ground becoming figure and vice versa.[26] After a certain time of observation, our mind's ability to switch figure and ground can even result in the perceptually paradoxical situation that figure and ground stand out simultaneously, perhaps due to the increasing rapidity of the reversing movement.[27] Then we deal, according to Rubin, with another experienced entity, which I think would be an entity in which the plurality, i. e. the both/and of meanings has gradually superseded the binary divisions of a logical either/or, i. e. truth/falsity type. In other words, the meanings are not ›hidden‹ anymore, but revealed and standing out. This is how the *graphy* in ontography can reveal more about at least this multivalent or ambivalent aspect of reality than the *logy* in ontology is able to. Lastly we can see that also reversible images that do not fall into the figure-ground type, for instance the Necker–cube[28], the Duck–Rabbit[29] and the Old–Young Woman[30] image, exemplify this remarkable phenomenon. For any philosophical theory that argues for pluralism of simultaneously existing meanings, such ambiguous drawings can be constitutive, visual arguments or models instead of ›just‹ optical illusions without any ontological implication.

3. Gestalt-Ontography II: Part-Whole Structures

The same activity of enriching what is given to our senses by our mind's faculty of (re)drawing lines occurs in the second major theme of Gestalt theory that is relevant for ontographic thinking: part-whole perception. The perception of parts and wholes is as universal as the perception of figures and grounds. Every time we see or hear something, it is already structured into wholes that are composed of parts: after singling them out from their respective grounds, we see a table as table and not only as four legs and a plate, we hear a melody as melody and not

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26 Ehrenstein: Probleme der ganzheitspsychologischen Wahrnehmungslehre (as note 25), p. 323: »Das Vorstellungsvermögen, das die Vorwegnahme späterer Figurinhalte der Wahrnehmung ermöglicht, ist eine letzte, nicht weiter zurückführbare, so hinzunehmende Grundtatsache unseres Seins.«

27 Cf. Wolfgang Köhler: Dynamics in Psychology, New York 1940, p. 69.

28 Cf. Louis Albert Necker: Observations on some remarkable Optical Phaenomena seen in Switzerland; and on an Optical Phaenomenon which occurs on viewing a Figure of a Crystal or geometrical Solid, in: The London and Edinburgh Philosophical Magazine and Journal of Science 1/5 (1832), p. 336.

29 Cf. Joseph Jastrow: The Mind's Eye, in: Popular Science Monthly 54 (1899), p. 312.

30 Cf. Fred Attneave: Multistability in perception, in: Scientific American 225/6 (1971), p. 66.

only as succession of unrelated tones.[31] Therefore we could say with B. Pinna e. a. that »[t]he first perceptual step is the ›segregation‹ of each component from the background. The second one is ›putting together‹ or grouping the segregated elements in homogeneous wholes on the basis of similarity of shape.«[32] Thus after we perceive the black letters of this text as figures on the ground of the white page, we group the letters into words, the words into sentences, the sentences into paragraphs, etc. There are several laws according to which this process of grouping takes place. In the case of letters, the main laws are the ones of proximity (words that are not separated by empty spaces are taken as entities due to their spatial adjacency) and similarity (taller letters are perceived as titles, regular letters as main text, smaller letters as footnotes). In one of the classical texts on the grouping of parts into homogeneous wholes, M. Wertheimer's 1923 *Untersuchungen zur Lehre von der Gestalt II*,[33] several of such laws of grouping are demonstrated by means of visual dots and lines. Apart from proximity and similarity, for example, there is the law of good continu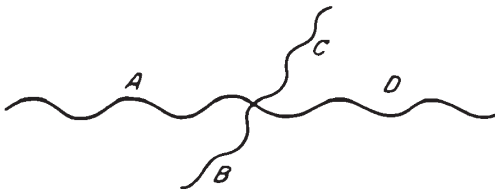ation, according to which we immediately perceive the lines AD and BC in figure 3 instead of AB, AC, BD, or CD. Because of this structuring, we also tend to perceive a cross (the whole) instead of the single lines A, B, C and D as parts of the whole configuration, which is also due to the parts' proximity and similarity.

Fig. 3: The Gestalt Law of Good Continuation

Due to the occurrence of such laws, Wertheimer[34] and with him the Gestalt tradition of the Berlin school (most notably W. Köhler and K. Koffka) as well as its following generations conclude that

»[t]*he given is itself in varying degrees ›structured‹ (›gestalted‹), it consists of more or less definitely structured wholes and whole-processes with their whole-properties and laws, characteristic*

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[31] On melodies as exemplary Gestalts cf. Christian von Ehrenfels: On ›Gestalt Qualities‹, in: Barry Smith (ed.): Foundations of Gestalt Theory, Munich, Vienna 1988, pp. 82–117.

[32] Baingio Pinna and Adam Reeves: From perception to art: How vision creates meanings, in: Spatial Vision 22/3 (2009), p. 228.

[33] Cf. Max Wertheimer: Untersuchungen zur Lehre von der Gestalt II. Psychologische Forschung, in: Zeitschrift für Psychologie und ihre Grenzwissenschaften 4/1 (1923), pp. 301–350.

[34] Cf. Max Wertheimer: The General Theoretical Situation (Untersuchungen zur Lehre von der Gestalt I), in: Willis Davis Ellis (ed.): A Source Book of Gestalt Psychology, Abingdon 1938, pp. 12–16.

whole-tendencies and whole-determinations of parts. ›Pieces‹ almost always appear ›as parts‹ in whole processes. […] To sever a ›part‹ from the organized whole in which it occurs—whether it itself be a subsidiary whole or an ›element‹—is a very real process usually involving alternations in that ›part‹. Modifications of a part frequently involve changes elsewhere in the whole itself. Nor is the nature of these alternations arbitrary, for they *too* are determined by whole-conditions and the events initiated by their occurrence run a course defined by the laws of functional dependence in wholes. The role played here by the parts is one *of* ›parts‹ genuinely ›participating‹—not of extraneous, independent and-units.«

This tendency of giving epistemological and even ontological priority to the whole, because it has emergent qualities that are not possessed by the parts and because it determines the function of its parts, has given rise to the slogan that a whole is ›greater‹ (or more correctly: ›different‹[35]) than the sum of its parts. In the classical understanding of a Gestalt, there is thus a one-sided dependence-relation from parts to wholes, which entails that the existence of a part hinges on the existence of its whole but not the other way round. This makes of parts what E. Husserl calls ›moments‹ instead of independent (and often material) ›pieces‹ that can be separated from the whole without any existential loss.[36]

At the same time and perhaps in a rather critical take on Gestalt theory's paradigm of whole primacy, we can extent this one-sided dependence relation to a two-sided dependence relation by taking into consideration that also the perceived whole cannot exist as such and such without its parts. In many cases of everyday thinking and experience, beyond the artificial laboratory settings of classical Gestalt psychology, it is not only the whole that causes the existential function of its parts (such that for example the sound of a single tone depends on the nature of the melody in which it is played), but there is a reciprocal causation between whole and parts.[37] The term ›Gestalt‹ would then not only denote the supra-summative whole in comparison to its parts, as it is traditionally understood, but the complete structure comprising whole *and* parts, both with qualities that the other side might not have. Additional to a whole with emergent properties not possessed

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[35] Cf. James Pomerantz and Mary Portillo: Grouping and Emergent Features in Vision: Towards a Theory of Basic Gestalts, in: Journal of Experimental Psychology: Human Perception and Performance 37/5 (2011), p. 1331.

[36] For a detailed elaboration of these notions see the third investigation in Edmund Husserl: Logical Investigations, vol. 2, London, New York 2001.

[37] On the notion of ›reciprocal causation‹ see Melanie Revilla: Reciprocal Causation, in: Alex Michalos (ed.): Encyclopedia of Quality of Life and Well-Being Research, Dordrecht e. a. 2014, pp. 5408–5409.

by its parts,[38] we can find evidence for a simultaneous process of ›demergence‹ in which the parts develop their proper singularity.[39] According to such a view, which I also embrace, there is thus a creative correlation and oscillating interaction between parts and whole instead of a one-sided power of the whole over its parts. With the evidence of such a dynamic correlation, we can again enter the stage of the ontographic reversal that I demonstrated above with ambiguous, multistable figures. Like in the figures we saw above, there are many instances of part–whole structures in which we can alternate both sides by re-drawing lines in the Winklerian, now ›ontographic‹ fashion.

Let me exemplify this idea with a well-known phenomenon: mosaics. It is telling that classical Gestalt theory employs the term ›mosaic‹ in a rather pejorative manner to signify mere sums of parts that are arbitrarily juxtaposed and do not result in a whole with emergent qualities.[40] I think that this view is wrong, not only because it might be based on an exclusive understanding of mosaic-parts as being atomistic as well as material alone and therefore as being indivisible and independent of the arrangement in which they are put (because as such, they can be separated from the whole). Regarding their secondary and tertiary qualities of displaying colors and establishing an aesthetic relation with their neighboring parts, I want to argue that a mosaic-part cannot be removed from the overall arrangement and continue to exist as the same (immaterial) part. The individual color and shape of a part is transformed in the process of being determined by the complete composition: its lines fade in a holistic perspective, its color brims over its own borders, its possible depth-dimensions are sacrificed for creating an over-arching surface. But the classical Gestalt view is also wrong because in addition to the parts' dependence on their whole, there is also the whole's dependence on its parts. The aesthetic experience of a mosaic lies in our admiration of

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38 »Emergent properties can be defined as properties that are possessed by a dynamical system as a whole but not by its constituent parts. Otherwise stated, emergent phenomena are phenomena that are expressed at higher levels of organization in the system but not at the lower levels.« Luciano Boi: The Interlacing of Upward and Downward Causation in Complex Living Systems: On Interactions, Self-Organization, Emergence and Wholeness, in: Michele Paolini Paoletti and Francesco Orilia (eds.): Philosophical and Scientific Perspectives on Downward Causation, New York, London 2017, p. 182.

39 On the original idea of ›demergence‹ see Rani Lill Anjum and Stephen Mumford: Emergence and Demergence, in: Michele Paolini Paoletti and Francesco Orilia (eds.): Philosophical and Scientific Perspectives on Downward Causation, New York, London 2017, pp. 92–109.

40 Cf. for example Wolfgang Köhler: Gestalt Psychology: An Introduction to New Concepts in Modern Psychology, New York 1975, p. 162; Wolfgang Metzger: Psychologie. Die Entwicklung ihrer Grundannahmen seit der Einführung des Experiments, Wien 2001, p. 260.

the particular position and often unique qualities every part possesses in order to create the whole, not only to be determined by it. As soon as we switch back from the holistic perspective to the details, we notice again the lines, re-draw them in our mind and experience smaller and smaller areas that are worlds in themselves.

Our mind can switch back and forth all the time between the emergent properties of the whole and the demergent properties of the parts. It can actively foreground and background and thereby discover yet un(fore)seen meanings. It redraws and retraces the ongoing reciprocal causation of parts and whole by its function to dynamically visualize the multi-faceted nature of what is given and not given to it at the same time. Mosaics are thus beautiful instances of the co-constitutive role parts and whole play together. As such, they are beautiful instances of what we can understand as ontography if we give credit to how this idea is developable out of Winkler's text *Die Erkundung der Linie*. Mosaics are thus ontographic
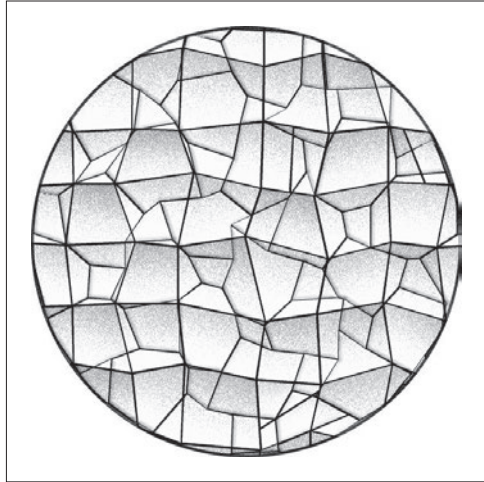

Fig. 4: An Abstract Mosaic

doodles, sometimes materialized when made with stones or other tactile materials. Even if they display figurative scenes, they have an abstract basis of multiple lines that are drawn and redrawn for the parts to point beyond themselves to the whole and vice versa (cf. figure 4). This is why in every moment of perception, we have in our mind both what is given (the whole / one or more parts) and what is not given (one or more parts / the whole) in a togetherness of either/or and both/and, while our senses only register either the one or the other side. Therefore, like with ambiguous figures, I want to classify mosaics as incorporating and expressing the idea of ontography, i. e. as possessing genuine ontographic qualities. If and to what extent this process of part–whole reversing in mosaics can be generalized to other ›mereo-graphical‹ structures remains an open field for philosophical and empirical research on Gestalts.

4. Conclusion

It is hard to imagine that any idea of what ›ontography‹ could entail is developed independently of the implications the two parts of this word evoke. This paper's argumentation to identify instances of ontography both as ambiguous figures and as interdependent part-whole structures (in sum: as reversible Gestalts) might seem closer related to the suffix ›–graphy‹ than to the determinant ›onto–‹. This is because firstly I approached the exemplary domain of Gestalt theory for ontographic purposes from Winkler's text on *drawing* abstract lines and *inscribing* them into reality, and secondly because the demonstrations I used afterwards were visual, i. e. *graphical* in nature. Moreover, the logical relation of either/or (true or false: *tertium non datur*) is insufficient in the case of multi-stability, where we have a simultaneous ›either/or‹ and a ›both/and‹ relation in order to switch between both foregrounded and backgrounded sides. *Ex negativo*, the inadequacy of an onto–logy that relies on logical laws thus became evident for the present context. Nonetheless, the ›–graphy‹ in ›ontography‹ only makes sense in relation to the determinant ›onto–‹, which means that it is insufficient to classify occurrences of reversible Gestalts as ontographical without providing a plausible theoretical framework that explains how these relate to reality. What is the ontological status of reversible Gestalts, and how would a reality look like in which such processes take place in order to not qualify them as rare and therefore irrelevant visual illusions?

At this moment, I cannot proceed in this direction. Although already in the domain of Gestalt theory, there are some candidate frameworks in which reversible Gestalts are given a philosophical interpretation beyond the limits of empirical experimentation, it would require are long and careful investigation to analyze, compare and criticize such theories. For example, in several recent publications J. Koenderink defends a ›multiple-world hypothesis‹. He argues that prior to any perception, i. e. prior to any act of perceiving something as something, there is a multiplicity of perceptible worlds that usually collapses into one world when we perceive a stable image,[41] but remains multiple in the case of reversible Gestalts.[42] But in a detailed consideration of the ›onto–‹ in ›ontography‹, Konderink's rather

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[41] Cf. Jan Koenderink: Multiple visual worlds, in: Perception 30 (2001), p. 5.

[42] »The duck-rabbit example is important in my arguments for two reasons. It shows that pictorial worlds are parallel worlds, in the sense that only one instance is in immediate visual awareness, although this may vary from one presentation to another. On the ontic level where duck and rabbit live, they never meet. It also shows that awareness fluctuates between parallel worlds. Here the temporality is less important than the multifariousness.« Jan Koenderink: Part & Whole, Utrecht 2013, p. 9.

idealistic framework[43] would have to be contrasted with A. Zimmer's framework of an ›interactive realism‹,[44] according to which reality itself is fundamentally indeterminate and multi-stable. Through our interactions with it (we could say ontographically: via our mental re-drawing and inscribing of lines) we only actualize some of its inherent possibilities. How could we understand Winkler's reflections on the role of the line in abstract doodles in the light of theoretical frameworks like these? The answering of this question would activate the third sense of open source. After having opened up a novel source for ontographic thinking in Winkler's fictional dialogue and after having embedded it freely and transparently in the context of Gestalt theory, we can now apply ontographic thinking as an open source itself to more comprehensive theoretical frameworks such as the ones of Koenderink or Zimmer. Ontographical thinking, as I understand it, is thus always work-in-progress. It is itself a constant (re-)drawing and reversing of mental and theoretical, but also absent-mindedly doodled borderlines.

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Figure 1: Reproduced from https://upload.wikimedia.org/wikipedia/commons/b/bd/Facevase.png [last visited 30 October 2018]

Figure 2: Reproduced from Walter Ehrenstein: Probleme der ganzheitspsychologischen Wahrnehmungslehre, Leipzig 1954, p. 190.

Figure 3: Reproduced from Max Wertheimer: Untersuchungen zur Lehre von der Gestalt. II. Psychologische Forschung, in: Zeitschrift für Psychologie und ihre Grenzwissenschaften, 4/1 (1923), p. 322.

Figure 4: Own creation.

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43 »If you really must, then adopt Kant's notion of the ›Ding an sich‹: you will forever be unable to reach the ›real‹ thing! It seems more practical to adopt the attitude that reality is what you experience. Of course, the experience reflects the way you are, just as it reflects the way the ›world‹ is. But this makes sense, simply consider the way a traffic sign pole is to you, your dog, or a pigeon. Who has it right? Why?« Jan Koenderink: Visual Awareness, Utrecht 2012, p. 7.

44 Cf. Alf Zimmer: Multistability—More than just a Freak Phenomenon, in: Peter Kruse and Michael Stadler (eds): Ambiguity in Mind and Nature: Multistable Cognitive Phenomena, Berlin e. a. 1995, pp. 99–138; Alf Zimmer: ›Von den Ganzen zu den Teilen‹ oder ›Vom Sinneseindruck zur Wahrnehmung‹, in: Jörg Albertz (ed.): Wahrnehmung und Wirklichkeit. Wie wir unsere Umwelt sehen, erkennen und gestalten, Berlin 1997, pp. 41–79; Alf Zimmer: Wirklichkeit und Wahrnehmung. Woher kommt die Ordnung der erlebten Welt?, in: In Christiane Thim-Mabrey, Lis Brack-Bernsen and Alexander Fink (eds.): Wissenschaft—Wirklichkeit—menschliches Handeln, Norderstedt 2011, pp. 29–42.