

EMBRYOLOGIC COMPARISONS IN THE ARCHITEKTONIKKAPITEL: FLEETING DISSONANCES OR PROLONGED DISHARMONIES?

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Introduction

In 1781, prior to any Kantian reference in favor of the epigenesis² – a proper, direct reference, published in life – two comparative passages of

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2 Kant's first reference to "epigenesis" – a nominal, direct reference, published in life – takes place – in a metaphorical-speculative tone – in the KrV, at the end of the "Transcendental deduction of the pure concepts of understanding", in 1787 [Kant, KrV, B 167]. As to his first reference in an embryological tone – also a nominal, direct reference, published in life – it takes place only in "§ 81" of the KU [Kant, KU, AA 05: 422-423]. See Phillip R. Sloan, "Preforming the Categories: Eighteenth-Century Generation Theory and the Biological Roots of Kant's A Priori", *Journal of the History of Philosophy* (40:2), 2002, 242: "In 1785 Kant for the first time in his published writings employed the embryological term 'epigenesis'". Sloan's observation should be mitigated, since the term in question, indeed used by Kant in his *Recensionen zu J. G. Herders Ideen zur Philosophie der Geschichte der Menschheit*, was however employed within a citation from a reviewed work. Kant's citation, as it stands, does not correspond to any passage per say of Herder's text, rather is an outlining and realignment of statements from the author:

[...] Präformirte Keime hat kein Auge gesehen. Wenn man von einer Epigenesis redet, so spricht man uneigentlich, als ob die Glieder von außen zuwüchsen. [...]

[Kant, RezHerder, AA 08: 50] [...] Präformierte Keime, die seit der Schöpfung bereitlagen, hat kein Auge gesehen [...] Sieht man diese Wandlungen, diese lebendigen Wirkungen sowohl im Ei des Vogels als im Mutterleibe des Tiers, das Lebendige gebärt, so, dünkt mich, spricht man uneigentlich, wenn man von Keimen, die nur entwickelt würden, oder von einer Epigenesis redet, nach der die Glieder von außen zuwüchsen. [...]

the “Architectonic of Pure Reason” will have drawn no special attention from the reader. Such passages not only do not mention that embryological theory, but opt for a type of comparison which, without expressly naming it, is clearly based on preformism and hence on a generative model opposed to that of the epigenesis.

But with Erdmann’s³ publication of Kant’s reflections,⁴ the possibility

[Johann Gottfried von Herder, *Ideen zur Philosophie der Geschichte der Menschheit*. Available at: <http://www.textlog.de/5586.html> Accessed in: 14th of May 2018].

- 3 Within Erdmann’s published “reflections”, two mention “epigenesis”; see Benno Erdmann, *Reflexionen Kants zur kritischen Philosophie. Aus Kants handschriftlichen Aufzeichnungen*, Leipzig: Fues’s Verlag (R. Reisland), 1882 [“*Reflexionen zur Anthropologie*”]; 1884 [“*Reflexionen zur Kritik der reinen Vernunft*”]; p. 276; p. 375. The first one reads: “Ursprung transscendentaler Begriffe: 1) *per intuitionem mysticam*, 2) *<per> influxum sensitivum*, 3) *per praeformationem*, 4) *per epigenesin intellectualem* †) – intellectual, intuitiv oder discursiv. – Der Zweck der Metaphysik ist Gott und eine künftige Welt. – EPICUR nichts a priori.” [see Kant, Refl, AA 18: 12: “Ursprung transscendentaler Begriffe 1. *per intuitionem mysticam*. 2. (§ *influxum sensitivum*. 3. *per praeformationem*. 4. *per epigenesin intellectualem*. (§ *intellectualia intuitiv oder discursiv*.) Der Zweck der Metaphysik ist Gott und eine künftige Welt. epicur nichts *a priori*”]. As to Erdmann’s annotation “†)”, it reads: “Of the possibilities here coordinated, ‘§ 27’ of the Critique [of Pure Reason] only accepts the first and the fourth ones; the third one (Crusius) is mentioned only to be ruled out; the fourth one, which in 1772 is in the foreground, is completely rejected” [“†) Von den hier coordinirten Möglichkeiten lässt die Kr. § 27 nur noch die erste und vierte gelten. Die dritte (Crusius) wird nur erwähnt, um abgewiesen zu werden. Die vierte, die 1772 im Vordergrund der Ueberlegung steht, ist ganz zurückgetreten”]. Erdmann’s statements seem to be incoherent concerning the content of the “§ 27” to which he himself resorts in order to ground his statements in the annotation, for the origin of transcendental concepts through mystical intuition [“*per intuitionem mysticam*”], which is indeed mentioned in the paragraph in question, is not positively accepted by Kant as an explanatory possibility of the origin of such concepts. The final statement in his annotation is even more peremptorily incoherent with the content of “§ 27”, if not with itself, insofar as after asserting that: “Of the possibilities here coordinated, ‘§ 27’ of the Critique [of Pure Reason] only accepts the first and the fourth ones – and the “fourth” is precisely the explanation of the origin of transcendental concepts “*per epigenesin intellectualem*”, the only one accepted in this paragraph –, he states: “the fourth one, which in 1772 is in the foreground, is completely rejected”.
- 4 Prior to Erdmann’s publication of a great set of Kant’s manuscripts [see here the previous annotation], Rosenkranz and Schubert had already published, forty years before, something from the same fund: see *Immanuel Kant’s Sämmtliche Werke. Herausgegeben von Karl Rosenkranz und Friedr. Wilh. Schubert*. Elften Theils, Erste Abtheilung [Immanuel Kant’s Briefe, Erklärungen. Fragmente aus seinem Nachlasse], Leipzig: Leopold Voss, 1842, pp. 215-277. As to the three volumes in which Reicke would publish the “*Lose Blätter aus Kants Nachlass*” [Mitgetheilt von Rodolf Reicke. Königsberg in Pr.: Ferd. Beyer’s Buchhandlung (Thomas & Oppermann)], which would be first published in volumes 24, 25, 30, 31 and 35 of the *Altpreußische Monatsschrift*, they would come to light respectively in 1889, 1895 and 1898. Shortly over a decade after, there was the

of a conflict between those passages of the Architectonic and Kant's annotations, presumably prior to such passages, becomes documentally viable. In rigor, this was already so in 1787, when, upon reappearing untouched in the same chapter of the work, the two fragments at hand followed the "Result of this deduction of the concepts of the understanding", a moment in Pure Reason whereupon, through a likewise comparative table, the epigenesis supplanted the options of equivocal generation and the system of preformation.

Bearing in mind only the metaphorical-speculative plane in which Kant resorts to such theories, and aiming at adjusting the apparently conflicting tone of such passages in the Architectonic, I propose a brief analysis of four of Kant's manuscript annotations, as well as of part of the embryological metaphors at the end of deduction B.

But first and foremost, the passages in question: "[The idea of science] is to be found in reason as a germ in which all [its] parts are occult, still very convoluted, hardly recognizable upon a microscopic observation"; "Systems, just as worms, seem to have been formed by a *generatio aequivoca* – at first in mutilated fashion, with time, completely – from the mere confluence of collected concepts, even though all of them had their scheme – as did [their own] original germ – in a merely evolving reason".⁵

According to the first passage, the manner how the idea of science "is to be found in reason" renders it somewhat of a "germ". Laid before the premises which are at its basis, such a conclusion refers to the fact that I cannot decompose such an idea, I cannot see "all [its] parts", I do not recognize them as its parts. The difficulties inherent to the comparison at hand are referred both to the fact that "all the parts" of the idea of science are preposed in reason, and to the fact that the germination of this idea demands for the evolvement of "all [its] parts", which, once unveiled, are

publication of: Theodor Häring, *Der Duisburgsche Nachlass und Kants Kritizismus um 1775*. Tübingen: J. C. B. Mohr, 1910. Lastly, Adickes, the editor of volumes XIV to XIX of Kant's *Gesammelte Schriften* in the "AA", volumes concerning part of the third division ["Handschriftlicher Nachlass"] of Kant's corpus in that edition, published the first five of the latter respectively in 1911, 1913, 1914, 1926 and 1928, the year of his death. On the references to Erdmann, Reicke and Häring, see Santiago Echeverri, *La existencia del mundo exterior. Un estudio sobre la refutación kantiana del idealismo*. Medellín: Editorial Universidad de Antioquia, 2008, pp. 271-272; on the references to Adickes, see *Neuedition, Revision und Abschluss der Werke Immanuel Kants*. Available at: <http://kant.bbaw.de/die-akademie-ausgabe/abteilung-iii-handschriftlicher-nachlass/abteilung-iii> Accessed in: 23rd of May 2018. I thank Dr. Gualtiero Lorini for the kind indications concerning Rosenkranz and Schubert.

5 Kant, KrV, A 835 / B 863.

to be acknowledged in their own identity. As to the second passage, one is presented with an internal confrontation between equivocal generation and preformation, namely, the former's abandonment of such explanations and the latter's consequent acceptance. In this passage systems seem to have originated and developed abiogenetically, and hence do not seem to have been formed architectonically, in accordance to the prescriptions of the architectonic of pure reason therein in course, nor to have been formed according to an art-of-construction⁶ of these very systems.]⁷

In truth, they seem to have been formed by the mere casual confluence of the matters which constituted them, according to the time of their appearance in experience. Regardless of that impression, systems, quite conversely, have their figure⁸ etched a priori in and by reason, according to an idea of whole which governs their progressive full configuration. In such a case, as far as their constitutions and evolvment are concerned, they are rendered similar to an original germ, in a comparison which, just as the one in the previous passage,⁹ is laid upon the same preformation which in principle and in general is doctrinally incoherent with epigenesis.

In the passages in question, however, what is most striking is perhaps the fact that in the second one Kant positively alludes to the equivocal generation of worms, something which, as it seems, is not only unprecedented in him as far as the abiogenesis of any living being goes, but counterposes general assertions of his own – direct or not¹⁰ – on the pertinence, whatever its degree, of the same embryological explanation.

6 When, upon commencing the chapter of the “Architectonic”, Kant states: “Ich verstehe unter einer Architectonik die Kunst der Systeme” [Kant, KrV, A 832 / B 860], it might seem preferable, due to the already common correspondence between the Greek term and the German term, that he had said: “Ich verstehe unter einer Architectonik die Baukunst der Systeme”. An indication of the possible naturalness of such a preference may be found in: Carl Christian Erhard Schmid, *Wörterbuch zum leichtern Gebrauch der Kantischen Schriften*. Neu herausgegeben, eingeleitet und mit einem Personenregister versehen von Norbert Hinske. Dritte, um ein Nachwort ergänzte Auflage, Darmstadt: Wissenschaftliche Buchgesellschaft, 1998, p. 71: “Architectonik [...] ist die Baukunst der Systeme [...]”.

7 See Kant, KrV, A 832 / B 860.

8 I believe that the meaning of “Schema” in the Architectonikkapitel does not correspond to the meaning of the same term in the Schematismuskapitel. The same may be said of the use of this expression in other passages of the first Critique; see for example Kant, KrV, A 405-406 / B 432; A 669-699 / B 697-727.

9 In the second paragraph of this chapter there is already a sort of anticipation of such a preformist rhetoric; see Kant, KrV, A 832-833 / B 860-861.

10 See Kant, VvRM, AA 02: 435; KU, AA 05: 419; Refl, AA 17: 591; V-Met/Dohna, AA 28: 649.

Hence, if from a comparative point of view the second passage only reinforces the preformist option of the passage which precedes, however, from an embryological point of view, it allows us to presume Kant's acceptance of abiogenesis as the generative form of worms.

In face of such comparisons, epigenesis becomes a sort of reversed grey eminence, a forgotten celebrity¹¹ in a comparison which should in principle favor it [in 1781, bearing in mind reflections presumably prior to the KrV; in 1787, bearing in mind the end of the transcendental deduction], but is at first sight contrary to it.¹²

1. Embryological comparisons in the Reflections

Amidst the Reflexionen, four of them not only cite epigenesis and preformation, but share a fair amount of common references amongst themselves. Namely:

Crusius explains the real principles of reason according to the systema præformationis (from subjective principiis); Locke, just as Aristotle, according to the influxus physicus; Plato and Malebranche from the intuitus intellectualis; we, according to epigenesis, from the use of the natural laws of reason;¹³

11 As concerns this, and while acknowledging that Kant's embryological metaphorism – in speculative cleft and in the scope of the Werke – is a procedure exclusive to the KrV and the Prolegomena [see Kant, Prolog., AA 04: 274; AA 04: 279; AA 04: 353; AA 04: 362-5; AA 04: 368], it is worth reminding that epigenesis is also absent from this last work.

12 Apparently not as common in the philosophical jargon of the time, the expression “idea of whole”, as “*Idée du Tout*”, arises in Charles Bonnet's *Analytical essay on the powers of the soul* [Charles Bonnet, *Essai analytique sur les facultés de l'âme*. À Copenhague: Frères Cl. & Ant. Philibert, 1760, pp. 190-1]. The work was translated into German ten years later by Schütz – later an advocator and promotor of critical philosophy –, who translated such an expression [literally] as “Idee des Ganzen” / “Idee vom Ganzen”: C. G. Schütz, *Herrn Karl Bonnets Analytischer Versuch über die Seelenkräfte*. Aus dem Französischen übersetzt und mit einigen Zusätzen vermehrt von M. Christian Gottfried Schütz. 2 Bde., Bremen und Leipzig: Johann Heinrich Cramer, 1770-1771; pp. 186-7. But already in 1716, in the “Preface” to his translation of the *Odyssey*, Madame Dacier [Anne Le Fèvre Dacier] observes that: “le beau consiste dans l'ordre et dans la grandeur, c'est pourquoy rien de trop petit ne peut estre beau, parce que la vûë se confond dans un objet qu'on voit en un moment presque insensible; rien de trop grand ne peut estre beau non plus, parce qu'on ne le voit pas d'un coup d'œil, & qu'en voyant ses parties successivement l'une après l'autre, le spectateur perd l'idée du tout, comme s'il voyoit un animal qu'il auroit dix mille stades de long” [*L'Odyssee d'Homere, traduite en français, avec des remarques*. Par Madame Dacier. Tome Premier. Paris: Rigaud, 1716, p. 19].

13 Kant, Refl., AA 17: 492; text handwritten, according to Adickes, “approximately

Whether concepts are merely *educta* or *producta*. * *preformation* and *epigenesis*[.] * (*producta* or through physical influx (empirical) or through consciousness of the formal constitution of our sensibility and understanding on occasion of experience; hence, *producta a priori*, not *a posteriori*);¹⁴

Origin of transcendental concepts: 1. *per intuitus mysticus*; 2. [*per*] (*influxus*) *sensitivus*; 3. *per praeformationis*; 4. *per epigenesis intellectualis*. (*intuitive* or *discursive intellectualia*);¹⁵

The logical system of intellectual cognitions is [...] either the empirical or the transcendental: the first one, that of Aristotle and Locke; the second one, that of epigenesis or involution; acquired or innate.¹⁶

In this set, the first reflection contains four statements which are totally or partially reproduced in all, or in most of the others. Indeed, the identification of Crusius with real principles of reason via system of preformation is referred to in the remaining reflections by: concepts *educted* via preformation; origin of transcendental concepts through preformation; logical system of intellectual cognitions of a transcendental type via involution. The identification of Locke and Aristotle with real principles of reason via physical influx is referred to in the remaining reflections by: concepts produced through physical [empirical] influx [concepts produced *a posteriori*], origin of transcendental concepts through sensitive influx; logical system of intellectual cognitions of an empirical type. The identification of Plato and Malebranche with real principles of reason via intellectual intuition is referred to in the third reflection by: origin of transcendental concepts through mystical intuition.

The identification of Kant himself with real principles of reason through epigenesis, departing from the use of the natural laws of reason, is referred to in the remaining reflections by: concepts produced through consciousness of the formal constitution of our sensibility and understanding on the occasion of experience [concepts produced *a priori*]; origin of transcendental concepts through intellectual epigenesis; logical system of intellectual cognitions through epigenesis.

between 1770 and 1771”.

14 *Ibid.*, AA 18: 08; text handwritten, according to Adickes, “around 1776-1778”.

15 *Ibid.*, AA 18: 12; text handwritten, according to Adickes, “around 1776-1778”.

16 *Ibid.*, AA 18: 275; text handwritten, according to Adickes, “approximately between 1780 and 1783” or “approximately between 1788 and 1789”.

The first and third reflections respectively present the same following options: system of preformation and preformation; physical influx and sensitive influx; intellectual intuition and mystical intuition; epigenesis and intellectual epigenesis. The second presents the following oppositions: concepts educed and concepts produced; concepts produced a posteriori through physical or empirical influx and concepts produced a priori. The fourth presents the opposition between empirical system and transcendental system, and, in the latter, the opposition between epigenesis [which indicates acquired intellectual cognitions] and involution [which indicates innate intellectual cognitions].

Hence, bearing in mind our aim and setting aside the options of physical influx and intellectual intuition, the two following general alignments, the first one rejected, the second one accepted, may be pertinent: 1. Preformation; conceptual education; innate intellectual cognitions; 2. Epigenesis; conceptual production; acquired intellectual cognitions. As far as the opposition between innate and acquired intellectual cognitions is concerned, it takes place in the common field of a system of a transcendental type, which is metaphorically subdivided into through-epigenesis and through-involution. Although a meaning of “transcendental” which contemplates innate concepts is not exactly orthodox in the scope of Kant’s critique, one must here understand the term *lato sensu*; that is: in mere general opposition to the empirical [to another main division in the same reflection], in such a way that intellectual cognitions obtained in the logical system of a transcendental type – be it through epigenesis, or through involution – will thus reject an empirical origin in both cases. Hence, as it seems, all cognitions attained by epigenesis are to be acquired, though not empirically acquired – an inference which brings this reflection closer to what had been said with this regard in the *Inaugural Dissertation of 1770*,¹⁷ as well as to what will be said in the *Response to Eberhard*.¹⁸

Despite the difficulties regarding the dating of the reflections, which do not allow for Adickes’ conclusions with this respect in the *Akademie-Ausgabe* to be exempt from controversy, at least the two first reflections cited here – which, according to him, will have been handwritten “circa 70-71” and “around 76-78” – seem to admit a considerable approximation to

17 Kant, *Dissertação de 1770 seguida de Carta a Marcus Herz*. Tradução, apresentação e notas de Leonel Ribeiro dos Santos [Dissertação de 1770]; tradução, apresentação e notas de António Marques [Carta a Marcus Herz]. Lisboa: Imprensa Nacional – Casa da Moeda. Lisboa, 1985; p. 51 [cf. Kant, MSI, AA 02: 398]; p. 66 [cf. Kant, MSI, AA 02: 404].

18 Kant, *ÜE*, AA 08: 221-223.

parts from two objectively dated Kantian works [the Inaugural Dissertation of 1770 – especially this one – and the letter to Herz, dated February 21, 1772], as is attested by the two following comparative tables:

Reflections.	Dissertation.
“natural laws of reason”;	“natural law of the spirit” “internal law of the mind” “stable law inherent to its nature” [inherent to the nature of the spirit]; “permanent laws” [permanent laws in the mind]; “law of the spirit”;
“real principles of reason”;	“internal principle of the mind”;
“consciousness of the formal constitution of our sensibility and understanding on occasion of experience”.	“concepts abstracted from inborn laws in the mind (bearing in mind the actions of the mind on occasion of experience)”.

Reflections.	Letter.
“Crusius explains the real principles of reason according to the <i>systema praeformationis</i> (from subjective principii)”.	“Crusius [admitted] certain implanted rules to judge and concepts which God had already planted in the human soul, as they had to be so as to harmonize with things”.
“real principles of reason”.	“real <i>principles</i> ” [of the understanding].

2. Embryological comparisons in Deduction B.

Let us now examine part of the embryological metaphors of “§27” of Pure Reason.

The topic here is the “*necessary* agreement of experience with the concepts of its objects”. If an a priori cognition of the objects of experience is to be given to us, these [objects] must be necessarily limited to the domain of possible experience. In accordance with such a limitation, the categories which refer to them [as well as the forms of intuiting which receive them] must be necessarily pure.

In conformity with the reflections dealt with here, the metaphorical plot of “§27” brings back to scene epigenesis [“(a sort of system of *epigenesis* of pure reason)”] and preformation [“(a sort of *system-of-preformation* of pure reason)”], thereby adducing equivocal generation [“(a sort of *generatio æquivoca*)”], which was absent from the Reflections. Be it due to the adverb [“*gleichsam*”] which in two of the three formulations at hand accompanies the metaphorizing element chosen, or due to the fact that, placed between parentheses, all such formulations seem to indicate three typical apposing elements [which, for the purpose of the interpretative coherence of their host passages, does not render them indispensable], the embryological metaphorism of “§27” of the KrV does not seem to have been originally proposed by Kant as a special or supplementary matter for consideration.

According to the text: “There are only two paths through which a necessary concordance of experience with the concepts of its objects may be thought: either experience renders possible such concepts, or those concepts render possible experience”.¹⁹ “Original concepts”,²⁰ the categories [and with them the forms of intuiting] do not admit the first path, through which they would be engendered empirically. Because there are only two paths, all that is left is the second one, through which they “render possible experience”. Such is the framework which prepares the reasoning in a metaphorical cleft, the internal articulation of which, according to the assertion of the existence of “only two paths etc.”, shall lay two alternatives, though a sort of intermediate path is subsequently added. According to such a presentation, the comparisons proposed must bear in mind the “*necessary* agreement of experience with the concepts of its objects”. As to the first one, which considers the first of the two existing paths – “experience renders possible such concepts” – the empirical origin of the categories is discarded, which, if admitted, would imply “a sort of *generatio æquivoca*” of the latter. The comparison, to be sure, deals directly with the origin of the categories, not with the “*necessary* agreement of experience with the concepts of its objects” (although, quite clearly, a supposed empirical origin of the categories would completely destroy the edifice of the transcendental deduction and hence the “*necessary* agreement of experience with the concepts of its objects”).

Since Kant did not deem it worth examining a gnoseological alternative, he does not investigate the ground of the comparison he resorts to, rather he tacitly evokes a supposedly general judgment, unfavorable

¹⁹ Kant, KrV, B 166.

²⁰ *Ibid.*, A 17.

to the comparison, so as to metaphorically neutralize that gnoseological alternative. Once mutually compared a possible *empirical* origin of *pure* categories and a possible *abiogenetic* origin of a new *living* being, the refusal of both hypotheses takes place through the tacitly pre-refused thesis of generative equivocality in general in a metaphorical sense, or, in a positive form, through the tacitly pre-admitted thesis of generative univocity in general in the same sense.

Having only two possibilities to choose from, and the first one having been discarded, the following comparison abides by the second of the only two existing paths towards the question of the “*necessary* agreement of experience with the concepts of its objects”; namely: “[the categories] render possible experience”, which takes place because they “the grounds of the possibility of all experience in general from the side of the understanding”.

Proceeding with the previous argumentative procedure, Kant does not investigate the ground of the comparison he resorts to, rather tacitly evokes a supposedly general judgment, favorable to the comparison, so as to metaphorically extol the gnoseological alternative which it wishes to stress. Conversely to what happened regarding the comparison by equivocal generation, Kant does not examine the origin of the categories, rather, in accordance with the comparison at hand and concluding that “the categories contain the grounds of the possibility of all experience in general from the side of the understanding”, leads us to believe not only that such a conclusion is in accord with the epigenetic hypothesis, but especially that the conclusion is reinforced by the latter. Hence, the assertion according to which “the categories contain etc.” should agree entirely with the specific of the epigenesis. Yet, how can one such adjustment take place? To put it in few words, to the sentence which textually states: “the categories contain the grounds of the possibility of all experience in general from the side of the understanding” – a sentence which, with regard to the metaphorized object [“*necessary* agreement of experience with the concepts of its objects”], contains the cause of the metaphor which conforms to it – to such a sentence corresponds tacitly, as a justifying sentence of the metaphorizing element at hand: *the germs and dispositions contain the grounds of the possibility of development of all organized bodies in general from the side of the embryo*. Hence: to the metaphorized object “categories” corresponds the metaphorizing element germs and dispositions; to the metaphorized object “understanding” corresponds the metaphorizing element embryo; lastly, to the metaphorized object “grounds of the possibility of all experience in general”, corresponds the metaphorizing element grounds of the possibility of development of all organized bodies in general.

The insertion of the terms “germs” and “dispositions”, absent from the text under analysis, not only sheds light upon the structure of the present comparison, but ascribes procedural coherence between beginning and end of the “Analytic of Concepts” in the second edition of the KrV, since in this text [common to both the editions of the work] had already been said that:

We shall follow [...] pure concepts to its first germs and dispositions in the human understanding, wherein they are prepared, until, liberated from the empirical conditions appending to them, they are ultimately developed on the occasion of experience and presented in their purity by that same understanding.

That is: in 87, Kant will have opened and closed that crucial stage of the KrV with terms and comparisons perfectly attuned in both their extremities.

Bearing in mind that in the epigenesis germs and dispositions “contain in themselves [...] the principle of formation, but not the formation itself”²¹ [if this were the case, we would be in the field of a radical preformism], the categories, correspondingly so, should contain the principles of the possibility of all possible experience in general, but not the possible experience in general as such. How, then, may the “formation” of categories take place? To harmonize with epigenesis, it will have to presuppose an orientating principle, corresponding to the germs and dispositions of this embryological doctrine.

When, at the beginning of the “Analytic of Concepts”, Kant speaks of the first germs and dispositions wherein pure concepts are prepared, this means that the preparation of such concepts corresponds to the fact that concepts are *in germ*, that they are *disposed* in such a way that, if brought about only by experience, they develop their full synthesizing capacity in light of the multiplicity resulting from the apprehension of the object. Hence, without being *ready*, their development on the occasion of experience does not correspond to that which, in the embryological plane, would be the mere *augmentation* of preformed homunculi.

In that sense, the development at hand is not exactly that of categories already given as such, but that of germs and dispositions in which, just as in their innate ground,²² they are prepared, and from whose development they are originally acquired *as* categories.²³

21 Wolfgang Bonsiepen, *Die Begründung einer Naturphilosophie bei Kant, Schelling, Fries und Hegel: mathematische versus spekulative Naturphilosophie*, Frankfurt am Main: Vittorio Klostermann, 1997; p. 115.

22 Kant, ÜE, AA 08: 222.

23 *Ibid.*, AA 08: 223.

Hence, in light of the epigenetic metaphor of “§27” of the KrV it does not seem reasonable to state a pre-determined number of pure concepts and their pre-defined logical identities, for in such a case one would not see how they were not *radically* innate, individually preformed. Conversely, it seems reasonable to state the existence of only a *generic preparation* of a categorial type, a case in which, if at all, the categories are no more than *moderately* innate, and such moderate innateness is limited to the “ground” from which they are originally acquired, or the “first germs and dispositions in the human understanding, wherein they are prepared”.

3. Conclusion

Having come this far, and having gathered all the previous elements, our task is now to specify the quality of the two fragments in the Architectonic from whence we departed, and, in face of the latter, to adjust the focus of the absent epigenesis.

First of all, the four occurrences of epigenesis in the aforementioned reflections are not distinguished amongst themselves. Secondly, the embryological theories of preformation and epigenesis – despite their fusion in the [paroxist] formula “generic preformation”, to which Kant resorts only in the KU – always appear antagonistically in such reflections. Lastly, the first two of the four abovementioned reflections do not differ much from formulas found in the Inaugural Dissertation of 1770 and the letter to Herz of February 21, 1772.

From these three observations – the univocity of epigenesis, the antagonism between epigenesis and preformation and the abovementioned proximity – two conclusive, non-excluding possibilities arise: 1. At least in the first half of the 70s, Kant was yet to establish the hypothesis manifested in 1790, in the formula “generic preformation”; 2. Though he had established this hypothesis, its use in a metaphorical-speculative cleft did not yet seem opportune to him. Be as it may, the first of these two possibilities can in no way mean that the philosopher did not have sufficient data concerning epigenesis, so much so that he not only considers it but confronts it with its opposing theory since the 17th century, the theory of preformation.

Presumably after [at least] the first two of our four reflections, wherein epigenesis and preformation are cited antagonistically, “§27” of the KrV, also in antagonistic fashion, speaks of “a sort of system of *epigenesis* of pure reason”, and “a sort of *system-of-preformation* of pure reason”. I believe the objective of such a paragraph is not at all to highlight the mere absence of generic preformation in order to reject the interpretative hypothesis

which identifies the “(a sort of system of *epigenesis* of pure reason)” and generic preformation, but instead to underscore that conversely to what, due to the reunion of both, such a formula will do in three years, Kant, in 87, still antagonistically autonomizes epigenesis and preformation, in perfect tune with the procedure adopted in the Reflexionen. If so, then one cannot find it strange that in the second edition of the KrV, in the scope of the embryological comparisons of the Architectonic, an epigenesis qua generic preformation is absent, for in the conclusion of deduction B preformation and epigenesis still appear individually. Indeed, that which may appear strange in the penultimate chapter of the KrV in 1787 [and already in 1781, bearing in mind the abovementioned reflections] is simply the absence of epigenesis.

As concerns “§27”, there is a common systematicity – though an allusive, insufficient one [a “kind of”] – to the alternatives of a “system of *epigenesis* of pure reason” and a “*system-of-preformation* of pure reason”. If we now address the second of the two abovementioned fragments of the Architectonic, the object highlighted in it is “systems”. According to the conclusion of the second embryological comparison in that chapter, the “original germ” which qualifies the systematicity of the whole system resides in “the merely evolving reason”. If we think systematicity – both that of the “system of *epigenesis* of pure reason” and that of the “*system-of-preformation* of pure reason” – from the “original germ” which qualifies it as such, we shall see that the systematicity of both systems resides in “the merely evolving reason”. By coinciding in this point, one and the other distance themselves from equivocal generation, which is by definition non-systematic. If so, Kant’s preformist option in the embryological comparisons of the Architectonic – especially in the second one – indicates the preference for an anti-equivocal generation choice.

But in such a case, why not opt for the already chosen epigenesis [be it in the reflections or especially in “§27”]? Merely because, in part, epigenesis proceeds mechanically, which brings it closer to equivocal generation, which is entirely mechanical.²⁴ If the objective is to comparatively underscore the entire organicity of the idea of system, better do it through two elements absolutely opposed amongst themselves: the [non-systematic, directed in an entirely mechanical manner] equivocal generation and the [supernaturally guaranteed, but completely systematic] preformation. If so, then we should not be taken aback by Kant’s preformist option in

24 Concerning this, see the end of “§81” of KU, which reads: “[reason], at least as far as transplantation is concerned, considers nature as self-producing, not as evolving; and thus, with the least possible investment [Aufwande] of the supernatural, [it] transfers to nature, from the first beginning, all that-follows [the latter]” [Kant, KU, AA 05: 424].

the Architectonic, even after epigenesis is so to say victorious *in face* of preformation, both in the reflections and at the end of deduction B.

Which is the conclusive synoptic table? In a metaphorical-speculative cleft, Kant establishes in the reflections and in “§27” of the KrV a comparison between preformation and epigenesis. In the Architectonic, also in a metaphorical-speculative cleft, he does so between equivocal generation and preformation. In the former, his choice falls upon epigenesis; in the latter, upon preformation. Represented antagonistically in a metaphorical-speculative cleft, both in the reflections and in the Critique in 1787, it would seem somewhat strange that epigenesis and preformation could subsist in the same work, both at the cost of the denegation of the opposite alternative. But while the three options appear confronted in “§27”, only two of them are presented in the reflections [epigenesis and preformation] and in the Architectonic [equivocal generation and preformation], as is shown in the following comparative table:

1. Reflections.	2. “§ 27”.	3. Architectonic.
Epigenesis.	Equivocal generation.	Equivocal generation.
Preformation.	Epigenesis.	Preformation.

The solution presented here for a harmonious coexistence between the data in columns 2 and 3 negatively underscores the reciprocal coherence of the data in columns 1 and 2. That is: although equivocal generation is absent from the comparisons undertaken in the reflections, the option in them is the same defined in “§27”. To avoid friction not only between columns 2 and 3, but also columns 1 and 2 on the one hand, and column 3 on the other, it seemed necessary to individualize the comparison in this last column, thereby comprehending not only the metaphorizing elements chosen [equivocal generation and preformation] but also the metaphorized object in question [systems], so as to extol the latter’s organicity.

As concerns specifically “§27”, even if we suppose the *generic preformation* is already conceived, would there be a reason for the absence of epigenesis as such, as well as a justification for the double citation, side by side, of epigenesis and preformation? Apart from the rejection of an empirical origin of categories [a goal achieved with the embryological comparison through *generatio æquivoca*], the aim there would be to rule out the hypothesis of a preformist innatism of pure concepts of the understanding, which, by the way, had already been undertaken in similar

fashion in the Inaugural Dissertation of 1770, in the letter to Herz of February 21, 1772 and in the last of the four previous reflections. If so, nothing better than to [re]introduce them separately and antagonistically as “system of *epigenesis* of pure reason” and “*system-of-preformation* of pure reason”, instead of merging them in the oxymoron “generic preformation”.

Should there result any inconvenience from the interpretative strategy herein adopted, it may be the fact that, by it, one somehow belittles the systematic feature of Kant’s embryologic metaphorism. For, indeed, the philosopher would have found no problem – in a metaphorical-speculative cleft – in opting now for epigenesis [not as generic preformation], now for preformation.

Hence, both in the Architectonic and at the end of deduction B, in place of an argumentation which admits only elements systematically aligned with Kant’s positions, there arise preferentially functionally pertinent rhetoric reasonings wherein there is field for instrumental strategic concessions. Acceptable when pondered in accordance with such a measure, the formulations herein examined simulate a considerable degree of incongruence when – not without irony – they are taken in the light of a strictly architectonic vision.

References

- ADICKES, Erich (2018), *Neuedition, Revision und Abschluss der Werke Immanuel Kants*. Available at: <http://kant.bbaw.de/die-akademie-ausgabe/abteilung-iii-handschriftlicher-nachlas/abteilung-iii> Accessed in: 23rd of May 2018.
- BONNET, Charles (1760), *Essai analytique sur les facultés de l’âme*. Copenhagen: Frères Cl. & Ant. Philibert.
- BONSIEPEN, Wolfgang (1997), *Die Begründung einer Naturphilosophie bei Kant, Schelling, Fries und Hegel: mathematische versus spekulative Naturphilosophie*. Frankfurt am Main: Vittorio Klostermann.
- ECHEVERRI, Santiago (2008), *La existencia del mundo exterior. Un estudio sobre la refutación kantiana del idealismo*. Medellín: Editorial Universidad de Antioquia.
- ERDMANN, Benno (1882), *Reflexionen Kants zur kritischen Philosophie. Aus Kants handschriftlichen Aufzeichnungen*, Leipzig: Fues’s Verlag (R. Reisland).
- HÄRING, Theodor (1910), *Der Duisburgsche Nachlass und Kants Kritizismus um 1775*. Tübingen: J. C. B. Mohr.

- HERDER, Johann Gottfried (2018), *Ideen zur Philosophie der Geschichte der Menschheit*. Available at: <http://www.textlog.de/5586.html> Accessed in: 14th of May 2018.
- Immanuel Kant's Sämmtliche Werke* (1842). Herausgegeben von Karl Rosenkranz und Friedr. Wilh. Schubert. Elften Theils, Erste Abtheilung [*Immanuel Kant's Briefe, Erklärungen. Fragmente aus seinem Nachlasse*], Leipzig: Leopold Voss.
- KANT, Immanuel (1900-), Bd 1-22 hrsg. von der Preussischen Akademie der Wissenschaften, Bd 23 von der Deutschen Akademie der Wissenschaften zu Berlin, ab Bd 24 von der Akademie der Wissenschaften zu Göttingen. Berlin.
- KANT, Immanuel (1985), *Dissertação de 1770 seguida de Carta a Marcus Herz*. Tradução, apresentação e notas de Leonel Ribeiro dos Santos e António Marques. Lisboa: Imprensa Nacional – Casa da Moeda. Lisboa.
- L'Odyssée d'Homère, traduite en français, avec des remarques* (1716). Par Madame Dacier. Tome Premier. Paris: Rigaud.
- Lose Blätter aus Kants Nachlass*” (1889; 1895; 1898), *Altpreußische Monatschrift*, Königsberg: Ferd. Beyer's Buchhandlung.
- SCHMID, Carl Christian Erhard (1998), *Wörterbuch zum leichtern Gebrauch der Kantischen Schriften*. Neu herausgegeben, eingeleitet und mit einem Personenregister versehen von Norbert Hinske. Dritte, um ein Nachwort ergänzte Auflage, Darmstadt: Wissenschaftliche Buchgesellschaft.
- SCHÜTZ, Christian Gottfried (1770-1771), *Herrn Karl Bonnets Analytischer Versuch über die Seelenkräfte*. Aus dem Französischen übersetzt und mit einigen Zusätzen vermehrt von M. Christian Gottfried Schütz. 2 Bde., Bremen und Leipzig: Johann Heinrich Cramer.
- SLOAN, Phillip R. (2002), “Preforming the Categories: Eighteenth-Century Generation Theory and the Biological Roots of Kant's A Priori”, *Journal of the History of Philosophy*, Baltimore: Johns Hopkins University Press, pp. 229-253.

ABSTRACT:

In 1781, prior to any Kantian reference in favor of the epigenesis – a direct, nominal reference, published in life –, two comparative passages of the “Architectonic of Pure Reason” will have drawn no attention from his readers. But, despite omitting that “augmentation” [*Vermehrung*], such passages shall lead, both on its own and jointly, to the possibility of a retrospective conflict regarding that theory; a conflict of a conceptual nature which may have repercussions on Kant’s position on the epigenesis, be it directly, on a metaphorical-speculative level, be it indirectly, on an embryological level. The present, ongoing study shall deal with the collocation of the problem, the presentation of some elements in view of its analysis and, finally, a possible solution for the difficulties which the two passages of both editions of the Critique indirectly raise.

Keywords: Kant – Epigenesis – Preformationism – *Generatio Æquivoca* – Embryological Metaphors

RESUMO:

Em 1781, antes de qualquer referência do próprio Kant a favor da epigênese – referência direta, própria, em escrito seu publicado em vida –, dois trechos comparativos d’“A Arquitetônica da Razão Pura” não terão despertado nenhuma atenção especial no leitor. Sem mencionarem essa “aumentação” [*Vermehrung*], tais passagens, não obstante essa ausência, levarão, cada qual por si e ambas em conjunto, à possibilidade dum conflito retrospectivo para com essa teoria, conflito que, de natureza conceitual, poderá repercutir na posição do filósofo sobre a epigênese, quer diretamente, em nível metafórico-especulativo, quer indiretamente, em nível embriológico. O presente estudo, em andamento, tratará da colocação do problema, da apresentação de alguns elementos em vista de sua análise, e, por fim, de uma possível solução para as dificuldades que tais duas passagens de ambas as edições da Crítica indiretamente suscitam.

Palavras-chave: Kant – Epigênese – Pré-formação – *Generatio Æquivoca* – Metáforas Embriológicas