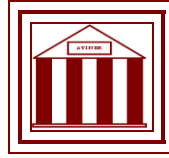


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**Circuit(s) versus Counter-circuit(s),
a Challenge of the Mind**

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Circuit(s) versus Counter-circuit(s), a Challenge of the Mind

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Abstract

Concerning concept formation and its outcome, succinct terminology, cycle and circle are more or less well-defined concepts of philosophy. This is not the case with the circuit and its proper opposite, the counter-circuit. One reason is the overlapping meaning or extension with the circle and counter-circle or correspondingly cycle. The other reason is that circuits seem more artificial, complex, and beyond the classical 'compound', i.e. thinking, methodologies and preferred solutions. Entries, however, are enough as, p.e., the manifestation of life is an open cycle against absolute or idealistic time, the orbit is bound to a circle, neurons behave within complex circuits and, again, syllogisms are forming a cycle which, upon confusing the latent presupposition(s) within the conclusion, becomes a circle (*petitio*). The circuit therefore must be something else, in particular with its regular opposite and presupposed that it exists as well. To formulate in a more popular manner, often while reading philosophical, scientific and other literature one has to acknowledge that the author – or even the matter – relies upon a circuit (not proper circle) the conditions of which are less than clear; hence the effort to anchor it within history (preferably the modern one) and logic (samples are taken from economics and neurobiology).

Keywords: Cycle, Circle, Loop, Negative Terms and Negation, the Antonymy.

[I].

As is well-known from the philosophy of Frege to Quine, naming is a relevant aspect of logic, in particular in connection with referential claims (full reference or not; Quine 1963). If one would call a circuit a loop (in German the 'Schleife') then some well-established metaphorical content comes into the concept which, nevertheless, does not help in first instance: a circuit is a loop, but (i) it has to reflect inherent negation, hence the circuit, in the minimum, implies the conclusivity between plus and minus, whereby the kind of negation can be held open. It must not be contradictory (but perhaps subliminal), and in any case it has not to be understood as the very case of automatic retrogradivity or self-impulse conclusivity, where final decision within a termination tree is eliminated (Schurz 1996), hence triggering the reset or repetitive position (the well-known function from programming); (ii) it can be derived in substeps from a special or self-implied series, i.e. the overall circuit reigns over the side-driven steps as being evolved like a \pm -series (the affinity to the Kantian antinomies, see below); (iii) the circuit – like the loop – necessarily involves peculiar (a) nodes, (b) intersections whereof one is the main, preliminal or ›prime‹ one (the term according to Dunn 1996) – and the intersections might evolve into a break of that sort called an interface; (iv) these nodes and/or intersections do not need to be equivalent or balancing on the whole (crucial against the circle where partition always has to follow full balance, hence eliminating subordination of one under/against the other side), or to formulate it otherwise, the circle against the circuit fulfills double negation (one of the most important proof matters which will become evident when concentrating on problems of opacity and in particular the difference of senseful versus senseless (Quine)); (v) it is capable of interfering on several (indeed illimited) levels so that nodes become internodded or the loop an ordered or non-ordered intersection and proper complex of circuits (the decidability of a matter is, of course, immediately affected; and conclusivity should be derivable from the fact if all parts, circuits in itself, but of different seizure, mutually balance on the whole, i.e. one can even understand possible commutation anywhere in the complex, which should be a demanding insight). This, the fifth case, is the main goal of interpretation, corresponding and intersecting, respectively, with several main tenets of Quine; (vi) it entails at least the possibility of direction and/or orientation, so that the circuit both has the possibility to make one part of it – a partialized (may be half) loop or circuit – prevail over the other and to intrinsically orient the series of steps to one end instead of the other. (Prevalence seems to correlate with subordination; therefore (vi) seems reducible to (iv) and (v). However, orientation within a circuit is an independent concept and property so that it must have its own entrance, leaving the overall question as to how orientation of a circuit can be translated into subordination – or a peculiar form of monotonicity).

[III].*II.1.*

Before continuing, the circuit should have its intuitive, and a closer relation to historical understanding (in the second case by reason of asking, where the roots lie). Most simply, it is the ‘eight’ in the sense of a circle being divided and turned around one half against the other. The fluent or flexible ‘middle-’point’ of this turnaround, the corresponding two-sided intersection, is the very representative of implied negation. This is the pure intuitive model (derivable, p.e., from a cone section, the ellipsis providing two real focusses ready for representing plus versus minus), and by definition the circle and the cycle should be regarded as a subform or essentially simple (as the one-to-one orbit, normally without implied negation or, by condition, neutral: the shifting, though, must be possible as soon as the circuit is derived from a circle). They exhibit only one turnaround, whereas the circuit is potentially capable of the complete counter-side: to evolve the turnaround within endless circles – or cycles – entailed (to provide first examples, the economy, essentially a circuit,¹ versus the currency, the balance sheet or the budget cycle; the life cycle (essentially mono-polar but open for circuitive interpretation) versus industrial recycling which might involve several deviations (cycles within a circuit); even traditionally, electrico-chemical processes of neurology are by far more circuits than cycles [Damasio 1999]). Hence when several or a plurality of circles or cycles are bound together, they always should be regarded as a real sum – one can count them up one by one into the whole – whereas the circuit behaves *contrarily*: it is one (if ordered) and its elements or components, each one a distinctive loop, melt together into the comprising main or prime one which should also provide the possibility of an expressive function. Accordingly, one might conclude at once, the rule of double negation is ruled out, one of the main challenges for investigating into the power of circuits: within any fully accomplished circuit, negation behaves in steps of reversals, where the even and odd members (within the series) do not correspond in the sense of contradiction (or strict complementarity) (see §3.1). This, in turn, must have crucial impact upon the predictability of the series’ outcome (p.e., the complexity of a multiplicity of naturally or functionally (technically) interconnected antonyms as specified polarities). In this context, the affinity to recursively enumerable sets and recursive sets (where strict complementarity is fulfilled) cannot be overseen.²

This analytics so far seems still akin to idealistic modelling, and the possibility of mixture should never be excluded. Yet within the opposition the accomplished circuit should be understood as (i) immediately and necessarily implying or requiring its counter-part, at least the counter-center (its realization might be mutilated or suppressed); (ii) the entrance versus final station must

¹As an example (from an annual report): “With the downward cycle persisting [of the whole economy], competition has increased, especially in XYZ.” Because the whole economy is meant, this cycle virtually should be the circuit (tending towards the minus region).

²Penrose, Roger 1989. *The Emperor’s New Mind*. Oxford University Press, 118-124.

not be the same (predictably) as is the case with the cycle or circle, hence contrary opposition is reflected in this property with full charge (by far[!] not depending from language formation). If this difference is primordial, and it should be, then circle and cycle belong to non-polar understanding or circuits (to use the circuit as the neutral hypernym), whereas the non-neutral circuit or loop, quite to the contrary, is the very instance of polar (and/or antonymous) behavior and understanding: its real opposite (one token: neurology, the negative charge of the inner cell-membrane according to *de-* or *hyperpolarization* by reason if the ionium flux; a second: credit ratings on the basis of lending money upon the assuredness of being served: a highly polar situation which never will become a circle or cycle because negativity behaves within an accomplished and necessary continuum). Accordingly, there are no preliminary suggestions which lead to the conclusion that this side should be the weaker one. (In addition, the ‘Möbius-Band’ taken as a real circuit – and not the compliant Euclidian strip – behaves like a polar one, i.e. it should entail an energy flow that must divide its content, essential core, into a plus versus minus break, culminating with the sides: depolarization becomes plus-side (p.e. ionic), hyperpolarization the accruing minus side of the membrane).

II.2.

Concerning the hypernym, one might follow that opposition or the exhibition of opposites is the overall concept, and this would not be false. But following this notion one would eventually not conclude to investigate into the difference between circle, cycle and circuit, instead of the difference between contrast, antinomy, antagonism, antithesis and so forth, i.e. contradiction, which in any case tell that negation has special sides and intricate implications. Finally then, it is negation which has to explain in main instance what a circuit is and how it behaves, and the following needs and entails a certain connexion to modern explication of negation in formal logic (Wansing 1996), but the main access is Quine. The reason is that Quine wrote seminal papers about issues prompting the modern path of thinking, was well aware of cardinal outcomes of modern science in mathematics, natural science and linguistics, apart from logic, thereby not seldom implicating – or adapting – the historical solution to the common problem. Be that peculiar implication as it may be – philosophers with more inclination to history and maintaining the problems by their authentic source(s) will, not doubt, have grievous objection into his (and the manner of others) to deal with historical sources – his methodological access and folding of the arguments have won by this procedure: to clear claims and intricate language issues, and often showing how they might become unwillingly interwoven, and to be at any time on one’s guard against the pitfalls of ambiguity (even if in most cases restricted to linguistic reasons).

To add further suggestion, there is (i) the historical problem of incongruent counterparts (which will not be elaborated here). One should understand at once, it is immediately connected to a loop or proper circuit because, on one interpretation, the counterparts behave like the very constituents separating and binding at once the common original center (be it notional or not; [1] (iv)-(vi),

and possible classical equivalence presupposed): the contrary orientation together with the non-congruence on zero would be what makes the circuit axis-bound. On the other part, (ii) Kant's interpretation of the antinomies, a series with a plus origin (thesis I-IV), and a parallel and counter-series with an immediate minus origin (antithesis on the same logical level without possibility of reduction), can rather easily be connected to the circuit and its lawfulness. Therefore one should be able, accidentally and within comparison, to count n versus m_{+1} members of each series, evolving in the direction of the unconditional and implying in every location the same negation (the representative of the origin of strict complementarity). Accordingly, this classical case is akin to the former one because the circuit is bound, without possibility to evolve: (i) to entail other forms of negation (instead of 'contradiction', i.e. strict complementarity, being not identical), in particular the polar as the antonymous one (one should mention that each Kantian proof of the antinomies (which are not contradictions, but forms of "dialectical opposition" [A504-5/B532-33]) uses real antonyms as primary grounds, up to four, the negation of which serves for eliminating the counter position);¹ (ii) to entail sub-circuits and corresponding interfaces, (iii) to make orientation a function of negation: to subordinate one half or +/-bound fascicle of the circuit under the alternating side in order to orient its overall meaning (another 'empirical' token, this should happen within modern IT supported enterprise architecture, taken strictly, where the business strategy on highest governing level of the circuit is binding production, human resources, the supply chain and market affiliations, as positively centered, against investment, competitors, legal requirements and taxation, asset depreciation, as negatively centered, whereby investment is primarily taken as a risk requiring hedges, associative and/or joint agreements and other forms of financial or commercial representations). If this whole matter provides or even 'is' evidence for human reason, i.e., it can derive the rules and relations from its own entailment and resources, then it should also entail the syllogistic affinity of circuits which are not subject here, but should not be neglected. The syllogism is an irrenouncible instrument of reasoning, where the circuits should show their close relationship to definition and term logic, which is one item for the following.² Otherwise, if terms are subject to regular melting (semantic fusion, in particular the melting

¹The first, obligatory one is of course the common one, the conditional versus the non-conditional (immediately not a contradiction because it would make the whole investigation absurd); p.e. II, thesis (A 434/B462): composed – simple; part – whole; nothing – existing; accidental ('zufällig') – substantial ('beharrend'). No question that, apart from Hegel's dialectics, these relationships have often not been classified as antonyms, i.e. implying negation. This, however, should be their clue. Concerning the proof, Kant presupposes this fact and uses it correspondingly.

²Evidence might be drawn from the later Ms. *Initia rerum mathematicarum metaphysica* of Leibniz, and his explication of axioms like "*itaque Totum est majus parte,*" where he must rely upon the (non-presupposed, i.e. non-explicit) antonym maius – minus, and puts it into a syllogism in connection with definatory claims (GM VI, 17ff), see below.

of the manifest negator or ›not‹),¹ one easier understands why the syllogistic ‘feature’ is depending from other forms of negation – and its obligating powers have a little bit expired.

[III].

III.1.

Quine’s dealing with the Leibnizian *identity of the indiscernibles* should be the first, at least non-arbitrary entrance to reflect the condition of circuits. The other one, as mentioned, is the definition in its proper sense – which was one of the main investigations and instruments of argumentation of the mentioned baroque philosopher too. Both are, according to this instance, samples of circuits, as least by cardinal explication. This follows from the fact, that both are contemplated within the condition of polarity, hence their natural connection to the loop: *S and P or x and y are forming a regular, intrinsical loop because both entail a regular conceptual focus and are bound to fusion.*

(1) “The language really is not dependent on consciousness in order to prove its indispensability.”²

Why this sentence is related to the principle of the identity of the indiscernibles, further the presupposition of a circuit? By reason of the forms of negation implied which must be reconstructed. (1) uses the so-called sentence operator in the main sentence (the negator or what in formal logic is signified by ›¬‹);³ and a complex form of double negation in the subordinate sentence (normally not included in the formal analysis because it seems to be linguistic or dependent from term logic which formal, i.e. propositional, logic tries to exclude). This shows one of the shortcomings connected with propositional logic (and also misunderstandings concerning the relationship of Kant to Frege).⁴ Therefore this should be analyzed in advance. Something which is dispensible means it is not (“hardly”) needed, not required or not necessary. This transfer should make no analytical problem, hence ›dispensible‹ versus ›necessary‹ (›needed‹, ›required‹) are on the logical axis of antonyms (like ›hot-cold‹, ›good-bad‹ etc.). The affix ‘dis-‘ still provides evidence for the included - fused(!) - negative operation or relationship to the affirmative counterpart, and the axis is equivalent to the conceptual centre

¹I.e. to cite Locke, that ›sweet‹ is the same than ›not bitter‹ (An Essay on Human Understanding, I.ch.II §15).

²A sample from: Damasio 1999, 75. The sentence is a retranslation of the German edition (München 2002, 138), chosen by reason of the sample. The original reads in the following way: “Language hardly needs consciousness as one more among the important abilities that humans should thank for it.”

³According to the linguistic research of Frits Zwart, one has to be aware that is not universally valid, i.e. not any sentence with negation of predicate permits the shift to it is not the case that.

⁴Recently Heis, Jeremy 2014. „The Priority Principle from Kant to Frege“. In: *Noûs* vol.XLVIII/2, 268-297.

capable of implying and/or evolving both ends (or extremities, the ›and/or‹ translatable into a ›versus‹ or ›respectively‹). Accordingly, the antonymy is seen as a complete and independent form of negation, where the mutual implication of both the positive as well as negative part is included (the necessary binding versus separating segment of semantical interpretation, i.e. the ›versus‹), not or not fully equivalent with normal implication (which would lead to absurdity) or circular implication ($A \Rightarrow B, B \Rightarrow A$ [Schulz 1996]) by reason of complementarity and eventual mutual exclusion; but akin to Galois negation if, and only if, negation is split, and apart from traditional contrary relationship and also the remaining spectrum of formal logic, where no immediate coincidence is given, in particular with proper polar negation (Dunn 1996; Lehrer & Lehrer 1982; Horn 1989). Now, this negative antonym obtains a second negation, the ‘in-’ (possible was also ‘non-’). Accordingly, to prove someone’s indispensability includes a form of double negation, where one part of the negation is the antonym, the other the negation by contrast. Putting together the whole complex, ›language‹ and ›consciousness‹ are interwoven (and what else, yet one would like to know in which peculiar ways) but they entail a peculiar logical axis which may separate them according to the negation involved: if ever they should become identical, this must be an appearance or peculiar deception.

III.2.

To make a further step, if the subordinate clause was equivalent to the rule of double negation, it would constantly mean:

(2) The language really is not dependent on consciousness in order to prove its requiredness.

If language requires consciousness then the reverse is not true (according to the findings of Damasio and the meaning or functional essence of core consciousness). Even if (2) is the normal meaning of (1) or can be interpreted as such, double negation of an antonym (non-dispensable, whereby ›dispensable‹ is, as mentioned, understood as already ›not required‹), then, of course, normally ›required‹ does not follow. Any pure antonym allows (theoretically) an infinite series of reversals of its value (p.e., one of the most interesting asset evaluation characteristics in modern banking systems, betting on an exchange rate) thereby nowhere implying its fully *realized* counterpart, the other extremity: therefore, speaking with differential language, the antonymy does not provide congruence, or something which is increasingly and ever more not small does not necessarily become great or tall (accordingly, the not non_{n+1}- or not_{n+1} non-honorable is not necessarily mean, otherwise honorable, but something in-between, be it on the least interstitial span). There is no need of formal proof because the hiatus, the (de-)fault, the schism, the (counter-)immunity, even the chaos in its original sense are necessary explications of this fact and difference (Hegelian diremption may provide another instance). It should also be the implied reason for an open circuit or a

situation of senselessness Quine uses for denying peculiar forms of quantifying into modal contexts (see below, his examples from (30) on).

III.3.

The “proof of indispensability” (1), therefore, understood on the grounds of a polar and not contrary opposition (which would make the case even worse) does not hold unless the underlying opposition is understood as exhaustive – which is the case (in the class of strict complementarity under the heading of polarity). And this is also the very clue to propel the matter into the region of the other principle, the ›identity of indiscernibles‹. Quine uses it as the introitus into the problems of reference and modality in order to show intricacies of referential opacity. So far, it is coincident with its not mentioned mentor, Leibniz, who uses it quite alike as the ‘currency’ of logical substitutability. There is no need to cite his (or original) famous examples, except of introducing the possibility of a circuit. Accordingly, ›Tullius‹ and ›Cicero‹ are (i) names, (ii) logical entities or even *segments* capable of representing a common conceptual focus, on one side, and *as such* underlying a common closed circuit which, on the other side, bears the predicate ›denounced Catilina‹ (a simple dy). Now, if ›Tullius‹ and ›Cicero‹ imply a *common distinct focus of identity*,¹ (and what else, instead of (i) absurdity or (ii) some form of mental illness on both sides, or (iii) what Quine explicates as cases of divergent sense to be derived from the peculiar knowledge of someone else who knows Cicero and not Tullius or the other way round, hence the distinct focus is given but not realized), the conceptual axis of the predicate must do alike. In consequence, there should be other expressions which fit quite well to the semantical meaning of the sentence: this, at beforehand, is one main systematical reason for constitutive ambiguity settling with language; even more, and the main interest here, S and P or x and y, understood as conceptual focusses and not *per se* atomic (self-enclosed) items, instantiate a proper circuit, the centre or content of the whole proposition.

[IV].

IV.1.

In consequence, the problem arises, (i) if the relation of ›Tullius/Cicero‹ versus his ›denouncing‹ is understood as a real bi-focal circuit, the very element of thinking, (ii) why and how identity behaves, and furthermore (iii) why the principle is explained as the “identity of indiscernibles,” the latter term, be it Latin or not, fraught with perilous semantical implications (unless understood within the spectrum of negation and antonymy). After (1) and (2) it should become at once clear that the principle relies upon an antonymy or full

¹This formulation seems to be a tautology – what else a focus should manifest than something distinct. However, one should be cautious because from projective geometry one knows very well that a focus might be hidden or on another level (Cederberg 2000, 234; Wilkens 2014, 337).

contrary opposition, which is the polar one, but necessarily understood as exhaustive: non-discernible, whereby discernible is the first negation or implication of otherhood, must mean full contrary *and only this*, hence exhaustive opposition – which in connection with the additional negator permits classical double negation, or identity (equivalent with the opposite term on the other side).¹ Quine now is eager to show that the identity is not granted in any case, hence referential opacity has to be acknowledged; in addition, even quantification into modal contexts seems endangered (leaving an open or non-closed circuit) in any case where one or both items include a shared focus (according to this) or a regular naming difference according to his explanation. For the moment, the possibility of modal quantification under the first premise is not entered – as soon as focusing is implied within the premises, modality will have to reflect if the corresponding term is to consider under segmental partition or not.

IV.2.

What rather has to be shown in first instance, is the internal connection between (i) and (ii), i.e. why the circuit becomes the model of thinking. First this can be shown from Quine's usage of the tautology. Evidently, it is his instrument in order to make the failing circuit or sense of modality manifest (from (39) to (40) in connection with modal attributes). The relationship of ›sense‹/›senseful‹ versus ›nonsense‹/›senseless‹ (or sometimes ›meaningless‹), therefore, is the subject of the last section. The introductory section and key passage is his explanation of the relationship of *universal instantiation* to *existential generalization*.

“The logical operation of *universal instantiation* is that from whereby we infer from ‘Everything is itself’, for example, or ‘ $x (x = x)$ ’, the conclusion that ‘Socrates = Socrates’. This and existential generalization are two aspects of a single principle; for instead of saying that ‘ $x (x = x)$ ’ implies ‘Socrates = Socrates’, we could as well say that the denial ‘Socrates \neq Socrates’ implies $\exists x (x \neq x)$. The principle embodied in these two operations is the link between quantifications and the singular statements that are related to them as instances. Yet it is a principle only by courtesy. It holds only in the case where a term names and, furthermore, is referential.”²

¹This is the usage Kant refers to in CpR A264/B320.

²Quine. From a logical Point of view, 146. Clearly, the issue seems at least inspired by Russell's treatment of classes, where he showed that by self-inclusion of a class as a member two distinct senses of function have to be discriminated: ε' versus ε ”, explained as “there is a function \emptyset which x satisfies, and which defines the class a ,” versus “every function whose class is a is satisfied by x .” As it turns out, the first one is the proper candidate for self-inclusion. Quine passes over this connection in order to devise otherwise – the referential relation clears the fact if something could happen against this difference. If one asks for distinct fusion (against latent merging or “confusing”), the regular circuit and polarity takes over the task to understand at least one necessary constitution of a class (*The Collected Papers of Bertrand Russell*. Vol 4. London: Routledge 1994).

No question, Quine is right to point to the referential claim within this mutuality or, to term it correctly, closed circuit of universal instantiation versus existential generalization (where ›closed‹ means the one implies the other, and one cannot escape from using reciprocally). Both operations belong together as a polar opposition, i.e. they behave like regular sides of a common sphere (to distinctly and non-defeasibly dissociate from mutuality of disjunction in the classical sense, p.e. Kant, who, to put it otherwise, constantly taught that concept formation by abstraction is the inverse operation to specification, the issue, in turn, which is on the decisive margin between term against propositional logic).¹ Hence, maintaining his exemplification, the ‘x’ (Socrates) must be understood as a focus within his general periphery or universal *sphere* (this the logical term for instantiation and/or extension), and it is immediately logically possible to identify the sphere or periphery with its instantiated centre or existential focus, i.e., to re-scan (or even re-project) the periphery onto the implied focus to make them identical. The open tautology is the result, in addition the *circuitive* essence of the S-P-model (not to confuse with circular). Otherwise, the condition of courtesy explains the manifestation of the polar entrance, because (i) Quine himself uses negation within existential generalization in order to manifest the negative impact or counter-side of the same ‘principle’. What else should be the reason for integrating the very singular item, › $\exists x$ ‹, with its counter-element, full expansion, › x ‹, if not the given, i.e. implied antonymy ›one-many‹, interpreted on their extremities, in addition, in connection with › $\neg\exists x$ ‹? Accordingly, quantification bears a necessary relationship to polarity which has been extensively researched and provided large evidence in recent linguistic work (Zwart 1996, Ladusaw 2005); (ii) it must imply that the ›general/universal‹ versus ›existential/instantial‹ opposition has to be understood in reciprocity or *on equal plans*, so that one is projecting itself onto the other instead of full complementary or separate application. Indeed, they can be handled as exhaustive so that one can (but must not) restrict the expression to one side without constantly mentioning/representing the counterpart; nevertheless, as soon as the focus necessarily implied becomes manifest by reason of shared or segmental items, the usual treatment of Quine’s argumentation, the way goes back into the polar opposition and, at least, one circuit. Accordingly, any pairs of referential opacity or *n*-tupel instantiation should be interpreted in connection with a real, effective conceptual focus. Because a focus must imply segments (a one-segmental focus should be an extraordinary exception evoking a sort of absoluteness that in history has gotten some fame, in particular concerning the ideas, but not abstract concepts) it makes no wonder that the impact of the segment may incline to the mental or representational instead of the referential side.

¹Concerning the issue, the final position is not decided, but it should be clear that the circuit, in so far relying upon necessary, in particular negative term relations, cannot be reduced to strict propositional claims (Heis 2014, 275).

IV.3.

There rests a further problem, the $\succ\equiv\prec$ versus $\succ\neq\prec$ in Quine's explanation and generally. If, according to the model introduced, the S-P relation is understood as an elemental circuit implying a focus on each side and bound together by the whole proposition then the otherhood or relevant *discernibility* implies negation which has no manifest sign. The whole series of counting negation would, in any case, receive a conclusive zero position, even more, it bears the prevailing (or model) interpretation. Because it constitutes the circuit it does not involve (or need) a manifest negational sign. Otherwise, it is compatible with fusion which any full antonym requires, and the complementary or exhaustive ones makes extensively evident (p.e., 'someone does not speak/is silent', or 'whispers', 'murmurs', points to the overall issue, the melting or fusing, respectively, of the negative operator), otherwise is becoming apparent with contrary terms (the negator bound to an attribute, 'not-speaking', 'non-eloquent' non-/in-colloquial' against also 'whispering', a negative fused term). As an example, a sentence series like¹:

(3) 'Giorgione was so-called because of his size,' and 'Giorgione was called *Giorgione* because of his size,' versus 'Barabarelli was called *Giorgione* because of his size,'

explains the referential difference, which Quine is aiming at, on the contrary grounds of the implied focus: 'Giorgione' does and must imply a conceptual distinct focus together with the size, i.e. his largeness, hence both form segments. Accordingly, the entire analytical issue, one of Quine's main endeavors, is affected. A focus or the distinctive fusing of conceptual – and, of course, sensual and imaginative – elements is evidence for the *inesse* principle (the Latin term) or the general observation of terms *to be contained one (or several ones) in another*. As the natural outcome of fusion (and fusing gradability), this will further entail (and affect) the primordial entry of logical analysis, the question of truth.

[V]. *Sense versus Nonsense or Senseful versus Senseless.*

(4) "Impaired₍₁₎ extended consciousness possibly contributes to the dissolution₍₂₎ of self associated with states of depersonalization₍₃₎ and with states of mystical selflessness₍₄₎, and the same is true of the controversial condition of multiple personalities."²

V.1.

This introductory sentence should make clear that logic and philosophy is not well consulted, restricting the impact of negation to manifest signs of $\succ\text{non}\prec$

¹Quine 1979, (2), (5) and (6).

²Damasio 1999, 144.

or ›not‹ (otherwise to believe in a simple – or simplified – sphere of affirmation without *inherent* relation to negation). According to classical design, there is no sign of negation in the sentence the origin of which does not matter in first instance. Damasio’s report about cerebral, in particular neurological infections uses scientific language which, with emphasis, is dependent upon linguistic instruments to express the whole span between the plus and minus or the spectrum of evidential observation between the given and the non-given. There are four cardinal negations to count, which are not simply privations (in traditional analysis): (1), a proper antonym, (2) a contrary term, and functionally the same, (3) the same as (2), if ‘dis-’ and ‘de-’ designate analogous semantical procedures (privation in the sense of contraries, which may be equivalent with a proper antonym, thereby fulfilling polar opposition), (4) full antonym, and equivalent with the section title, the opposition of ›sense(ful)‹ versus ›senseless(ness)‹. Does a logician know, intuitively or after consideration, how to express and integrate these different negations within the entire proposition? In any case, one can conclude at once, the oppositions from (1) to (4) are chained (implication included), and even more, evidence for invoking polar opposition, they logically manifest the counter-circuit as well, belonging to an insane, troubled or even ill consciousness: from this follows that one can quite easily derive the implicit habit or properties of the sane consciousness, its proper or normal circuit. What is expressed is equivalent to (1) reigning over (2), itself reigning over (3) and (4), so far the whole matter connected with possibility to be settled by uncertainty (which might be token as privation):

$$(4') \exists v \forall x \exists y \exists z \text{ EXC}v.\neg fv \supset \diamond C ((Sx.\neg rx).((Py.\neg py) \vee (Pz.\neg sz)))$$

Eplanation. EXC = Extended consciousness; f = fostered (as proper +-antonym of impaired); C = contribute; S = Self; r = resolved (fully attentive, proper +-antonym of dissoluted); P = property or state; p = personalized; s = self-enclosed or attribute of self.

The formal translation expressly quantifies over the relevant attributes in order to make the implied negation manifest. However, doubtlessly this translation, even if it makes sense, does not confer the spectrum of negations associated with contraries, privation and especially polar opposition. Linguistic issues concerning the terming of the antonym should be negotiated in such a way that they must imply a real conceptual focus; hence there might be other more or less distinct terms (verbal expressions) equally good (depending from strict context co-governing the fusion as a segment). Accordingly, the matter (i) has to do with fixing the form of negation, (ii) to understand the interrelationships of negate terms, differing in the sense mentioned, and possibly being altered or influenced by chained fusion.

V.2.

(A) “[N]onsense is virtually the mere absence of sense and it can always be corrected by arbitrary attribution of a certain sense.”¹ – (B) “If, unless Pegasus were, it would be nonsense to say that he is not, then by the same token, unless the round square copula on Berkeley College were, it would be nonsense to say that it is not.”² – (C) “Moreover, the doctrine of the meaninglessness of contradictions has the severe methodological drawback that it makes it impossible, in principle, ever to devise an effective test of what is meaningful and what is not.”³ This (more or less famous) cascade of assertions should rather exactly encompass Quine’s general orientation. No question, he was not aware of dealing with contradiction in opposition to full polarity because, to the extent, he should not be able to formulate (C). In addition, (A) shows very well that he was willing to understand ›sense‹ versus ›nonsense‹ in at least a contrary, and better antonymous manner, so that they (must) imply a circuit, which, in turn, makes the accommodation to different contexts possible. As the last instance this should be too easy. Sense normally is crossing truth as a rational equivalent and what his *Ypsiloner* and *Wyman* are expressing is that by asserting an entity you, the mind, must undergo a circuit, whereby both ends cannot be regarded as equally suspended or *identically negative*. Quite to the contrary, this would entail absurdity because when introducing an entity as semantically valid – analyzable by semantical means – it must undergo the law of identity and of definition because otherwise no predication would be possible (see below). Hence it must undergo the virtual law of circuit because it becomes a mental (or logical) focus able to be intrinsically linked, even eventually to be fused to several segments, each one a representation (within consciousness) or a notion (within expressive language), and the focus itself divided into a plus and minus token by reason of the common polarity, reigning over the mental circuit; whereby the plus and minus, as mentioned, are transparent (or non-opaque) according to the law of the identity of indiscernibles which (must) underscore(s) any predication, be it senseful or not (illusionary, fictitious, poetical). Finally, therefore, Quine has no right to devaluate the method of proof by *reductio ad absurdum* (Kant, p.e., uses in every instance of the antinomies 1-4, *CpR* A426-454/B454-483; his insight into its proof potency A789-91/B817-819). His mockery (against large, still widespread practice) does not provide evidence for ›sense‹ versus ›nonsense‹, but for his negligence of the difference of this opposition against the (regular or normal) opposition of truth (which, in turn, might be interpreted as a real antonym as well). So (B) has to be discharged or not given full argument due to “unactualizable impossibilities” being involved: – the circuitive basis is the same, in addition, the form of double negation has to be observed entailing other conditions (than its classical inheritance and non-reducibility to LEM, the law of the excluded middle). By the same reason another definition, which has its proper plausibility, is too restricted: “If ›p‹ already articulates a senseful, in

¹Quine 1961, 130.

²Quine 1961, 4

³Quine 1961, 5.

a ›normal‹ sense true or false, utterance but is false, then ›non-p‹ is evaluated.”¹ Sense in this case is limited to the application of contradiction, in particular it has no interrelationship, anticipative position, to being used as an antonym, settling with the aforementioned application in an orthogonal (instead of identical) manner. The ›non-p‹ should, in any case, possess its proper fascicle, as something may be senseful without being true or false (indifference, neutrality, immunization).² Furthermore, explaining the interrelationship between the ‘normal case inference’ of a concept and its regular inclination to *steresis* (privation) – or that classification steadily has to account for counter-examples under defeasibility – it makes sense to interrelate the individual as the sample of the kind so that it behaves within the sound periphery of the kind concept, leaving it open for negativity, which under this form of interpretation of the sphere is mutually involved, even on the extremities, instead of making both levels strictly disjunct.³ the plausibility, and factual evidence of the circuitive plan should be presupposed, once the individual is defined as a member of the kind and, under circumstances, its non-token that must obviate following the negative segment. Accordingly, this is what makes definition and classification versus taxonomy focus- or polarity-bound, corresponding to the circuit.

V.3.

The final consideration therefore is aiming at the prospects and projections of the ›non-alliterated‹ relation of ›sense‹ versus ›senselessness‹ or ›nonsense‹. One may aspire this is expressing the foundation of life or nature, a ‘transcript’ of the eventually good, better or even best purpose of the world or reason, and as soon as the evolution of the (neurologically sustained) consciousness enters it becomes the very vehicle. If it has a one-to-one command (or commitment) the nonsense as a normal experience of both the erudited as well as non-sophisticated consciousness must belong to nature, too, and failure of circularity hides behind any step. Consciousness, therefore, has not a one-to-one command and it should entail larger regions of nonsense – or senselessness (not identical) – to be attributable to it and not at once to nature (p.e. the schism, irrational immunities, defective habitudes, social pressures, strictures and constraints, latent pacts over/against rational communication, where the sense is eventually highly subjective and overall more or less defective). These regions or realms are, in a special perspective still to be reflected upon, the counterparts of idealistic and in particular transcendental claims: when it comes to the very limits of condition, the reasons for senselessness should be very well known and not left in the arbitrary. This mental demand, in turn, is not simply equivalent to the postulate of a (so-called) transparent consciousness

¹Pirmin Stekeler-Weithofer (2014). „Empirische Realität und generische Wirklichkeit. Zu metaphysischen Fehldeutungen materialbegrifflicher Sinnbestimmung.“ In: M.Gabriel. *Der Neue Realismus*, Fft/M 2014, 308-342, 330. The sentence is no.10 under „universally valid material laws“.

²Compare other tokens on pp.340-41.

³Stekeler-Weithofer 2014, 320ff.

because, under no circumstances, it could be restricted to the closed (isolated) subjective one: logically any instantiation, perceiving and obtaining of representations, finally any exchange, be it linguistically or not, must imply circuits with and among another consciousness, be it +/- strange, i.e. +/- acquaint, i.e. +/- intimate or not (i.e. non-confidential, i.e. non-addressive or aversive, i.e. non-colloquial or outwardly, i.e. counter-positive). The absolute monology is forever fictitious to the extent that it should not entail the assimilated, instantaneously simulated 'talk', the coincident exchange and even pre-anticipated reception of representations within their original source and conditional confinement; further, and not at least, the lawlike adherence to fusion making representations interlink by nature or essence (as one will). From this follows what (i) has to be considered as the intercommunicative constitution of sense; and (ii) that also truth is participating as the strict counter-evidence (where orthogonality has systematically to be imposed). Concerning neurology, consciousness therefore must possess neural patterns which immediately, right from the first emanation, reflect impulses from circuits within the outer realm of consciousness, i.e. its living counterpart: they irreflexibly instantiate (to follow the terminology of Damasio) a counter *proto-self* and counter *core-self*, if the self should make sense within overall orientation, at least as the very center of concentration. Soliloquies, the monology, and solipsism as the theoretical position belong to strict monopolar reflexivity or a form of abstract expression of consciousness which, seen as nature or on the *immediate* and non-conditional level, is rendered to the other side, providing the insight into the circuit or its circuitive behavior.

Following this thread, circuits and polarity cannot be observed sensefully on reductive plans. Therefore one of the first mistakes the mind is capable of suffering are the eventual reduction of a plus to a minus value (which is not simply absurd if this means to understand x as instantiated $+A$, $-A$ simultaneously or in the same instance, ergo zero),¹ thereby, in addition, disregarding commutation. Generally, the consequence is that the core of consciousness as the necessary center of its representations – which, in any case, must undergo a plurality, even more a myriad of circuits in order to understand the world, its past, contemporary and future agents and, not at least, itself – is deriving into a proper node (or tissue within a plurality of knots): the omnipresent, i.e. infinitely knowing mind would require to see the special history of any knot, its encirculation, in order to understand completely its transparency – and the proper values, intensity and fusion implied. So far, this demanding endeavor may be set a little bit apart, confidentially with recent endeavor in the realm of apologetic attitudes towards realism where the same node is known as “the confusing balance between ontology and epistemology”.² The very question mark belongs to this balance, and not to the confusing property, because it should not be realized (i.e. unreal) and the homogenous (negation-free) continuum (“continuing passage”) from the

¹Following the spectrum of negation according to Dunn 1996.

²Maurizio Ferraris. „Was ist der Neue Realismus? Vom Postmodernismus zum Realismus.“ In: Markus Gabriel (Hg.). Der Neue Realismus. Frankfurt/Main 2014, 52-75, esp. 64-67.

outward environment to the inner sphere of perceptions and the making of schematic, historical and moral concepts is not granted. If the realms evolve themselves on “extremities”, negative versus positive, negation would falter (responsible for the traditional abyss) and the (A|B) “field of sense” within the environment versus the (A|B) “field of sense” within the mental would lose its ultimate (and everywhere problematic, well-known) interference. In addition, one does not know if the positive versus negative should be counted identically (or on a fascicle, not everywhere self-same). More interesting finally is as to how tautology and the circuit behave and how sense versus senselessness can be projected against. This will be answered with the help of history, two non-marginal passages from Hegel and Leibniz, and the outcome will be that tautology in respect of sense behaves dualistically or against the ‘fief’, i.e. stronghold of classical identity.

In order to make understandable that the generality of the law is not apt to meet any circumstance in reality, a well-known issue since Aristotle, Hegel cites Plato in his earlier treaty *The Scientific Ways of Natural Law* and explains the difference with the conclusion that “is is impossible that the throughout equal to itself is appropriate (“good”) for the never equal to itself.”¹ Indeed, this conclusion should entail the circuit because the equal to itself (*ipsi aequale*) is opposed to its full contrary, the never equal to itself. In his *Philosophy of Right*, within full explanation, Hegel therefore comes very close to a polar understanding of the opposition, law in itself against endless varying reality or generality against concreteness: not only that generality and particularity are able to fuse – which makes his dialectics obviate from classical classification rules – but they entail negativity! When the law is approximating reality and its never identical circumstances and fused properties, negation must enter *within the plan of application*, not within the matters itself (and in addition), hence affect the normal subordination or classification and put the plans of logics on the mutual and intricate implication of both sides. He should be right if it also means that the counter pole of non-identity is reached and both are attached to the requirements of legislation and its application. In a sense of non-separability, to put it on other terms, tautology therefore must entail (and not only meet) its counter-part, the non-tautology.

This can be derived from Leibniz. The passage in axiomatic style is written in Latin in his *Initia rerum mathematicarum metaphysica*: “[1] Si pars

¹In the original G.F.W. Hegel. *Über die wissenschaftlichen Behandlungsarten des Naturrechts, seine Stelle in der praktischen Philosophie und sein Verhältnis zu den positiven Rechtswissenschaften*: „[...] das Beste aber ist, nicht daß die Gesetze gelten, sondern der Mann, der weise und königlich ist, weil das Gesetz nicht vermag, das, was aufs Genaueste und ganz allgemein das Vortrefflichste und Gerechteste wäre, vollkommen vorzuschreiben; weil die Ungleichheiten der Menschen und der Handlungen und das Niemals-Ruhe-Halten der menschlichen Dinge nichts Sichselbstgleiches bei keiner Sache über alle Seiten derselben und für alle Zeit in keiner Kunst darzustellen erlauben. Das Gesetz aber sehen wir gerade auf ein und dasselbe sich hinrichten, wie ein eigensinniger und roher Mensch, der nichts gegen seine Anordnung geschehen noch auch von jemand sich darüber fragen läßt, wenn einem etwas anderes, Besseres vorkommt gegen das Verhältnis, das er festgesetzt hat; – es ist also unmöglich, daß für das nie Sichselbstgleiche das sich durchaus Selbstgleiche gut sei.”

unius sit aequalis alteri toti, illud vocatur Minus, hoc Majus. \ [2] Itaque *Totum est majus parte*. Sit totum A, pars B, dico A esse majus quam B, quia ipsius A (nempe B) aequatur toti B. Res etiam syllogismo exponi potest, cujus Major propositio est definitio, Minor propositio est identica. [3] Quicquid ipsius A parti aequale est, id ipso A minus est, ex definitione, B est aequale parti ipsius A, nempe sibi, ex hypothese, ergo B est minus ipso A. [4] Unde videmus demonstrationes ultimum resolve in duo indemonstrabilia: Definitiones seu ideas, et propositiones primitivas, nempe identicas, qualis haec est B est B, unumquodque sibi aequale est, aliaque hujusmodi infinitae”.¹ In comparison, the passage is both Platonian and on the side of the separate (and non-fusing) equal to itself. Therefore (3) the syllogism works well (in primary form) and the conclusion can happily rely upon “duo indemonstrabilia”: definitions versus ideas (which cannot be derived). To counter, the conclusion should be false, as soon as the restriction becomes evident, and (1) to (3) are proper to the extent that the definition and ex hypothese are confirmed. The very problem are the main notions: minus versus majus, equal versus (implied) non-equal and finally the tautology (or propositio primitive), this already in connection with the principle of indiscernibles and the implied double negation above. If minus and majus are entered on their own behalf, i.e. not restricted to simple definition, they must introduce the real antonymy or polar opposition. Unconditionally, this has two cardinal consequences: (i) in the very limit they imply each other, i.e. it is impossible to see something ›big‹ (+pole) without its notional complement, the ›small‹ (and smaller) (-pole), in particular the ›equal‹ (+pole) as ›non-equal‹ (-pole); (ii) when comparison comes into play, the difference necessarily will never become equal or fully zero, hence the opposition persists without ultimate fusion to one side or value, neutrality or indifference is an act of imposition (on the same logical level); which can also be derived from Hegel, who often takes indifference as the very indifference, hence zero-like or the fused ‘monological’ centre, otherwise the endless difference, necessarily implying the presupposed opposite. Accordingly, and reminding that a plurality (or “thousands”, as Leibniz several times pronounces) of notions, “ideas” according to (4), are counterparts of necessary, non-reducible antonyms (›just‹, ›good‹, ›beautiful‹, ›reasonable‹, ›right‹ and even ›true‹), (4) is false and the definition as the presupposition of the tautological explanation of an idea must include the circuit: the self-explicit tautology must imply the non-tautology, or ›B = B‹ implies its necessary implication and possible transfer to ›B = ¬B‹ (otherwise $B \neq B$, as above), whereby this ›¬B‹ – within full analysis – may be segmented into ›n_iN-B‹, the n_iN-term evolving a series of negation within contrary and polar relationships, each one taking a node as the complement of fundamental conceptual fusion.

To conclude, the axiomatic explanation of Leibniz represents a reading of mental behavior but not logical necessity. Quite to the contrary, the difference of sense versus senselessness, and in particular when its relation to truth becomes salient, requires full reliance upon the circuit and its possible

¹GM VII, 18.

implications. Quine seems to have felt this necessity, even if his orientation distracted his attention from any regular circularity. In addition, ideas as *atomic* entities of the mind are therefore nearly ruled out. Equalities are always interconnected to their counterparts (and not immediate contradictions), and identity behaves within a »sealed« circuit. Finally propositions without intrinsic connection to fusion, be it due to terms or the proposition itself, fall under the same precaution (i.e. non-existence).

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