

HEGEL ON THE FORMAL LOGIC'S PRINCIPLES OF IDENTITY AND CONTRADICTION

ȘTEFAN-DOMINIC GEORGESCU, Ph.D

The Academy of Economic Studies

Abstract. *The author tries to determine the role of the principles of identity and contradiction within Hegel's logic. The main idea is that those principles are considered from the viewpoint of speculative thinking, not from that of abstract understanding. Considered as such, they prove to be extremely important within the development of absolute idea inasmuch as they are not reduced to their formal meaning, as reflexive understanding would have done.*

Key words: *contradiction, opposition, identity, principles of logic, essence, subjectivity.*

Although, according to Hegel, classical formal logic is a part of the doctrine of concept – its forms being dealt upon within the chapter on subjectivity – its principles are debated upon in the first section of the doctrine of essence, within the second chapter¹. Thus, the second chapter of the section *Das Wesen als Reflexion in ihm selbst*, which is entitled *Die Wesenheiten oder die Reflexionsbestimmungen*, firstly refers to identity and here, in a note, Hegel deals with the principle of identity. In the same chapter, the third part refers to contradiction and here one refers to the law of excluded middle and that of contradiction. One previously notices that Hegel does not speak about non-contradiction, but contradiction. The fourth principle of traditional logic shows up within the third chapter of the same section, entitled *Der Grund*.

One might have expected Hegel to include the discussion about these principles in the chapter regarding classical formal logic; on the contrary, he did not even save a place for these principles within the doctrine of concept, but in the doctrine of essence; i. e., not in the subjective, but in the objective logic. In other words, Hegel took identity, contradiction, excluded middle and sufficient reason as being principles of not of subjective idea, but of the objective one. An explanation would be that these principles belong *par excellence* to the abstract understanding² (by understanding Hegel means that hybrid faculty of thinking that includes understanding as such, the power of judgment and formal reason) and that they do not belong even to common thinking.

Thus, referring to common thinking, he says that no consciousness thinks, represents things or speaks according to this law³. This means that neither concept, nor representation or language ever make appeal to this law and, least of all, objective reality. If fact, this statement is a bit exaggerated: identity is a principle that ordinary speech assumes, but also logic and natural sciences. What Hegel meant is that neither of them can be reduced to the tautologies allowed by this principle. The formula $A=A$, which renders the principle of identity, is no more than a tautology leading to no consequences unless one accepts the differentiation of moments⁴. Perhaps Hegel is referring to Fichte's attempt to establish this abstract identity as a primary sentence of philosophy, starting

¹ We refer to the *Science of Logic*. There are some differences from the *Logic* of the *Encyclopaedia*.

² Hegel, G. W. F., (1969), *Werke in zwanzig Bänden*. 6. *Wissenschaft der Logik*. II. *Die objektive Logik*, Suhrkamp Verlag, Frankfurt am Main, 1975, p. 41.

³ Idem, *The Encyclopedia Logic: Part 1 of the Encyclopaedia of Philosophical Sciences*, trans. Geraets, T.F., Suchting, W. A., and Harris, H.S., Indianapolis: Hackett, 1991, § 115.

⁴ Idem, *Wissenschaft der Logik*, loc. cit.

with which to deduce the entire world. To Fichte, this principle has both logic, and ontological and epistemological nature, being the ground of things both regarding their being, thought and knowledge⁵. But Fichte cannot explain how this principle starts moving or, if it does, he is forced to make appeal to other things, i. e. not mere identity that would have just left the things buried in tautology.

First of all, the principle of identity is limited by its own formula. Thus, the sentence “A is identical to A” brings about a double relation between two things that should be different. This means that the very meaning of the sentence utters something that denied its form, i. e. the fact that A is identical to A, although the structure of sentence assumes a difference⁶. This means that the very language states that setting up an identity assumes a difference⁷. Now, Hegel seems a bit exaggerated in interpreting formal logic. He does not differentiate between expressing an identity and predication as such. Of course, the structure of a sentence is S-P, where the predicate must utter something different from the subject, and the special form of essence is that of reflection, i. e. judgment (of course, there is some specificity of Hegelian interpretation of this concept, but for now we do not pay attention to this matter). In other words, Hegel refers to identity within the doctrine of essence, stating that one can express identity only by means of difference, i. e. by using the form of reflection, and never as such. This renders the principle of identity universal, but absolutely empty. Now, had Hegel uttered a difference between predication and identity assertion, he would have probably accepted the principle of formal identity (or would have been obliged to do so). But he does not do that, and not because it is wrong, but because it is futile: one cannot deduce anything out of it. In other words, the mere assertion of formal identity does not encompass the principle of dialectical movement, i. e. of difference (Hegel grounded his critique of Fichte’s philosophy on this idea). It follows that, although some philosophers have reproached Hegel he mistakenly took identity for predication⁸, this distinction would have brought nothing to the discussion on identity, precisely because Hegel does not try to set up a logic of formal determinations, but one that renders the movement of the concept, i. e. a development of determinations from one another⁹; for such a logic this principle could just issue a formal, universal, but still useless truth¹⁰. Hegel opposes this formal abstract identity with a concrete one, an identity for which the identical finds itself all over the variety of possible manifestations¹¹. Moreover, there is another issue regarding this formal identity. Within the doctrine of essence, the form of reflection assumes the relation between appearance and essence. Which means that the statement “A is identical to A” or “A=A” merely sets up the identity of the subject with itself, from the statement “A is B”. But the subject is merely an appearance, and the substance is the predicate. Which meant that, in the case of the appearance, the subject is rendered by means of the determination of the predicate, and not by its own. Thus, considered as such, the subject seems to have content; in fact, the subject loses its own determination and it remains an empty form. Thus, the principle of identity merely asserts the identity with itself of a subject as an empty form, without content. This is so because this empty

⁵ See also Surdu, A., (2002), *Elemente de antitetică speculativă la Fichte* [Elements of Speculative Antithetics in Fichte’s Philosophy], in *Filosofia modernă* [Modern Philosophy], Ed. Paideia, Bucharest.

⁶ Hegel, G. W. F., *The Encyclopedia Logic: Part 1 of the Encyclopaedia of Philosophical Sciences*, loc. cit.

⁷ Lécrivain A. (coord.), (1983), *Introduction à la lecture de la Science de la Logique de Hegel. II. La doctrine de l’essence*, Aubier Montaigne, Paris, p. 62. See also *Wissenschaft der Logik*, loc. cit.

⁸ For instance, Russell, B.

⁹ Hibben, J.G., (2000), *Hegel’s Logic: An Essay in Interpretation*, Batoche Books Limited, Ontario, Canada, p. 81.

¹⁰ Hegel, G. W. F., *Wissenschaft der Logik*, loc. cit.,

¹¹ Hibben, J.G., loc. cit.

form would receive content only from a predicate that is different from it, i. e. by means of difference; but this is not the case, since the subject is related only with itself. Which means that “A=A” or “A is identical to A” seems to have a content – in the case of the doctrine of essence the subject gets its content from the predicate (its essence). This identity with itself of the empty form is considered, in contemporary logic, by the principle of linear substitution. Perhaps Hegel did not have in mind this principle, since the logic of understanding had not yet taken the contemporary symbolic form. But mainly, in a succession of symbols that set up a correct formula, for instance $\{[(A\&B)\vee(A\&C)]\rightarrow(B\vee C)]\rightarrow(A\vee B\vee C)\}$, linear substitution assumes each symbol is a formal identity; to get contents, each symbol must be replaced with the same thing, i. e. with the same constant everywhere (A, B, and C are taken as symbols for propositional variables in first order logic).

Regarding the principle of identity, one finds here merely the forcing of a difference. In other words, Hegel does not refer to a temporal succession of occurrences of a symbol. Therefore, one does not speak about “A=A” being uttered in time, the occurrences being at least temporarily differentiated. All the same, one could never refer to the differences of position within a formula. Thus, the possible objection that two occurrences would merely be instances of the same entity leads to no conclusion, since either the principle utters nothing, because it simply asserts A’s identity with itself, or it utters something, and then there must be a difference between the two occurrences¹². At the same time, one can say that the two instances differ in meaning, but not in reference. This means that between the two one makes a difference, therefore there is a unity in difference¹³.

In fact, Hegel’s thesis is that mere formal identity pertains only to pure being¹⁴ which, in itself, is identical to nothingness¹⁵. The very judgment form of reflection – according to Hegel – points towards the same idea. Thus, being is reduced to appearance within the doctrine of essence, while truth belongs to essence, which takes now the place of the predicate. Thus, within the structure S-P, S is appearance, pure being. From a logical-speculative viewpoint, S is the formal identity with itself asserted by the principle of identity, but this identity is empty, it is nothing. Thus, considered as such, S is appearance and non-identical with itself, since concrete identity is established not in relation with itself, but by difference from another. Now, if S is merely appearance, it cannot be different from another, since it lacks a determination by means of which to differ from another. But it cannot be identical with itself, since it has no determination by means of which it can be identical with itself. This leads to falling back to the Hegelian concept of passing, concept that pertains to the theory of being, i. e. the immediate and sudden passing of being into nothingness and vice versa. In fact, formal principle of identity states that this sudden passing of being into nothingness – by the very fact that in “A=A” one asserts the immediate passing of A, as being (empty form), in A as nothingness (absence of determination)¹⁶ or by the fact that A is rendered not by means of a determination (it has no determination, since the predicate is missing, and A’s

¹² Harris, E. E., (1983), *An Interpretation of the Logic of Hegel*, University Press of America, p. 162.

¹³ *Ibidem*. Harris seems to think that one can make a difference regarding each occurrence’s place. This is wrong, since position is a space determination. Space has nothing to do with logic, but with philosophy of nature. For Hegel’s logic, position and succession are irrelevant.

¹⁴ Logic is a theory of being from the point of view of the understanding. See also Alexandru Surdu, *Perspective logico-metodologică în teoria ființei* [Logical-Methodological Perspectives in Theory of Being], în *Filosofia contemporană* [Contemporary Philosophy], Ed. Paideia, Bucharest, 2003.

¹⁵ Harris, E. E., *op. cit.*, p. 163.

¹⁶ Which means that nothingness is asserted, meaning the form of the sentence is simulated. See also Lécivain A. (1983), (coord.), *Introduction à la lecture de la Science de la Logique de Hegel. II. La doctrine de l’essence*, Aubier Montaigne, Paris, p. 63.

determination is given by the predicate), but by the absence of all determinations, thus by nothingness.

The principle of contradiction is dealt upon, at first, as a continuation of the discussion regarding the principle of identity, but also in a remark at the third paragraph of the chapter entitled *Der Widerspruch*, from the section *Die Wesenheiten oder die Reflexionsbestimmungen*; in this second case, the title of this remark is *Satz des Widerspruchs*.

In the first situation, Hegel says that this is a mere reformulation of the principle of identity¹⁷. He says that the expression of this principle is “A cannot be, at the same time, A and non-A”. now, taking into account that, within the doctrine of essence, the usual logical form is that of reflection, this means that the principle of identity is better determined. As we have already seen, the principle of identity, having the form “A=A” merely simulated the form of sentence and only seemed to have contents. Now we do not speak only about A being rendered as identical to itself, but this appearance of A is asserted by the fact that its difference from non-A is also rendered. This means that the principle of contradiction is just a clarification of that of identity, meaning that A, as appearance, is now rendered by means of an essential determination, i. e. by the non-identity between A and non-A. expressed as a judgment, the subject S, as appearance (mere assertion of A’s identity with itself, i. e. subject which represents the immediate unity expressed by “A=A”, lacking own determination), is determined by the non-identity of A and non-A, which should have the place of the predicate or essential determination. Hegel states: “... *die Identität als die reine Bewegung der Reflexion die einfache Negativität ist...*”¹⁸, meaning that A is reflected in non-A, thus A determined as empty identity with itself is reflected within A’s non-identity with non-A. This means that non-A shows up only in order to disappear¹⁹. Therefore, the subject of the judgment, as identity with itself, as appearance, is rendered not by a predicate, but by denying a negation, meaning by the lack of a determination. Once again, the form of judgment is simulated, since the different determination on had to render A by, i. e. the determination of the predicate, is denied. Thus, there is no substantial predicate, but the predicated is suppressed by denying it. Therefore, A is not rendered by something different from itself, but only by means of denying a determination. In an usual judgment, A is rendered by the determination of P, which is different. In stating the principle of contradiction, S is rendered by denying a determination, i. e. denying non-A (Which should have been P, the different). We deal again with a return to the principle of identity, since one asserts that A, as a subject, is not rendered by a predicate that determines it, but by means of denying any different determination (general denial of all non-A). Hegel says: “... *der Satz des Widerspruchs... enthält in seinem Ausdrucke nicht nur die leere, einfache Gleichheit mit sich, sondern nicht allein dar Andere derselben überhaupt, sondern sogar die absolute Ungleichheit, der Widerspruch an sich*”²⁰. This means that identity is rendered as mere difference from another. Thus, on the one side, identity is rendered as the principle of identity as mere identity, as immediate unity with itself; but identity proves to be non-identity with itself, since A has no determination by means of which to be identical with itself (in fact, at the level of appearance, identity and non-identity are the same, since they suddenly pass into each other, as in the above-mentioned case of being and nothingness). This non-identity with itself is now denied by the principle of contradiction, by which one states that A cannot be rendered by a determination that is different from itself. Thus, A cannot be rendered by a non-A.

¹⁷ Hegel, G. W. F., *Wissenschaft der Logik*, ed. cit., p. 45.

¹⁸ *Ibidem*.

¹⁹ *Ibidem*.

²⁰ *Ibidem*.

Therefore, A is again denied the possibility to have a determination; the result is the denial of the form of judgment, i. e. the possibility to determine A (as appearance) by an essence (a predicate that is said of A, i. e. a determination that is different from A). Thus one falls back in the form of being, of immediate passing from being (identity) to nothingness (non-identity), and the form of reflection (of judgment) is lost by the very utterance of the principle of contradiction. In fact, the very assertion of A by means of another should be asserted (this is what the form of reflection does, stating the assertion of the subject S by a determination that is different from its own, the latter being left at the level of appearance). Thus, if the subject does not have own determination or if the subject is not rendered by its own determination, this means that it can and must be rendered by something different, by the predicate. In an abstract manner this would be “A must be non-A”, which allows A, as a subject, to be rendered by the predicate whose determination denies the appearance of A (i. e. formal identity, which was just a passage of A’s identity into non-identity, so a sudden passage like that from being to nothingness) and sets up its essence. Briefly, if A is an empty form (as one noticed in the case of the principle of identity), it cannot deny non-A precisely because negation is determination, and A has no determination. The role to deny belongs to the determination of the predicate (which is essence and power, power being, essentially, the capacity to deny, to determine). A denies that A to be rendered by something else than its own formal identity (identity that falls down into itself, since it is also non-identity, i. e. appearance; A simulates not only its determination; in fact, A is disappearing, it is the absence of all power, it cannot persist, it suddenly appears and disappears, just like being into nothingness and vice versa), meaning it forbids the use of judgment form of reflection and it falls back into immediateness of being. The result would be that one must accept only identical sentences, that simulate the form of judgment at the linguistic level, but which merely express “... that abstract identity, ... usually considered as the most useless and boring operation”²¹.

Beside all these, Hegel also speaks about the principle of contradiction before referring to the determination of ground. All reflection’s determinations are expressed by means of a principle (identity, contradiction, excluded middle)²². Now, contradiction was mentioned just to be rejected; it follows that Hegel has been speaking about non-contradiction so far; i. e. to the principal of traditional formal logic. Now he refers to a universal principle²³ that represents the form by means of which one can render truth at the level of reflection, i. e. the principle of contradiction²⁴. Now, if the form of reflection is judgement and the discussion about contradiction follows that about opposition (*der Gegensatz*), then we notice a precise determination of reflexive thought. Opposition is the unity of identity and difference²⁵. This means that opposition is the very nature of judgment, which considers as united the immediate identity of the subject and the determination or difference rendered by the predicate. Opposition is the authentic form of reflection, determined as contradiction (*der Widerspruch*). One must notice that Hegel makes no ontological difference between contradiction and opposition just because he is only interested in the determinations of thought, not in those of reality (therefore, not antithetic, but dialectic ones). Thus, he is not interested in opposition as such, but in its principle. It seems only fair to say that Hegel mixes up opposition and contradiction²⁶ and places opposition at the level of thought when it should be placed at

²¹ Idem, *The Encyclopedia Logic: Part 1 of the Encyclopaedia of Philosophical Sciences*, p.

²² Lécivain, A., (coord.), *op. cit.*, p. 96.

²³ *Ibidem*, p. 97.

²⁴ Hegel, G. W. F., *Wissenschaft der Logik*, ed. *cit.*, p. 73-74.

²⁵ *Ibidem*, p. 55.

²⁶ See Surdu, A., (2000), *Antitetică, dialectică negativă și enantiologie la Platon* [Plato on Anthitetic, Dialectic, and Enantiology], în *Gândirea speculativă* [Speculative Thinking], Ed. Paideia, București.

the level of reality. But this error is somehow acceptable, as Hegel distinguishes them and refers to opposition without any appeal to contradiction. Besides, when he means opposition, he gives some examples taken from Mathematics (+a as opposed to -a), and not from logic (he does not mean contradiction of judgments, which will be treated in a different chapter); probably he would have avoided confusion, had he rendered examples from Physics (opposition of forces). Anyway, he seems not to refer to real opposition, but to its determination, i. e. relation between positive and negative, applicable at all levels. Now, contradiction is a high form of opposition or the principle that stands behind all oppositions. This means that opposition and contradiction are not mistaken for each other, but that contradiction is the true concept of opposition. An explanation of all this would be that opposition can be thought upon only by means of contradiction²⁷.

From all these it follows that Hegel differentiates the principle of contradiction from that of non-contradiction. The second one is derived from identity, and the first one is the main form of all determinations of essence. Now, reflexive understanding rejects the universality of contradiction just because it does not notice the role of negation within the development of logical idea²⁸. This means that reflexive understanding makes appeal only to abstract identity that Hegel rejects. There are two consequences: reflexive understanding can no longer explain the logical movement from one determination to another and can no longer display the manner in which determinations evolve from one another²⁹. Then, the forms of understanding are fixed and have only external relations. To be more precise, within the formula $(A \& B) \rightarrow (A \vee B)$, for instance, the symbols stand for formal identities, which do not modify their essence (they do not have an essence, they reject the form of judgment) and which keep their identity all along the formula. Thus, understanding is compelled to establish only external relations between formal identities. The second consequence is that placing contradiction only at the level of subjective reflection, which becomes unable to notice the nature of things³⁰. This means that the form of reflexive thought is that of judgment; but this form is not suitable for reality and relies only on identity. Thus, no matter how thought would strive to utter „S is P” – and it would be compelled to do so, since judgment is its own form – it would always come back to „S is S”. thus, the only possible philosophy would be that of Parmenides and would stick to contemplation of being and assertion of its identity. Besides, a theory of being from the point of view of understanding merely renders various forms of this identity (symbolic logic or algebra) using the symbol of equality. This is again a return to the level of being which Hegel strived to pass over by means of essence. The result is that reflexive understanding could not care less about the essence of its concepts (either the symbols of mathematical logic, or determined concepts), but it cares about the way they function.

²⁷ Lécivain, A., (coord.), *op. cit.*, p. 97.

²⁸ *Loc. cit.*

²⁹ *Loc. cit.*

³⁰ *Loc. cit.*

REFERENCES

- [1] Harris, E. E., (1983), *An Interpretation of the Logic of Hegel*, University Press of America, p. 162.
- [2] Hegel, G. W. F., (1969), *Werke in zwanzig Bänden. 6. Wissenschaft der Logik. II. Die objective Logik*, Suhrkamp Verlag, Frankfurt am Main, 1975, p. 41.
- [3] Hegel, G. W. F., *The Encyclopedia Logic: Part 1 of the Encyclopaedia of Philosophical Sciences*, loc. cit.
- [4] Hibben, J.G., (2000), *Hegel's Logic: An Essay in Interpretation*, Batoche Books Limited, Ontario, Canada, p. 81.
- [5] Lécrivain A. (coord.), (1983), *Introduction à la lecture de la Science de la Logique de Hegel. II. La doctrine de l'essence*, Aubier Montaigne, Paris, p. 62. See also *Wissenschaft der Logik*, loc. cit.
- [6] Surdu, A., (2000), *Antitetică, dialectică negativă și enantiologie la Platon* [Plato on Antithetic, Dialectic, and Enantiology], în *Gândirea speculativă* [Speculative Thinking], Ed. Paideia, București.
- [7] Surdu, A., (2002), *Elemente de antitetică speculativă la Fichte* [Elements of Speculative Antithetics in Fichte's Philosophy], in *Filosofia modernă* [Modern Philosophy], Ed. Paideia, Bucharest.
- [8] Which means that nothingness is asserted, meaning the form of the sentence is simulated. See also Lécrivain A. (1983), (coord.), *Introduction à la lecture de la Science de la Logique de Hegel. II. La doctrine de l'essence*, Aubier Montaigne, Paris, p. 63.