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## Explaining the Paradoxes of Logic – The Nub of the Matter and its Pragmatics\*\*

### Abstract

[[[ (Here only the chapters 3 – 8, see \*\*\*) First I argue that the *prohibition of linguistic self-reference* as a solution to the antinomy problem contains a *pragmatic contradiction* and is thus not only too restrictive, but just *inconsistent* (chap.1). Furthermore, the possibilities of *non-restrictive strategies* for antinomy avoidance are discussed, whereby the explicit inclusion of the – pragmatically presupposed – *consistency requirement* proves to be the optimal strategy (chap.2). ]]] The central question here is that about the actual *reason* for antinomic structures. It turns out to be a form of *negative self-conditioning* (chap.3). This makes it necessary to clarify the status of *negative concepts* (chap.4). The *generalization* of these considerations (chap.5) leads to the actual *analysis of the antinomic basic structure* (chap.6): Decisively for the pragmatics of the concept is that it *positively owns* a meaning, so that *positivity* is always constituted by the concept *qua concept*. Thus a *negative concept* is characterized by a *fundamental ambivalence*: From a *semantic* point of view it has *negative* character, in its *pragmatic status as a concept*, however, it has *positive* character. If the *meaning* is especially that of a *negative self-reference*, the ambivalence leads to the antinomic constellation of a *negative self-condition* – that is the crux of the matter here! The concept thus possesses the property defined by it exactly when it does not possess it and vice versa. A closer analysis shows that the *function of reflective structures* for the occurrence of antinomies has to be judged much more differentiated than previous opinions suggest. Not only are *four forms of reflectivity* to be distinguished in this context – ontic, semantic, pragmatic reflectivity, and especially the form of negative self-condition; but it is also apparent that these are intertwined with each other in a way that is difficult to be understood. The astonishing variety of relationships associated with this makes the irritation that has always emanated from the antinomy problem appear more comprehensible. In the developed *pragmatic* perspective furtheron parallels to the structure of *self-consciousness* become visible (chap.7). I conclude with considerations about the significance of the antinomic structure for the *problem of dialectics*, especially for the *synthesis formation* of mutually exclusive terms (chap.8).

### 3.\*\*\* Analysis of antinomic structures

Up to now, it has been assumed that antinomies occur in certain cases, and the question was how to *prevent* this type of structure. The *reason* for the emergence of antinomies remained in the dark, and, strictly speaking, antinomies really have been understood only as contradictions resulting from faulty definitions. But undoubtedly not every contradiction as such is antinomic. In the following, therefore, an analysis of the specifically antinomic structures and of *the very reason of their occurrence* will be undertaken, whereby, as will become apparent, also *pragmatic* aspects of fundamental importance will be revealed.

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\*\*\* For the *whole text* see the German version, now as: *Die Antinomien der Logik – Der Kern des Problems und seine Pragmatik* (edited version of chapters 1–8).

In order to clarify what the specific antinomic structures are in comparison to simple contradictions, let us first look at the following example (the so-called 'Grelling antinomy'): If the term 'non-self-referential' itself possesses the property 'non-self-referential' which it means, its meaning also applies to itself, and it thus has the property 'self-referential', in contrast to the assumption. If it is then assumed that the term 'non-self-referential' has the property 'self-referential', its meaning does not apply to it; it therefore has the property 'non-self-referential', again contrary to the assumption. Each of the two possible assumptions – non-self-reference or self-reference – has as a result the opposite of the respective assumption, generally: assuming the validity of A implies the validity of non-A; assuming the validity of non-A implies the validity of A. The astonishing point is that with the validity of one of the two limbs the validity of the respective other is also involved. In contrast to the formal contradiction 'A and non-A',<sup>1</sup> in the antinomic case *both* limbs are obviously true, which would amount to the curiosity of a *true contradiction*. This question will be discussed later (chapters 6 and 8). The characterized antinomic implication can first be interpreted simply as a *sequence*,<sup>2</sup> in the sense of a sequence of alternating steps, so that the opposites are now assigned to *different steps* and the aporia of a *true contradiction* is thus provisionally averted.

The specified antinomic condition structure is known as *vicious circle*, and in fact von Kutschera has shown that antinomies are generally based on such circularities.<sup>3</sup> The condition structure represented by the vicious circle can be characterized as a *negative self-condition*. This means that whatsoever is conditioned it is again a condition of its opposite, etc. This mechanism of continuous self-cancellation can be illustrated plausibly by a non-linguistic model from the so-called 'logic of circuits':<sup>4</sup> In a feeding-back negation circuit, as it is technically used e.g. as a self-acting interrupter, a constant oscillation between opposite switching states takes place: The switching impulse opens a switch and thus interrupts itself; the switch closes again and anew gives a switching impulse, which opens it, etc. The example also shows that the vicious circle is not only meaningless, but in certain contexts it is entirely of importance.<sup>5</sup> In particular, this characterizes the *antinomic basic structure*. The mentioned sequence of alternating properties ('non-self-referential', 'self-referential' etc.) results from the repeated passing through the vicious circle. Each pass is the realization of a *negative self-condition* and thus represents an 'act of reflection', which leads to a new stage of reflection. The *logic of reflection* developed by U. Blau (1985) undertakes it to make such structures visible and accessible for formal treatment. The admission of circular and thus *unfounded* expressions requires, as Blau explains, the introduction of six truth values at each level: besides *true* and *false*, also *neutral* (for vague and senseless contexts), *open* to circles and regresses, as well as *non-true* (where it is open whether false or neutral) and *non-false* (where it is open whether true or neutral).<sup>6</sup> Blau now shows that antinomic entities assume different truth values on different levels of reflection, e.g. in the case of the truth antinomy: The proposition 'This proposition is false' has on the lowest level, he argues (e.g. 386 ff.), the truth value *open*, since it is undecidable due to its circularity. On the 2nd level it is then *false*, because it falsely assigns itself the truth-value *false* instead of *open*. On the 3rd level it is *true*, because it correctly asserts the falsity existing on the 2nd level. On the higher levels it oscillates constantly between *true* and *false*, but on each level it possesses a well-defined truth va-

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<sup>1</sup> In contrast to T. Kesselring's view (1984, p. 98) it is completely irrelevant, if this conjunction or instead the equivalence  $A \leftrightarrow \neg A$  is considered, because both expressions are logically equivalent.

<sup>2</sup> Here a possible transition to a logic of time becomes visible.

<sup>3</sup> F. von Kutschera 1964, p. 51, 54 ff.

<sup>4</sup> Although this model belongs to a completely different realm of being, decisive is solely the possibility of representing certain relevant properties, here especially the structure of negative self-condition. Fundamental on the concept of the model see H. Stachowiak 1973, p. 131 ff.

<sup>5</sup> F. von Kutschera 1964, p. 54 f, sees only the *semantic* side when he disqualifies it as "meaningless". The technical function of 'feedback' is based on a circular structure as well as, for example, the 'self-fulfilling prophecy' and obviously also the concept of ego (see chapter 7).

<sup>6</sup> U. Blau 1985, p. 370, 382 ff, 391 ff. Cf. also the contribution of U. Blau to PRAGMATIK IV.

lue.<sup>7</sup> *Unexplained*, however, remains the *reason* for the occurrence of the negative self-condition effective here and the associated emergence of reflection stages. Blau's brief remarks on this point<sup>8</sup> do not give a satisfying answer to this question. In the following I will develop an *explanation* of the antinomic mechanism and the oscillating behavior of antinomic predications.

Responsible for the occurrence of antinomies is, as has been shown, a condition structure of the type of a *negative self-condition*. On the linguistic level it is realized as vicious circle. But what are the conditions of origin of such a structure?

In the interesting work of *T. Kesselring* the existence of a *negative self-relationship* (sic: relationship!) has been named as the reason for the occurrence of antinomies.<sup>9</sup> This does not seem implausible with regard to concrete antinomies like that of Grelling, for which these two moments of negation and self-relationship are obviously met. As will be shown, both conditions are indeed *necessary*, because without them an expression does not become antinomic. On the other hand this characterization can not be *sufficient*, because the property of non-self-relationship, as also Kesselring sees,<sup>10</sup> is in most cases completely harmless. The term 'non-monosyllabic' for instance is negative and self-relating, but nevertheless not antinomic at all. Thus the criterion of negative self-relationship is not selective; it does not give the *specific* conditions of antinomic structures. In the following it is to be shown, that not the property of negated self-relation as such, but the *concept of non-self-reference in its self-application* leads to antinomies. In order to demonstrate this, some clarifications of the character of *negative concepts* are necessary.

Let us consider the *concept of non-materiality* as an example of a negative concept. Everything non-material is in correspondence with this, whereas material things are not, with other words: If a *negative concept* ⟨non-material⟩<sup>11</sup> is used as a basis and the corresponding *negative property* ('non-material') is related to it, this relation is characterized by 'correspondence', i.e. *positive*. If the negative concept ⟨non-material⟩ is referred to the opposite positive property ('material'), this relation is characterized by 'non-correspondence', i.e. *negative*, in a schematic representation (where the reference term is put in angle brackets ⟨...⟩, and '↔' denotes the transition to a correspondence statement):

(3.1)            ⟨non-material⟩ : entity - non-material ↔ corresponding

(3.2)            ⟨non-material⟩ : entity - material ↔ not-corresponding

This signals: *Correspondence* concerning a reference concept (of whatever kind) is always something *positive*, and non-correspondence is something negative. If the reference concept is in particular *negative*, then the negative property *corresponding* to it leads to a *positive* correspondence statement. In case of a property *non-corresponding* to it leads to a *negative* correspondence statement. So with a *negative* reference concept the correspondence statement of a property is generally characterized by a *value reversal* in comparison with the stated property, schematically (if only the valences are considered):

(3.3)            reference-concept⟨ - ⟩ : property(-) ↔ correspondence(+)

(3.4)            reference-concept⟨ - ⟩ : property(+) ↔ correspondence(-)

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<sup>7</sup> The stage-dependence of truth values can also be taken into the formulation of the truth antinomy ('This proposition is not true on any stage'). In this way one obtains modified structures; U. Blau 1985, p. 388, 451 ff, speaks in this respect of the "boundless liar". In the meantime there is further "offspring": the "super liar" (R. Schüßler 1986).

<sup>8</sup> U. Blau 1985, p. 394 f.

<sup>9</sup> T. Kesselring 1984, p. 104 ff.

<sup>10</sup> T. Kesselring 1984, p. 105.

<sup>11</sup> If the *concept character as such* is thematic, in the following concepts are always put in angle brackets ⟨...⟩.

The *reason* for this is obvious: A concept *has* a meaning, and this *having* is in any case something positive, and this positivity is reflected in the *correspondence* with the meaning of the concept. A *negative* concept has a negative meaning, but this *having* is here something positive, too. Thus, a concept *always constitutes positivity*, and it is precisely for this reason that a *negative* concept is characterized by a *fundamental ambivalence*: *Contentwise* it has a negative meaning, but *formally* its having-a-meaning is something *positive*.

The points that are important here can be characterized more closely in this way: Presupposed is a *reference concept*, furthermore an *entity* with its 'eigen-properties' ('Eigen-schaften'), which are now judged concerning their *correspondence* with the reference concept. Thus, the *semantic* aspect represented by the reference concept, the *ontic* aspect of an entity with certain eigen-properties and finally the *pragmatic* aspect of the judgement of correspondence have to be distinguished. The latter can be called 'pragmatic' insofar as it is not an inherent eigen-property of this entity, but the result of an *judgement* of its correspondence concerning an assumed reference concept. If e.g. a stone is ascribed the property of *non-correspondence* to the notion of a prime number, then it possesses this property only due to a *reflection*, so to speak, performed by the user of language on the correspondence of the stone to the notion of prime number. Thus the correspondence-characteristic itself does not represent an ontic eigen-property, but a *reflection-induced property* of the concerning entity and in this respect has indeed pragmatic character.<sup>12</sup> So the already used schematic representation can be generally characterized in this way:

$$(3.5) \quad \begin{array}{ccc} \langle \text{reference-concept} \rangle: \text{entity} - \text{eigen-property} & \rightsquigarrow & \text{reflection property} \\ \text{(semantic)} & \text{(ontic)} & \text{(pragmatic:} \\ & & \text{reflection-induced} \\ & & \text{correspondence term)} \end{array}$$

#### 4. The antinomic basic structure

A *linguistic* entity may be called *self-corresponding* if, due to its ontic eigen-properties, it is in correspondence with its own meaning, which here is the reference concept. E.g. the English word 'multi-syllabic' with the meaning  $\langle \text{multi-syllabic} \rangle$  is itself multi-syllabic, therefore corresponding to itself – in schematic representation:

$$(4.1) \quad \begin{array}{ccc} \langle \text{multi-syllabic} \rangle: \text{'multi-syllabic'} & \rightsquigarrow & \text{self-corresponding} \\ \text{(word meaning)} & \text{(word /} \\ & \text{eigen-property)} & \text{(correspondence property)} \end{array}$$

Here the pragmatic reflection property characterizes a correspondence between the word form and the meaning associated with it. Accordingly the word 'monosyllabic' itself is not monosyllabic, it does not fall under its own meaning and is thus non-self-corresponding.

If now in particular the term  $\langle \text{not-self-corresponding} \rangle$  itself is chosen as *reference concept*, then the same considerations can be made as before. We have to clarify whether the word 'not-self-corresponding' possesses the eigen-property 'not-self-corresponding' or not. Now, as is well known, each of these two possibilities has the opposite consequence (see above), so that a sequence of reflection-induced correspondences with continuous value reversals results: a form of negative self-condition in linguistic realization and thus an antinomic structure. In the introduced schematic representation (where '/' is followed by correspondence properties; 'sc' stands for 'self-corresponding'; the beginning of the sequence with 'non-sc' is arbitrary, but due to the value inversion of the correspondence conditions this is insignificant) it looks like this:

<sup>12</sup> The pragmatic consequences of antinomic structures will be discussed in detail in chapter 6 and 7.

(4.2) word meaning ⟨non-sc⟩: word form 'non-sc' / non-sc  $\rightsquigarrow$  sc  $\rightsquigarrow$  non-sc  $\rightsquigarrow$  ...

How does it come to this?<sup>13</sup> If, for the time being, it is assumed that 'sc' is an eigen-property of the word 'non-sc', then there is no correspondence with the reference concept ⟨non-sc⟩, i.e. for the word 'non-sc' the *reflection property* 'non-sc' is ascertainable. If this reflection determination is now interpreted as a *new eigen-property* of 'non-sc', then there is a correspondence with the reference concept ⟨non-sc⟩ and thus a new reflection property 'sc', etc. Essential for this is apparently the *re-interpretation of a reflection property into an eigen-property* of the considered entity. Only in this way does it come to an unfinishable sequence of ever new reflection properties. *Without* this re-interpretation, the reflection property would remain a contingent, external aspect, which as such would not be relevant for a correspondence judgement. Only the – by no means self-evident – re-interpretation of reflection properties into eigen-properties leads to an infinite progress and thus represents a *necessary precondition* of antinomic structures.<sup>14</sup> As an expression of the reflective activity of the language subject, the infinite progress is a typically *pragmatic* phenomenon.

But is such a re-interpretation not a very arbitrary procedure? Obviously not in the present context, because *the reference concept ⟨non-sc⟩ itself already expresses a reflection-induced correspondence relationship*. So for the correspondence judgement it is to be examined whether among the eigen-properties in particular a *correspondence property* is found. Thus the re-interpretation of a reflection-induced property into an eigen-property is here *dictated* by the special meaning content of the reference concept itself and in this respect not only obvious, but even *inevitable*.<sup>15</sup>

If the meaning of the reference concept is especially a *negative* self-correspondence, this leads, as we have seen, to a *value reversal* at the transition from one correspondence property to the next: If a given correspondence property is negative on its part, then it is *in correspondence* with the negative reference concept, and thus results in a *positive* correspondence property. This positive correspondence property in turn is *not* in correspondence with the negative reference concept and thus results in a *negative* correspondence property. In this way a series of *oscillating correspondence properties* is generated.

Decisive for this is obviously *the special nature of the reference concept used here*, the peculiarities of which will be discussed in detail in chapter 6. Initially essential is only that in the present context it is centrally about the *correspondence relation between reference term and property*, whereby the *meaning* of the reference term *itself* expresses such a relation between reference concept

<sup>13</sup> The structure of a negative self-condition has been explained above with the technical example of a self negation circuit. The analogy can now be further extended: The content of the reference concept here obviously corresponds to the specific switching structure with closed switches. The input, which causes this circuit state, is then 'in accordance' with the 'meaning' of the circuit, and the corresponding output has accordingly a positive character. The here considered circuit now contains a negation circuit, technically a so called 'rest contact switch', which is closed in absence of an input, in other words: If the input is negative, there is a correspondence with the 'meaning' of the circuit and consequently a positive output; this corresponds to the value reversal of the correspondence evaluation with a negative reference term. If the output is returned to the input in the sense of the assumed self-negation circuit, the structure of negative self-condition is realized, i.e. the output oscillates between opposite states.

<sup>14</sup> Note that from such a re-interpretation always an infinite progression of corresponding determinations results – also in the non-antinomic case: Thus, for example, the non-antinomic scheme (4.1) can be continued ad infinitum, because the reflection term 'self-corresponding' is in turn not in correspondence with the reference concept 'multisyllabic' and the word 'multisyllabic' is thus (even also) not self-corresponding. This new determination of correspondence is, for its part, not in correspondence with 'multisyllabic', and so on, i.e., from the second correspondence judgement on here results an admittedly infinite, but ultimately stable sequence of non-correspondence terms, while the sequence in the antinomic case oscillates (because of the constant value reversal in case of a negative reference concept). The infinite progression of correspondence terms and even the sporadic occurrence of opposite correspondence terms is therefore not sufficient for the existence of an antinomic structure.

<sup>15</sup> The Carnapian concept of the mixing of spheres, with which T. Kesselring in 1984 (see p. 103, 374) apparently tries to characterize exactly this re-interpretation, is somewhat misleading in this respect: as if it were merely a subjective oversight, an error of reasoning. A. Kulenkampff 1970 (p. 20) also uses this term, but obviously not for characterizing antinomic structures.

and property. Thus the relation in question – here in its negative version as *non*-correspondence – is for its part *semantically modelled* in the reference concept, and in this way determines the correspondence between this reference concept and possible properties.<sup>16</sup> It is not difficult to see that a *feedback* arises, as it were, which in the case of a *negative* reference concept constitutes a condition structure of the type of a *negative self-condition*.

If it is true that this characterizes the *basic type* of an antinomic structure, then all antinomies must be traceable to the given basic scheme. This is to be illustrated in the following only by the example of Russell's and the truth antinomy:

The ('logical') *Russell antinomy* results from the definition of a set of those sets that do not contain themselves. Central is thus the concept of *non-self-contained* sets, which plays the role of the reference concept here. Thus the antinomy results according to the well-known scheme (sc = here: self-containing):

$$(4.3) \quad \langle \text{non-sc} \rangle / \text{non-sc} \rightsquigarrow \text{non-sc} \rightsquigarrow \text{sc} \rightsquigarrow \text{non-sc} \rightsquigarrow \dots$$

The ('semantical') *truth antinomy* can be illustrated by the sentence 'This sentence is false'.<sup>17</sup> The reference concept is here a term, which – according to the self-reference of that sentence – can be described as *non-self-truth*. The antinomic scheme thus has the form:

$$(4.4) \quad \langle \text{non-self-true} \rangle / \text{non-self-true} \rightsquigarrow \text{non-self-true} \rightsquigarrow \text{self-true} \rightsquigarrow \text{non-self-true} \rightsquigarrow \dots$$

Both examples show that the antinomic structure is not always obvious. Often an analysis of the conceptual relations has to be done first to find the relevant *reference concept*. The primary structures themselves (here the element-set-relation or the non-self-truth statement) may at first lead to a formal contradiction, whereby the sequence of the reflection-induced correspondence properties – essentially for antinomic structures – remains hidden. At the same time it has become clear that the usual distinction of *logical* and *semantic* antinomies remains on the surface, since for the occurrence of antinomies, as has been shown, solely the structure of the reference term is decisive,<sup>18</sup> not linguistic details.

## 5. Generalisation of the antinomic basic structure

The antinomic structure considered in the previous section resulted from the correspondence of a linguistic entity (word, sentence, etc.) with respect to a reference concept of the kind of a non-self-correspondence. By dissolution of linguistic forms, the antinomic structure becomes even more apparent. Let  $\langle S \rangle$  be the concept of non-equivalence with  $\langle S \rangle$  itself,  $\langle S \rangle = \langle \text{non-}\langle S \rangle\text{-corresponding} \rangle$ . With this reference concept a new, generalized antinomy can now be formulated, schematically (with 'cp' as abbreviation for 'corresponding'):

$$(5.1) \quad \langle S \rangle = \langle \text{non-}\langle S \rangle\text{-cp} \rangle: \text{entity} / \text{non-}\langle S \rangle\text{-cp} \rightsquigarrow \langle S \rangle\text{-cp} \rightsquigarrow \text{non-}\langle S \rangle\text{-cp} \rightsquigarrow \dots$$

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<sup>16</sup> T. Kesselring's distinction of "basic function" and "superfunction" (1984, p. 106) apparently represents a parallel to the characterized correspondence between the reference concept and the correspondence relationship. If this is true, then Kesselring should not say, however, that the negation of self-relation, which is decisive for antinomy, can be achieved either by negating the basis function or the superfunction (ibid.). Because in fact the antinomy only occurs, if the reference concept expresses a negation of self-relation.

<sup>17</sup> Gödel's problem of the incompleteness of (sufficiently expressive, consistent) formal systems is similar to the truth antinomy. Admittedly an antinomy is avoided by replacing the predicate 'false' in the given antinomic proposition by 'unprovable'. The so obtained proposition 'this proposition is unprovable' is then, although strictly *unprovable*, nevertheless provable as *necessarily true* and the system, in which it is formulated, is accordingly qualified as 'incomplete'. For this in detail D. Wandschneider 1979(b).

<sup>18</sup> More on that in chapter 6.

It is remarkable, that with reference to the concept  $\langle S \rangle = \langle \text{non-}\langle S \rangle\text{-corresponding} \rangle$  obviously *any* entity has antinomic oscillating properties! Indeed: Even and just if the entity directly has nothing  $\langle S \rangle$ -corresponding it *corresponds* exactly to the *relation of not being 'S'- corresponding*, which contentwise *means*  $\langle S \rangle$ . And with this  $\langle S \rangle$ -correspondence in relation to  $\langle \text{non-}\langle S \rangle\text{-corresponding} \rangle$  immediately again non-correspondence with  $\langle S \rangle$  is implicated, and so on. Nothing in heaven and on earth, so one could say, can escape this obtrusive friend-enemy relation with respect to  $\langle S \rangle$ . It exists completely independent of the nature of an entity and is therefore based only on the special peculiarity of the reference concept  $\langle S \rangle$ . This will be discussed in detail later.

Beforehand, an interesting *practical interpretation* of the generalized antinomic structure may be pointed out: If the reference concept  $\langle S \rangle$  of the non- $\langle S \rangle$ -correspondence is interpreted as *norm* and the correspondence with  $\langle S \rangle$  as *obedience* with respect to this norm, one has the case of a paradoxical norm, which demands *disobedience with respect to this norm itself* with the consequence that obedience with respect to this norm is disobedience and disobedience with respect to the norm is obedience, schematically (with 'ob' as abbreviation for 'obedient'):

$$(5.2) \quad \langle S \rangle = \langle \text{non-}\langle S \rangle\text{-ob} \rangle : \text{behavior} / \text{non-}\langle S \rangle\text{-ob} \rightsquigarrow \langle S \rangle\text{-ob} \rightsquigarrow \text{non-}\langle S \rangle\text{-ob} \rightsquigarrow \dots$$

That this behavioral interpretation of the antinomic structure has concrete relevance is shown by the so-called *double-bind phenomenon* in the sense of contradictory behavioral attitudes, which is well known in psychology and discussed by *G. Bateson*. Responsible for this phenomenon are contradictory (partly non-verbally conveyed) commandments such as 'Do not obey me', 'Do not listen to my advice' etc.<sup>19</sup> The fact that these are not only ambivalent, but actually *antinomic* demands makes their disastrous psychological consequences seem understandable: Concerning the norm  $\langle S \rangle$  one *cannot* behave correctly, because every norm compliance here necessarily is at the same time a norm violation. The reason for this is the *pragmatic contradiction* contained in the norm, which can be diagnosed here again: The norm  $\langle S \rangle$  *contentwise* contains the demand of norm non-compliance, which is incompatible with its *formal* characteristic of being a *norm*. That one must necessarily behave contradictorily in the face of such a norm has its reason not in the behavior, but solely in the *paradoxality of the norm* to which the behavior is related. Behavior can therefore in principle free itself from this contradiction not by changing behavior, but only by *abolishing* the norm. The parallel to the just stated fact is to be recognized here: that any entity, completely independent of its own constitution, shows antinomic correspondence properties concerning the reference concept  $\langle S \rangle$ . These are not due to it per se, but only by the act of referring to  $\langle S \rangle$  – again a typical pragmatic phenomenon. *This paradox, which is founded in the nature of the antinomic term itself*, will now be examined in the following.

## 6. The antinomic concept: the nub of the matter

Insight regarding the peculiarities of the concept  $\langle S \rangle = \langle \text{not-}\langle S \rangle\text{-corresponding} \rangle$  results from the consideration, that the property *S*, defined by  $\langle S \rangle$ , is the property 'not- $\langle S \rangle$ -corresponding', but *S* on the other hand, because *defined* by  $\langle S \rangle$ , can be characterized as the *opposite* property ' $\langle S \rangle$ -corresponding', too – this will be discussed later. *S* thus appears as a *property contradicting in itself* or, with a word of Hegel, *as the other of itself*.<sup>20</sup> And accordingly this is valid for the *concept*  $\langle S \rangle$  itself.

This must be surprising. In the previous example it was found at first, that any entity has con-

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<sup>19</sup> See G. Bateson 1985, p. 276 f. I would like to thank V. Höhle for the reference to the double-bind phenomenon.

<sup>20</sup> G.W.F. Hegel 1969, 127. See the instructive example in T. Kesselring 1984, p. 291. An impression of the richness of relationships in such a structure is given by the subtle argumentations in D. Henrich 1978, esp. p. 218 ff.

trading correspondence properties relating to the concept  $\langle S \rangle = \langle \text{not-}\langle S \rangle\text{-corresponding} \rangle$ , whereby *meaning* of  $\langle S \rangle$  itself seemed to be *fixed*. But as it now turns out, this conception cannot be maintained. Not only the reflection-induced correspondence properties of an entity relating to  $\langle S \rangle$  is contradictory, but  $\langle S \rangle$  itself represents a *contradictory meaning*, namely, as will be shown, as a contradictory opposition of semantic and pragmatic meaning.

Let us first consider for comparison purposes another term,  $\langle Q \rangle = \langle \text{non-}\langle R \rangle\text{-corresponding} \rangle$ , which expresses non-correspondence with the reference concept  $\langle R \rangle$ , where furthermore it is assumed, that  $\langle R \rangle$  has an own meaning independent from  $\langle Q \rangle$  and thus is *semantically founded*. But for the antinomic notion  $\langle S \rangle = \langle \text{not-}\langle S \rangle\text{-corresponding} \rangle$  this condition is not fulfilled any more, because in the meaning of  $\langle S \rangle$  there is a reference to  $\langle S \rangle$  itself, i.e.  $\langle S \rangle$  is self-referential in content and thus *semantically unfounded*.  $\langle Q \rangle$  is a well-founded, semantically fixed correspondence concept, while  $\langle S \rangle$  is an *unfounded, semantically open*<sup>21</sup> correspondence concept.

This indeterminacy becomes immediately visible, if the notion  $\langle S \rangle = \langle \text{not-}\langle S \rangle\text{-corresponding} \rangle$ , which is possible due to its contentual self-referentiality, is *inserted into itself* – the steps in detail (considering the property S, which is assigned to  $\langle S \rangle$ , for simplicity):

$$(6.1) \quad S = \text{non-}\langle S \rangle\text{-corresponding} = \text{non-}\langle \text{non-}\langle S \rangle\text{-corresponding} \rangle\text{-corresponding}$$

$$(6.2) \quad \langle \text{non-}\langle S \rangle\text{-corresponding} \rangle\text{-corresponding} = \text{non-}\langle S \rangle\text{-corresponding}$$

Here by the partial expression ' $\langle \text{non-}\langle S \rangle\text{-corresponding} \rangle\text{-corresponding}$ ' the property corresponding to the notion  $\langle \text{non-}\langle S \rangle\text{-corresponding} \rangle$ , i.e. the property 'non- $\langle S \rangle$ -corresponding' is characterized (more about this later): Hence:

$$(6.3) \quad S = \text{non-}\langle S \rangle\text{-corresponding} = \text{non-}\langle \text{non-}\langle S \rangle\text{-corresponding} \rangle = \langle S \rangle\text{-corresponding}$$

$S = \text{non-}\langle S \rangle\text{-corresponding}$  has turned into  $\langle S \rangle\text{-corresponding}$  by inserting  $\langle \text{non-}\langle S \rangle\text{-corresponding} \rangle$  for  $\langle S \rangle$ . A further insertion (using (6.2)) results in

$$(6.4) \quad S = \langle S \rangle\text{-corresponding} = \langle \text{non-}\langle S \rangle\text{-corresponding} \rangle\text{-corresponding} = \text{non-}\langle S \rangle\text{-corresponding},$$

which is again the initial expression. *In total therefore:*

$$(6.5) \quad S = \text{non-}\langle S \rangle\text{-corresponding} = \langle S \rangle\text{-corresponding} = \text{non-}\langle S \rangle\text{-corresponding} = \dots$$

This procedure can be continued at pleasure, and with every substitution a further negation is introduced, so that every specification of S or  $\langle S \rangle$  cancels out and changes into its opposite. The antinomic concept  $\langle S \rangle$  thus indeed proves to be *the other of itself* (see above), that becomes visible by self-insertion in such a way that it alternately appears in opposite forms – manifestation of a *negative self-condition* on the semantic level.

This peculiarity of *contradictory meanings* of  $\langle S \rangle$  is now to be examined in more detail. Obviously this is not a *semantically* contradictory term of the kind 'black white-horse'. Rather, as will become apparent, a *pragmatic contradiction* is to be diagnosed once again. In this context the previous consideration (see (6.2)) has to be remembered, according to which the property S, regardless of its semantic determination, can always be characterized as the  $\langle S \rangle$ -corresponding property, too, because S is finally only determined by recourse to the S *defining concept*  $\langle S \rangle$ .

*In general* it can be said that a property P can be characterized in two ways: *semantically* directly by the *meaning* characterizing  $\langle P \rangle$ , *pragmatically* indirectly as the property *corresponding to*  $\langle P \rangle$ , namely due to the act of reflection on the correspondence between property and concept, P and

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<sup>21</sup> See also F. von Kutschera 1964, p. 54 f.



⟨P⟩, which was already characterized in the chapter 4 as a *pragmatic reflection property* with respect to the reference concept. The identification of the ontic property P by the pragmatic reflection property '⟨P⟩-corresponding' corresponds to the *re-interpretation* of a reflection property into an eigenproperty of the considered entity (see ch.4).

Note that the semantic and the pragmatic P-variant are identifications of the *same property* P and do not only represent *different 'views'* of it. It could be objected, that the pragmatic identification '⟨P⟩-corresponding' is not the property P itself, but only a *property of the property* P: the property to be in correspondence with ⟨P⟩. This is correct on the one hand; but on the other hand it is true, that this property '⟨P⟩-corresponding' *is used exclusively for the property P as defining condition*. Therefore e.g. 'red'-corresponding' can be replaced by 'red' in all contexts and vice versa, but not by 'bloody'. Indeed 'bloody' is ⟨red⟩-corresponding, too, but it is not at all a *definition* of 'bloody' to correspond to the concept ⟨red⟩.

From a fundamental perspective, the following can be seen here: The *pragmatic variant* '⟨P⟩-corresponding' of the property P is based on a *general property of concepts*: The concept ⟨P⟩ determines the property P, which is thereby inversely in correspondence with ⟨P⟩, in other words: Every concept is *pragmatically related to itself* by the property determined by it and thus constitutes a *pragmatic-reflexive structure*. ⟨P⟩ is only thereby *concept*, that it defines something as something, which as such is again a ⟨P⟩ corresponding entity. The possibility of *pragmatic reflexivity* is thus based on the fact that the meaning of a concept is essentially something *general*, which, as a general, is in its instances *similar to itself* (cf. the considerations in chapter 3). Here a fundamental difference of *meaning* and *property* becomes visible: The meaning *is* not only determined (like tables and chairs), but it is the *generality* of being determined (like the *concept* of the table, the chair, etc.), which in this way implicates *equality of the general with itself* in its instances and in this pragmatic sense *reflexivity*.<sup>22</sup>

In the present context, *four types of reflexive structures* can be distinguished: (1) the previously characterized *pragmatic reflexivity* of concepts; (2) *semantic reflexivity* in the sense of content-related self-referentiality, whereby in the meaning of a concept is referred to this meaning itself, e.g. as in the case of the antinomic concept ⟨S⟩ = ⟨not-⟨S⟩-corresponding⟩; (3) a form which may be called *ontic reflexivity* and which is given when a concept itself actually possesses the property it signifies – e.g. in the case of the concept ⟨predicate⟩, which is itself a predicate; (4) the already explained structure of *negative self-condition* or, in linguistic form, of the vicious circle (see chapter 3). Significantly, as far as I can see, these types of reflexivity have not yet been differentiated in the investigations of the antinomy problem. The concept of 'self-referentiality', which in this context – in principle rightly – has been brought to the fore,<sup>23</sup> is therefore far too imprecise and in this respect more likely to obscure the problem than to illuminate it. That the exact differentiation of the different types of reflexivity is indispensable for the clarification of the antinomy problem will be shown in the following.

Two consequences result directly from the preceding considerations: That for a property P beside the semantic reflexivity there is also the pragmatic identification '⟨P⟩-corresponding', is obviously based on the *pragmatic reflexivity* of the concept ⟨P⟩. At the same time it is clear that the pragmatic identification, as *affirmative correspondence* of the property with the concept defining it, is *always positively* determined, i.e. *also* in the case of a concept which is negative in content.<sup>24</sup>

From this point of view it is now also clear, *why* the concept ⟨S⟩ = ⟨non-⟨S⟩-corresponding⟩ has contradictory identifications, and therefore is *antinomic*: Simply *because besides the negative semantic variant there always equivalently exists the positive pragmatic variant* ⟨S⟩ = ⟨⟨S⟩-

<sup>22</sup> For this see G.W.F. Hegel 1969, p. 251 f, 274 f, where these connections, as far as I see, are clearly recognized and formulated for the first time.

<sup>23</sup> E.g. T. Kesselring 1984, S. 104 ff.

<sup>24</sup> Cf. the considerations in the chapter 3, according to which having-a-meaning of a concept always constitutes *positivity*.

*corresponding*⟩. This is thus always a *positive self-corresponding concept*, and the *antinomy* therefore arises exactly when – as here – the semantic variant is a *negative self-corresponding concept*. It is the *contradiction in ⟨S⟩ itself*, which is based on the fact that the negative semantic definition of ⟨S⟩ contradicts *what is positively pragmatically presupposed by the concept ⟨S⟩ qua concept*. It is exactly this *pragmatic* fact, which always again has been overlooked, that – in the special case of a *non-self-corresponding concept* – leads to the occurrence of the antinomic structure. *That's the nub of the matter!*

This means at the same time, that here both ⟨S⟩-variants *necessarily coexist*, i.e. for a given concept it is not possible to accept only the semantic variant and perhaps drop the pragmatic variant. Although in the present case both are *incompatible*, they are nevertheless *indispensable*. This confirms the earlier observation that the antinomic contradiction is a kind of *true contradiction*, as it were, which makes the *aporetic* character of the antinomic structure *comprehensible*. This will be discussed in chapter 8.

In addition, the pragmatic contradiction as such is a *covert* contradiction, insofar as an unexplained, *extra-semantic* precondition (the pragmatic-reflexive structure of the concept) becomes essential here. A contradictory identification on the *semantic* level – example: 'black white-horse' – would be obvious and easily recognizable as absurd, while the concept ⟨S⟩ = ⟨non-⟨S⟩-corresponding⟩ appears *prima vista* innocuous.<sup>25</sup> Admittedly, after it has been shown that ⟨⟨S⟩-corresponding⟩ is the pragmatic variant of ⟨S⟩, the latent contradiction also becomes visible, because the semantic variant ⟨S⟩ = ⟨non-⟨S⟩-corresponding⟩ *contains* the pragmatic variant. Both are opposite and yet equally identifications of ⟨S⟩.

It is obvious that the *function of reflexive structures* for the occurrence of antinomies has to be judged much more differentiated than previous opinions suggest. Not only do *four forms of reflexivity* have to be distinguished in this context; it is also apparent that they are peculiarly *intertwined with each other*. In conclusion, this is to be once more recalled: What is initially striking is the content-related self-referentiality of ⟨S⟩ = ⟨non-⟨S⟩-corresponding⟩. In order to bring the *semantic reflexivity* to bear already in the formulation, the originally used expression of the *non-self-reference* can be used, whereby, however, the ambiguity of the 'self' contained in it is to be considered: With respect to an *independently determined*, i.e. well-founded concept ⟨C⟩, ⟨non-self-corresponding⟩ means as much as ⟨non-existence of an *ontic reflexivity* of ⟨C⟩⟩ (for instance that the concept ⟨red⟩ is not itself red). This well-founded use of ⟨non-self-corresponding⟩ does not lead to antinomies, as we know. The concept becomes antinomic only in case of *semantic self-referentiality*, because it *loses its foundation*. Now 'self' refers to the concept of non-self-correspondence *itself*. This means, just as in the well-founded case, ⟨non-existence of an *ontic reflexivity*⟩, but now no longer for a term *different* from it, but for itself, so that *semantic reflexivity* is given, i.e. the *negation of ontic reflexivity* is here, which is well to be considered, at the same time *realization of semantic reflexivity*. In addition, the antinomic concept, as explained above, also has the general *pragmatic reflexivity* of the concept as a concept. Now, the positive pragmatic variant ⟨self-corresponding⟩ of the antinomic concept again and again can be translated into the negative semantic variant and replaced by it ('self-insertion'). In this way, in addition to the forms of reflexivity already mentioned, a reflective structure of the *negative self-condition* type is also realized on the semantic level (vicious circle), and the contradiction of both variants is thus disassembled into an infinite sequence of *self-negations*. The *semantic reflexivity* of the antinomic concept thus also appears as a *reflection process in the form of iterated self-negation* or, in short, as an *iterative self-reference of negation*.<sup>26</sup>

All these aspects can be seen in the *one* seemingly innocuous concept, which formulates a ne-

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<sup>25</sup> When W. Gözl 1986 (p. 12 f) points out that the (truth) antinomy is based on a contradictory definition, it must be added that the contradiction here is just not of semantic but of a *combined semantic-pragmatic* nature. The *semantic* analysis alone can therefore never detect inconsistency, but only "senselessness" – in the sense of unfoundedness.

<sup>26</sup> Here again to the differentiated, continuative considerations (especially with reference to Hegelian thought figures) in D. Henrich 1978 (esp. p. 218 ff, 223 f) should be pointed out.

gative correspondence between corresponding properties and the concept, which it is itself, on the semantic level. The astonishing variety of relations connected with this makes the irritation that has always emanated from the antinomy problem appear more comprehensible. This multiple ambiguity of the antinomic concept, as has now become clear, is based not least on the fact that here quite different structures of reflexivity – ontic, semantic, pragmatic reflexivity, and especially the form of negative self-condition – are intertwined in the singular case of this particular unfounded concept in a way that is difficult to understand and thus lead to abnormal ('true') contradictions.

It was important to gain clarity about the nature of the antinomic concept itself, because this is actually the key to understanding antinomic phenomena. Incidentally, it would appear that many things can be learned from such analyses concerning the 'depth structure' of the *concept*, even if it is not possible to pursue further questions here (but see chapter 8).

## 7. Pragmatic<sup>27</sup> extensions

The antinomic term  $\langle S \rangle$  itself, as has been shown, contains a *pragmatic contradiction* of the semantic and pragmatic variant. This contradiction is disassembled by the reflective activity of the language subject into a sequence of alternating meanings of  $\langle S \rangle$  respectively changing judgements of correspondence relating  $\langle S \rangle$ . In such oscillations – as it were the trace of this reflective activity – only the characteristic of language becomes particularly drastically apparent: namely, that the execution of language itself can also have a constitutive function of meaning, that is, the *pragmatic dimension* of language.

With the form of self-referentiality contained in the antinomic concept  $\langle S \rangle$ , the *pragmatics of the linguistic action* comes into focus. From this point of view, a term like  $\langle S \rangle$ , whose meaning consists essentially of linguistic self-reference, could be called an *essentially pragmatic concept*. Its meaning is nothing but pure reflection on this very reflection or a form of *self-reflection* (characterized as non-self-reference). The meaning of  $\langle S \rangle$  is thus not fixed, but demands an act of self-reflection that immediately provokes a new self-reflection, etc. The preceding considerations must therefore not be understood as if the linguistic reflection on  $\langle S \rangle$  was an act of external reference to a fixed, predetermined concept. This is not possible because of the *unfoundedness* of  $\langle S \rangle$ . Rather,  $\langle S \rangle$  is, if understood correctly, nothing other than pure self-reflection, quasi *pure linguistic action* and, in this respect, a thoroughly *pragmatic concept* with merely rudimentary elements of meaning ('not', 'corresponding'), which, as has been shown, are necessary but by no means sufficient for the specifically *antinomical* effect.

Such a fundamentally pragmatic structure, which as such is essentially characterized by self-reflection, possibly also opens up an approach to the problem of *self-consciousness* and thus the *ego*, which can only be hinted at here: A fundamental difficulty of the concept of the ego has again and again been seen in that the ego for its part is to be determined as *pure self-reference*, whereby the 'self' presumed for it is on the other hand *already presupposed as ego*, that for its part is to be grasped as self-reference, etc.<sup>28</sup> The self is in this way not comprehensible as a fixed, substantial instance, but only as a relation to itself, and thus further as 'a relation that relates to itself,'<sup>29</sup> and so on and so forth. The ego, too, appears, similarly to  $\langle S \rangle = \langle \text{not-}\langle S \rangle\text{-corresponding} \rangle$ , as an unfounded, thus, as it were, bottomless, though certainly not strictly antinomic structure.<sup>30</sup>

Interesting in this sense is the *positive counterpart* of  $\langle S \rangle$ , i.e.  $\langle R \rangle = \langle \langle R \rangle\text{-corresponding} \rangle$ : From the assumption of the  $\langle R \rangle$ -correspondence of the property R follows, as it were, as self-affirmation,

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<sup>27</sup> On the concept of pragmatics in detail see H. Stachowiak in PRAGMATICS I, especially on the semiotic concept of pragmatics, p. XXVI ff.

<sup>28</sup> See (with references) D. Wandschneider 1979.

<sup>29</sup> S. Kierkegaard 1978, p. 8.

<sup>30</sup> That on the other hand the *development* of the ego-consciousness (according to the Piagetian scheme) is driven by antinomic contradictions is made likely by the very instructive considerations of T. Kesselring 1984 (3rd chapter).

again the reflection-induced property of the  $\langle R \rangle$ -correspondence; from the – as we know, pragmatically wrong – assumption of the non- $\langle R \rangle$ -correspondence of  $R$ , however, an analog 'self-affirmation', namely of the non- $\langle R \rangle$ -correspondence, schematically ('cp' = 'corresponding'):

$$(7.1) \quad \langle R \rangle = \langle \langle R \rangle\text{-cp} \rangle: \quad R / \begin{array}{l} \langle R \rangle\text{-cp} \rightsquigarrow \langle R \rangle\text{-cp} \rightsquigarrow \dots \\ \text{non-}\langle R \rangle\text{-cp} \rightsquigarrow \text{non-}\langle R \rangle\text{-cp} \rightsquigarrow \dots \end{array}$$

If  $\langle R \rangle = \langle \langle R \rangle\text{-corresponding} \rangle$  now is interpreted in *practical* respect as *self-determination*, then it results, that its realization at a basically self-determining being (= reference-instance  $\langle R \rangle$ ) depends decisively on the corresponding *presupposition*: The assumption of self-determination results in self-determination of action, the assumption of non-self-determination on the other hand in non-self-determination. So here we are dealing with a *self-fulfilling* structure, as it is obviously essential for the character of *freedom*.<sup>31</sup>

As you can see, unfounded, self-referential concepts involve completely new properties. If such *non-standard concepts* would be excluded from the linguistic area from the beginning, even most remarkable logical structures of fundamental interest would remain hidden. The antinomic term  $\langle S \rangle$  here considered as well as its positive counterpart  $\langle R \rangle$  indeed do not only bring something to light concerning the nature of the concept at all, but especially make genuinely *pragmatic* and even *behavior-theoretical* aspects visible.

## 8. Remarks on dialectics

I conclude with a look at the broad and still largely unexplored field of *dialectics*. In modern philosophy, the problem is connected above all with the name of *Hegel*, who understands dialectic as a *logic of development and interdependence of concepts*. Hegel himself practiced this procedure in a virtuoso manner, but to this day, apart from initial approaches,<sup>32</sup> a satisfactory *theory of dialectics* is still missing. On the other hand, the affinity of the antinomy problem with the problem of dialectic has been repeatedly emphasized.<sup>33</sup> What can be said to this relating to the conception developed here, shall be explained finally by the example of the dialectic of 'being' and 'nothing', whereby the argumentation here differs from Hegel's (at the beginning of his *Science of Logic*), but in the result it agrees with it.

Why Hegel starts with the term  $\langle \text{being} \rangle$  is not to be discussed here. Essential in the present context is only that, according to dialectical understanding, the concept  $\langle \text{being} \rangle$  is delimited against that, what  $\langle \text{being} \rangle$  does *not* mean, and that is, according to Hegel, the term  $\langle \text{nothing} \rangle$  or, as seems more appropriate to me for reasons not to be discussed here either, the term  $\langle \text{non-being} \rangle$ . So, with  $\langle B \rangle$  (for  $\langle \text{being} \rangle$ ) and  $\langle N \rangle$  (for  $\langle \text{non-being} \rangle$ ):

$$(8.1) \quad \langle B \rangle = \langle \text{non-}N \rangle.$$

But this means too:  $\langle B \rangle$  *is not*  $\langle N \rangle$ , and this 'is not' shows, that the notion  $\langle B \rangle$  itself possesses the *property* denoted by  $\langle N \rangle$ , in other words:

$$(8.2) \quad \langle B \rangle \text{ is } \langle N \rangle\text{-corresponding.}$$

<sup>31</sup> See D. Wandschneider 1979, esp. ch. VII u. VIII.

<sup>32</sup> In this regard, only the works of H. F. Fulda, D. Henrich and W. Wieland in: R.-P. Horstmann 1978, as well as T. Kesselring 1984, V. Hösle 1987 (chapter 4.1), D. Wandschneider 1995 may be mentioned.

<sup>33</sup> E.g. A. Kulenkampff 1970, p. 2; T. Kesselring 1984, § 5; D. Wandschneider 1995.

According to this 'is' now the *property* 'being', which is characterized by  $\langle B \rangle$ , must be ascribed to  $\langle B \rangle$  itself, and so we have:  $\langle B \rangle$  is  $\langle B \rangle$ -corresponding or, inasmuch as  $\langle B \rangle$  is not  $\langle N \rangle$ ,

$$(8.3) \quad \langle B \rangle \text{ is not } \langle N \rangle\text{-corresponding.}$$

Because of this 'is not',  $\langle B \rangle$  is again  $\langle N \rangle$ -corresponding etc.: As can be seen, the term  $\langle B \rangle$  can in this way be assigned alternately the contradictory predicates ' $\langle N \rangle$ -corresponding' and 'non- $\langle N \rangle$ -corresponding', so that an antinomic structure is given, from which now, in the sense of the argument developed above, it must be concluded on an underlying *antinomic reference concept*  $\langle N \rangle$ :

$$(8.4) \quad \langle N \rangle = \langle \text{non-}\langle N \rangle\text{-corresponding} \rangle$$

Hereby the *transition from the property level* (' $\langle N \rangle$ -corresponding', 'non- $\langle N \rangle$ -corresponding') to the *conceptual level* ( $\langle \text{non-}\langle N \rangle\text{-corresponding} \rangle$  in angle brackets!) is performed – a step, which is also done by Hegel again and again, but remains unfounded there. Now according to the considerations above  $\langle N \rangle$ -corresponding =  $N$ , and so  $\langle \text{non-}\langle N \rangle\text{-corresponding} \rangle = \langle \text{non-}N \rangle = \langle B \rangle$  (8.1), so that (8.4) finally changes to

$$(8.5) \quad \langle B \rangle = \langle N \rangle.$$

This contradiction to (8.1) would normally be understood as *reductio ad absurdum* of the underlying premise (8.1) with the consequence that this premise would have to be abandoned. But this is not possible in the present context, because the delimitation against  $\langle N \rangle$ , constitutive for  $\langle B \rangle$ , is indispensable. So if (8.1) is accepted, then also the resulting consequence (8.5) has to be accepted, or in other words: The strict opposition of  $\langle B \rangle$  and  $\langle N \rangle$  in (8.1) is as one-sided as the equality of both in (8.5). Opposition and equality must rather be understood as *necessarily belonging together* and the expression

$$(8.6) \quad (\langle B \rangle = \langle \text{non-}N \rangle) \wedge (\langle B \rangle = \langle N \rangle),$$

even though contradictory, nevertheless as *true*! The original opposition of the concepts  $\langle B \rangle$  and  $\langle N \rangle$  has been transformed into a *contradiction*, but into an *antinomic* contradiction, which had been characterized as a *true contradiction* before.

The presence of the antinomic element in dialectical conceptual relations gives this strange fact central importance for the understanding of dialectics. At the same time, it is clear that the contradiction qualified as *true* cannot be a *normal conjunction* in such a way that the truth of the sub-sentences, taken individually, could be inferred from it,<sup>34</sup> i.e. in the antinomic case the separation rule is no longer valid for the conjunction. This fact can indeed suggest the idea of a *stage order*, where the opposite becomes understandable on the one hand as *coexistent*, but on the other hand (on different stages) as *different*. However, this is indeed a formally elegant, but strictly speaking a spatializing or temporalizing interpretation<sup>35</sup> of a more fundamental fact, which could be more aptly characterized as *unity of opposites*. 'Unity' because in the antinomic case, as said, none of the opposite relations can be without the other, so that both are only *useful in their conjunction at all* and therefore not are separable from each other. Hegel has called this unity of opposites – with an expression that is repeatedly misunderstood – "*the speculative*".<sup>36</sup> The often criticized 'suspension of the principle of contradiction' in dialectics thus gains a quite comprehensible meaning in the per-

<sup>34</sup> G.W.F. Hegel 1969, p. 94; see also V. Hölsle 1987, sect. 4.1.1.1.

<sup>35</sup> Think of the explained example of a self-acting interrupter (chapter 3).

<sup>36</sup> Hegel 1969, p. 52 In this context one can also think of the *coincidentia oppositorum* of Cusanus. (Cf. N. He- rold in PRAGMATIK I, p. 302.)

spective of the antinomic problem. There can be no question of *allowing the contradiction*, understood as a normal conjunction of contradictory sentences. For here, what is known to be disastrous in the logic of argumentation,<sup>37</sup> must not be concluded on the isolated subsentences of the conjunction.

And finally: The circumstance that both sub-sentences,  $\langle B \rangle = \langle \text{non-N} \rangle$  and  $\langle B \rangle = \langle N \rangle$ , have to be regarded as inseparably belonging together, further necessitates the introduction of a new, *synthetic* concept, in which *both* aspects are connected, which thus leads to the concept of  $\langle \text{being} \rangle$ , which is not *simply* non-being, but is non-being *as well* and (in modification of the Hegelian sequence of concepts) is to be interpreted as  $\langle \text{being-there} \rangle$  in the sense of a qualitatively different being. Notice here that the *opposition* of  $\langle B \rangle$  and  $\langle N \rangle$ , which appeared first, did not contain the slightest occasion for a synthetic unification of both – opposite concepts have as such a good sense, which does not require to go beyond it. Rather, *the necessity of the synthesis* arises only from the proven transformation of the opposition into a contradiction, especially an *antinomic* contradiction, which 'welds' the opposition into a new unity.

These hints – it is not more than this – may suffice here. It is obvious that in this context many questions remain open (e.g. concerning the easily understandable asymmetry of  $\langle B \rangle$  and  $\langle N \rangle$ , concerning their modification of meaning by the synthesis or also concerning the consequences resulting from the synthesis), which required a separate investigation. But one can safely say, that the sense of dialectic remains dark, as long as the peculiar *antinomic* structures are not understood. The clarification of these antinomic determinations is therefore not only a valuable contribution to the understanding of pragmatic language structures, but also of deeper dialectical-logical relationships.

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<sup>37</sup> See e.g. K. R. Popper 1976.

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