

BARON PASQUALE GALLUPPI OF TROPEA  
*ELEMENTS OF PHILOSOPHY*  
5<sup>TH</sup> EDITION; NAPLES, 1846

To the Young, Lovers of True Learning

Young People,

In the last century, remarkable changes have occurred in philosophy. New elements must therefore replace the old. Despite the wonderful books that keep appearing to shed their light on the world of philosophy, to me it appears that we still have no good elements. To form them, one must follow the whole history of philosophy in an analytic spirit, paying special attention to the period of the current philosophical revolution, looking deeply at the causes that made it happen, and therefore reading and analyzing all the classic works of the various philosophical schools which from Descartes until our day have been established in educated Europe. Only such study can put the author in a position to write good elements. I can assure you that I have diligently pursued this most laborious task, which gives me the right, I believe, to present to the public the *Elements of Philosophy*. They include: 1. *Pure Logic*, the logic of ideas; 2. *Psychology*; 3. *Ideology*; 4. *Mixed Logic*, the logic of facts; 5. *Philosophy of Natural Obligations*; 6. *Philosophy of Religion*, or natural theology.<sup>1</sup>

The *Pure Logic*, though small in size, is meant to educate thinkers. I have tried to see that each of the seven chapters that make it up contains, in combination with the others, some major point closely connected to the differences among particular opinions visible today in the field of philosophy. In the first chapter, I define philosophy in the sense that people now commonly take this term. In the second, I establish the distinction between pure cognitions and empirical cognitions.<sup>2</sup> Because Destutt-Tracy did not attend to this important distinction, he accepted empiricism, and the transcendental philosophy that dominates Germany today is based on its abuse.<sup>3</sup> The third chapter examines the very famous question of synthetic a priori judgments, the source of the revolution that Kant started in philosophy. The fourth chapter solves one of the major problems of modern

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<sup>1</sup>The printing of this edition is erratic in capitalization, numbering, italics and other points of typography, in which I have aimed for consistency rather than textual duplication.

<sup>2</sup>Galluppi, *Elementi*, I, 24: 'Prior to experience, if snow came to be before your eyes for the first time, you could not know whether it was hot or cold. What happens with the following judgment is different: *of two quantities equal to a third, one is not greater than the other*. I deny that the predicate belongs to the subject because I notice an absolute incompatibility between them. Judgments of the first kind are called *empirical, experimental, physical, a posteriori, contingent* judgments. The second are named *pure, rational, metaphysical, a priori, necessary* judgments. The sign that distinguishes one from the other is this: An affirmative judgment is contingent when denying the predicate does not destroy the idea of the subject. A negative judgment is contingent when affirming the predicate does not destroy the idea of the subject. If it is destroyed, the judgment is necessary.'

<sup>3</sup>Influenced by Locke and Condillac, Count Antoine Destutt de Tracy (1754-1836) attracted followers who came to be called *Idéologues* from the name that he gave to his radically empiricist psychology. Active in French revolutionary politics and educational reform, he published his *Eléments d'idéologie* between 1801 and 1815.

logic, which is how speculative reasoning is instructive even though it depends on identity.<sup>4</sup> The fifth chapter defends the rules of the syllogism from some objections of modern critics. The sixth establishes the distinction between the order of deduction of ideas and that of deduction of our cognitions.<sup>5</sup> The seventh and last chapter specifies the laws of the two methods, analytic and synthetic, which are not very widely understood.

The other parts of the elementary course, to be published without delay, are written in the same spirit.

The fifth edition is notably improved. At the end of each part of these elements is a summary dialogue, as in the third and fourth editions, in which I have followed the synthetic method for the topics treated, as a companion to the analytic method of the body of the work. In this way, I hope that you will be well instructed. Good luck!

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<sup>4</sup>Galluppi, *Elementi*, I, 68-70, 132: ‘the principle of identity is *what is is*, or *what is not is what is not*’; ‘The mind [*spirito*] cannot know all the relations of its ideas directly; it makes use of reasoning to compare two ideas with a third and thus to extend the sphere of its cognitions. In this task, the mind does not move beyond identity. Idea A as compared with idea B, and the idea of the relation of A to B, are identical. The problem that we posed is already solved. If someone asks how reasoning can be instructive without moving beyond identity, this is our answer: because it discovers those relations of our ideas that we cannot know directly, and knowing a relation that was not known is surely progress on the road of knowledge.’

<sup>5</sup>*Ibid.*, pp. 105-7: ‘The idea of man is more universal than that of Peter; the idea of animal is more universal than that of man; that of a body, of having an organic body, is more universal than the idea of animal; and the idea of a mortal thing is more universal than the idea of a thing that has an organic body.... [But] the order of deduction of our ideas is not the same as that of the deduction of our cognitions.... Reasoning consists in deducing one judgment from other judgments, ... [but] in pure reasoning one cannot conclude from the particular to the universal, only from the latter to the former. On the other hand, ... universal ideas are parts of particular ideas. And the mind, starting with the latter, moves up from abstraction to abstraction to the former, and thus it arrives at the most universal and the simplest ideas. From all that, you may conclude that the order of deduction of our ideas is different from the order of deduction of our cognitions, and that the logical doctrine of Destutt-Tracy, which confuses these two orders of deduction, is false.... [If so,] you should be on your guard against the two following false arguments: you should not say with other philosophers that *since all ideas come from experience, all cognitions derive from experience*; you should not say with certain others that *because we have some cognitions a priori, we also have some ideas a priori*.’

SUMMARY OF THE *PSYCHOLOGY* BY QUESTION AND ANSWER

Q What is *psychology*?

A Psychology is the science of the soul. *Psyche* means soul in Greek.

Q Can we know<sup>6</sup> the soul, and how can we know it?

A Certainly we can know the soul since it shows itself to us.

Q Explain this to me more clearly.

A The soul is the subject of all our sensations, of all our affections and of whatever thoughts we may have. But each of these modifications of ours is constantly accompanied by a sensation<sup>7</sup> of it. The soul not only thinks and has modifications, then, but also becomes aware of whatever particular thoughts and particular modifications it may have. This awareness of what goes on in the soul is called *consciousness* or *inner sense*, *internal sense*.

Q From what you say, it seems that the soul has a sensation of what goes on in it, but not of itself.

A. No. The soul also has a sensation of itself since it senses<sup>8</sup> its modifications as its modifications, as things inhering in it<sup>9</sup>, which amounts to saying that it senses itself modified.

Q But does the soul distinguish itself from its modifications, regarding itself as the subject of these modifications?

A The soul distinguishes itself from its modifications. But it does not make this distinction in the first moments of its consciousness of itself, only later on.

Q Since the various modifications of which the soul has consciousness must have a cause, can you tell me what this cause is?

A There are two kinds of modifications in us: some are actions; others are passions. Thus, willing, judging and reasoning are *actions*. Sensations of pain following a blow or of pleasure following a different movement – eating tasty food, for example – are *passions*. The efficient principle of actions is the soul itself; for passions the action of an object outside the soul is necessary. The soul's *susceptibility* to being affected in such a way is also necessary.

Q What are *faculties* of the soul?

A Faculties of the soul are potencies that the soul has either to produce certain actions or to accept certain modifications. The first are *active potencies* of the soul. The second are *passive potencies*.

Q Might these faculties be something other than the soul itself?

A The faculties of the soul are the soul itself considered in relation to its various modifications.

Q What kinds of faculties does the soul have?

A Since the objects of our thoughts are an indispensable condition of thinking, and since these objects must be given to the mind<sup>10</sup> and are not created by it, the primary faculties of the mind are those that give it the objects of its thoughts.

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<sup>6</sup>*Conoscer*; below, n. 15.

<sup>7</sup>*Sentimento*.

<sup>8</sup>*Sense*.

<sup>9</sup>*Inerenti in lei*; inherence is the way that accidents or modes exist by depending on a substance, as distinct from the subsistence or autonomous existence of a substance; below, n. 19.

- Q What are these faculties that give the mind the objects of its thoughts?
- A They are *sensibility* and *consciousness*.<sup>11</sup> The first gives the mind external objects; the second gives it its own *I* and the modifications that occur in the *I*. We cannot get back beyond this fact. *The I that senses objects outside it* is the first object shown to the mind.<sup>12</sup>
- Q How can objects outside the mind be shown or made present to the mind itself?
- A By acting – by modifying the mind, in other words, which is to say by producing various sensations in it.
- Q Sensations are internal modifications of the mind, then?
- A Precisely so.
- Q From this it seems one can infer that our sensations cannot reveal to us anything external.
- A Such an inference would be false. Since our sensations, in acting to modify our soul, must at the same time be perceptions of some external thing, they reveal an external world to us.
- Q Is there any similarity between our sensations and the qualities of bodies?
- A There is none. In our bodies we perceive only movements, and none of our sensations is a movement. This response is developed in the second chapter of the *Psychology*.<sup>13</sup>
- Q In a good philosophy, what do our sensations authorize us to admit outside ourselves?
- A Various aggregates of substances which, by constantly varying their mode of being, produce various sensations in our mind.
- Q Besides *sensibility* and *consciousness*, what other faculties must one recognize in the mind?
- A One must recognize two active faculties with which the mind works on the objects given to it by sensibility and consciousness.
- Q What are these faculties?
- A They are the faculty of *analysis* and the faculty of *synthesis*. With the first, the mind divides and distinguishes the objects that sensibility and consciousness together make present to the mind. With the second, the mind unites the objects by understanding their relations.
- Q Give me a clear explanation of the different functions of analysis and synthesis.
- A Analysis can be divided into two kinds, which can be called *attention* and *abstraction*. From among the many sensible objects that operate on the senses at any moment and are really separate in nature, the mind uses attention to separate one of them and make the perception of it clearer than that of the others. By using attention, the mind also separates a sensible object from others with which it is naturally united but from which it can be separated naturally, and thus it makes the perception of this object clearer than that of the other objects with which it is united.
- Q Give me examples of these two actions.

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<sup>10</sup>*Spirito*; below, nn. 21, 40.

<sup>11</sup>*La sensibilità e la coscienza*.

<sup>12</sup>Variations here and elsewhere between *Io* and *me* in the Italian text are meant grammatically rather than philosophically.

<sup>13</sup>Galluppi, *Elementi*, I, 156-69.

A At the moment when a person and a tree are present to my senses, I can attend to the person whom I see and make the perception of this person clearer than that of the tree, so that the perception of the person to whom I attend becomes nearly exclusive. In the same way, while seeing a person, I can attend to the head and thus make my perception of the head clearer than that of other parts of the body.

Q What is *abstraction*?

A Abstraction is an act of the mind by which it treats as separate from other things what cannot have existence separately from these things. Thus, modes are treated as separate from the subject, and the subject as separate from the modes that determine it, without which determinations the subject cannot exist. Physicists treat motion as separate from the body; moralists treat virtues and vices as separate from the mind of which they are modes; the universal idea of man, tree, body and so on separates from these objects the determinations without which they cannot exist. The first type of *abstraction* is called *modal abstraction*; the second can be called *abstraction of the subject*.

Q Explain the different kinds of *synthesis*.

A Three kinds of *synthesis* can be distinguished: *real synthesis*, *ideal synthesis* and *imaginative synthesis*.

The first is what unifies any real objects whose unity is real; accordingly, this is the kind that determines the *real relations* of things. The second is what unites ideally things that are not really united; accordingly, it determines the *logical relations* of things. The third is what forms *imaginary objects* by uniting several things in thought.

Q Give me examples of these three kinds of synthesis.

A All judgments in which a real subject affirms **for itself** a real mode of itself are examples of real synthesis. *The ivory ball that I hold in my hand is heavy*: given the weight combined with the ivory ball that I hold in my hand, this is a judgment that contains a real synthesis. If news of my friend's death makes me sad, I will be right to say: *I am saddened by news of my friend's death*. This judgment unites the real mode of sadness with the *I* as real subject, and it achieves this unity in reality because the sadness mentioned is a mode that really inheres in the *I*. *God is the cause of the existence of the universe* expresses the synthesis of effect with cause, and this synthesis is real.

*Tizio is equal in height to Sempronio*: this proposition expresses an ideal synthesis because the relation of equality in height between Tizio and Sempronio is not a *real relation* at all but a *logical relation*. *Two triangles erected on equal bases between the same parallel lines are equal to each other* is also a proposition that expresses an *ideal synthesis*. The first can be called *objective ideal synthesis* and the second *subjective ideal synthesis* because the terms of the logical relation are real in the first proposition but ideal in the second. It is correct, therefore, to divide ideal synthesis into *objective ideal synthesis* and *subjective ideal synthesis*.

The idea of a building to be built is the product of an *imaginative synthesis*. The idea of a winged horse is also the product of an *imaginative synthesis*. The first can be called *practical imaginative synthesis*<sup>14</sup> since the object produced by thinking can be

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<sup>14</sup>*Sintesi immaginativa civile*; cf. below, n. 137.

made real outside of thinking. The second can be called *poetic imaginative synthesis* since the object of the idea always remains imaginary and cannot acquire any reality outside of thought. Synthesis is of three kinds, then, *real*, *ideal* and *imaginative*. Each divides in two: the real into *synthesis of the mode with the subject in which it inheres* and *synthesis of the effect with the cause*. The ideal divides into *objective ideal synthesis* and *subjective ideal synthesis*. The imaginative into *practical imaginative* and *poetic imaginative*.

Q Why are the operations of analysis and synthesis called voluntary operations?

A Because they depend on the will, which is moved by desire and directs them.

Q From what has been said up to now, it seems that all the faculties of the soul reduce to the following: *sensibility*, *consciousness*, *analysis*, *synthesis*, *desire* and *will*.

A The construction of our cognitions<sup>15</sup> also requires another faculty, one that preserves the cognitions we have acquired. Without this faculty, a person could live a very long life and be no different, as far as knowledge is concerned, than in the first instant of intellectual life.

Q Give me an idea of this faculty.

A Usually this faculty is called *memory*, but we call it *imagination*. As soon as an object is manifest to the mind, by means of our external senses or by means of consciousness, and we have given it our attention, the mind has the faculty of perceiving the object again, of reproducing the perception of it, when the object is absent. To this faculty we give the name *imagination*.

Q Is imagination the same faculty commonly called *memory*?

A All memory is imagination, but not all imagination is memory.

Q Explain this clearly.

A Memory contains two things: the reproduction of a past perception; and the recognition of having had such a perception. But some past perceptions can be reproduced without the recognition of having had them.

Q How is this intellectual fact explained?

A Constant experience teaches us that, if any of the perceptions of those objects to which one attends together is reproduced in any way, the other part is reproduced by means of imagination. This amounts to saying that *all of a past perception comes back by means of imagination when part of it comes back either by means of the senses or by means of imagination*. This law is called the *law of association of ideas*. When imagination reproduces a perception by reproducing it according to this law, the perception reproduced by the imagination is located in a series of two or more perceptions, in which case *recognition* takes place and imagination becomes *memory*.

A Use an example to explain this.

Q Suppose I have seen a preacher speaking in a church. If I then see this same preacher at someone's house, partial perception of him will awaken total perception – perception of the church along with the preacher, in other words. Thus the perception of the preacher that I am talking about occurs duplicated in my mind, one part belonging to the total perception of the church, the other part to the total perception of

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<sup>15</sup>When Galluppi uses the plural *conoscenze* instead of the singular *conoscenza* in summarizing his own philosophy, I have used 'cognitions' rather than 'knowledge;' above, n. 6; below n. 39.

the house. My mind has the sensation<sup>16</sup> of these two complex perceptions, into each of which, and as a part of it, comes perception of the same person, and this is precisely the sensation that constitutes *recognition*. When I see this person, if the sight of him awakens no idea in me, even though I may have seen him thousands of times, I would not notice that he had been in my presence at some other time.

By contrast, sometimes it happens that imagination awakens ideas without the sensation of having had them. In this way, **a thought that I recall having read in a book can be awakened in my mind without the sensation of having read it.** This happens when the idea reproduced is awakened alone, not together with related ideas that accompanied the idea of the thought. A thought that I have read in a book, for example, is associated with idea A. When idea A is recalled, the idea of the thought in question is awakened, but it can be awakened in two ways. It can be awakened either together with the idea of the book or by itself. In the first case, the idea of the thought that I am talking about occurs duplicated: one version is simultaneous with present ideas; the other makes up part of the complex idea of the book. Thereby recognition takes place. In the second case, the idea of the thought is not duplicated, and thus it is not recognized.

Q It seems to me that the fact we are discussing can also be expressed and explained by looking at it from a different point of view.

A That is true. But the substance of this other explanation comes down to the one that we have already given. We have the sensation of the present *I* and of the ideas presently in it. We can also imagine the past *I* with all the ideas that would occur in it in that past state as we imagine it.

Thus, we will have recognition of those ideas that take part both in the complex sensation of the present *I* and in the complex phantasm of the *I* in the past state as we imagine it.

Q Is recollection distinct from memory, strictly speaking?

A When the recognition found in *phantasms* of the *imagination* is *direct*, this function of the imagination is memory. When the recognition is *indirect*, this function of the imagination is *recollection*.

Q Use an example to explain.

A I have seen Tizio in church, sitting somewhere with other people. I am with Tizio again, but I do not recognize him. He says to me: *remember, you saw me in church*. Then the idea of the church awakens, united to those of the people who were with Tizio. And the idea is duplicated because it is united both with the sensation of the current *I* and with phantasms of the *I* affected by past modifications. I direct my attention to the ideas of the people who were with Tizio, and then the idea of Tizio awakes, thereby duplicated and recognized. Recognition of Tizio is therefore an effect produced not by simple reproduction of the idea of Tizio, but by reproduction of the ideas of the people who were in his company. This *indirect* recognition constitutes *recollection* or *remembrance*.

Q The faculties of the soul, then, are *sensibility*, *consciousness*, *analysis*, *synthesis*, *imagination*, *desire* and *will*. Together these faculties constitute what is called the

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<sup>16</sup>*Sentimento*.

*nature of the soul.* What constitutes *habit*, which philosophers regard as a *second nature*?

A Nature gives us the faculties. Frequent exercise of these faculties gives us aptitudes for exercising them. These aptitudes are the *habits*.

Q They say that frequent exercise perfects our intellectual faculties. What is this perfecting?

A It is the aptitudes that I have mentioned.

Q Can habit give us faculties that we have not received from nature?

A Habit cannot give any faculty, only aptitudes, and these assume the faculties.

END OF THE *PSYCHOLOGY*

## SUMMARY OF THE *IDEOLOGY* BY QUESTION AND ANSWER

Q What is an *idea*?

A The idea is the result of thinking about objects present to the mind from sensibility and consciousness.

Q Is there no difference between the first operation of the intellect, called simple *apprehension* or *perception*, and the *idea* in the proper sense?

A The idea can be regarded as the termination of the act called *perception* or simple *apprehension*, or else as an internal modification of the soul deriving from the act of perceiving.

Q What is *ideology*?

A Ideology is the science of the origin and therefore of the nature of our ideas.

Q Ideology deals with which ideas?

A With the ideas *essential* to human understanding.

Q Explain this more clearly.

A There are ideas essential to human understanding, and there are some which are not essential and can therefore be called *accidental* to understanding. The first are found universally in all people, which cannot be said of the second. No person can be without the idea of his own body and something outside it, whatever it may be, nor of his own *thinking I*. But a person can do without the idea of a crocodile or an elephant and, if he is born blind, even of the starry sky.

The ideas essential to human understanding are those that thinking, which is the use of the faculties of analysis and synthesis, develops naturally out of the *I that senses something outside the I*.<sup>17</sup>

Q Since the idea of one's own body is an idea essential to human understanding, tell me how people distinguish their own bodies from external bodies.

A Our own body is the one in which we seem to sense and to be,<sup>18</sup> in which movements can be produced directly just by our willing them. It is also the one that is present without interruption.

Q What is the soul, which seems to rule **one's own** body?

A The soul is what has sensations and thoughts of some kind.

Q From that it seems we must regard the soul as something distinct from sensations and from thoughts of some kind. This conclusion seems to follow from the idea of the soul that we have formed for ourselves. Is it correct?

A It is correct and indisputable.

Q But this thing that constitutes the soul and is usually also called the *substance of the soul* or *essence of the soul* – what is it?

A We have no determinate or particular notion of it, but we understand that it is a *subsistent* thing, and we give the name *substance* to a subsistent thing, as we give the names *quality*, *accident*, *mode*, *modification* and so on to something that inheres in<sup>19</sup> substance.

Q We have a general notion of substance, then?

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<sup>17</sup>*Dal me sensitivo di un fuor di me*; below, n 146.

<sup>18</sup>*Di sentire e di essere*.

<sup>19</sup>*Inerente alla*; above, n. 9.

- A Certainly. If we had no notion of substance, we would have none of *quality*, which is the correlate of substance. The distinction between *substantive* and *adjective* nouns, which is found in all languages, shows that all people have the idea of substance and of quality.
- Q But where do we get the idea of substance and its correlate of quality?
- A From experience, or rather from analysis of sensations<sup>20</sup> or perceptions of the *I* or *something outside it*. The idea is an *objective* notion with respect to origin and meaning both.
- Q The human soul is a substance, but since a body also appears to us as a substance, might the human soul be a body?
- A It is not possible that the human soul is a body. When one analyzes the consciousness of the thinking *I*, it seems evident that the human soul, the *I*, shows its itself to be rigorously one in all functions of thinking – to be absolutely simple and indivisible, in other words.
- Q What did we call this absolute simplicity of the thinking *I*?
- A We called it the *metaphysical unity of the I*.<sup>21</sup>
- Q Give me a clearer picture of this metaphysical unity of the thinking subject.
- A In reasoning the thinking subject deduces a judgment from other judgments. But this deductive act pertains necessarily to a simple and indivisible subject because **there is no sharing the deduction**. The deduction belongs to and inheres in the same subject<sup>22</sup> to which each element of the conclusion and each element of the premises belong. Thus in reasoning there is no plurality of subjects, but rather absolute identity and unity of the same subject.
- Q Are there different kinds of unity?
- A Two kinds can be distinguished: *metaphysical unity* and *synthetic unity*. This second kind can be divided into the *synthetic unity of thought* and *physical unity*. Metaphysical unity is absolute. Synthetic unity is conditional. (*Ideology*, sections 15-16, 20-24)<sup>23</sup>
- Q We have already recognized (1) the substantiality of the soul; (2) its metaphysical unity, also called *spirituality*; and (3) its various modifications or modes of being. Now from this it seems not only that the soul is a substance, but also that it is an *efficient cause* of any modifications that it has, although Hume denies the existence of the notion of *efficient cause*. What should one think of this theory of Hume's?

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<sup>20</sup>*Sentimenti*.

<sup>21</sup>*L'unità metafisica del me*; Galluppi, *Elementi*, I, 312-13, 324-5: 'Consciousness of the synthetic unity of thinking includes ... consciousness of the unity of the thinking subject ... [which] I call the metaphysical unity of the *I*.... Without the metaphysical unity of the *I*, the synthetic unity of thinking would not be possible, and without the synthetic unity of thinking, no science [scienza] would be possible for mankind. Get this basic truth of ideology well planted in your intellect and memory. To the one, simple thinking subject *I* give the name *mind* [*spirito*]. Thus we have explained the origin of the notion of mind.... The metaphysical unity of the *I* ... is an absolute unity, ... [and] synthetic unity assumes the indefinable metaphysical unity of the *I*.

<sup>22</sup>*Soggetto*; the thinking or psychological subject, not the logical subject of a proposition.

<sup>23</sup>Galluppi, *Elementi*, pp. 308-13, 319-29.

- A Hume's theory of causality is false. Consciousness attests that the soul is the principle or efficient cause of its own willing. In all languages, there are terms that point to causality, like *dunque, perciò, in conseguenza, perchè* and so on in Italian.<sup>24</sup>
- Q It appears that the notions of *action* and *passion*, which are linked to that of causality, are also notions essential to human understanding.
- A So it is. The distinction between active and passive verbs, found in all languages, derives precisely from these notions.
- Q From what you have said about substance and cause, it seems that the relation between quality and substance and that between effect and cause are both *objective* relations and therefore *real*.
- A What you say is true. There are two real relations between existents:<sup>25</sup> one is of modification or quality to the subject; the other is of effect to the cause. A modification has two real relations with the substance: one is of modification to the subject; the other is of effect to the cause. The cause of the modification can be the same as the subject of the modification or a different subject.
- Q These two truths – (1) *there can be no quality with a substance in which the quality inheres*<sup>26</sup>; (2) *there can be no effect without a cause* – are they contingent truths or perhaps necessary?
- A They are necessary truths and therefore identical.
- Q Help me understand this clearly.
- A Quality is an existence that inheres in something.<sup>27</sup> A quality without substance, therefore, would be an existence that both inheres and does not inhere. Moreover, quality is a mode of being, and without the being a mode of being would be both a mode of being and not a mode of being. Thus, it is an identical and necessary truth that *there can be no quality without a substance*.
- Q Demonstrate with the same clarity *that there can be no effect without a cause that makes it exist*.
- A The *effect* is what comes to be.<sup>28</sup> Everything that exists either exists independently of any assumption, or it may depend on some assumption. In the first case, it exists absolutely and does not come to be and hence is not an effect, which is contrary to the hypothesis. In the second case, the existence that is assumed and on which the effect depends is an efficient cause. Thus, the proposition that *there is no effect without a cause* is a truth demonstrated by means of the principle of contradiction.
- Q Help me understand more clearly that what comes to be does not exist absolutely.
- A What comes to be must be preceded by something, either being or empty duration,<sup>29</sup> since what is not preceded by anything does not come to be but is itself the first being before which there is nothing. What is preceded by something exists only on the assumption of the thing that precedes it. Therefore, it does not exist absolutely.

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<sup>24</sup>Therefore, for that reason, consequently, because.

<sup>25</sup>*L'esistenza.*

<sup>26</sup>*A cui la qualità sia inerente.*

<sup>27</sup>*Una esistenza inerente.*

<sup>28</sup>*Incomincia ad essere.*

<sup>29</sup>*Una durata vôta.*

- Q But in the case where a being was preceded only by empty duration, would it not exist without an efficient cause?
- A A being that comes to be cannot have a relation of dependence with empty duration because the empty duration that supposedly precedes it no longer exists when it comes to be. Its relation of dependence would then be a non-dependent dependence, which is a contradiction.
- Q The two real relations that we have discussed, are they the only ones that the mind conceives among things?
- A Besides the real relations, the mind posits among its ideas – and also among any things that are involved – *logical* relations that exist only in it and have no real archetype outside of it. The terms of these logical relations are real, and their basis, which is the positive nature of the terms, is also real. But the relations are only in thought and completely subjective.
- Q What kinds of logical relations are there?
- A There are relations of *identity* and *difference*, from which derive those of *equality*, *inequality* and so on.
- Q What is the operation of the mind called that perceives these logical relations?
- A It is called *ideal synthesis*, which is divided into *objective ideal synthesis* and *subjective ideal synthesis*.
- Q The distinction between the two kinds of relation, the real and the logical, is it important in philosophy?
- A This distinction is of the greatest importance. It teaches us how to solve a major problem of philosophy, which is *what is objective in our cognitions,*<sup>30</sup> *and what is subjective.*
- It makes us distinguish the two kinds of experience: *primitive* experience, which is composed only of objective elements; and *comparative* experience, which is composed of objective and subjective elements together.
- Q Might one conclude that the perception of logical relations is a mistake and a mental illusion?
- A By no means. The perception of logical relations is a truth that has its objective basis in the real terms of the relations themselves and in the nature of our mind. Since these relations are *modes* of thinking about objects, **these modes also** derive from the nature of our mind. A person born in America, for example, looks like another born in Italy. The two people are independent; there is no real relation between them. The mind conceives and thinks about the first along with the second, and the two people are together in the mind of the one who thinks about them. But this bringing together of the two people in the same mind, and their existence in a single act of the understanding, is and can be only ideal. It is nothing more than the mode in which the mind thinks about each of these two people, each of whom is apart from and independent of the other. The mind makes them a unity and joins one to the other. This is clear to anyone who understands how to withdraw into the solitude of the understanding. From this one sees that logical relations, in the final analysis, are an effect existing in our mind, an effect that derives from real causes.

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<sup>30</sup>*Nelle conoscenze.*

- Q You said that real relations among things come down to two: the relation of quality to subject; and that of effect to cause. But is there not also the relation of time, perhaps, which is different from that of causality? By way of example: One person is fifty years old, while another is ten, and there is no other relation of kinship between these people. Might one not claim that there is an anteriority of time between the first and the second, meaning that the first existed at a time preceding the time in which the second existed?
- A Even though many philosophers accept a relation of time distinct from the relation of causality, still, if one reasons precisely and without deluding oneself with fantasy, this theory is false.
- Q Give me a clear explanation of these views about time, and show me which is true.
- A Some philosophers think that there is a duration distinct from things that endure, and that this duration is composed of an infinite number of tiny durations that succeed one another. Imagine that all things are annihilated, they say, and you cannot conceive of the annihilation of time, the duration in which things exist. This proves that duration exists independently of all things and that it is a necessary condition of their existence.
- A What should one think of this opinion?
- Q It is absurd.
- A Prove its absurdity.
- A Here are some absurd notions that this theory contains. First, each of the tiny durations that make up infinite duration is contingent and conditional. Each comes to be and passes away again into nothing. But an infinite series of conditionals cannot constitute the Absolute. Infinite duration regarded as an absolute cannot be composed of these tiny durations, so it cannot exist. Second, if things are existent in this duration, duration is the subject in which all things inhere. Consequently, it is the only subject, and all beings are only modifications of it. But this unique substance is something that cannot be. Past duration is nothing, and future duration is nothing, but two zeros do not add up to any real and subsistent thing, such as substance. (See also *Ideology*, section 51)<sup>31</sup>
- Q But if duration distinct from things that exist is impossible, how do we form the idea of this duration for ourselves?
- A Experience shows us the existence of generative acts or rather their effects,<sup>32</sup> and for this reason causality is real in nature. Cause is regarded as by nature anterior to effect. The mind has a concept of the number of effects or products, and the idea of the number constitutes for us the phenomenon **consisting of time**.
- Q So there is nothing objective about time?
- A The objective aspect of time is causality or, to express it in different terms, production or generation. Time is nothing more than the number of generative acts.<sup>33</sup>
- Q But since the number is an idea of the mind and nothing outside the mind, it follows from the proposed view of time that time is nothing outside the mind.

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<sup>31</sup>Galluppi, *Elementi*, pp. 362-3.

<sup>32</sup>*Delle generazioni o sia degli effetti*.

<sup>33</sup>*Delle generazioni*.

- A Number is nothing outside the mind, but things numbered are real even outside the mind; likewise, the number of generative acts is only in the mind, but numerable generative acts are real and objective.
- Q Just as the idea of a duration distinct from existing things, a duration in which all things seem to us to exist, cannot be separated from the mind, likewise inseparable from the mind is the idea of an immense space in which all things seem to exist. But we have regarded duration distinct from existing things as merely imaginary. Should we perhaps say the same of the immense space in which everything seems to us to exist?
- A The idea of an immense void in which all things seem to exist is a constant phenomenon for us and is the condition of other phenomena, **as of motion**. But we have no legitimate reason to believe in the existence of this void. When we establish the true nature of the components of bodies, the non-existence of the void will be seen clearly.
- Q You said before that an infinite series of conditionals with no absolute is impossible; prove this proposition for me.
- A By themselves, a finite series of conditionals is a series of effects without a cause and thus impossible. But with respect to causality, an infinite series of conditionals by themselves does not differ from a finite series. An infinite series of conditionals by themselves is impossible, then.
- Q Explain this clearly.
- A Let a finite series of conditionals by themselves be represented by these five terms – A, B, C, D, E – such that E cannot exist unless D exists, D cannot exist unless C exists, C cannot exist unless B exists and B cannot exist unless A exists. Since the condition or cause of A is not in this series, and since A is by hypothesis an effect, if you posit the existence of A by positing the existence of the series, you posit an effect without a cause, which we have shown to be impossible. But the number of terms in the series of conditionals has no influence at all on the nature of the series. In a five-term series of conditionals by themselves, the cause of the first term is missing. In the same way, the cause of the first term is missing in a ten-term series. Obviously, the same must be said of a series of a thousand terms or of any other number. Therefore, what is proved for a series of five terms is also proved for all possible series, whatever the number of terms that make it up.
- Q It follows from what you have said that there must exist an absolute Being – consequently, that God exists. Give me a clear account of the foundations of the proof of God's existence.
- A These are the foundations: (1) There is no effect without a cause; (2) An infinite series of effects in which each term is an effect of the one before it and the cause of the one after it is intrinsically impossible; (3) If anything exists, the Absolute exists; (4) The *I* exists; (5) The *I* is not the Absolute; (6) A conditional and contingent existence has an intelligent cause for its cause.
- Q You have already proved the first proposition, that there is no effect without a cause. Can you prove it in another way?
- A An effect is a thing that comes to be. The idea of a thing that comes to be is identical to the idea of a thing preceded by another thing. The idea of something preceded is identical to the idea of something produced.

- Q But might a thing not be preceded by a duration devoid of things?
- A We have shown that such a duration cannot exist. Therefore our theory of time supplies a proof of the principle of causality.
- Q Examine the other five propositions that support the crucial proof of God's existence.
- A The second proposition, as we have shown, is a conclusion evident from the principle of causality. The third is a conclusion evident from the first two. The fourth is a primitive truth of fact. The fifth proposition needs proof, which comes from the incompatibility of the nature of the *I*, as shown to consciousness, with the nature of the Absolute. *The Absolute is immutable*. If change occurred in it, there would be some effect in it of which it would be the cause. Before the change, it would then be in some state, and this state would be accidental to it and hence conditional, thus needing another antecedent state which would also be conditional, thereby admitting a series of conditionals without an Absolute, which we have shown to be impossible. Therefore, in absolute being one must admit an absolute state, which is the same as saying that *the Absolute is immutable*. The Absolute can lose nothing and gain nothing; it is all that it can be. *The Absolute is infinite*, therefore. The *I* is not immutable; the *I* is not infinite; therefore, the *I* is not the Absolute. The sixth proposition can be proved in the following way. When the *I* is posited, the Absolute is posited, but when the Absolute is posited, the *I* is not posited since the *I* in this case would be immutable, like the Absolute. Therefore, the *I* is not a necessary consequence of the Absolute. It is, not because the Absolute is, but because the Absolute makes it be. This causality, which is not a consequence of the nature of the Absolute, is *will*. Therefore, the Absolute is intelligent.
- Q But God is regarded also as creator. What is the basis of this notion?
- A The *I* is a substance. The *I* comes to be by action of the Absolute. The action of the Absolute, therefore, makes substances exist. Such an action is called *creation*. Therefore, God is the Creator.

END OF THE *IDEOLOGY* AND OF THE FIRST VOLUME

SUMMARY OF THE *MIXED LOGIC* BY QUESTION AND ANSWER

Q What subject does mixed logic deal with?

A The aim of mixed logic is to explain the theory of reality, of certainty and of the limits of our knowledge and thereby to determine the legitimate grounds of our cognitions<sup>34</sup> and the causes of our errors.

Q Of what does the *reality of our knowledge* consist?

A Knowledge joined with the existence of the known object is *real knowledge*.

Q Prove to me that the human mind is capable of real cognitions<sup>35</sup> and possesses them.

A The reality of knowledge or the existence of some real cognitions<sup>36</sup> is a primitive truth and thus not provable.

Q What is the nature of this primitive truth?

A It is a primitive truth of fact or of internal experience.

Q Tell me what this primitive truth is.

A Expressed in general terms, it is as follows: *I am existent*<sup>37</sup> *in the state of thinking*. This truth is posited by denying it since, if you deny that you are existent in the state of thinking, **you posit the very thing** that you deny. But positing the same *you* that denies your *thinking I* is the same as positing the *thinking you*. If you say that you are deceived, you still posit the same *you* that deceives you – that thinks, in other words.

Q What do you mean by legitimate grounds of our judgments?

A What determines the mind to form a judgment is called a *ground of this judgment*; this ground is *legitimate* when the judgment grounded by it is true. If the judgment so grounded is false, the ground is a cause of error.

Q How many legitimate grounds do we have for our judgments?

A There are three legitimate grounds of primitive truths of *fact*: *consciousness*, *external senses* and the *authority* of other persons. There is only one legitimate ground of *rational or metaphysical* primitive truths. This is *direct*<sup>38</sup> *evidence*, direct perception of the relation of identity or of incompatibility among our ideas.

Q Might memory not be a legitimate ground of our cognitions.

A Memory is certainly a legitimate ground of our cognitions since without memory knowledge<sup>39</sup> would be impossible. But memory is not an *originating* ground productive of cognitions that we do not already have. It is a ground *auxiliary* to all other grounds, whatever they may be.

Q Can memory's legitimacy as a ground be proved?

A Memory's legitimacy as a ground can be proved only by assuming the unprovable legitimacy of consciousness as a ground, since this is what testifies to the existence of memory in us.

Q So it seems that consciousness can be regarded as a legitimate ground of the legitimacy of all our other judgments?

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<sup>34</sup>*I motivi legittimi delle nostre conoscenze.*

<sup>35</sup>*Conoscenze reali.*

<sup>36</sup>*Alcune conoscenze reali.*

<sup>37</sup>*Sono esistente.*

<sup>38</sup>*Immediata.*

<sup>39</sup>*Scienza.*

- A Exactly so. Consciousness must be seen in two ways, as a *direct legitimate ground* of all these judgments regarding our *I*, and as an *ultimate and indirect ground* of all our judgments since the existence of all the other grounds is based on consciousness.
- Q The testimony of other people as a ground is also based on the testimony of consciousness?
- A By analogy this ground is based on the testimony of our senses, and the testimony of our senses, no less than the existence of memory as an auxiliary ground, rests on the testimony of consciousness as its ultimate basis.
- Q What are the legitimate grounds, then, that give us primitive truths of *fact*?
- A They are consciousness, the testimony of the external senses, the authority of other people and memory as an auxiliary ground.
- Q What are the legitimate grounds that give us *rational* or *metaphysical* primitive truths?
- A There is only one: it is *direct evidence*, the clear and direct perception of the relation of identity or of incompatibility among our ideas.
- Q Is there perhaps some general expression that covers all primitive metaphysical truths?
- A There is, and it is the famous principle of contradiction: *a thing cannot both be and not be at the same time*.
- Q What are the legitimate grounds of inferred truths?
- A There is only one; it is *deduction* or *reasoning*.
- Q But are there not two kinds of inferred truths: *rational* or *metaphysical* inferred truths; and *existential* inferred truths.<sup>40</sup>
- A Of course there are these two kinds of inferred truths, which is why we have divided reasoning into *pure* and *mixed*. Beginning with certain experiential existences, this last leads us to other existences which, even if they do not fall under experience, are nonetheless capable of falling there, or else they are absolutely and exclusively within the domain of reason.
- Q You said that all legitimate grounds of our cognitions rest ultimately on the authority of consciousness. I long to learn if the existence of the material universe is also indirectly attested by consciousness.
- A My answer to the question you ask must be affirmative. Consciousness assures us, beyond any doubt, of the existence of the perception of bodies. It shows us that this perception is referred by us to bodies through a twofold relation: the general relation of some thought to an object; and the special relation of causality. We regard bodies not only as objects of our sensible perceptions but also as causes of these perceptions. This identity of the object of perception with the same thing that is the *body* constitutes the reality of empirical perception.
- Q What stands out from our conversation is that the human mind is capable of knowing some truths. It knows its own existence by the consciousness that it has of itself; the existence of the bodies that surround it by means of sensations; that of God by means of reasoning; and the existence of the many natural causes of visible effects by means of the same reasoning. And yet some philosophers, usually called *skeptics*, deny that

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<sup>40</sup>*Verità dedotte di esistenza.*

*the human mind can know*<sup>41</sup> *anything*. What should one think of this skepticism, and what are the grounds that the skeptics claim for doubting everything?

A The existence and reality of some human cognitions is a primitive truth and not provable. From this follows the falsity of skepticism. Skepticism wants proof of the existence and reality of any human cognitions, but this proof is impossible because it would assume as proven what must be proved. Therefore, the falsity of skepticism cannot be proven rigorously, but must be recognized. Nonetheless, once the existence of some true cognitions is admitted, it can be proved that skepticism involves contradictions.

Q What are the philosophers called who teach that we can understand some truths?

A They are called dogmatic.

Q Does sound philosophy not reject dogmatism?

A One must not confuse the *dogmatic method* with *dogmatism*. The dogmatic method consists of judging when there are legitimate grounds for judgment. But dogmatism consists of proclaiming judgments without any legitimate ground.

Q But have philosophers not taught many errors, believing them to be based on the grounds that they have stated? And are the skeptics not right to conclude from such errors and from the diversity of philosophical and popular opinion that the truth is entirely hidden to the human mind?

A The skeptics reason badly. From some faulty judgments that people make, they reach a universal conclusion that all human judgments are false and that no person can know the truth. From the diversity of popular and learned opinion on some topics, they infer the universal diversity of all human opinion. They therefore reach a conclusion more universal than their premises.

Q But in the end, the existence of error in this world is beyond question. What means do we have to distinguish error from truth?

A Error exists in this world because the human mind is limited. This limitation brings with it the possibility of error, but not its necessity. Logic gives us rules for recognizing the truth, and by explaining the causes of our errors it shows us the way to avoid them.

Q But consciousness, external senses, memory, authority, evidence, reasoning – in the end, do they not often deceive us, and necessarily so?

A These grounds never deceive us necessarily. We always have means of avoiding error. Thus, with regard to consciousness, one must note that *the elements of a judgment based on consciousness must all be attentively observed, and not everything which is in consciousness comes to our attention*. With regard to the senses, it suffices to note that they cannot inform us about *absolute properties of bodies*, only about *relative properties*, and that the *apparent mode* of bodies must not be confused with the *absolute mode*. With regard to evidence, one must take note not to confuse the *mechanical association* of our ideas with the *clear perception* of their relation. We have made analogous observations in the appropriate places in dealing with the *causes of our errors*.<sup>42</sup>

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<sup>41</sup>Saper.

<sup>42</sup>Galluppi, *Elementi*, II, 102-4.

END OF THE *MIXED LOGIC*

## EXPLANATION AND EXAMINATION OF THE TRANSCENDENTAL PHILOSOPHY

Immanuel Kant was born on April 22, 1724, at Königsberg in Prussia and died on February 22, 1804. He is the author of a new philosophy called *transcendental philosophy* and also the *critical philosophy*. Since this author boasts that he has discovered a new method for philosophy, neither dogmatic nor skeptical, called the *critical method*, **you must not be** strangers in the land of this philosophy. Here I can give you only a brief account of it by explaining its basic principles. My work titled *Philosophical Essay on the Critique of Consciousness*, especially books three, four and five, includes a full treatment.<sup>43</sup>

I call that *philosophy transcendental which determines a priori the subjective content of our cognitions*.<sup>44</sup> *Subjective* means what comes from the mind,<sup>45</sup> from the cognizing subject, and not at all from the object cognized.<sup>46</sup> The latter, the component of cognition that comes from the object, is called *objective*.

That there is something subjective in our cognitions was recognized before the birth of the transcendental philosophy. If you look at an oar immersed in water, it will seem to be broken, but the break in the oar is not *objective*; the oar is not broken. This breaking of

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<sup>43</sup>The first parts of the *Essay* appeared in 1819; on the critical philosophy, see especially Galluppi, *Saggio filosofico sulla critica della conoscenza ossia analisi distinta del pensiero umano con un esame delle più importanti quistioni dell'ideologia, del Kantismo e della filosofia transcendente* (Milan: Borroni e Scotti, 1846), III, 202-325; V, 45-376; see also Galluppi, *Lettere su le vicende della filosofia relativamente ai principi delle conoscenze umane, da Cartesio sino a Kant inclusivamente* (Milan: Giovanni Silvestri, 1843), pp. 208-70.

<sup>44</sup>*Quella che determina a priori ciò che vi ha di soggettivo nelle nostre conoscenze*; Kant, CPR, A571-2: 'Every thing ... stands under the principle of thoroughgoing determination [*Bestimmung*]; according to which, among all possible predicates of things, insofar as they are compared with their opposites, one must apply to it.' Here, in Galluppi's exposition of Kant's philosophy, I have taken both *conoscenza* and *conoscenze* as translations of *Erkenntnis* (cognition), as distinct from *Wissen* (knowledge), *Wissenschaft* (science) or *Denken* (thinking); cf. above, nn. 15, 21; below n. 53. I have supplied Kant's texts in the notes that follow to illuminate Galluppi's Italian terminology, not to indicate which text may have been his source at any point; all English translations of the first *Critique* are from Kant, *Critique of Pure Reason*, trans. and ed. Paul Guyer and Allen W. Wood (Cambridge: Cambridge University Press, 1997).

<sup>45</sup>*Spirito*; although in philosophical Italian this word often corresponds to the German *Geist*, Galluppi is thinking of *Gemüt*, meaning 'mind,' 'soul' or 'mental state,' which Kant preferred in the first *Critique*: e.g., CPR, A50: 'Our cognition arises from two fundamental sources in the mind [*Gemüts*]...'; above, n. 21; below, n. 51.

<sup>46</sup>*Dal soggetto che conosce, non già dall' oggetto che si conosce*; Kant, CPR, A484: 'Your object is merely in your brain; ... hence all you have to worry about is ... avoiding the amphiboly that would make your idea into a putative representation of something given empirically, and thus of an object to be cognized [*erkennenden Objekts*] in accordance with the laws of experience [*Erfahrungsgesetzen*].' Galluppi's *oggetto* had to cover both *Objekt* and *Gegenstand*. In general, the latter object of experience becomes the former object of knowledge through the transcendental unity of apperception, a distinction both elusive and important. Compare the following passages: A46: '... raindrops, ... as appearances [*Erscheinungen*], are already empirical objects [*empirische Objekte*]'; A239-40: 'One need only take as an example the concepts of mathematics.... Although all these principles, and the representation of the object [*Vorstellung des Gegenstandes*] with which this science occupies itself, are generated in the mind completely *a priori*, they would still not signify anything at all if we could not always exhibit their significance in appearances [empirical objects] [*Erscheinungen (empirischen Gegenständen)*].'

the oar is our mode<sup>47</sup> of seeing it, which is therefore *subjective*. If you happen to be in the middle of two parallel lines of trees or columns, these lines will seem to converge in the distance and, at a great distance, to meet in a point. But this convergence and this coming together are not at all in the object. They are our modes of seeing, and thus they are *subjective*, not *objective*. A square tower seen in the distance will seem round: this roundness is subjective, our way of seeing the shape of this tower. No need for me to multiply examples that you can multiply for yourselves. I only remind you that in the second chapter of the *Psychology* I showed you that smells, colors, cold and heat are our ways<sup>48</sup> of being, and the various modes in which we perceive external objects are certainly not the modes in which they exist.<sup>49</sup>

Not only are we aware from our sense-perceptions that our mode of seeing objects does not correspond to objects themselves; this subjective element is also manifest in the products of thinking. Thus we have seen that relations of equality, similarity and so on are simply mental viewpoints and certainly not physical and absolute properties of things. We have likewise noted that the mind, by turning the possible into the real, by making duration distinct from things in succession, has thereby produced some illusions that can be called *transcendent*.<sup>50</sup> All these elements that arise from our mental activity<sup>51</sup> can be regarded as subjective elements of our cognitions and of our errors.

I have warned many times that logical relations must not be confused with real relations.<sup>52</sup>

But the transcendental philosophy differs from theories that preceded it by proclaiming itself a fully *a priori* science<sup>53</sup> and seeking to determine *a priori* – independently of any experience whatever<sup>54</sup> – the subjective elements of our cognitions. It treats many objective elements as subjective, and it treats them as inherent in<sup>55</sup> our cognitive faculty, antecedently to any datum of experience whatever.<sup>56</sup> Moreover, it treats these subjective

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<sup>47</sup>*Modo*; cf. below, nn. 43, 133.

<sup>48</sup>*Maniere*; cf. above, n. 42, below, n. 133.

<sup>49</sup>Galluppi, *Elementi*, I, 280-1.

<sup>50</sup>Galluppi, *Elementi*, I, 423-8.

<sup>51</sup>*Attività dello spirito*; Kant, *CPR*, B67-8: ‘... the form of intuition..., since it does not represent anything except insofar as something is posited in the mind [*Gemüte*], can be nothing other than the way in which the mind [*Gemüt*] is affected by its own activity [*eigene Tätigkeit*]’; above, n.45; below, n. 62.

<sup>52</sup>Galluppi, *Elementi*, I, 29-31, 424-5.

<sup>53</sup>*Scienza*; Kant, *CPR*, A832: ‘Since systematic unity is that which first makes ordinary cognition [*Erkenntnis*] into science [*Wissenschaft*], ... architectonic is the doctrine of that which is scientific [*Scientifischen*] in our cognition [*Erkenntnis*] in general;’ above, n. 44.

<sup>54</sup>*Indipendentemente cioè da qualunque esperienza*; Kant, *CPR*, B2: ‘We will understand by *a priori* cognitions ... those that occur absolutely independently of all experience [*schlechterdings von aller Erfahrung unabhängig*];’ above, n. 46; below, nn. 56, 59.

<sup>55</sup>*Inerenti*; above, n. 9.

<sup>56</sup>*Qualunque dato sperimentale*; Kant, *CPR*, A267: ‘But if it is only sensible intuitions in which we determine all objects merely as appearances, then the form of intuition ... precedes all matter (the sensations), thus space and time precede all appearances [*Erscheinungen*] and all data of experience [*datis der Erfahrung*]; cf. Guyer and Wood, ‘data of appearances’], and instead first make the latter possible.’

elements as in themselves empty of reality and as lasting phenomena. It seeks to make all objects arise from the synthetic combination of these subjective elements together with objective elements. But Kant's *objective* is not the *objective* of other philosophers; his is not real in itself, but rather *an appearance, a phenomenon*.<sup>57</sup> And humans can cognize nothing outside of appearances.

The transcendental philosophy therefore supposes (1) that some elements of our cognitions are in us *a priori*, independently of any experience whatsoever; (2) that the philosophy that tries to discover them must be wholly established *a priori*. These elements of our cognitions, which the mind possesses independently of experience, are called *pure*, meaning primitive and somehow purified of any impression at all foreign to us.<sup>58</sup> Calling the complex of all these principles *pure reason*, the philosophy that discovers them *a priori* also calls itself a *critique of pure reason*.

But what means shall we use to help us uncover the pure elements of our cognitions? By what sign shall we recognize them? The philosophy that I am investigating declares the following basic principle:<sup>59</sup> *What is necessary, invariable and universal in our cognitions is subjective, pure and a priori; by contrast, the accidental, contingent and variable will belong to the object, will be an objective element.*

The first fact that strikes us from outside is extension; the second is motion. We see what is necessary and universal in these perceptions, and, in keeping with the principle declared above, we will succeed in uncovering the pure elements of these perceptions. If I abstract from all bodies, if I make every trace of them disappear, space still stays with me – infinite, indeterminate, absolute space. If extension were a thing that experience makes us recognize in bodies, we would be able to conclude only that all objects that we have perceived until now by means of the external senses are extended and in space. Nothing would assure us that we would not perceive some object outside of us that was not extended. But to make such a judgment is beyond our power. All objects that we can perceive by means of the external senses must be extended and in space. *Therefore, space is a representation*<sup>60</sup> *that rigorously carries with it the features of necessity and absolute universality; hence, it is a subjective element of our cognitions.*

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<sup>57</sup>*Un'apparenza, un fenomeno*; if Galluppi is implying that the words are synonymous, he ignored Kant's distinction; CPR, A19: 'The undetermined object [*Gegenstand*] of an empirical intuition is called appearance [*Erscheinung*]; cf. A248: 'Appearances [*Erscheinungen*], to the extent that as objects [*Gegenstände*] they are thought in accordance with the unity of the categories, are called phaenomena [*Phaenomena*].'

<sup>58</sup>*Straniera a noi*; Kant, CPR, A11/B24: 'Every cognition is called pure [*rein*] ... that is not mixed with anything foreign [*Fremdartigen*] to it.'

<sup>59</sup>*Principio fondamentale*; this distinction between *subjective* and *objective*, on which Galluppi bases his refutation of Kant, is too simple to be faithful to the first *Critique*; CPR, B4 seems to support Galluppi: 'Necessity and strict universality are therefore secure indications of an *a priori* cognition, and also belong together inseparably...'; but compare A156: 'The possibility of experience [*Die Möglichkeit der Erfahrung*] ... gives all of our cognitions *a priori* objective (*objektive*) reality,' where much hangs on the difference between 'experience' and 'possibility of experience'; above, nn. 46, 56; below nn. 61, 114, 144.

<sup>60</sup>*Rappresentazione*; for *Vorstellung*, see above, n. 46; below, n. 61.

Motion represents body to us successively in various parts of space; therefore, a succession of ideas must be produced in us in order for us to be able to perceive motion. But is this succession objective or subjective? Suppose all the things that follow one another in succession are annihilated; the idea of duration or time remains with us, as we have seen. We cannot perceive anything unless it exists in time. *Therefore, time is a representation (perception, idea, notion) that rigorously carries with it the features of necessity and absolute universality; hence, it is a subjective element of our cognitions.*

But if the representation of space is in the mind antecedently to experience, *a priori*, how does it happen that space or extension seems to us to be in objects? Kantians usually explain this with comparisons. Suppose that a seal which you usually use to seal your letters has a certain figure or image carved in it. As soon as you **apply** the seal to the **sealing wax**, the figure that was in the seal is also imprinted in the wax. Now suppose that the seal were equipped with the ability to sense while making the impression: it would perceive in the wax the figure that we are discussing, and this figure would seem objective to it. Yet the shape in the wax comes from the seal, not from the wax – from the perceiving subject, that is, not from the object perceived: it will be truly *subjective*, not *objective*. Likewise, if you look at objects through green glasses, the colors of the objects will seem darker. In this way, the green that was the form of the glasses – of the means by which you see the objects – will appear to you in the objects themselves. In the same way, space, which is a form of our external sensibility, appears to be in external objects, as a consequence of the sensation that we experience, but in reality space is a subjective element of our sensible perceptions, a pure form of our external sensibility.

Sensible perceptions, those that arise from our sensations, Kant calls *empirical intuitions or seeings*;<sup>61</sup> the subjective elements of these intuitions he calls *pure intuitions or seeings*. Hence, according to Kant, every empirical intuition consists of two elements, *matter* and *form*.<sup>62</sup> The matter is sensation; the form is space. Sensation is the empirical part of empirical intuition; space or extension is the pure or subjective part of it. With regard to internal sense – perceptions of consciousness – the matter is the internal modifications that seem to us to be affections;<sup>63</sup> the form is time. We perceive external objects one after

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<sup>61</sup>*Le percezioni sensibili, cioè quelle che nascono dalle nostre sensazioni, intuizioni o visioni empiriche*; Kant, *CPR*, B147: ‘Things in space and time ... are only given insofar as they are perceptions (representation accompanied with sensation) [*Wahrnehmungen (mit Empfindung begleitete Vorstellungen)*], hence through empirical representation. The pure concepts of the understanding ... provide cognition only insofar as ... a priori intuitions [*Anschaungen a priori*] ... can be applied to empirical intuitions [*empirische Anschauungen*]. Consequently, the categories do not afford us cognition of things by means of intuition [*Anschauung*] except through their possible application to empirical intuition [*empirische Anschauung*], i.e., they serve only for the possibility of empirical cognition. This, however, is called experience [*Erfahrung*];’ below, n. 114.

<sup>62</sup>*Di una materia e di una forma*; Kant, *CPR*, A20-2: ‘I call that in the appearance [*Erscheinung*] which corresponds to sensation [*Empfindung*] its matter [*Materie*], but that which allows the manifold of appearance to be intuited [*angeschaut*] as ordered in certain relations I call the form [*Form*] of appearance.... There are two pure forms [*Formen*] of sensible intuition as principles of *a priori cognition* [*Erkenntnis*], namely space and time [*Raum und Zeit*].’

<sup>63</sup>*Affetti*; Kant, *CPR*, A494: ‘The sensible faculty of intuition is really only a receptivity for being affected [*affiziert*] in a certain way with representations...’; below, n. 68.

another only because with the internal sense we sense<sup>64</sup> perceptions referred one after another to these objects.

Time is the immediate form of internal sense, mediated by the external senses. The succession that consciousness perceives in our internal affections<sup>65</sup> comes from consciousness itself. It is not in these affections at all.

The result is that extension in external objects is our mode of seeing them, not at all a real and objective quality. Objects are not extended, just as they are not fragrant, sweet, bitter and so on. Likewise, in things taken by themselves there is no succession, which is a mode of sensing our internal affections. At a certain moment a cannon fires a shot, then fires another shot at another moment. We judge that one shot was fired before, the other afterward, but the judgment arises from a subjective element. In the things themselves there is neither *before* nor *after*.

If you object to Kant that it follows from this that inner sense deceives us by making us see within us a succession of modifications that do not exist, he answers that both internal sense and the external senses give us only *appearances*; that just as space is apparent outside, so time is apparent inside and thereby also apparent outside; that consequently internal sense has no privilege over the external senses, and both work in the same way. Kant calls his theory of sensibility the *Transcendental Aesthetic*.<sup>66</sup>

Kant's school recognizes, as do we, a passive state and an active state in the cognizing being,<sup>67</sup> a passivity and an activity.<sup>68</sup> The first consists of external and internal sensibility, each of which sensibilities has its form *a priori*, independently of experience. These forms are also called *laws of sensibility, its primitive conditions*; they are space for external sensibility, time for internal sensibility. The products of sensibility are called *intuitions* or *seeings*.<sup>69</sup> But these intuitions are not yet the notions<sup>70</sup> that are the elements

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<sup>64</sup>*Sentiamo col senso interno.*

<sup>65</sup>*Affezioni.*

<sup>66</sup>*Sensibilità*; Kant, *CPR*, A21: 'I call a science of all principles of a priori sensibility [*Sinnlichkeit*] the transcendental aesthetic [*transzendente Ästhetik*]; 'Transcendental Aesthetic' is also the title of the first section (A20-49/B34-73) of the *Critique of Pure Reason* following the 'Introduction,' where Kant deals with space and time; he explains that his aesthetic is not 'the critique of taste' – what we now call 'aesthetics'; below, n. 107.

<sup>67</sup>*Essere conoscitore*; Kant, *CPR*, A348: 'Thus I, as thinking being [*denkend Wesen*] (Soul), am substance.'

<sup>68</sup>*Una passibilità ed un'attività*; Kant, *CPR*, B153-4: 'That which determines the inner sense is the understanding.... Under the designation of a transcendental synthesis of the imagination, it therefore exercises that action [*Handlung*] on the passive [*passive*] subject, whose faculty it is, about which we rightly say that the inner sense is thereby affected [*affiziert*]; above, nn. 51, 63; below, nn. 107, 145.

<sup>69</sup>*Intuizioni o visioni*; above, n. 61.

<sup>70</sup>*Nozioni*; Kant, *CPR*, A320: 'A concept is either an empirical or a pure concept, and the pure concept, insofar as it has its origin solely in the understanding ... is called notio. A concept made up of notions [*Notionen*], which goes beyond the possibility of experience, is an idea or a concept of reason.'

of judgment. For them to become so, the action of understanding<sup>71</sup> is needed to elevate intuitions into *concepts*. The products of passivity are *intuitions*; the products of activity are *concepts*.

The activity of the understanding consists of analysis or synthesis. This is the first question that presents itself, then: *is the first act of the cognizing being analysis or synthesis?* To answer the question posed, let us examine the state in which sensibility leaves us as we form our concepts. Our sensations,<sup>72</sup> which are the empirical part or the matter of our sensible intuitions, are distinct and separate from one another. Thus, even though sight and touch often excite different sensations at the same time – as when one sees colors with the eyes, feels hardness or softness, weight or heat with the hand, or sound with the ears – sensations are nonetheless distinct from one another and not blended in the sensing being.

Sensibility thus gives us distinct sensations<sup>73</sup> but does not tie them together. It also gives us two indeterminate subjective elements, an infinite space and an infinite time. But what will bring these sensations together and surround them with a determinate space and a determinate time? What must accomplish this union is the activity of the mind.<sup>74</sup> Therefore, the first operation of the activity of understanding is to unify the various sensations that sensibility gives to it. Its first operation, then, is synthesis. Sensations of yellow given by vision, of sound given by hearing, of hardness, weight and ductility given by touch, sensations isolated in themselves, are taken by the activity of the mind and joined together with the form of a determinate space and a determinate time into the single representation that we call gold. *Therefore, the first operation of the understanding is synthesis.*

Suppose you object that the qualities corresponding to the sensations united in the representation of gold are found united in the gold itself, which is the object of your representation, and that this is because you perform an analysis, revealing them one by one – no synthesis at all. The philosophy that we are explaining will reply that things taken absolutely by themselves and independently of our representations can never be cognized by us and that they are outside the sphere of activity of our knowledge.<sup>75</sup> Consequently, the objects of our cognitions are formed by us, and these objects are our representations themselves. The data,<sup>76</sup> the elements with which we form these representations, are our sensations – external impressions and internal impressions; therefore, sensible objects are formed by the synthesis of these sensations. The sensible tree or the sensible animal is nothing more than a batch of sensations joined together by the activity of the understanding. According to the transcendental philosophy, then,

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<sup>71</sup>*Intelligenza*; Kant, *CPR*, A64: ‘*The Transcendental Analytic ...* is concerned with the following points; 1. That the concepts [*Begriffe*] be pure and not empirical concepts. 2. That they belong not to intuition and to sensibility, but rather to thinking and understanding [*Denken und Verstande*]’; below, n. 107.

<sup>72</sup>*Sensazioni*; above, nn. 56, 61-2.

<sup>73</sup>*Sentimenti*.

<sup>74</sup>*Spirito*; above, nn. 45, 51.

<sup>75</sup>*Sapere*; above, n. 44, 51.

<sup>76</sup>*I dati*; above, n. 56.

synthesis is the first operation of mental activity. The concepts that are the elements of judgment are formed by it.

The transcendental philosophy must determine<sup>77</sup> *a priori* the subjective elements of our cognitions. The result of the Transcendental Aesthetic<sup>78</sup> was that space and time are subjective elements of the products of sensibility. What will these subjective elements of the products of synthesis be? We said that judgment is a product of synthesis. Hence, by discovering *a priori* the subjective elements of our judgments, we will find the subjective elements of the synthetic products, and hence of our concepts, which are the first products of synthesis.

There are four forms needed for all our judgments, and they are *quantity*, *quality*, *relation*<sup>79</sup> and *modality*. With regard to quantity, all our judgments must be singular, particular<sup>80</sup> or universal. *The moon is opaque; some bodies are transparent; all bodies are heavy.*

But in saying that the moon is opaque, we must regard various qualities of the moon – the various sensations and representations by which we are affected in representing the moon to ourselves – as constituting just one whole. We regard this body called *moon* as *one*. This concept of *unity* is therefore necessary for the mind to be able to form a singular judgment since it must regard the subject of this judgment as one. This concept of unity is therefore a subjective element of these singular judgments. In the batch of sensations by which you are affected in relation to the moon, you will not be able to find any sensation of which you can say: this sensation is exactly the concept of *unity*. This necessary element of all singular judgments is therefore a subjective element.

Likewise in this judgment, *some bodies are transparent*, you will find no sensation that corresponds to the word *some*, the concept denoted by this word being *plurality*. Such a concept is in us *a priori*, then, a subjective element of particular judgments. In the judgment, *all bodies are heavy*, there is no sensation corresponding to the word *all*. The concept denoted by this word, which is the concept of *totality*,<sup>81</sup> is therefore in us *a priori* and is a subjective element of all universal judgments. Hence, the concepts of *unity*,

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<sup>77</sup>*Determinare*; above, n. 44.

<sup>78</sup>Above, n. 66.

<sup>79</sup>*Relazione*; *Verhältnis* is the normal usage in the ‘Transcendental Aesthetic’ for a relation among objects, as distinct from a subject/object relation, indicated by *Beziehung*: Guyer and Wood, *CPR*, pp. 156, 172, 206; below, nn. 87, 104, 113.

<sup>80</sup>*Particolari*; Kant, *CPR*, A70: ‘Quantity of Judgments Universal Particular [*Besondere*] Singular.’

<sup>81</sup>*Totalität*; Kant, *CPR*, B113-14: ‘The transcendental philosophy of the ancients ... contains pure concepts of the understanding ... expounded in the proposition ... *quodlibet ens est unum, verum, bonum*.... These supposedly transcendental predicates of things are nothing other than logical requisites and criteria of all cognition of things in general, and ground it in the categories of quantity, namely, ... of unity, plurality and totality [*Einheit, Vielheit und Allheit*].... Perfection [*Vollkommenheit*] ... consists in this plurality [*Vielheit*] ... being traced back to the unity [*Einheit*] of the concept, and agreeing completely [*völlig*] with this one and no other one, which one can call qualitative completeness (totality) [*qualitative Vollständigkeit (Totalität)*].’ below, nn. 85, 91.

*plurality* and *totality* are *pure* concepts. They are in the understanding<sup>82</sup> independently of any experience. They are subjective elements of all judgments of quantity, and these judgments are not possible without these concepts.

With regard to quality, all our judgments are either *affirmative*, *negative* or *infinite*. *All bodies are heavy; the rock is not sensitive; the soul is not-mortal*.<sup>83</sup> Infinite judgments combine two ways of judging, according to Kant, the affirmative and negative. This is because we treat the object as being in a certain mode<sup>84</sup> whereby it lacks some quality, and we judge that it is in a mode different than that in which certain others are; in the universe of objects this sets a limit, a divide, on one side of which objects have such a quality, while on the other side they do not have this quality. To say that *the soul is not-mortal* is a judgment whose meaning equates to this other negative, *the soul is not mortal*, because the complex notion that corresponds to the first is the same as the one that corresponds to the second; the one and the other both represent the soul as not mortal. Nonetheless, the first sets up a class of mortal things from which the soul is separate, but the second does not set up this class. In the first it is affirmed that the soul is in a state different from that in which many other things are, which is not said in the second. In judgments viewed according to quality, then, the mind either affirms or denies or limits.

According to Kant, the mind can neither affirm nor negate nor limit unless it has antecedently in it the concepts of *affirmation* or *reality*, of *negation* or *privation* and of *limitation*.<sup>85</sup> When the mind says that *all bodies are heavy*, what corresponds to the word *are* is the concept of reality. The mind regards bodies as having the reality of weight. Therefore, the concept of reality is a subjective element of this cognition that *bodies are heavy*. Without it, the mind could not say *are*, just as it could not say *is* in this other judgment, that *gold is malleable*. Likewise, it could not say *is not*<sup>86</sup> in the judgment that *the rock is not sensitive* without the concept of *negation* or *privation*. In that other judgment that *the soul is not-mortal* it could not say *not-* without the concept of *limitation*. The proposition expresses various elements of the synthesis of judgment, but what corresponds to the words *is*, *is not* and *is not-* is nothing objective and not a

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<sup>82</sup>*Intendimento*.

<sup>83</sup>*Il sasso non è sensitivo; l'anima è non mortale*; in the first phrase, *non* negates the verb *è*, but in the second it negates the adjective *mortale*, which is the logical predicate. Kant, *CPR*, A72-3, maintains that while ordinary logic needs only *affirmative* and *negative* judgments in the category of quality, transcendental logic adds *infinite* judgments, where the logical form of the proposition is affirmative but the meaning of its predicate term is negative. Ordinary logic does not need to distinguish between affirmative and negative qualities (mortal/immortal) of the *predicate* since it recognizes qualities only of the whole *judgment* or proposition (*affirmative*: X is mortal; *negative*: Y is not mortal). Thus, the judgment that '*die Seele ist nicht sterblich*' would be logically affirmative if understood as asserting the soul's membership in the class of immortal (*nichtsterbliche*) beings, a class defined negatively by excluding the mortal class. Kant says that the distinction belongs to cognition and may therefore be relevant to a transcendental logic. Aristotle (*PA* 51b5-2b35) had recognized the difference between not being mortal and being not-mortal.

<sup>84</sup>*Essendo di un certo modo*; below, n. 139.

<sup>85</sup>*Limitazione*; Kant, *CPR*, B111: 'Thus allness (totality) [*Allheit (Totalität)*] is nothing other than a plurality considered as a unity, limitation [*Einschränkung*] is nothing other than reality combined with negation, community [*Gemeinschaft*] is the causality of a substance in the reciprocal determinations of others'; above, n. 81; below, n. 91.

<sup>86</sup>*Non è*.

sensation. Only certain concepts are involved, those of reality, privation and limitation. These concepts are therefore subjective elements of judgments of quality. They are pure *a priori* concepts. Without them judgments would not be possible.

With regard to *relation*, our judgments are either *categorical* or *conditional* or *disjunctive*.<sup>87</sup> The first are those in which the predicate is referred to the subject absolutely, without any condition, as in: *body is heavy*. The second are those in which, when the truth of one thing is posited, it is asserted that another must also be true, as in: *if body is heavy, it falls when not supported*. In these judgments, neither of the two predicates is affirmed. What is affirmed is only a necessary connection<sup>88</sup> between the one and the other. *Disjunctive* judgments are those in which one among a certain number of features is attributed to the subject but without determining which one, as in: *the soul is either mortal or immortal*.

When you say that *body is heavy*, in this categorical judgment you treat weight as a mode or accident of body and body as a substance to which this accident belongs. Hence it is necessary, according to Kant, for the understanding<sup>89</sup> to have in itself the concept of substance and accident. Without this pure concept, categorical judgments would not be possible. In conditional judgment, the mind has the concept of a necessary connection between the condition and the conditioned.<sup>90</sup> But the concept of a necessary connection between two things, according to Kant, cannot come from sensations. Therefore, it is in the understanding *a priori*. This concept, which is the relation of causality or of cause and effect, is therefore a pure concept, a subjective element in the synthesis of conditional judgments. In disjunctive judgments, the various predicates are treated as parts of a whole, with a reciprocity between them. In fact, when one is posited, the other is denied, and denying one posits the other. But this concept of reciprocity or commerce<sup>91</sup> is a subjective concept to which no sensation corresponds.

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<sup>87</sup>*Riguardo alla relazione, i nostri giudizi sono o categorici o condizionali or disgiuntivi*; Galluppi is following Kant's tables of judgments and categories at the beginning of the 'Transcendental Logic,' where the German is *Relation* instead of *Verhältnis* or *Beziehung*; CPR, A70: 'Relation Categorical Hypothetical Disjunctive [*Relation Kategorische Hypothetische Disjunktive*]' ; above, n. 79.

<sup>88</sup>*Connessione necessaria*: Kant, CPR, B5: '... in the proposition that every alteration must have a cause ... the very concept of a cause ... obviously contains the concept of a necessity of connection [*Notwendigkeit der Verknüpfung*] with an effect and a strict universality of rule [*Allgemeinheit der Regel*] ...'; below, nn. 158, 161.

<sup>89</sup>*Intelletto*.

<sup>90</sup>*La condizione ed il condizionato*: Kant, CPR, A322: '... a pure concept of reason in general can be explained through the concept of the unconditioned [*Unbedingten*], insofar as it contains a ground of synthesis for what is conditioned [*Bedingten*].'

<sup>91</sup>*Concetto di reciprocità o di commercio*; Kant, CPR, A144: 'The schema of community (reciprocity) [*Gemeinschaft (Wechselwirkung)*], or of the reciprocal causality of substances with regard to their accidents, is the simultaneity of the determinations of the one with those of the other'; A213: 'The word "community" [*Gemeinschaft*] is ambiguous, ... and can mean either communio or commercium. We use it here in the latter sense, as a dynamical community [*dynamische Gemeinschaft*], without which even the local [*lokale*] community (*communio spatii*) could never be empirically cognized'; above, nn. 81, 85.

With regard to *modality*, judgments are either *problematic* or *assertoric* or *necessary*. In the following argument – *if body is heavy, an unsupported body necessarily falls; but body is heavy; therefore, the unsupported body necessarily falls* – the first judgment is problematic because the heavy body is still treated as something merely possible. The second judgment – *body is heavy* – is simply assertoric or contingent because weight is treated as simply real in the body, clearly not as necessary. The third judgment – *the unsupported body necessarily falls* – is necessary or, as they usually say, *apodictic* because falling is attributed necessarily to the unsupported body.

The mode of regarding the suitability or unsuitability of the predicate to the object is nothing more than a simple mental outlook,<sup>92</sup> a simple mode of our thought. Nothing objective corresponds to it. The terms *possible*, *actual*, *necessary* and *contingent*<sup>93</sup> express simple concepts to which nothing physical corresponds. Yet these concepts are necessary to form judgments of modality. Therefore, they are in the understanding *a priori*. They are subjective elements of our cognitions.

The pure concepts of *unity*, *plurality and totality*; *reality*, *privation and limitation*;<sup>94</sup> *substance and accident*, *cause and effect*, and *commerce*; *possibility and impossibility*, *existence and non-existence*, *necessity and contingency*<sup>95</sup> Kant calls *categories*. And these twelve categories are the subjective elements of all our judgments.

We saw that the signs for discovering what is subjective in our cognitions are necessity and universality. Let us apply this principle to judgment. I do not know what I will think tomorrow nor at all the later moments of my life because I do not know what objects will be given to me by my senses. But if I am ignorant of the objects of my thinking, I am not ignorant of *the how* of my thinking. I cannot foresee the material, which is given to me from outside, but I do foresee the form, which resides in me *a priori*. Everything that I will think must necessarily be clothed in the four forms of quantity, quality, relation and modality.

For me it is absolutely necessary that I conceive what I think (1) as one, many or all; (2) as real, negative or limited; (3) as substance or accident, cause or effect, action or reaction; and finally (4) as possible or impossible, existent or non-existent, necessary or contingent. No object conceived by me can take any other form. These four forms, therefore, are found universally and necessarily in all our judgments. The twelve

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<sup>92</sup>*Veduta dello spirito*; Kant, *CPR*, A681-2, speaking of the systematic unity of reason: ‘one ... posits an idea only as a unique standpoint [*Gesichtspunkte*] from which alone one can extend the unity that is so essential to reason and so salutary to the understanding.’

<sup>93</sup>*Possibile, esistente, necessario, contingente*: Kant, *CPR*, A415: ‘The concepts of the possible, actual, and necessary [*Möglichen, Wirklichen und Notwendigen*] lead to no series, except only insofar as the contingent [*Zufällige*] in existence always has to be seen as conditioned and refers ... to a condition under which it is necessary to refer this to a higher condition.’

<sup>94</sup>*Di realtà, privazione e limitazione*; Kant, *CPR*, A80: ‘Reality Negation Limitation [*Realität Negation Limitation*]’

<sup>95</sup>*Di possibilità, impossibilità, esistenza, e non esistenza, necessità e contingenza*; Kant *CPR*, A80: ‘Possibility–Impossibility Existence–Non-Existence Necessity–Contingency [*Möglichkeit –Unmöglichkeit Dasein–Nichtsein Notwendigkeit–Zufälligkeit*].’

categories that correspond to them, then, are subjective elements of all our judgments. Every judgment, in order to be determined, must belong necessarily to one of the three modes of the four forms. Thus, the judgment that *all bodies are heavy* is universal in quantity, affirmative in quality, categorical in relation and assertoric in modality.

We have now discovered the subjective elements of the synthesis of understanding. To learn how synthesis produces concepts composed of subjective and objective elements, it is necessary to determine two things: first, the center of unity of the synthesis; second, the order of the synthesis itself.<sup>96</sup>

Synthesis means unity, but unity assumes what is united and that to which it is united.<sup>97</sup> Without that to which it is united, synthesis is not possible. But synthesis, according to Kant, consists in uniting representations. Representations are our only endowment; hence, a representation to which other representations are united is necessary. This first representation, to which the others are united, is the center of synthesis. Without this center of unity, synthesis would not be possible.

This first representation must be in us *a priori* because what is given by sensibility is a manifold<sup>98</sup> – a multitude of sensations and also indefinite intuitions of a space and a time. But this first representation must be unique since, if it were a complex of representations, it would assume unity in the act still to be produced. Since sensible objects are nothing other than a complex of representations produced by the synthesis of the understanding (according to the philosophy that we are explaining), it follows that this first *a priori* representation, which is the basis of all synthesis, must also be regarded as the basis of forming objects and as the primitive source of all *objectivity*.<sup>99</sup> This will become clearer as we go on, and I ask you to pay attention to what follows.

In the *Ideology* I showed you<sup>100</sup> that synthetic unity of thinking<sup>101</sup> would not be possible without the metaphysical unity of the *I*, and without synthetic unity of thought no science<sup>102</sup> would be possible for mankind. Transcendental philosophy accepts cognition

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<sup>96</sup>*L'ordine della sintesi stessa*; Kant, *CPR*, A201: 'But if this synthesis is a synthesis of apprehension (of the manifold of a given appearance), then the order [*Ordnung*] in the object is determined, or, to speak more precisely, there is therein an order of the successive synthesis [*eine Ordnung der sukzessiven Synthesis*] that determines an object....'

<sup>97</sup>*Suppone ciò a cui si unisce e ciò che si unisce*; Kant, *CPR*, B134: 'The thought that these representations given in intuition all together belong to me means, accordingly, the same as that I unite [*vereinige*] them in a self-consciousness.'

<sup>98</sup>*Un moltiplice*; Kant, *CPR*, B130: 'The manifold of representations [*Mannigfaltige der Vorstellungen*] can be given in an intuition that is merely sensible.... Yet the combination [*Verbindung*] (*conjunctio*) of a manifold in general can never come to us through the senses.... All combination [*Verbindung*] ... is an action of the understanding, which we would designate with the general title synthesis in order ... to draw attention to the fact that ... among all representations [*Vorstellungen*] combination [*Verbindung*] is the only one that is not given through objects but ... only by the subject'; below, nn. 107, 158, 161.

<sup>99</sup>*Oggettività*; above, n. 46.

<sup>100</sup>Above, n. 21.

<sup>101</sup>*Pensiere*; above, n. 44.

<sup>102</sup>*Scienza*; above, nn. 44, 53.

of the synthetic unity of perception and of thought. It calls this consciousness *empirical consciousness* or, if you will, *empirical unity of consciousness*,<sup>103</sup> which would be consciousness of the idea of a man, a tree and so on. Nonetheless, it does not make the synthetic unity of thought arise from the metaphysical unity of the *I*. Although in my philosophy this unity is real and independent of our mode of perception, the transcendental philosophy, which forbids any kind of relation<sup>104</sup> with the absolute realities called *noumena*, can certainly not accept this. But it still needs a unity to explain the synthetic unity of thought that it does accept.

Truly, how can one explain this fact, that *I am conscious of seeing a person's foot and head together*, without assuming a simple center of unity in which the perceptions of the foot and the head are united? If one person in a crowd feels hot, another cold, one happy and another sad, could there ever be a single feeling of heat and cold together with happiness and sadness? Empirical unity of consciousness assumes synthetic unity of thinking, but synthetic unity of thinking assumes a center of unity in which the various elements of thinking are united. This simple center of unity I have found in the real *I*. Where does Kant put it? In an *a priori* representation.

But how does he come to determine this representation, which is the basis of his synthesis? Since this representation is *a priori*, necessarily it must be found in every synthesis. As soon as we have a representation, we can say that *I think of this representation*. Thus, when I have the representation of a person's foot, I can say that *I have the representation of a person's foot*, or rather, *I think of the person's foot*. The representation *I think*<sup>105</sup> is therefore necessary so that it can be united with any other possible representation.

Hence, this representation is found necessarily and universally in every synthesis of the understanding, making it the center of unity of all other representations. Accordingly, this representation is *a priori*. It is not given<sup>106</sup> to us but is the first act of the spontaneity of the understanding.<sup>107</sup> It is independent of experience, since all representation, being my representation, necessarily assumes the representation *I think*. Kant calls this representation *the transcendental unity of consciousness* or rather *the transcendental unity of apperception*. The synthesis of understanding starts from the unity between each particular representation and the representation *I think*.

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<sup>103</sup>*L'unità della coscienza empirica*; Kant, *CPR*, B140: 'The empirical unity of consciousness [*empirische Einheit des Bewußtseins*], through association of the representations, itself concerns an appearance, and is entirely contingent.... The original [*ursprünglichen*] unity of consciousness ... through the pure synthesis of the understanding ... grounds *a priori* the empirical synthesis. That unity alone is objectively valid; the empirical unity of apperception ... has merely subjective validity.'

<sup>104</sup>*Rapporto*; above n. 79.

<sup>105</sup>*Io penso*; Kant, *CPR*, B132: 'The I think must be able to accompany all my representations.'

<sup>106</sup>*Data*; above, n. 56.

<sup>107</sup>*Spontaneità dell'intelligenza*; Kant, *CPR*, A51: 'If we will call the receptivity of our mind to receive representations ... sensibility, then on the contrary the faculty for bringing forth representations itself, or the spontaneity of cognition [*die Spontaneität des Erkenntnisses*], is the understanding [*Verstand*]' ; above, n. 66, 68, 71; below, n. 145.

One must not confuse the transcendental unity of consciousness with the category of unity: the second helps to produce the synthetic unity of representations, which cannot happen without the first. The cognizing being unites each representation – of each part of a person, for example, or of a tree and so on – with the representation *I think* and applies the category of unity to the entirety<sup>108</sup> of these representations, thus constituting the synthetic unity of the representation of a person, a tree and so on. From this synthetic unity arises the empirical unity of consciousness, or the single act of consciousness that embraces all the representations united in the synthetic unity that we are describing. By means of the categories, therefore, the transcendental unity of consciousness establishes the synthetic unity of our representations, from which arises the empirical unity of consciousness of these same representations. By dint of this consciousness, we can say *I am conscious of the representation of a person, a tree and so on.*

In the *Ideology* I also discussed<sup>109</sup> the physical unity of bodily objects, saying that if it arises from the synthetic unity of thinking, it still assumes in objects something that determines the synthetic unity of thinking and supplies us a legitimate ground<sup>110</sup> for qualifying it with the metaphysical adjective *one*. The transcendental philosophy absolutely rejects this view. It forbids any communication whatever with objects taken by themselves.<sup>111</sup> For this reason, objects are products of the synthesis of the understanding, according to the canons of this philosophy. Hence, it must believe synthetic unity of thought to be the same as physical unity. But synthetic unity of thought depends, as we have said, on transcendental unity of consciousness, which therefore is the origin and basis of the formation of objects – an object being nothing more than the synthetic unity of certain representations, according to the transcendental philosophy. And for this reason the transcendental unity of consciousness is also called *objective unity*.<sup>112</sup>

According to the transcendental philosophy, just what is a tree or an animal? It is the entirety of certain representations embraced by consciousness. But this entirety is formed

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<sup>108</sup> *All'insieme*; Kant, *CPR*, B112: '... in all disjunctive judgments the sphere (the multitude of everything that is contained under it) is represented as a whole [*Ganzes*] divided into parts ... coordinated with one another, not subordinated, so that they do not determine each other unilaterally, as in a series, but reciprocally, as in an aggregate [*Aggregat*].... Now a similar connection is thought of in an entirety [*Ganzen*] of things, since one is not subordinated, as effect, under another, as the cause of its existence, but is rather coordinated with the other simultaneously and reciprocally [*zugleich und wechselseitig*] as cause with regard to its determination.'

<sup>109</sup> Above, n. 23.

<sup>110</sup> *Un motivo legittimo*; Kant, *CPR*, A699: 'The greatest systematic and purposive unity, which your reason demands as a regulative principle to ground [*zum Grunde*] all investigation of nature, was precisely what justified [*berechtigte*] you in making the idea of a highest intelligence the *ground* [*Grunde*] as a schema of the regulative principle; and however much purposiveness you encounter in the world in accordance with that principle, so much confirmation do you have for the rightness [*Rechtmässigkeit*] of your idea.' Elsewhere (A85) Kant treats deduction as a technical legal concept, confirming the sense of *Rechtmässigkeit* as 'legitimacy' or 'lawfulness.'

<sup>111</sup> *In se stessi considerati*.

<sup>112</sup> *L'unità oggettiva*; Kant, *CPR*, B141-2: 'A judgment is nothing other than the way to bring given cognitions to the objective unity [*objektiven Einheit*] of apperception. That is the aim of the copula *is* in them: to distinguish the objective unity [*objektive Einheit*] of given representations from the subjective.'

by the synthesis of the understanding with the help of the categories, and this synthesis assumes the representation *I think*. This representation is therefore the basis and source of all objects, and no object would be possible without it.

A difficulty will surely emerge as you think about this. The transcendental philosophy, you will be entitled to say, allows some objective elements in our cognitions. Sensations, which are the material of empirical intuitions, come to us from outside. How, then, can any connection<sup>113</sup> with objects taken by themselves be banned? At present I am only explaining to you the basic principles of the transcendental philosophy. But this philosophy has two canons: that sensation comes to us from objects; and that we have no informative communication with objects taken by themselves, called *noumena*. I do not understand how these two canons agree with one another nor how they can be made to agree.

However that may be, the question that the transcendental philosophy proposes to answer by examining the understanding is this: *how does the understanding form objects of experience*<sup>114</sup> *by the synthesis of sensations?* And here, despite any difficulty you might encounter, I ask you to note that the question **is a general one and very much involves** the object of internal sense, the *I* perceived by empirical consciousness and called the *empirical I* to distinguish it from what is real in itself or the *noumenal I*.<sup>115</sup>

These are the results of our inquiries: (1) synthesis is the first operation of the mind; (2) the center of unity of the elements of synthesis is the transcendental unity of consciousness; (3) this unity, aided by the categories, constitutes the synthetic unity of representations and thus all objects of experience. A question now arises: what order does this synthesis preserve in uniting the elements of our cognitions? Since we already know that to which synthesis unites the various representations provided by sensibility, it is natural to ask what are the first representations that synthesis unites to the representation *I think*. What order does understanding preserve in combining various elements to form objects of experience?

The philosophy that we are explaining states the following canon: *The categories must first be combined with the pure intuitions of space and time. Time in particular, as form of internal sense, serves as a means and a bond between the categories and the material of sensible intuitions – sensations.* A category applied to the pure form of sensibility constitutes a *schema* or a *primitive model*.<sup>116</sup> Thus, the first products of the synthesis of the understanding are the *schemata*.

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<sup>113</sup>Rapporto; above, n. 79.

<sup>114</sup>Oggetti dell'esperienza; Kant, CPR, B161: 'All synthesis, through which even perception [*Wahrnehmung*] itself becomes possible, stands under the categories, and since experience [*Erfahrung*] is cognition through connected perceptions [*Wahrnehmungen*], the categories are conditions of the possibility of experience [*Erfahrung*], and are thus also valid *a priori* of all objects of experience [*Gegenständen der Erfahrung*];' above, nn. 46, 56, 59, 61.

<sup>115</sup>Chiamato *l'io empirico per distinguerlo ... dal me noumeno*; Above, n. 103.

<sup>116</sup>Uno schema o tipo primitivo.

Let me clarify what I am saying to you. Pure space is in us independently of experience, but this space is indeterminate<sup>117</sup> and represents to us no determinate figure.<sup>118</sup> Yet the objects of external experience represent determinate spaces to us – not indeterminate extension, in other words, but an ascent through figures.<sup>119</sup> They present to us, for example, a cube, a sphere, a cylinder or some other figure. Any tree or animal whatever has a determinate figure.

To form objects of external experience, then, one must first form the determinate space with which we bound<sup>120</sup> all the qualities attributed to them. Sensibility gives us only an indeterminate space as *a priori* form of our empirical intuitions. Determinate space is therefore a product of the synthesis of the understanding, which acts on the indeterminate space given to it *a priori* as a subjective element by sensibility. But the categories enter into the products of the synthesis of the understanding as subjective elements. The combination of the categories with space therefore constitutes the *schemata* – or the figures of bodies.

But this needs more explanation. Suppose that a body accessible to our senses had the figure of a cube. The first thing that synthesis would have to do to form this body is to construct the figure of a cube in indeterminate space. The mind must construct this cube *a priori* in the same way that geometers construct it.

The notion of number is more general than that of space or extension, and from this it emerges that it is representative as much of continuous as of discrete magnitude.<sup>121</sup> Synthesis begins with the simple, and its first products are simpler than those that come after. But the more general the ideas are, the simpler they are, as we said in the third

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<sup>117</sup>*Questo spazio è indeterminato*; Kant, *CPR*, A426: ‘We can intuit an indeterminate [*unbestimmtes*] quantum as a whole [*Ganzes*], if it is enclosed within boundaries, without needing to construct its totality [*Totalität*] through measurement, i.e., through the successive [*sukzessive*] synthesis of its parts;’ above, n. 44.

<sup>118</sup>*Figura*; Kant, *CPR*, A220: ‘In the concept of a figure (*Figur*) that is enclosed between two straight lines there is no contradiction.’

<sup>119</sup>*L’ascensione figurata*; Kant, *CPR*, B154: ‘We cannot think of a line without drawing it in thought, ... and we cannot even represent time without, in drawing a straight line (which is to be the external figurative [*figürliche*] representation of time), attending merely to the action of the synthesis of the manifold through which we successively determine [*sukzessiv bestimmen*] the inner sense, and thereby attending to the succession [*Sukzession*] of this determination in inner sense;’ A308-9: ‘Whether the principle that the series [*Reihe*] of conditions (in the synthesis of appearances ...) reaches to the unconditioned, has objective correctness or not, ... or whether it ... is only a logical prescription in the ascent [*im Aufsteigen*] to ever higher conditions to approach completeness in them....’

<sup>120</sup>*Circoscriviamo*; Kant, *CPR*, A520-1: ‘The world has no first beginning in time and no outermost boundary [*Grenze*] in space. For in the opposite case, ... a perception of boundedness [*Begrenzung*] through absolutely empty time or empty space would have to be possible.’

<sup>121</sup>*Tanto della grandezza continua che della discreta*; Kant, *CPR*, B203: ‘The consciousness of the homogenous manifold ... is the concept of a magnitude [*Größe*] (*Quantum*).... The appearances are all magnitudes [*Größen*], and indeed extensive magnitudes [*extensive Größen*] ... as intuitions in time and space;’ A527: ‘The infinite division [of an appearance in space] indicates only the appearance as *quantum continuum*, and is inseparable from the filling of space [*Raumes*].... But as soon as something is assumed as a *quantum discretum*, the multiplicity of units in it is determined; hence it is always equal to a number [*Zahl*].’

chapter of the *Logic*.<sup>122</sup> Synthesis of the understanding must therefore form the concept of number in general before that of a determinate space in general.

Let us see how this forming proceeds. Imagine a moment, an instant in the pure seeing<sup>123</sup> of time. To this instant, united with the representation *I think* by the understanding, apply the category of *unity*, and you will say *one*. Imagine a second instant, joined with the representation *I think* like the first, and applying the same category of unity will again cause you to say *one*. Apply the category of *plurality* to the two moments formed in this way, and you will say *two*, and then *three*, *four* and so on in succession.<sup>124</sup> In this way arise sensible concepts of the various numbers. But note that the understanding, according to Kant, must form the primitive concept of any number<sup>125</sup> – which is to say the universal concept – before forming concepts of particular numbers. Such a concept is formed by applying the category of unity and plurality to the series of moments, and thus arises the general notion of number, which is adding one to one in succession.

Before thinking of two people, according to Kant, one must first think of *two*, and before thinking of *two*, one must think of number in general – form the universal concept of number, in other words. This concept is called the *schema* of the categories of quantity,<sup>126</sup> and it arises from the application of the categories of quantity to the pure intuition of time. Time is therefore the means by which the categories are joined to the other elements of our cognitions, and in synthesis the first products of the understanding are the *schemata* – that is, the combination of subjective elements of the understanding, either thinking combined with subjective elements of sensibility, or these elements combined directly with the elements of time in the first instance.

Once the understanding thinks of *two*, it makes the universal concept of number more determinate and stable. In the philosophy that we are explaining, this is called forming an image,<sup>127</sup> so that *two*, *three* and so on are images of numbers, as when you put five points ••••• on a piece of paper to get the image of the number *five*. The image is to the schema what species is to genus. But just as the five points printed on paper are a species in relation to *five*, they are an individual in relation to number in general, and in Kant's philosophy they are called an *object* when regarded as an individual. In this way the synthesis of the understanding *forms schemata first, images next and then objects*. Thus, when it needs to form the figure of a tree, synthesis first forms the genus of this figure,

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<sup>122</sup>*Nel terzo [secondo in the 1846 text] capitolo della Logica*; Galluppi, *Elementi*, I, 48-9.

<sup>123</sup>*Visione pura*; above, n. 61.

<sup>124</sup>*Così seguitando*; Kant, *CPR*, A201: 'The principle of sufficient reason is the ground of possible experience, namely the objective cognition of appearances with regard to their relation in the successive series [*Reihenfolge*] of time.'

<sup>125</sup>*Ciascun numero*.

<sup>126</sup>*Delle categorie di quantità*; above, n. 81.

<sup>127</sup>*Formare una immagine*; Kant, *CPR*, A140-1: 'Now this representation of a general procedure of the imagination [*Einbildungskraft*] for providing a concept with its image [*Bild*] is what I call the schema for this concept. In fact it is not images of objects [*Bilder der Gegenstände*] but schemata that ground [*liegen ... zum Grunde*] our pure sensible concepts.'

next the species, and then it forms the object or individual by uniting with this species anything empirical – colors, for example – that we discern in the tree.

But let us turn back and take another look at how the understanding constructs the figure of sensible objects, referring to the example of the cube that I mentioned. Geometers perceive lines to be formed from the flow of a point, while surfaces come from the lateral movement of lines, and solids come from moving surfaces up or down. On that assumption, a point is conceived to flow and to produce a bounded line; if the line is then conceived to flow laterally and produce at its two extremes two other lines equal to itself and perpendicular to it, we will have the *schema* of a square. Assuming that this square rises along a line perpendicular to it and equal to the generating line, you will have the *schema* of the cube.

But let us see what elements enter into the construction of the cube constructed *a priori* by the understanding. This construction posits a manifold<sup>128</sup> or rather a number, and the number arises from applying the categories of quantity to time, as we said above. But the construction occurs in pure space, the space assumed in all geometrical constructions. Pure space is an element of this construction, then, and the categories are therefore also applied to pure space, but they are applied to it because they are applied to time. Hence they are combined directly with time and indirectly with space.<sup>129</sup> Note here also that the mind, after constructing the cube, treats its various elements as parts and the entire cube as a whole. The category of *totality*<sup>130</sup> therefore also enters into this synthesis of the understanding.

Now here are the elements of this synthetic product: (1) the pure form of time and that of space; (2) the categories of unity, plurality and totality. The center of unity of the synthesis is the representation *I think*, or the transcendental unity of consciousness. The order of synthesis<sup>131</sup> is the application of the categories directly to time and indirectly to space.

Up to this point synthesis combines only subjective elements; its products are not yet objects of experience.<sup>132</sup> It is necessary to add an objective element to these *a priori* combinations, and this element is sensation.<sup>133</sup> Unite sensations with the cube that the mind has formed *a priori*, and you will have a die, a cube of ice or a cube of wood – which is to say an object of experience.

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<sup>128</sup>*Un moltiplice*; above, n. 98.

<sup>129</sup>*Immediatamente col tempo e mediatamente con lo spazio*; Kant, *CPR*, A732-3: ‘A synthetic principle ... can never be immediately [*unmittelbar*] certain from mere concepts because I must always look around for some third thing, namely the condition of time-determination in an experience, and could never directly [*direkt*] cognize such a principle immediately [*unmittelbar*] from concepts alone.’

<sup>130</sup>*Totalità*; above, n. 81.

<sup>131</sup>*L’ordine della sintesi*; above, n. 96.

<sup>132</sup>*Oggetti dell’esperienza*; above, n. 114.

<sup>133</sup>*Sensazione*; above, nn. 56, 61-2.

This, then, is how the synthesis of the understanding forms all objects of sensible nature, all empirical and individual concepts – concepts of a dog, for example, a horse, a cherry, the sun, the moon and so on. But this needs still more clarification.

Previously I noted that the synthesis of judgment, in order to be complete and determined, requires the combining of categories that belong to all four modes to which judgment can be reduced – categories of quantity, quality, relation and modality. But according to our description, categories must be combined directly with time. Thus, for an object of experience to be formed, it is necessary for an individual empirical concept to do its job<sup>134</sup> before the necessary application of the categories of quantity, quality, relation and modality to the pure intuition of time.

Let us return to the earlier example of what goes into the empirical concept of a cube of marble, ice, wood and so on. In the first **instance** of the representation of the figure of the cube, we have **also** seen that it is necessary to apply the categories of quantity to time in order to form the figure. After the cube has been formed, we unite a batch of sensations – of color, solidity, hardness, weight, smoothness, cold or heat and so on – to this representation. But every sensation has a degree.<sup>135</sup> Look around a landscape covered with green plants, and in each plant you will find a different green – a green deeper in one, less deep in another. When you pick things up in your hand, the sensation of weight will be stronger in one than in another. Heat will also be more intense or less intense.<sup>136</sup>

Every sensation has a degree, therefore, and has a degree necessarily. If every sensation has a degree necessarily, then the degree is also a subjective element of sensation. Nonetheless, it is not a simple subjective element, so what are its components? Kant finds them in the category of reality and in the pure form of time. The category of reality, applied to time, constitutes the *schema* of this category – which is to say the degree of the sensation. Assume time to be empty, and you will have the *schema* of privation.<sup>137</sup> Assume that the next instant is filled with a reality – of a certain heat, for example. Assume that this heat remains and that the next instant is also filled with the same heat, and you will conceive the degree of heat as starting from zero and going to two. The degree, then, is the schema of the category of reality; in this way, objects are limited in the empirical part of sensations.

We regard cold and solidity<sup>138</sup> in the cube of ice as qualities or modes of the ice; therefore, the category of substance also enters our synthesis as a subjective element. But we regard the cold and solidity of the ice as modes only because we think that these things cease to be while the substance of the ice remains. Actually, if you bring ice near fire, it loses cold and solidity and takes the form of fluid. Hence, we regard substance as

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<sup>134</sup>*Si esegua.*

<sup>135</sup>*Ciascuna sensazione ha un grado*; Kant, *CPR*, B207: ‘In all appearances the real [*das Reale*], which is an object of the sensation [*Empfindung*], has intensive magnitude, i.e., a degree [*intensive Größe, d.i. einen Grad*];’ cf. A143.

<sup>136</sup>*Intenso*; above, n. 135.

<sup>137</sup>*Privazione*; above, n. 94.

<sup>138</sup>*Consistenza.*

a subject that lasts through time while modes cease.<sup>139</sup> Therefore, the category of substance is also combined here with the pure intuition of time.

In the experience<sup>140</sup> described above, you likewise regard fire as the cause of fluidity in the ice, so the category of causality comes into this experience as a subjective element. But this category also applies to time because the fire is assumed to exist before the fluidity of the ice, and in general – according to Kant – the cause is conceived as antecedent in time to the effect. Finally, the cube of ice of which we are speaking is regarded as existing at a given time; this comes about through the category of existence, which is one of the categories of modality with respect to time.<sup>141</sup>

Thus, to form an object of experience and thereby an individual empirical concept, it is necessary first for the understanding to form *schemata* of some categories of quantity, quality, relation and modality and subsequently to unite the matter<sup>142</sup> or objective element of sensation with these *schemata*.

If sensible nature is a product of the synthesis of the understanding, then the laws of this synthesis are the laws of nature. Thus, according to the philosophy that we are explaining, nature's supreme legislation resides in our understanding. If an architect constructs a building and forms its design, the laws of this building that formed its design – the things that made up the laws of the architect's practical imaginative synthesis,<sup>143</sup> including the form as a whole, the parts and the relations of these parts to one another in the **blueprint** – then become the objective laws of the building by the very fact of executing the design. The architect that forms sensible nature is our understanding. It constructs the *schemata* of the categories *a priori*, independently of experience. The laws of the *schematism* must therefore become the laws of sensible nature, and these laws are in the understanding itself *a priori*.

Thus, for example, the law *that substance remains in all of nature's changes* is the law of the schematism of the category of substance, and this law of nature is *a priori* in the understanding, which with the synthesis of sensations makes the law objective. The same

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<sup>139</sup>*La sostanza come un soggetto che dura nel tempo mentre i modi cessano*; Kant, CPR, A183-7: '... all change [*Wechsel*] in time can only be regarded as a modus of the existence [*Modus der Existenz*] of that which lasts and persists [*bleibt und beharrt*].... The philosopher expresses himself somewhat more determinately in saying that in all alterations [*Veränderungen*] in the world the substance remains [*bleibt die Substanz*] and only the accidents change [*Akzidenzen wechseln*].... Many misinterpretations arise from this, ... [but] it is still unavoidable for us to abstract out ... that which can change in the existence of a substance [*was im Dasein einer Substanz wechseln kann*] while the substance remains [*Substanz bleibt*];' cf. above, n. 47-8.

<sup>140</sup>*Esperienza*, which (unlike *Erfahrung*) can also mean 'experiment'; above, n. 56, 61.

<sup>141</sup>*Di modalità col tempo*; Kant, CPR, A 145: 'The schema of actuality [*Wirklichkeit*] is existence [*Dasein*] at a determinate time;' above, nn. 94-5.

<sup>142</sup>*La materia*; above, n. 62.

<sup>143</sup>*Sintesi immaginativa civile*; above, n. 14; compare Kant's different distinction between types of imaginative synthesis, A118: 'Only the productive synthesis of the imagination [*produktive Synthesis der Einbildungskraft*] can take place *a priori*; for the reproductive [*reproduktive*] synthesis rests on conditions of experience.'

with another law, *that every natural event assumes a cause from which it derives and which precedes it*. This is the law of the schematism of the category of causality that the understanding executes with the synthesis of sensations, thus constructing sensible nature.

Human knowing,<sup>144</sup> says Kant, does not extend beyond experience. But experience has two sources in relation to our faculties and is composed of two types of elements. It arises from sensibility and from understanding, from passivity and from activity.<sup>145</sup> It is composed of two types of elements, subjective elements and objective elements. The subjective elements do not have an objective value except as forms of the objective and thus in combination with them. In themselves they have no reality. Hence, Kantian thought is defined as *a transcendental idealism and an empirical realism* since it admits no reality *a priori*, only in experience. So space, time, cause, substance and so on have no reality when these things are considered *a priori* and in themselves. But they have reality in experience or in phenomena because they constitute the forms of experience.

Subjective elements found in our empirical concepts are of two types: some are in objects inasmuch as objects are sensed; others are in them inasmuch as they are thought. Thus, if you say *the sun is extended*, the word *extended* expresses a subjective element of the sun inasmuch as the sun is sensed; if you say *the sun is one*, the word *one* expresses a subjective element of the sun inasmuch as the sun is thought. The first elements are the pure intuitions of space and time; the second are the categories.

The activity of the understanding consists of synthesis and analysis. Analysis assumes the object that is to be taken apart, and this object must be formed by synthesis. Synthesis therefore comes before analysis. Furthermore, when analysis takes the object apart, no elements can be found in it except those that synthesis has put there in forming it. Therefore, when philosophers of Locke's school take the idea of a body apart and find there the idea of space or of extension, plurality, number, substantiality and so on, if these philosophers decide on that account that these notions come to us *a posteriori* and from experience, they draw a false conclusion. All these elements are found in the complex idea of a body, but one must first examine how the object taken apart is formed or – which is rigorously the same thing – the representation of the body that is *analyzed*. Thus, synthesis forms objects, and analysis takes them apart. And this analysis is necessary to form human knowledge and comes about as a consequence of synthesis. With the alphabet<sup>146</sup> of sensation synthesis composes the grand book of nature; analysis reads and studies it; and there you have all of human knowledge.

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<sup>144</sup>*Sapere*; Kant, *CPR*, A471: ‘... real speculative knowledge [*eigentliche spekulative Wissen*] can encounter no object anywhere except that of experience [*Erfahrung*]’; above, n. 44.

<sup>145</sup>*Dalla passibilità e dall'attività*; above, nn. 68, 107.

<sup>146</sup>*Caratteri*; Galluppi would have remembered Galileo's description of the universe as ‘this greatest book of all ... [that] cannot be understood unless one first learns to understand the language and read the characters (*caratteri*) in which it is written: *Opere*, ed. F. Brunetti (Torino: Unione Tipografico, 1964), I, 573, 631-2; cf. Kant, *CPR*, A314.

All objects of nature subject to experience are formed by the synthesis of the understanding. This synthesis produces and can produce only our representations – meaning *phenomena, appearances*.<sup>147</sup> Beyond these appearances our knowledge cannot reach. Thus, if there is some reality beyond the phenomena that affect us and independent of them, it is inaccessible to human knowledge.

The canons of transcendentalism are general. Once one says that all objects of experience are formed by the synthesis of the understanding, one must not exclude the object of internal experience – the *I* of consciousness. What might the *I* of consciousness be? It is a substance that endures, and many internal sensations and affections<sup>148</sup> come into it one after another. But the notion of enduring substance is the *schema* of the category of substance, combining two subjective elements – a category and the pure intuition of time. Furthermore, sensations have a degree, and this degree is also a synthetic product of subjective elements – the category of quality and time. Like all natural objects, then, the *I* is a *phenomenon, an appearance, a representation* and nothing more.

We have seen how reason succeeds in discovering the existence of the *Absolute*,<sup>149</sup> but we have also shown that this notion of the *Absolute* is a product of the synthesis of reasoning,<sup>150</sup> by no means a product of the analysis of sensations. In this the transcendental philosophy agrees with us. But there is disagreement on a point of the greatest importance, which is that the transcendental philosophy removes from the notion of the *Absolute* the reality that we grant to it. If the subjective elements of our cognitions acquire objective value only in the synthesis by which objects of experience are formed, how, according to the philosophy that we are explaining, can objective value ever be given to the *Absolute*, which does not enter into the synthesis of any sensible object? Elements that enter into the formation of an object through synthesis can be taken out through analysis. Try to analyze any sensible object at all, and you will never get the *Absolute* as a result. According to the transcendental philosophy, then, the *Absolute* remains a simple *Idea* of reason, deprived of any reality. Kant nonetheless admits God's existence, but on other grounds that I lack the space to describe.

I have explained to you the theory of the transcendental philosophy on the origin of ideas; it is directly contrary to the theory that I have adopted and have previously explained to you. In the latter theory no notion is posited *a priori* in the understanding, independently of experience. The ideas of space, time and the categories are derived *a posteriori* from

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<sup>147</sup>*Fenomeni, apparenze*; above, n. 57.

<sup>148</sup>*Affezioni*; above, n. 63, 65.

<sup>149</sup>*Assoluto*; Galluppi, *Elementi*, I, 427-9, applies 'Absolute' to God in the substantive sense that Kant avoided; cf. *CPR*, A335-6: 'reason [*Vernunft*] ... in the categorical syllogism, must necessarily come to the concept of the absolute unity [*absoluten Einheit*] of the thinking subject, [and] ... hypothetical syllogisms [lead to] the ideas of the absolutely unconditioned [*Schlechthinunbedingten*] in a series of given conditions, and finally ... the disjunctive syllogism necessarily carries with it the highest rational concept of a being of all beings [*einem Wesen aller Wesen*].... No objective deduction of these transcendental ideas [*Ideen*] is really possible....'; also A324-7.

<sup>150</sup>*Raziocinio*.

thinking about sensations.<sup>151</sup> They all arise from the sensation of the *I* that senses *something outside the I*.<sup>152</sup> Thinking derives them all from this primitive fact. We admit that the notion of the *Absolute* is a product of the synthesis of reasoning, but we grant reality to this notion just as we grant it to the perception of the *I*.

This reality rests on the following principles: (1) The data of experience<sup>153</sup> give us some real cognitions, meaning cognitions that reveal to us the existence of some thing real in itself – a *noumenon*, speaking Kant’s language – as for example the sensation of one’s own being,<sup>154</sup> of the *I*. (2) The reasoning that leads us to the *Absolute* is composed of analytic judgments. Hence, since the datum of experience that *a variable being exists*<sup>155</sup> is a real cognition, the reasoning that reveals to us the identity of this judgment with another one, that *the Absolute exists*, also leads us to a real cognition. The question is, which teaching should be admitted, the one presented to us by the transcendental philosophy, or the one presented by the philosophy of experience.

What we call the philosophy of experience is the teaching that (1) claims that the data of experience reveal to us some existences<sup>156</sup> which are real in themselves and locates these data among our primitive cognitions; and (2) regards the connection between existences – between cause and effect, that is – and between modifications and the subject as real and not subjective and therefore admits in the mind that faculty of synthesis that we called *real synthesis* in the *Psychology*.<sup>157</sup>

If our examination means that one must accept either the transcendental philosophy or the philosophy of experience, I reduce the problem to this simple question: *Is the connection among perceptions that constitute an empirical concept subjective or objective?* If it is subjective, one must decide for the transcendental philosophy; if it is objective, for the philosophy of experience.

To settle the question, I make use of the same sign used by the transcendental philosophy to distinguish subjective from objective. This is the sign previously mentioned: *what comes from the subject is necessary*.<sup>158</sup> If the connection among perceptions that constitute an empirical concept is subjective, it must be necessary. As a matter of fact, Kant says that experience is possible only through the representation of the necessary conjunction<sup>159</sup> of perceptions. He calls this principle the leading principle of the

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<sup>151</sup>*Dalla meditazione su’ sentimenti.*

<sup>152</sup>*Un fuor di me; above, n. 17.*

<sup>153</sup>*I dati sperimentali; above, n. 56.*

<sup>154</sup>*Del proprio essere.*

<sup>155</sup>*Esiste un essere variabile.*

<sup>156</sup>*Esistenze.*

<sup>157</sup>Galluppi, *Elementi*, I, 282-3.

<sup>158</sup>Above, n. 59.

<sup>159</sup>*Congiunzione necessaria*; Kant, *CPR*, B218: ‘Analogies of Experience. Their principle is: Experience is possible only through the representation of a necessary connection [*notwendigen Verknüpfung*] of perceptions;’ ‘Analogies of Experience’ is the title of a section of the first *Critique*; above, n. 88; below, n. 162.

Analogies of Experience. Thus, we have an easy way to discover if the connection among perceptions that constitute an empirical object is subjective. But the analysis of **any** empirical concept makes us see that there is no necessary connection among the various perceptions that constitute an empirical object. The connection is not subjective, then, but objective, and for want of a foundation the transcendental philosophy is ruined beyond repair.

It is evident, and I have made it plain in the second chapter of the *Logic*,<sup>160</sup> that all empirical judgments are contingent, which amounts to saying that the conjunction between perceptions of the subject and of the predicate is not necessary. But if the conjunction among perceptions that constitute an empirical concept were necessary, then, if this concept were resolved into an empirical judgment, the judgment would be necessary. Of what might the empirical concept of a peach be composed? Of the concept of a certain figure, of a given color, a given weight, a given hardness and so on. The union of all these perceptions constitutes the empirical concept of the peach. But among all these perceptions there is no necessary conjunction at all. What relation is there between the shape of a peach and its color, between this shape colored with a given color and its taste? What is the connection between these perceptions and that of a given weight or a given hardness?

In this complex of perceptions, analysis does not find the element of *necessary connection*. If analysis does not find it there, synthesis has not put it there, and if synthesis has not put it there, the conjunction found is not at all subjective, but objective. Thus, it is not the mind that forms it; it is a datum of experience. However little one follows the transcendental philosophy as it forms schemata of objects, plainly it will be recognized that it can never establish that necessary conjunction among the various representations that constitute a *schema* which it would need to reason out the consequences of its basic principle.<sup>161</sup> If the schemata are constructed *a priori* by the understanding, the synthesis that produces them must be necessary because, according to transcendentalism, what comes from the subject is necessary. But this synthesis is entirely arbitrary, as Kant himself agrees. He actually says that every conjunction consists either of composition or of connection;<sup>162</sup> that composition is the synthesis of various things that do not belong to one another necessarily, as two triangles that come from a square divided in half by a diagonal do not belong together necessarily; and that this type of conjunction is the synthesis of the *homogenous* in all things that can be treated mathematically. But if the synthesis of the schemata from which synthesis begins, which gives us the objects of experience, is entirely arbitrary, where is that necessary conjunction among perceptions that Kant requires for the possibility of

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<sup>160</sup>Galluppi, *Elementi*, I, 24-7.

<sup>161</sup>*Principio fondamentale*; above, n. 59.

<sup>162</sup>*Che ogni congiunzione consiste o nella composizione o nella connessione*; Kant, *CPR*, B201: ‘All combination [*Verbindung*] (*conjunctio*) is either composition [*Zusammensetzung*] (*compositio*) or connection [*Verknüpfung*] (*nexus*). The former is the synthesis of a manifold of what does not necessarily [*nicht notwendig*] belong to each other.... The second combination [*Verbindung*] (*nexus*) is the synthesis of that which is manifold insofar as they necessarily [*notwendig*] belong to one another’; above, nn. 98, 158.

experience? How could this philosopher not have been aware of this palpable contradiction found in his philosophy?

Had he thought carefully about the origin of his transcendentalism, the philosopher of Königsberg would have been aware of this contradiction. As he admits, it emerged from Hume's thoughts about causality, as we have noted elsewhere.<sup>163</sup> The English philosopher said: *I find no necessary connection among the occurrences of nature; therefore, I have no notion of this connection.*<sup>164</sup> Kant accepted Hume's principle but drew different conclusions. *Causality*, he said, *is not in the things that we observe; therefore it is in the observer. It is not objective, but subjective.* But he did not take a thoughtful look at the whole of his system.

Consequently, he allowed the categories of the understanding to acquire an objective value in experience; he allowed the subjective laws of our understanding to become the laws of nature itself; he acknowledged that if the categories enter as elements into the formation of experience through synthesis, they can be taken out through analysis. But from all that he should have recognized the contradiction in his system. either causality can be had from the objects of sensible nature through analysis, and Hume is wrong to deny it; or Hume is right, as Kant says, and causality cannot be derived analytically from objects. But if analysis cannot derive it, synthesis has not put it there, and transcendentalism collapses. Kant says that the conjunction posited between the motion of the striking body and that of the body struck does not come from experience at all but is subjective. But if it is subjective, it must be necessary. Yet the mind does not recognize this necessity there. This conjunction is not subjective, then, but objective. I find this argument unanswerable.

If the conjunction among the perceptions that make up an empirical concept is not at all subjective, it must be a datum of experience. Accordingly, analysis consequent on this concept is the first operation of the mind. The great conflict between the transcendental philosophy and the philosophy of experience can then be reduced to a simpler form in the following question: *Is the first operation of the activity of the understanding synthesis or analysis?* If it is synthesis, the conjunction among the various perceptions that constitute an empirical object is necessary. But it is not necessary. Therefore, the first operation of the activity of the understanding is analysis.

If the first operation of the understanding is analysis, one must admit a real synthesis; for that reason one must admit that the connection among the existences that constitute a complete object of experience is a datum of experience.

These observations give us the right to conclude *that one must reject the transcendental philosophy and accept the philosophy of experience.*

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<sup>163</sup>Galluppi, *Elementi*, I, 422; *Lettere*, pp. 208-24.

<sup>164</sup>Hume, ???