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Gal Yehezkel

The Conceptual Structure of Reality

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Gal Yehezkel

The Conceptual Structure of Reality

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Gal Yehezkel
Department of B.A. in Liberal Arts
and Sciences
The Sapir Academic College
Sha'ar HaNegev
Israel

and

Department of History, Philosophy
and Judaic Studies
The Open University of Israel
Raanana
Israel

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To Neomi, Ofek, Arava, and Shahak

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Chapter 1
Introduction

Abstract Inspired by Strawson's conception of descriptive metaphysics, my aim in this book is to identify some of the connections that obtain between key elements of our conceptual scheme, and thus isolate certain necessary features of reality. More specifically, my purpose is to explain the nature of existence by exposing its supporting conceptual structure. My analysis outlines a unique idealistic conception of reality, according to which every possible reality assumes the existence of a temporally extended internal point of view over an objective realm of reality, which supplies the platform from which this reality can be described.

Keywords Conceptual analysis • Descriptive metaphysics • Existence • Idealism • Objectivity

In his Individuals, Strawson distinguishes between revisionary and descriptive metaphysics (Strawson 1959, p. 9). According to this distinction, while reversionary metaphysics attempts to produce improved ways of thinking about reality, descriptive metaphysics describes the actual structure of our thought about reality. Descriptive metaphysics seeks to discover the most general features of our conceptual scheme. It should be noted however that defining this field of research as "descriptive" is somewhat misleading. For its purpose is not simply to describe the actual structure of our thought about reality, but rather to expose the necessary connections that hold between basic concepts in our conceptual scheme, and thus to uncover the necessary structure of our thought about reality.

This book is an exercise in descriptive metaphysics. My aim in it is to identify some of the connections that obtain between key elements of our conceptual scheme. More specifically, my purpose in this book is to isolate certain necessary features of reality. These features are identified via an analysis of the concept of "existence," the aim of which is to elucidate its supporting conceptual structure. In

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the course of this analysis, connections that hold between the concept of existence and other key elements of our conceptual scheme are laid bare.[1]

The first stage of this inquiry (undertaken in Chap. 2) is the development of tools for a conceptual analysis. For this purpose, a general analysis of the concept of meaning is put forward, and a model of the working of the language is developed. As part of this view of language, necessary conditions for the meaningfulness of expressions in language are derived, and a method for exposing conceptual connections is introduced. Next—in Chap. 3—the tools developed in Chap. 2 are implemented in an analysis of the concept of existence. This analysis yields the result that only things which are described by contingent propositions can be meaningfully said to exist. Describing any possible reality therefore requires the use of contingent propositions. In Chap. 4, I try to identify those features of reality the description of which requires contingent propositions to be used. These are the features that can only be described by using propositions that can be both true and false (in different circumstances). Chapter 4 ends by showing that a change in the determinations of past, present, and future is the feature of reality whose description requires the use of contingent propositions—and is therefore a necessary feature of reality. I then proceed (in Chap. 5) to investigate change in the determinations of past, present, and future. It emerges that change in these determinations assumes the distinction between a temporally extended point of view over this reality, which constitutes a consciousness, and a temporal and objective realm of reality, which is independent of any consciousness of it. This is an idealistic conception of reality, according to which reality assumes the existence of a consciousness which is internal to it, from whose point of view it is described. In Chap. 6, the necessary features of reality adduced in previous chapters, are shown to be sufficient for enabling this consciousness awareness for its existence as a consciousness, that is, self-consciousness. In Chap. 7, I show that the necessary feature of reality which are uncovers in the previous chapters imply that any possible reality is subject to natural laws. Finally, in Chap. 8, I summarize the conclusions of this book.

In Chap. 2 of this book, I identify the tools used in the following chapters, and introduce a model for analyzing conceptual connections. The significance of this model is the systematization and rigor of the conceptual analysis it enables.

A conceptual tie is defined as a connection of dependence between concepts, such that if a concept x (that is, the meaning of the word x) depends upon concept y (that is, the meaning of the word y), then a conceptual scheme that does not include concept y cannot include concept x. Conceptual ties are connections of meaning. Nevertheless, it is not necessary to develop a theory of meaning in order to identify and justify principles of conceptual analysis. These principles are identified and justified in light of constraints about meaning, that is, in light of necessary conditions, rather than sufficient conditions, for the meaningfulness of

[1] My analysis does not presume in advance that everything, actual or possible, is thinkable by concepts, and therefore can be investigated by conceptual analysis. It is however an implication of my analysis.

expressions in language. For this purpose I present an analysis of the concept of meaning which relies on several basic and generally accepted characteristics of meaning, and does not presume any particular theory of it. Conclusions are organized into a model of language, according to which the meaning of every word is determined by its role in the systematic mapping of all possible states of affairs contained in the conceptual scheme of that language. This model serves as the basis for the conceptual analysis used throughout this book.

In Chap. 3, I undertake an analysis of the concept of existence. My purpose is to derive necessary conditions for its inclusion into any conceptual scheme, and thus to uncover the structure supporting this concept. Thus, the connections between the concept of existence and other key concepts in our conceptual scheme will be elicited, and necessary features of reality characterized. An analysis of the concept of existence shows that existence is not a property. The occurrence of the word "exists" in a sentence does not introduce any distinction to the possible state of affairs indicated by that sentence, but rather confirms that this possibility is realized. Following this analysis, Kant's, Frege's and Russell's views of existence are critically examined. It is argued that they are consistent with the view of existence which is developed in this book. However, it is also shown that both Frege's and Russell's views of existence are partial, because they are unable to account for some of the meaningful uses of the concept of existence.

Finally in Chap. 3, the necessary and sufficient conditions for including the concept of existence in any conceptual scheme are shown to be identical with the necessary and sufficient conditions for the meaningfulness of expressions in language, as well as with the necessary and sufficient conditions for the contingency of propositions. This outcome implies that only the things which are described by contingent propositions can be meaningfully said to exist. The conclusion of Chap. 3 is therefore that describing any possible reality necessitates the use of contingent propositions.

In Chap. 4 I investigate the features of reality whose description requires the use of contingent propositions. These are necessary features of reality. I argue that describing a hypothetical reality requires the use of contingent propositions if and only if it requires at least one proposition to actually be both true and false (in different circumstances). An analysis of demonstrative and indexical expressions shows that only propositions that have indexical components can receive different truth-values in different contexts. In course of this enquiry different indexical expressions are examined. These include the first-person, the spatial indexical expression "here," and the temporal indexical expression "now" ("in the present"). My analysis shows that it is temporal indexical expressions which account for the possibility of the same proposition actually being both true and false. Furthermore, a change in the determinations of past, present and future explains why contingent propositions are needed for describing reality, and is therefore a necessary feature of reality. Furthermore, propositions that contain temporal indexical components are thus shown to form the basis for every meaningful proposition in language.

An analysis of change in the determinations of past, present and future is undertaken in Chap. 5. Its purpose is to highlight the structure of reality which

underlies such change. To begin with, the distinctions of "past," "present," and "future" themselves are analyzed. It emerges that these determinations are subjective, in the sense that they assume the existence of a consciousness, from whose point of view (in the present) they are determined. This implies that propositions which contain temporal indexical components describe reality from the point of view of a consciousness. Following this, change in the determinations of past, present and future is examined. I argue that such change assumes the existence of a temporal and objective realm of reality, which is ontologically independent of any consciousness of it. Furthermore, such change implies the possibility of periods of time in which the consciousness, from whose point of view reality is described, does not exist. The conception of reality depicted in Chap. 5 is idealistic in character: every possible reality assumes the existence of a consciousness, from whose point of view it is described. However, every possible reality also assumes the existence of a temporal and objective realm of reality, which is independent of any consciousness of it.

Chapter 6 investigates self-consciousness. It is shown that the necessary features of reality uncovered so far are sufficient for allowing a consciousness (which any possible reality assumes) awareness of its existence as consciousness, that is, self-consciousness. In the course of this analysis two views of self-consciousness are critically examined. According to the first view (influenced by Strawson) self-consciousness is established by the distinction between the self and other subjects of consciousness. According to the second view, deriving from Kant, self-consciousness is constituted by the distinction between the self and the world. This analysis shows firstly that the distinction between the self and other subjects of consciousness is neither a sufficient nor a necessary condition for self-consciousness; and secondly that self-consciousness is established by the distinction between the self and the world. Finally, it is shown that the necessary features of reality previously listed, are sufficient for allowing the consciousness, from whose point of view reality is described, awareness of its existence as a consciousness, that is, self-consciousness.

Chapter 7 confronts the question of the "uniformity of nature," which states that reality is subject to natural laws. I argue that a weak version of the principle of the uniformity of nature is a necessary truth. According to this weakened principle, every reality for which the question of its subjection to natural laws can arise is subject to natural laws. Chapter 6 shows the every possible reality includes sufficient conditions for self-consciousness, in which one is conscious of oneself as a temporally extended point of view (consciousness) over an objective and temporal realm of reality. In Chap. 7 I argue that this is a necessary condition for raising the question whether this reality is subject to natural laws. That is, this question arises only for a subject who knows of the existence of objective reality, qua objective (that is, reality which is independent of any knowledge of it). Hence, every possible reality is subject to natural laws.

I conclude this book with a summary (in Chap. 8), and note an implication of the idealistic view of reality developed here. According to this view any possible reality assumes the existence of a temporally extended internal point of view over

this reality, which supplies the platform from which this reality can be described, and is subject to natural laws. Existence is therefore relative, rather than absolute, and determined in relation to a point of view that is internal to reality. An implication is that reality necessarily exists.

Reference

Strawson, P. F. (1959). *Individuals*. London: Routledge.

Chapter 2
Meaning

Abstract In this chapter I identify the conceptual tools needed to establish claims for the existence of conceptual ties, along with the principles governing the use of those tools, and present a model of conceptual analysis. I identify and justify those principles in the light of the conditions for the meaningfulness of expressions in language, which I extract from an analysis of the concept of meaning. The conclusions of this analysis are organized into a schematic model of the workings of a language. According to this model, the meaning of every word in any language is determined by its role in the systematic mapping of all possible states of affairs included in its conceptual scheme.

Keywords Conceptual analysis • Conceptual basis • Conceptual connection • Conceptual dimension • Conceptual scheme • Meaning • Meaningfulness

2.1 Introduction

Claims for the existence of conceptual connections are not rare in philosophy: the connections between ethics and happiness, self-consciousness and objectivity, mind and behavior, and countless other alleged conceptual links lie at the center of many of the most important philosophical discussions and debates. It is therefore surprising that there are no generally accepted principles for the evaluation of the claims for the existence of conceptual connections. In some instances the claim for the existence of conceptual ties between concepts is based on a specific theory of meaning, and therefore depends on the acceptability of that theory. In other

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instances these claims seem to ultimately rely simply on what subjectively seems to be implied by a certain concept.[1]

In this chapter I offer a general model of conceptual analysis, intended to reveal conceptual ties. A conceptual tie is defined as a connection of dependence between meaningful components of the language. For example, if the meaning of the word *x* (that is, the concept *x*) depends upon the meaning of the word *y* (that is, the concept *y*), then a conceptual scheme that does not include concept *y* cannot include concept *x*. I identify the conceptual tools needed to establish claims for the existence of conceptual ties, along with the principles governing the use of these tools, justified on the basis of a model of the working of the language.

Conceptual ties are connections of meaning. It is not necessary, however, to develop a theory of meaning in order to develop and justify the principles of conceptual analysis. These principles are identified and justified in light of constraints about meaning, that is, in light of necessary conditions and not sufficient conditions for the meaningfulness of expressions in language. These conditions are extracted from an analysis of the concept of meaning. In this analysis I rely only on the most basic and undisputed features of our language, in order to derive general principles that are not committed to any specific theory of meaning.[2]

In Sect. 2.2 I address the issue of meaning to create the basis for the discussion. For that purpose I present a limited analysis of the concept of meaning, in order to extract a few general, and as undisputed as possible, characteristics of meaning. In Sect. 2.3 I develop the conclusions of the previous analysis into a schematic model of the workings of a language. From that model the conditions for a word in a language to have meaning is extracted and explained. In Sect. 2.4 I develop two important concepts for the assessment of conceptual ties: Conceptual Dimension and Conceptual Basis. In Sect. 2.5 I summarize the results, paying particular

[1] The first part of Strawson's *Individuals* presents an impressive variety of techniques for revealing conceptual ties, which exemplify both types of instances. On the one hand are the claims for the existence of conceptual ties that seem to rely on verificationist assumptions, for example the analysis of the connection between the concept of self and other minds (Strawson 1959, Chap. 3. For a similar claim, see Stroud 1968). On the other hand, in Strawson's analysis of the conceptual tie that holds between space and objectivity (in which he attempts to find room for the idea of the existence of unperceived particulars, via the idea of reidentification, in a sound-world whose features provide an analogy of space), Strawson frankly admits "Some might find it less persuasive than others. I can imagine one who is not disposed to be at all persuaded by it …" (Strawson 1959, 79), and "I do not think there is any test beyond what we find it satisfactory to say. One can certainly influence the finding by pointing to respects in which the parallel holds or fails to hold—and can also suggest improvements. But no more" (Strawson 1959, p. 81).

[2] My discussion assumes that we can talk about meanings, and even about meanings of individual words, and not just about the meanings of sentences. I am aware that this assumption has been famously criticized by Quine (1960, Chap. 3; 1970). I do not attempt, in the scope of this book, to confront Quine's criticism, which has itself been extensively discussed and criticized, especially with regard to its physicalist and behaviorist assumptions, some of which I also do not accept (see, for example, Chomsky 1969). My hope is that the model I present in this chapter goes some way in convincing its readers that talk about the meanings of words (and about conceptual analysis) is philosophically worthwhile.

attention to the overall conception of conceptual analysis that was developed during the course of the previous discussion.

2.2 Meaning

In what follows I limit the discussion to the use of language for description. Those who do not see the essence of language in its ability to describe, or do not think that the descriptive aspect of an expression in language exhausts its meaning, can view the present discussion as dealing with only one aspect of meaning, an aspect that can be called "descriptive meaning."[3] From this point on I shall use the term "meaning" to refer to the descriptive aspect of meaning.

In light of my interest in the descriptive aspect of language, I first turn my attention to declarative sentences, that is, sentences of language that we use to describe. From this point I simply use the term "sentence" to refer to declarative sentences. I use the term "proposition" in order to refer to the meaning of a declarative sentence, that is, the description which is expressed by this sentence A description can be right or wrong, and whether it is right or wrong determines the truth-value of the proposition, which is true if the description is right and false if the description is wrong (other possible truth-values are of no importance for my purpose in this book). The meaning of the sentence, therefore, determines, at least partly, the truth-value of the proposition which is expressed by this sentence, and this can be said without committing ourselves to any theory of truth or meaning (truth-conditional, verificationist or any other).

I now turn my attention to the relations between a sentence and its components. I first discuss the contribution that the words in the components of a given sentence make to the meaning of that sentence, and only at a later stage will I expand the analysis to other components of the sentence. It is clear that the meaning of the words in a given sentence determine, at least partly (possibly together with other components), the meaning of the sentence in question.[4] As it is sentences that describe reality, the descriptive aspect of the meaning of a word can only be said to be what the word in question does in fact contribute to the meaning of sentences in which it occurs. Because I am interested in the descriptive aspect of meaning, I characterize the meaning of a word (its concept) as its contribution to the meaning of sentences in which it occurs.[5] If we take into consideration the connection

[3] The distinction between descriptive meaning and other kinds of meaning can be understood as something analogous to Frege's distinction between "sense" on the one hand and "coloring," or "tone" on the other (Frege 1970. For detailed discussion of this distinction, see Dummett 1981, 2–3, pp. 83–89).

[4] This thesis goes back to Frege, who based it on the ability to understand new propositions (Frege 1984, p. 390).

[5] This consideration can be seen as supporting Frege's famous claim: "Only in a proposition have the words really a meaning" (Frege 1980, p. 71 [Sect. 60]).

between the meaning of a sentence and the truth-value of the proposition which is expressed by this sentence, that is, that the truth-value of a proposition is, at least partly, determined by the meaning of the sentence, it is possible to describe the meaning of a word as the contribution it makes to the determination of the truth-value of propositions which are expressed by the sentences in which it occurs.[6]

With this last conclusion I conclude this part of the analysis of the concept of meaning. Although it may seem that the conclusions of this analysis are obvious truisms about the connections between the meaning of a word, the meaning of a sentence and the truth-value of a proposition, in what follows I shall try to show how much can be extracted from these humble truisms.

2.3 Meaningfulness

I now explore the implications of the conclusions reached in the previous analysis, that is, that the meaning of a word is its contribution to the meaning of sentences in which it occurs, and therefore to the determination of the truth-value of the propositions which are expressed by these sentences, in regard to the conditions for a word in language to be meaningful. I begin by exploring the conditions for a predicate to contribute to the meaning of a sentence in which it occurs.

I begin by examining the predicate "red." This predicate occurs, for example, in the following sentence:

(1) Dan bought a red car.

The occurrence of the predicate "red" in sentence 1 affirms (in contrast to negating) that the property "being red" is a property of the car Dan bought. Denying that property as a property of the car Dan bought preformed by adding a negation word to the predicate (and not to the whole sentence or to the verb), in the following manner:

(2) Dan bought a car that is not red.

In contrast to these sentences, it is possible not to affirm and not to deny the property of being red as a property of the car Dan bought, namely by not including the predicate in the sentence at all[7]:

---

[6] This description also fits Frege's "sense" (Dummett 1981, p. 84). What I have written in this section is greatly influenced by Davidson's "Truth and Meaning" (Davidson 1967).

[7] It is a standard convention that the implication of not including a predicate in a proposition is a way of refraining from affirming or denying the property. My analysis, however, is not affected by the existence of exceptions to this convention. There is another way to refrain from affirming or denying a property, useful in propositions in which omitting the predicate will ruin the proposition, for example in the proposition "Dan's car is red," simply by saying "Dan's car is red or not red." The impossibility of omitting the predicate in a certain proposition is discussed later on.

(3) Dan bought a car.

I shall now examine the implications of the conclusions about the meaning of a word in regard to the predicate "red." The conclusion is that the meaning of a word (the concept) is its contribution to the meaning of sentences in which it occurs, and therefore to the determination of the truth-value of the propositions which is expressed. If we look at sentences (1) and (2), in which the predicate occurs (positively or negatively), and compare them to the third sentence, in which it does not occur, it is immediately obvious that the predicate "red" contributes to the meaning, and therefore to determination of the truth-value of the propositions which are expressed: if Dan bought a blue car (and no other car), the third proposition is true. If the predicate "red" is added, as in the first sentence, the proposition which is expressed by its use is false. The second proposition is, in this example, true. That is to say, the predicate "is red" contributes to the meaning of that sentence, and that is reflected in the effect of the occurrence of the predicate in that sentence on the determination of the truth-value of the proposition which is expressed by this sentence.

I must at this point stress, that in the above analysis I have not been assuming, when talking about the effect of the occurrence of a predicate in a sentence on the truth-value of the proposition, either that the meaning of a sentence is its truth-conditions or that the meaning of a word is its reference. Because of the fact that in the analysis I discuss one word, and not two words with the same reference but each displaying a different sense, the distinction between sense and reference has no influence on the analysis. The point is that if the occurrence of a word (in this example "red") in a sentence ("Dan bought a red car") could not possibly affect the truth-value of that proposition, that is, its truth-value is necessarily identical to the truth-value of the proposition received when that word is omitted ("Dan bought a car"), then that word does not contribute anything to the meaning of that sentence, and that is something that must be accepted by any theory of meaning.

It is obvious that if there is no possibility of denying that property, because the denial would lead to contradiction, the occurrence of the predicate "red" could not contribute to the meaning of the sentence.[8] If it is conceptually impossible for there to be cars that are not red (as it is conceptually impossible, for example, that there could be a widower who had never married), the first proposition, "Dan bought a red car" would follow from the third proposition, "Dan bought a car," because it would be conceptually impossible that the first proposition be false while the third proposition is true. If it is conceptually impossible, therefore, to deny that property as a property of the car Dan bought, the addition of the predicate "red" could not possibly change the truth-value of the proposition which is expressed from "true" to "false." It also could not change the truth-value

[8] In the present context I relate only to the idea of conceptual necessity, and ignore the possibility of a necessity which is not based on meaning, as suggested, for example, by Kripke (1980, pp. 38–39). I do not claim that a necessity which is not conceptual is impossible. This possibility, however, is irrelevant for the present discussion.

of proposition which is expressed from "false" to "true," because the original proposition, "Dan bought a car," follows from the proposition "Dan bought a red car." That means, of course, that the truth-value of the propositions "Dan bought a car" and "Dan bought a red car" would have always been the same. The occurrence of the predicate "red," therefore, in the sentence "Dan bought a red car," could not have any effect on the determination of the truth-value of that proposition, if it is conceptually impossible for there to be cars that were not red, and therefore that predicate could have no contribution to the meaning of that sentence. This is the case, for example, with the sentence "Dan is a widower that was married": the predicate "was married" does not contribute to the meaning of the sentence. This is shown by the fact that the true-value of the propositions "Dan is widower" and "Dan is a widower that was married" is always the same. The reason for that is, obviously, that it is conceptually impossible that there will ever be a widower who was not married.

So far I have only discussed the occurrence of the predicate "red" in the positive. If, however, it is conceptually impossible for there to be cars that were not red, then the occurrence of the predicate "red" in the negative as well can have no contribution to make to the meaning of that sentence ("Dan bought a car that is not red"): The conceptual impossibility of cars that are not red entails that the proposition "Dan bought a car that is not red" would be necessarily false, a contradiction. That means, of course, that this sentence would not be able to describe any state of affairs. It is therefore obvious, in light in my interest in the descriptive aspect of meaning, that the occurrence of the predicate "red" in the negative, in that sentence, cannot contribute to the descriptive aspect of that sentence, because that sentence could not describe anything.[9]

I stress that I have chosen to analyze a sentence that makes two different claims (that Dan bought a car and that the car is red), in order to allow for the possibility of omitting the predicate "red" and still be left with a declarative sentence. The reason I chose that sentence is that it can be used to exemplify the possibility of a predicate occurring in a sentence that affirms something positive (affirming a property as property of something) and a sentence that affirms something in the

[9] It is possible to follow Wittgenstein in the *Tractatus Logico-Philosophicus*, and say that contradictions (and tautologies) are senseless, but not nonsensical (Wittgenstein 1963, proposition 4.461). It is not necessary, however, to go that far, because I have accepted the idea that the ability to describe may be only one aspect of meaning. In this context it is important to mention an interesting attempt to explain Wittgenstein's claim in the *Tractatus* that philosophical propositions are nonsense (on the basis of the idea that in philosophy words are used in a manner that prevents them from contributing to the meaning of any sentence) with the help of considerations similar to those presented here (Carruthers 1989, Chap. 6). This interpretation is based on the claim that a symbol is a sign that contributes to the sense of sentences in which it occurs (based on proposition 3.31 in the *Tractatus*), and therefore its sense is dependent upon its ability to occur in sentences in which it can contribute to their sense, and this does not include, for example, contradictions and tautologies, that have no sense. The example given is of the predicate "object": in "Mary is an object," the predicate "is an object" makes no contribution to the sense of this sentence which has not already been made by the name "Mary" (Carruthers 1989, p. 63).

negative (denying a property), and also as not occurring in that sentence (neither affirming nor denying a property). It therefore easily allows me to examine the necessary conditions for a predicate to contribute to the meaning of a sentence in which it occurs. That said, there are sentences in which it is only possible to omit the predicate by rephrasing the sentence, for example omitting the predicate "red" in "Dan's car is red" by rephrasing the sentence according to Russell's theory of description, that is, as "Dan has a red car and only one car." There are also sentences in which it seems impossible to omit the predicate at all, for example, "This is red."[10] These examples, however, do not affect the generality of the conclusion drawn from our analysis, and this conclusion applies to these sentences as well, because as I have already shown the possibility of omitting the predicate from a sentence is not what is centrally important for a predicate to contribute to the meaning of a sentence: If it were conceptually necessary for all cars to be red, then in spite of the possibility of omitting the predicate "red" from the sentence "Dan bought a red car," the predicate "red" could make no contribution to the meaning of the sentence. In contrast, in the sentence "This is red," the predicate "red" clearly contributes to the meaning of that sentence, even though it cannot be omitted from that sentence.

Thus, my conclusion is that *a predicate can contribute to the meaning of the sentence in which it occurs only if the property in question is a contingent property of the thing to which it is ascribed*. The connection between the meaning of the predicate, that is, its contribution to the meaning of sentences in which it occurs, and the possibilities of its occurrence in a sentence is as follows: *a predicate can contribute to the meaning of the sentence in which it occurs, in the positive or in the negative, only if its occurrence in both these ways constitutes a description of a possible state of affairs (that is, contingent propositions)*. The explanation is simple: if it is not the case that the options, both of affirming and denying the property, do describe a possible state of affairs, then in one of these options the predicate does not contribute to the meaning of that sentence. This is so because in its occurrence in the sentence in that manner, the result is a sentence that could not describe any state of affairs. Its occurrence in the other way, on the other hand, cannot contribute to the meaning of that sentence, because its occurrence in that manner designates what is conceptually necessary, which, as I have shown, renders its occurrence superfluous, and therefore it again fails to contribute to the meaning of that sentence.

Not every occurrence of a word in a sentence is meaningful, that is, not just any occurrence of a word in a sentence contributes to the meaning of that sentence. In other words, not every word is a conceptual component of the sentence in which it occurs. In order for a sign to be a conceptual component of a sentence in which it occurs it must contribute to the meaning of the sentence. A predicate can contribute to the meaning of a sentence only if both possibilities of its occurrence, that is,

[10] It may be suggested that it is possible to replace the predicate "red" with a different predicate. That possibility, however, raises issues which require separate discussion, and is discussed later.

in the affirmative and the negative, describe possible states of affairs. Hence, *the meaning of a predicate is its ability, through its occurrence in the affirmative or in the negative, to determine which of the two possible states of affairs actually obtains*.

It is important to note that the point that emerges from this analysis is universal in its application, as it applies to any meaningful component of a sentence (not just to words, but even to components that are not words): the meaning of any meaningful component of a sentence can only be what the component in question contributes to the meaning of that sentence. Hence, for a component of a sentence to be able to contribute to the meaning of a sentence, the specific contribution it makes to it cannot be either necessary or result in a contradiction, that is, it must be conceptually possible both to affirm and deny the specific contribution it makes. If the specific contribution made by that component is necessary, it is superfluous; while if it results in a self-contradiction, it cannot contribute to the meaning of the sentence because a sentence which expresses a contradiction fails to describe any possible state of affairs. The meaning of any meaningful component of a sentence is, therefore, its ability to determine, simply by virtue of its occurrence in the sentence, which of these possibilities obtains.[11]

The importance of the implications of this analysis of the concept of meaning can be shown by relating it to a map. Our conceptual scheme is a type of map that includes all possible states of affairs, just as a regular map includes all the possible locations of a traveler. The language (as a system of signs) is a systematic method of mapping all the locations, that is, the possible states of affairs. A sentence, as a structured combination of words, is a combination of coordinates which enables us to pinpoint a specific point on the map, that is, a possible state of affairs. The sentence is an attempt to describe the actual state of affairs (and is true if it does describe an actual state of affairs), just as the combination of coordinates on the map is an attempt to designate the actual location of the traveler.

The meaning of every word is thus determined by its role in this systematic mapping of all possible states of affairs: its meaning is the specific contribution it makes to the determination of the possible states of affairs pinpointed in sentences in which it occurs. Words, like the word "red" (in contrast to the word "not," for example, whose function is analyzed later), function as coordinates on a map, and just as on a map there are different coordinates for each of the two dimensions of the area that is mapped, each word is a coordinate of a certain conceptual dimension in the conceptual space of possible states of affairs.[12] A sentence can be more detailed, that is, include coordinates of further conceptual dimensions, and thus help locate a more specific point in the conceptual space of possible state of affairs ("Dan bought a red car"), or more general ("Dan bought a car").

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[11] The contribution of word from different categories is not always as straightforward as in the case of predicates, as I show with regard to names. Therefore, it is not always easy to determine how to deny that contribution.

[12] The idea of "conceptual dimensions" I explain and elaborate on in Sect. 2.4.

Table 2.1 The conceptual dimension of the predicate "Greek"

Socrates is Greek
Socrates is not Greek

This analogy also throws light on the meaning of negation and its connection with the conditions for a word to contribute to the meaning of the sentence in which it occurs. The word "not" does not function as a coordinate of a specific conceptual dimension, although its meaning is determined by the function it plays in the given system of coordinates. If a word designates one of the possibilities in a conceptual dimension, then when it occurs together with a negation word, the phrase designates at least one (not necessarily a specific) of the other possibilities in this conceptual dimension: in the previous example the word "red" designates the possibility that the car Dan bought was red. The other possibility, which in my example includes many distinct possibilities, is that the color of the car is of one of the colors that is not red.[13] It can now be clearly seen why, in order for the word "red" to contribute to the meaning of the sentence "The car Dan bought is red," its occurrence in the negative must describe a possible state of affairs: the word "red" is used as a coordinate on the conceptual dimension that includes the possibilities both of Dan's car being red and not being red. Without the possibility of Dan's car not being red, the word "red" would not be needed as a coordinate, because the conceptual dimension in which it is used as a coordinate would be lost, that is, there would be no different possibilities to choose from with the help of the word "red."

A minimal conceptual dimension, therefore, must include at least two distinct possibilities. In cases in which the conceptual dimension includes only two possibilities, it is possible to use, in order to map the possibilities in this dimension, just one word: this word would designate one of these possibilities, while the other possibility would be designated by the same word together with a negation word. When a conceptual dimension includes more than two possibilities, more words are needed to map the whole dimension (in our example: red, green, blue, etc.).

I use the expression "conceptual space," to refer to the totality of all the conceptual dimensions in which a proposition is located. To expose the conceptual space in which a certain proposition is located, what must be examined is the possibility of the words in that sentence occurring in it in the negative. For example, the conceptual space of the proposition "Socrates is Greek" includes the following possibilities (Table 2.1):

[13] Some may object that this analysis of the function of negation fails to explain the proposition "The concept five is not red," because this proposition surely does not imply that the concept five is of a different color than red. To this objection I reply that in this alleged counterexample the phrase "not red" does not contribute to meaning of the sentence, because there are not two possibilities, of the concept five being red and not being red, such that the occurrence of the phrase "not red" designates which of these possibilities is realized. My analysis, therefore, which relates to the meaning of negation, that is, to its contribution to the meaning of propositions, is not affected by this alleged counterexample.

So far I have only discussed predicates. I now turn my attention to another component of sentence, the subject, and the conditions that must obtain for it to contribute to the meaning of the sentence. In what follows I concentrate on names, for they present the greatest challenge for the application of the type of analysis presented earlier to the subject of a sentence. I begin by pointing out that names are words that contribute to the determination of the truth-value of propositions which are expressed by the sentences in which they occur, and so are meaningful signs according to my use of these terms. Secondly, because names are meaningful signs, it follows that the general analysis presented earlier applies to them just as it applies to any word (and to any other possible meaningful components of sentences) that contributes to the meaning of the sentence in which it occurs. In order for a name, to contribute to the meaning of the sentence in which it occurs, it must be conceptually possible to deny its contribution. Otherwise, its contribution to the meaning of the sentence could be assumed without the name appearing in the sentence, in which case the occurrence of the name would thus be superfluous to its meaning and so would not contribute to the meaning of that sentence. In trying to apply the above analysis to names, however, one soon discovers the difference between predicates and names: it is clear what is meant by negation of a property (as a property of something), but it is not at all clear how an object can be negated and what the claim as to the negation of an object could mean. However, the conclusion of the earlier analysis with regard to predicates was that it should be possible to negate the specific contribution of the word naming the predicate, and not the thing predicated itself. A similar situation holds with regard to words used to name things and the things the names designate. The application of the above condition to different words, therefore, can take different forms, which depend on the various ways different words contribute differently to the meaning of sentences. Consequently, the key for applying that conclusion to names is determining the contribution of names to the meaning of sentences.

To determine the exact contribution of the name "Socrates" to the meaning of the sentence "Socrates is Greek," it would be helpful to consider the case of someone who did not hear clearly the beginning of the sentence, and asks: "Who is Greek?" The answer "Socrates" would contribute to the partial description, that is, that there is someone who is Greek, because of the conceptual possibility of other objects, besides Socrates, being Greek. Without such a possibility there would be no point in asking who is Greek, because it could only be Socrates.[14]

[14] This claim is surely not new to those familiar with what has became known as the Generality Principle, first introduced by Strawson (1959, p. 99). The consideration behind Strawson's principle is however different (perhaps influenced by Kant's distinction between concepts and intuitions) and based on the claim that "the idea of a predicate is correlative with that of a range of distinguishable individuals of which the predicate can be significantly […] affirmed" (Strawson 1959, p. 99 n. 1). Evans' Generality Constraint, on the other hand, should not be confused with the present principles, because it is a constraint on the explanation of the ability to *understand* an existing conceptual complexity of a language, and not a constraint on the existence of that complexity (Evans 1982, pp. 100–105).

Table 2.2 The conceptual space of the proposition "Socrates is Greek"

Socrates is Greek	Someone that is not Socrates is Greek
Socrates is not Greek	Someone that is not Socrates is not Greek

The similarity between predicates and names, in terms of the conditions for a word to contribute to the meaning of a sentence, is easily discerned if we examine the possible answer "It is not Socrates" to the question "Is it Socrates?" The possibility of adding a negation to the name "Socrates" is clear in this case. This show that even in the case of names, the specific contribution can be negated, although the negation takes different form from that of negation of predicates. Once this is understood it is easier to see how the contribution of the name "Socrates" to the meaning of the sentence depends on the possibility of other objects, or at least one object, other than Socrates, being Greek. The contribution of the name "Socrates" to that sentence is that it claims that it is Socrates, out of all those to which the predicate "Greek" can be ascribed meaningfully (that is, that the predicate "Greek" contributes to the meaning of the sentences in which it is ascribed to them), is being referred to. Negating that contribution simply means that it is someone other than Socrates who is being referred to, out of all those who can (conceptually) be Greek. The conceptual dimension of the name Socrates, in the above sentence, thus includes every object to which the predicate "Greek" can be meaningfully ascribed (and therefore it is relative to the predicate), and the name "Socrates" contributes to the meaning of the sentence by designating one of the possibilities in that dimension. This is why, if it were not for the conceptual possibility of someone other than Socrates being Greek, the name Socrates could not contribute to the meaning of the sentence "Socrates is Greek." The possibilities in that dimension can be generally divided into two possibilities: that Socrates is Greek or that someone that is not Socrates is Greek.[15]

The condition that must obtain for a word to contribute to the meaning of a sentence, that is, that affirming and denying that contribution would describe a possible state of affairs, applies to names, just as it applies to predicates. Nevertheless it may seem that there is a critical difference between the application of this condition to predicates and its application to names, with regard to negating that contribution, but, as I have shown, the underlying principle is the same, that is, that what is negated is the contribution of the word for the meaning of the sentence in which it occurs.[16]

[15] It is also possible to simplify the notation, and stress the similarity between names and predicates, by the convention that adding the negation "not" to the name "Socrates," that is, "not-Socrates is Greek," would mean "Someone that is not Socrates is Greek."

[16] It must be said that there is a difference between the negation of the contribution of subject and that of a predicate. For example, the propositions "Socrates is Greek" and "not Socrates is Greek" are consistent, but the propositions "Socrates is Greek" and "Socrates is not Greek" are not consistent. This difference, however, has no bearing on the analogy between predicate and name/subject, with regard to the conditions for a word to contribute to the meaning of a sentence.

The conceptual space of the proposition "Socrates is Greek" can be therefore be generally divided-into four parts, each indicating a different conceptual possibility (or possibilities), arranged in two dimensions (Table 2.2):

Each of the conceptual dimensions is mapped with the use of a word, one of the two words that partly constitute the sentence, which can occur in a sentence alone or together with a negation, and thus used as a coordinate on that dimension.[17]

Some may object that the proposition "Socrates is Greek" is actually located in a conceptual space that includes three dimensions, one for each of three components of the sentence: the word "Socrates," the word "Greek" and the word "is," that is, the predicative element: The word "Socrates" designates one of the different objects to which the predicate "Greek" can be meaningfully ascribed. If it were conceptually impossible, for anyone but Socrates to be Greek, the word "Socrates" could make no contribution to the meaning of the sentence "Socrates is Greek." The word "Greek" designates one of the properties that could be meaningfully ascribed to Socrates. If the only property we could meaningfully ascribe to "Socrates" was "being Greek," then the word "Greek" could make no contribution to the meaning of that sentence. The third element is the predicative element, which determines whether the property is affirmed or denied. If both options of Socrates being Greek and not being Greek were not conceptually possible, the ascription of the predicate to the subject cannot be meaningful.

This suggestion also finds support in another idea, according to which the contribution of a word to the meaning of a sentence depends on its ability to be a substitute for another word, and in doing so change the meaning of that sentence. For example, if we compare the sentences "Dan bought a red car" and "Dan bought a fast car," it would seem that the occurrence of the word "red" contributes to the meaning of the sentence, a contribution that is reflected in the difference in meaning between the two sentences. As I have shown, however, this cannot be a sufficient condition for expressions in language to contribute to the meaning of sentences in which they occur: if it were conceptually impossible for there to be cars that were not red, then the occurrence of the word "red" could have no contribution to the meaning of that sentence. This, however, has nothing to do with the ability to substitute the word "red" with "fast." If it is conceptually impossible for anyone but Socrates to be Greek, then the name Socrates can make no contribution to the meaning of the sentence "Socrates is Greek," in spite of the ability to replace "Socrates" with "He" (referring to Socrates) or with "The Philosopher that drank the poison," or with "Someone."

But even if that condition is not sufficient, is it a necessary condition? That suggestion seems to be reinforced by the conclusion that the contribution of the

[17] According to Russell's theory of descriptions, for example, the proposition "Socrates is Greek" actually contains more than two components (for example, it might be claimed that the underlying structure is "The philosopher that drank the poison is Greek"). This analysis, however, does not affect the conclusions of my analysis, because the analysis and its conclusions apply to every meaningful constituent of a proposition, whether it is simple or complex. The proposition "Someone that is not Socrates is Greek" should be analyzed, according to that suggestion, as "Someone that is not the philosopher that drank the poison is Greek."

name "Socrates" to the sentence "Socrates is Greek" depends upon the conceptual possibility of someone other than Socrates being Greek, for example "Kant is Greek." Is it also necessary for there to be another property, other than Greek, that could be meaningfully ascribed to Socrates, in order for the predicate "Greek" to contribute to the meaning of that sentence?

To return to the suggestion that there are three conceptual components in the sentence "Socrates is Greek," the answer is that it is impossible to distinguish between the predicate and the predicative element in the sentence of which the predicate is a part. This impossibility can be clearly seen by the fact that the conditions for the predicate and the predicative element to contribute to the meaning of the sentence are actually the same. First, if the conditions for the predicate to contribute to the meaning of the sentence are met, then the conditions for the meaningfulness of the predicative element are fulfilled. My analysis has already shown that for the predicate "Greek" to contribute to the meaning of the sentence it must be conceptually possible that Socrates is Greek and so that it must be conceptually possible that Socrates is not Greek. In addition it is clear that if the condition for the meaningfulness of the predicative element is met, then the conditions for the predicate to contribute to the meaning of the sentence have also been met: if it is possible that Socrates is Greek and it is possible that Socrates is not Greek, then there is another (possible) predicate, for example "Barbarian," defined as "not Greek," that could be meaningfully ascribed to Socrates. The predicate "Barbarian," in light of our analysis of the working of the language, simply designates another possibility in the conceptual dimension of the predicate "Greek." There is no need, therefore, to stipulate, in order for the predicate "Greek" to contribute to the meaning of the sentence "Socrates is Greek," in addition to the stipulation that the property of being Greek would be a contingent property of Socrates, that there would be another property that could be ascribed to Socrates. It follows therefore that "is" is not a separate conceptual component of the sentence from the predicate.

To conclude the discussion of this issue, it can be asserted that a necessary condition, for a word to contribute to the meaning of a sentence, is that it be possible to replace that word with another word and in doing so change the meaning of the sentence. It is wrong, however, to view this assertion as additional condition to the one already formulated. For, as I have shown, if the latter condition is met, the former condition is also met: if it is a name, for example "Socrates" in "Socrates is Greek," the conceptual possibility of someone else being Greek enables us to use a different name instead of the name "Socrates," for example "Kant is Greek." If it is a predicate, for example "red" in the sentence "Dan bought a red car," the conceptual possibility of denying that property enables us to replace that predicate with a different predicate, for example "Der," defined as "not red."

So far I have confined my discussion to the contribution of words to the meaning of sentences. The meaning of sentences, however, is not solely determined by the meaning of the words that it contains. In some cases, the order of the words in the sentence is equally important. In the sentence "Dan loves Dana," for example, the meaning of the sentence is determined by the order of occurrence of the names

"Dan" and "Dana." The order of the words, in such cases, contributes to the meaning of the sentences, and therefore is subject to the analysis as to the necessary conditions required of any component of a sentence to contribute to its meaning.

In order to reveal the contribution of the order of the names in the sentence "Dan loves Dana," and show how to apply the analysis to this conceptual component, it is helpful to imagine a case in which the order of the names was forgotten. In such a case we would only know of the existence of a love relationship between Dan and Dana. The order of the name tells us that it is Dan who loves Dana. That contribution can be denied in the sentence: "There is love relationship between Dan and Dana, but it is not the case that Dan loves Dana," and this is possible only if it is the case that Dana loves Dan. The order of the names is conceptual component of that sentence, because even if a love relationship is known to exist between Dan and Dana, there are still two possibilities: the possibility that Dan loves Dana and the possibility that Dana loves Dan (or both), and the order of the names in the sentence designates each of these possibilities.

The conceptual components of a sentence are varied. They can be a sign, a relationship between signs or any other feature of the sentence.[18] What is common to every conceptual component of a sentence is they can contribute to its meaning, in the sense that the specific contribution they make to it can be either affirmed or denied while being used to describe a possible state of affairs. I have shown how to apply this requirement to predicates, names and (briefly) to relations. However, once that principle is understood, it is simple to apply this analysis to every different type of component of a sentence.

2.4 Conceptual Dimension and Conceptual Basis

This section is devoted to clarifying two central concepts for the understanding of conceptual analysis: the concepts of conceptual dimension and conceptual basis of a predicate. I first try to further explain and elaborate the idea, which has already been presented, of conceptual dimension of a predicate. My discussion concentrates on predicates because of the complexity of conceptual dimensions of predicates, which needs special attention. As I have already shown, in the simplest case the conceptual dimension of a predicate *F* includes only two possibilities, *F* and not-*F*. It follows from this that each predicate can be presented as a coordinate on a separate conceptual dimension, which includes both itself and its denial. However

[18] It is possible to think of features of a word as contributing to the meaning of a proposition. We can use, for example, a notation in which the order of the names "Dan" and "Dana" is written in italics: the proposition "*Dan* is taller than Dana" and "Dana is taller than *Dan*" would mean, in that notation, what we mean by the proposition "Dan is taller than Dana." This means, of course, that in that notation word order is not a conceptual component of the proposition, that is, it does not contribute to the meaning of the sentence.

such an analysis results in ignoring other important conceptual ties between different predicates.

The simplest case of two different predicates that are on the same conceptual dimension is when the dimension displays only two possibilities where each one is defined as a negation of the other. In more complex cases the conceptual dimension includes more than two possibilities. An example of a conceptual dimension that includes more than two possibilities is the conceptual dimension that includes such possibilities as, for example, single, married, divorced and widow\widower. It is important to recognize that it is not necessary that the predicates on a single conceptual dimension be mutually exclusive. For example, it is possible to use the predicate "available" to describe anyone that is either single, divorced or a widower. In this case, although the predicate "available" is on the same dimension as the predicate "divorced," someone can be both available and divorced. What is necessary, however, is that for every possibility, on any conceptual dimension, designated by the predicate *F*, there is another possibility (which could be a disjunction of several possibilities) that contradicts it, that is, the possibility designated by not-*F*. If this were not the case, it would not be possible to negate the predicate *F* and the predicate *F* would be meaningless. A Conceptual dimension can be characterized, therefore, as a potentially complex structure, which has at its base two, or more, conflicting possibilities.[19] Predicates lying on a single conceptual dimension either designate these possibilities or are defined as a disjunction of these basic possibilities. Predicates can also be defined by a combination of possibilities from different conceptual dimensions, which further complicates the connections between different predicates.

In most cases it is not difficult to determine, even without any explicit criterion, which predicates are located in a specific conceptual dimension. However, it is also true that in not every case is it intuitively clear which predicates lie on the same conceptual dimension. The complexity of our natural languages makes it difficult to formulate a strict criterion for determining which predicates are in the same conceptual dimension. For example, I can try to use the fact that the negation of a predicate designates, as was explained, one of the other possibilities in the conceptual dimension. Thus, if I say that *x* is not single, then I am saying that either *x* is married, divorced or a widower.[20] But it also follows that either *x* is married, divorced, a widower or happy. However, that does not mean that "happy" is on the same conceptual dimension. Hence I say that only the predicates needed to create a necessary truth should appear in such a disjunction, for only they belong to the same conceptual dimension: anyone to whom the property of being single can be meaningfully ascribed, is either single, married, divorced or a widower. It is possible, however, to introduce another predicate *F*, which applies only

[19] In this respect the conceptual dimensions of subjects is different from that of predicates, because in the conceptual dimensions of subjects the possibilities are not conflicting: "Socrates is Greek" and "Someone that is not Socrates is Greek" can be both true.

[20] Assuming the occurrence of the predicate in that proposition is meaningful, that is, that predicate is ascribed to something that can, conceptually, be single or not single.

to someone that was once married, that is, *x* is *F* if and only if *x* is married or *x* is divorced or *x* is a widower. In this case anyone to whom the property of being single can be meaningfully ascribed, is either single or *F*, and according to our criterion these two predicates are the only concepts on that conceptual dimension. It is necessary, therefore while determining which predicates lie in the same conceptual dimension, to take into consideration the fact that *x* is *F* if and only if *x* is married or *x* is divorced or *x* is a widower.

The importance of determining which predicates lie in a specific conceptual dimension is related to the conceptual connection of dependence between the predicates on that dimension: if the meaning of a predicate is its role as a coordinate on a certain conceptual dimension, its meaning depends upon the existence of other possibilities on that dimension. In the case of dimension that includes just two possibilities, the connection is immediately comprehensible: each concept depends on the other, and a conceptual scheme that does not include one of them could not include the other either. In the case of conceptual dimension that includes more than two possibilities the connection is not so immediately comprehensible, but it can still have significance in conceptual analysis.

As I have shown, not in every example of a word's occurrence in a sentence it does make a contribution to the meaning of that sentence. The meaning of a word is its contribution to the meaning of sentences in which it occurs, and therefore the meaning of a word depends on the sentences in which it occurs and in which it does contribute to their meaning: If it were not for the complexity of the conceptual scheme, that allowed the formulation of such sentences, that is, sentences in which that word does contribute to their meaning, the word could not be given meaning in that conceptual scheme.

By "conceptual basis" of a predicate I mean the category of objects, which, in sentences that ascribe a property to these objects, the predicate contributes to the meaning of the sentences in question. Because the meaning of a predicate depends on the possibility of its occurrence in sentences in which the predicate contribute to their meaning, the meaning of the predicate therefore depends upon that category of objects. The importance of investigating the category of objects, therefore, is to achieve better understanding of the conceptual structure that supports that concept.

Determining the category of objects which is the conceptual basis of a predicate is very important, as I have explained, in order to reveal conceptual ties. The conceptual basis of a predicate is the most inclusive category of objects, which, by ascribing a property to those objects, the predicate can contribute to the meaning of sentences. This means, as my previous analysis has shown, that this property, designated by the predicate, is a contingent property of the objects in that category. Each object, however, in that category, has at least one of the properties that lie in the conceptual dimension of that predicate, and this can be clearly seen by dividing the conceptual dimension into *F* and not-*F*: for every object *x* in that category, either *x* is *F* or *x* is not-*F*.

While determining the category of objects that comprise the conceptual basis of a predicate, it is important to make sure not only that that category should be

the most inclusive category of objects to which the predicate can be meaningfully ascribed, but also that that category should include as few objects as possible to which said predicate cannot be meaningfully ascribed: the more accurate that category is, that is, more specific, the more we can conclude about the conditions for that predicate to be meaningful. I must stress that in fact every object can be described in a way that does not prevent the ascription of any property to it. For example, although it is conceptually impossible for trees to be married, a tree is a living thing and living things can be married. In contrast, all humans can be married, but bachelors, although they are humans, are not, and cannot be, married. When it is said, therefore, that the conceptual basis of a predicate is a category of objects, what is important is the category, or the predicate that describes these objects: The conceptual connection between a predicate and its conceptual basis is actually a conceptual connection between two concepts, and a conceptual scheme that does not include that category of objects, does not include that predicate either.

2.5 Conclusions

I shall now summarize the results regarding the conception of conceptual analysis that I have adumbrated in the course of this discussion. As I have shown, the meaning of a word (that is, the concept) is its contribution to the meaning of sentences in which it occurs, and therefore the conceptual structure that supports that concept is revealed by analysis of these propositions. Each proposition is located in a conceptual space, divided into different dimensions, which includes all possible states of affairs included in its conceptual scheme. This conceptual space is mapped by the meaningful components in the language, which derive their meaning from their function in this mapping.

When the existence of a conceptual link between two concepts is inquired to, that is, when it is inquired as to whether concept *x* depends upon concept *y*, what is actually examined is whether a conceptual scheme that does not include the concept *y* can include the concept *x*. This question is answerable within the scope of that conceptual scheme, by examining whether the conceptual scheme in question could still include the concept *x* if the concept *y* is excluded from it. In terms of the model of the working of language I have developed, what is done is to narrow the conceptual space by eliminating the possibility designated by the word *y*, thus excluding concept *y* from the conceptual scheme, and examine whether the possibility designated by *x* would then be lost. This can be described as an attempt to refine from the conceptual scheme a partial conceptual scheme that would not include the concept *y*. This is done by re-mapping only part of the conceptual space, without including the possibility designated by the word *y*. If there is no use for the word *x* in re-mapping the remaining conceptual space, that is, the possibility designated by *x* is lost, then the concept *x* is not included in the resulting conceptual scheme. It is then possible to conclude that concept *x* depends upon

concept *y*. If, on the other hand, there is still a use for the word *x* in mapping the remaining conceptual space, that is, the possibility designated by *x* would not be lost, it is possible to conclude that concept *x* does not depend upon concept *y*.

The elimination of the possibility designated by *y* from the conceptual scheme can be done, for example, by simply assuming that this possibility cannot be realized. This can be viewed as an attempt to weave said assumption into the conceptual scheme in question, as if we were creating a conceptual scheme in which the proposition "There are no *y*'s" is a conceptual truth and "There is a *y*" is a conceptual contradiction.[21] It is possible to attempt to create, for example, a conceptual scheme that does not include the possibility of objective objects (that is, objects whose existence is independent of any particular states of awareness of them) by weaving the assumption that there can be no objective objects into that conceptual scheme. Assuming that the conceptual basis of the concept of awareness is the category of objective objects, then the implication of weaving that assumption into the conceptual scheme would be the exclusion of the concept of awareness (and also the concept of a subject of awareness) from the resulting conceptual scheme.

It is not necessary, however, in order to eliminate the possibility designated by *y* (and thus excluding the concept *y* from the conceptual scheme in question), to assume that the possibility designated by *y* cannot be realized. In fact, if it is assumed that the property *y* is always realized, that is, that every *z* (*z* being the conceptual basis of concept *y*) is *y*, then the whole conceptual dimension of *y*, and all its different possibilities, is lost. In this case not only the concept *y* is excluded from the new conceptual scheme, but also all the other concepts on this dimension. The same applies, of course, to the concept *x*: If, from the assumption used to exclude the concept *y* from the conceptual scheme in question, it follows that every *z* (*z* being the conceptual basis of concept *x*) is *x*, the result of weaving this assumption into the conceptual scheme would be that the conceptual dimension of the concept *x* would be lost, and the concept *x*, along with the other concepts on this conceptual dimension, would be excluded from the resulting conceptual scheme. For example, suppose it follows, from the assumption used to exclude the concept *y*, that for every objective object *z* (assuming that the category of objective objects is the conceptual basis of the concept of awareness) there is awareness of *z* by every subject of awareness. In this case the result of weaving that assumption into our conceptual scheme is that the concept of awareness (together with the concept of subject of awareness) is excluded from the resulting conceptual scheme.

With this last point I conclude the exposition of the model of conceptual analysis I shall use in this book. Any residual perplexities about this method that remain will, I trust, be clarified by the application I make of it in the discussions that follow.

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[21] Only "as if," because, naturally, if the elimination would be so drastic, the concept *y* would not be included in the resulting conceptual scheme, and therefore these propositions would be meaningless in that conceptual scheme, and neither conceptually true or false.

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Chapter 3
Existence

Abstract In this chapter I undertake an analysis of the concept of existence. This analysis shows that existence is not a property. The occurrence of the word "exists" in a sentence does not introduce any distinction to the possible state of affairs indicated by that sentence, but rather confirms that this possibility is realized. Following this analysis, Kant's, Frege's and Russell's views of existence are critically examined. Finally in this chapter, the necessary and sufficient conditions for including the concept of existence in any conceptual scheme are shown to be identical with the necessary and sufficient conditions for the contingency of propositions. This outcome implies that only the things which are described by contingent propositions can be meaningfully said to exist.

Keywords Contingency • Existence • Frege • Kant • Russell

3.1 Introduction

To bring out the necessary features of reality I must first clarify the concept of existence. I begin by examining the function that the word "exist" fulfills in natural language. I then compare the conclusions of my analysis to Kant's, Frege's, and Russell's conceptions of existence. I argue that although they are consistent with one another, Frege's, and Russell's conceptions are partial, because they fail to account for some of the legitimate uses of the word "exist." Finally, I show that a necessary and sufficient condition for the meaningfulness of the word "exist" is the conceptual complexity reflected by the contingency of propositions in language. That is, I show that a language includes the concept of existence, if and only if, it allows the formulation of contingent propositions. My analysis implies that only things described by contingent propositions can be meaningfully said to exist, and therefore to describe any possible reality requires the use of contingent propositions.

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In Sect. 3.2 I analyze the concept of existence in terms of the model of the working of the language introduced in Chap. 2. The conclusion I reach accords with traditional conceptions of existence, which argue that the word "exist" is not an ordinary predicate. In fact, my conclusion is that existence is not a property at all. In terms of the model of language as a system of coordinates, my conclusion is that the word "exists" does not function as a coordinate of any specific conceptual dimension, although its meaning is determined by the function it serves in mapping the conceptual possibilities included in our conceptual scheme. The occurrence of the word "exists" in a sentence does not introduce any distinction to the possible state of affairs indicated by that sentence, but rather confirms the fact that this possibility is realized.

In Sect. 3.3, Kant's, Frege's, and Russell's views of existence will be examined and compared with the conception of existence developed in Sect. 3.2. Notwithstanding the different formulations, these views agree that the word "exists" is not an ordinary predicate, and that existence is not a property of objects. Furthermore, there is a general agreement as to how existential propositions are to be analyzed. These views conflict, however, with regard to the answer to the question which uses of the concept of existence are meaningful.

All the views of existence discussed in this chapter acknowledge the use of the concept of existence in propositions of the type "*F*'s exist," in which *F* is a general concept, and they also agree that existence is not a property ascribed to the objects which fall under this concept. According to all these views, propositions of this type assert that the property *F* is realized, that is, that there is at least one individual which is *F*. Notwithstanding this agreement, Frege and Russell reject as meaningless the use of the concept of existence in propositions of the type "*a* exists," in which *a* is a proper name which refers, or supposed to refer, to an individual (a category which according to Frege includes, among the rest, names and definite descriptions, and according to Russell includes demonstrative expressions such as "this" and "that"). Both the conception of existence developed in Sect. 3.2 and Kant's conception of existence, on the other hand, acknowledge the use of the concept of existence in propositions of the type "*a* exists" as meaningful, and suggest that these propositions should by analyzed in the same manner as propositions of the type "*F*'s exist."

In Sect. 3.3 I defend the meaningfulness of the use of the concept of existence in propositions of the type "*a* exists." I argue that both Frege's and Russell's conceptions of existence are incomplete, because they are unable to account for this legitimate use of the concept of existence. Finally, I suggest that both Frege's and Russell's failure to account for this use of the concept of existence is due to the rigid conception of the working of the language which they both share. This rigidity prevents them from implementing their insight into the nature of the concept of existence for all its uses in language.

In the Sect. 3.4 of this chapter I explore the implications of my analysis of the concept of existence for its inclusion in a conceptual scheme. I argue that the necessary and sufficient conditions for inclusion of the concept of existence in a conceptual scheme are identical with the necessary and sufficient conditions for the meaningfulness of expressions in language, as well as with the necessary

and sufficient conditions for the contingency of propositions. The conceptual complexity presumed by the concept of existence therefore characterizes every possible conceptual scheme. Another implication is that only the things described by contingent propositions can be meaningfully said to exist. Describing any possible reality therefore requires the use of contingent propositions.

3.2 The Concept of Existence

The (descriptive) meaning of a meaningful component of language is its contribution to the meaning of the (declarative) sentences in which it occurs. In order to better understand the concept of existence, we need therefore attend to the functions that the word "exist" and its cognates serve in their occurrence in sentences.

The word "exist," like any other meaningful component in language, is able to contribute to the meaning of a sentence in which it occurs only if both possibilities of its occurrence in this sentence, that is, the affirmative and the negative, do not express a contradiction: The word "exist," in the sentence "*x* exist," contributes to the meaning of this sentence only if both this sentence and the sentence "*x* does not exist" do not express a contradiction. This constraint on the contribution of the word "exist" to the meaning of the sentences in which it occurs follows from the analysis in Chap. 2. Due to the fact that the meaning of every meaningful component of language is its contribution to the meaning of the sentences in which it occurs, it follows that the word "exist" acquires its meaning by ascribing existence to things whose existence is contingent (that is, that the proposition which affirms their existence is not a conceptual truth).

The word "exist" and its cognates occur in different types of sentences, where they are conjoined with expressions of a variety of logical categories. The word "exist" can be conjoined with names, for example in the sentence "Moses existed" (that is "*a* exists"); with predicates, as in the sentence "A centaur exists" (that is, "*F*'s exist," or "$\exists xFx$" in predicate calculus); and with complete sentences, as in the sentence "The existing state of affairs is that 'few wealthy persons control the economy'." A satisfactory account of the function that the word "exist" and its cognates serve in language must provide an inclusive and coherent account for all these uses.

I shall begin this analysis of the concept of existence by focusing on sentences in which the word "exist" (or its cognates) is joined to a complete sentence. The significance of the use of the word "exist" as a sentential connective is that it lets us easily see the contribution of this word to the determination of the truth-value of the resulting proposition. This is achieved by comparing the truth-value of the resulting proposition with the truth-value of the original proposition. According to the argument of Chap. 2, this contribution of the word "exist" to the determination of the truth-value of the resulting proposition is its meaning.

The word "exist" is used as a sentential connective, for example, in the sentence "The existing state of affairs is that 'few wealthy persons control the

economy'." It may be objected that in this sentence the word "existing" is only *part* of the sentential connective "The existing state of affairs is that…" However, the expression "The…state of affairs is that…," which together with the word "existing" forms this sentential connective, does not contribute to the meaning of the resulting sentence. This is evident from the impossibility of its negation, which according to the conclusions of Chap. 2 is a necessary condition for an expression to contribute to the meaning of a sentence in which it occurs. This expression can therefore be described as a 'grammatical connector', whose only use is to conjoin the word "existing" with a complete sentence. In this respect, "existence" functions in the same way as negation words. As a sentential connective, the word "not," for example, occurs as part of the compound expression "It is not true that…" In both instances, an expression is used in order to conjoin a simple one-word (and a one-place) sentential connective with a sentence. For simplicity, in what follows I ignore the cognates of the word "exist" and the grammatical connective, and simply use the sentential connective "…exists." This sentential connective is obviously a technical expression, which cannot be found in natural language. However, in this respect it is not different from the logical sentential connective "not…" (Think of the sentence: "not 'the sky is blue'").

Some may argue that it is only the grammatical structure that makes the word "exist" seems to function as a sentential connective, and that the word "exist" never functions as a sentential connective. According to this suggestion, a logical analysis of such sentences would reveal that "existence" actually functions as a quantifier. However, even if this claim is true, it cannot be presumed in advance by any analysis which lays claim to characterize the function that the concept of existence serves in language. Furthermore, the possibility of analyzing sentences in accordance with the conception of existence as a quantifier, which practically implies reformulating such sentences in accordance with this conception of existence, fails to show that existence does not function as a sentential connective. For the possibility of expressing the same proposition through different sentences does not in itself determine which formulation reveals the true structure of that proposition. In fact, the question arises whether there is one formulation which is more fundamental than the others, and reveals the "true" structure of the proposition expressed. Finally, in the present context, my purpose is to use the (apparent) function of the word "exist" as a sentential connective so as to show the contribution of this word to the meaning of the sentences in which it occurs. For this purpose, the question whether existence is a logical sentential connective or not is irrelevant.

In its use as a sentential connective, the word "exists" expresses a truth-function, because the truth-value of the resulting proposition (that is, "*p* exists") is determined by the truth-value of the original proposition (that is, *p*): The resulting proposition is true if and only if the original proposition is true, and false if and only if the original proposition is false. Given that every declarative sentence expresses a proposition, the sentential connective "…exists" can be meaningfully conjoined with any declarative sentence. This is due to the fact that asserting the truth, or falsity, of a proposition is identical with asserting the existence, or non-existence, of the possible state-of-affairs described by that proposition.

The meaning of a word is its contribution to the meaning of the sentences in which it occurs, and thus to the determination of the truth-value of the propositions expressed by those sentences. In order to bring out the contribution of the word "exists" to the meaning of the sentence "*p* exists," the truth-value of the proposition *p* should be compared with the truth-value of the proposition "*p* exists."

Surprisingly, a comparison of the truth-value of the proposition *p* with the truth-value of the proposition "*p* exists" shows that they are logically equivalent. The fact that adding the sentential connective "…exists" to the sentence "*p*" does not change the truth-value of the proposition expressed seems to suggest that the sentential connective "…exist" does not contribute to the determination of its truth-value. That seems to indicate that the sentential connective "…exists" does not contribute to the meaning of the sentence "*p* exists."

I should emphasize (again) that I do not assume that the meaning of a sentence is the same as its truth-conditions. I am not arguing that if two sentences express logically equivalent propositions, they are *ipso facto* synonymous. The analysis here merely assumes that the meaning of a sentence determines, at least partly, the truth-value of the proposition it expresses. This implies that if adding an expression to a sentence does not under any circumstances change the truth-value of the proposition which is expressed then this expression does not contribute to the meaning of the resulting sentence.

However, the word "exists" does contribute to the meaning of the sentence "*p* exists." This is evident from the fact that, assuming that *p* is a meaningful sentence (that is, a sentence which expresses a contingent proposition), both the sentence "*p* exists" and the sentence "*p* does not exist" express contingent propositions, which have different truth-values.[1] There are, therefore, two distinct conceptual possibilities and the word "exists" serves to indicate, by its appearance in the positive or in the negative, which of the two is realized. The sentential connective "exists" therefore evidently does contribute to the meaning of the sentence in which it occurs.

The existential sentential connective is similar in this respect to the sentential connective "It is true that…". The proposition *p* is logically equivalent to the proposition "It is true that *p*." However, both the sentence "It is true that *p*" and "It is *not*-true that *p*" express contingent propositions (again, assuming that *p* is a contingent proposition) with different truth-values. This indicates that the sentential connective "It is true that…" does contribute to the meaning of the sentences in which it appears.

Part of why these sentential connectives contribute to the meaning of the sentences in which they occur, despite the fact that adding these connectives to a sentence does not change the truth-value of the expressed proposition, is that in these cases a standard convention in language does not apply. According to this

[1] The fact the negating existence changes the truth-value of the proposition which is expressed rules out the possibility that this word is meaningless. For if it was meaningless, its occurrences both in the positive and in the negative would have expressed contingent propositions, while not contributing to the meaning of these sentences.

convention, not including an expression in a sentence is a way of refraining from affirming or denying that expression. Thus for example, by the proposition "Dan bought a car," implies neither the proposition "Dan bought a blue car" nor the proposition "Dan bought a car which is not-blue." Both in the case of the existential sentential connective and in the case of the truth sentential connective the convention that holds is that not including these expressions in a sentence is equivalent with their occurrence in the positive. Thus, according to this convention, the proposition *p* implies both the proposition "*p* exists" and the proposition "It is true that *p*."

This similarity between the existential and the truth sentential connectives is not coincidental. It has to do with the character of a declarative sentence: A declarative sentence is supposed to describe what *exists*, and the proposition expressed by that sentence is *true* if and only if it successfully describes what *exists*.[2] This is why the proposition *p* is logically equivalent both to the proposition "*p* exists" and to the proposition "It is true that *p*," while the proposition "not-*p*" is logically equivalent both with the proposition "It is not-true that *p*" and with the proposition "*p* does not-exist." The notions of existence, truth, and (descriptive) meaning are therefore intrinsically connected, and this connection is an important fact about the concept of existence.

The conceptual connection between meaning, existence, and truth is reflected by the fact that the logical equivalence of the propositions *p*, "*p* exists," and "It is true that *p*" is a necessary feature of language, rather than an arbitrary convention. It is impossible to give up the convention that the implication of not including the sentential connectives "It is true that…" and "…exists" in a sentence is their affirmation, and instead adopt the convention that the implication of not including these connectives in a sentence is either their denial or refraining from their affirmation or denial.

First, it is impossible to adopt a convention in which the implication of not including these connectives in a sentence would be refraining from their affirmation or denial. It is impossible because sentences that do not include these sentential connectives are neutral as to whether they describe what exists or what does not exist, and therefore neutral as to whether they express propositions which are true or false. If so, it would never be possible to determine a truth-value for any proposition (or: there would be no propositions). There is a *reductio ad absurdum* here: Assume a convention that *p* implies neither "*p* exists" nor "*p* does not exist."

[2] Some may object that the claim that a sentence expresses a true proposition if and only if it describes what exists fails to explain the truth of the proposition "No dragons exist," for its seems that there is a clear sense in which it is correct to say that this sentence describes what does not exit, rather than what exists. The expression "describes what exists" is however ambiguous. For there is also a clear sense in which it is correct to say that the sentence "No dragons exist" describes what exists, as evident from the synonymous sentence "The existing state of affairs is that no dragons exist." The difference between the two senses of this expression is that the first sense is a positive formulation of the description, while the second sense affirms the correctness of the description, that is, it affirms that this description correctly describes what is included or not included in the category of existing things.

According to this convention, the utterance of the sentence "*p*" does not indicate or imply a commitment to describe what exists, rather than what does not exist, and therefore also not indicate or imply a commitment about the truth or falsity of whatever this sentence expresses. The sentence "*p*" is therefore not a declarative sentence, and so does not express a proposition (that is, something which is either true or false). It might seem that to express a declarative sentence the expression "*p*" could be supplemented either with the expression "…exists" or with the expression "…does not exist." However, the same problem arises once again. For uttering the sentences "*p* exists" and "*p* does not exist" does not indicate or imply a commitment to describe what exists, rather than what does not exist. Again, any attempt to turn this expression into a complete declarative sentence by adding the expressions "…exists" or "…does not exist" just raises the same difficulty. So adopting this convention would make any attempt to formulate a declarative sentence result in an infinite regress. This consideration shows that the notion of a declarative sentence implies a commitment as to its agreement or disagreement with reality.

Second, it is not a coincidence that uttering a sentence implies a commitment about the truth of the proposition expressed (i.e., that the sentence describes what exists rather than what does not exist). As argued by Wittgenstein, it is impossible to adopt the convention of conversing by means of false propositions (1963, proposition 4.062). This is because a false proposition is a proposition that *fails* to describe reality. Its falsity is an indication of its failure to comply with the correct use of the language, that is, with the convention of conversing using propositions which have a specific relation with reality. Now, the meaning of a sentence is the function it serves in describing reality, and therefore the truth or falsity of the proposition it expresses is determined by the function it serves in describing reality—a correct use implies truth while incorrect use implies falsity. The convention of conversing with false propositions therefore changes the meaning of the sentences used, and therefore changes the truth-value of the propositions expressed. It follows that it is impossible to converse by means of false propositions. That is, *p* necessarily implies "It is true that *p*," rather than "It is false that *p*." In light of the connection between truth and existence, it can also be said that it is impossible adopt the convention of conversing with propositions which do not describe what exists, but rather what does not exist.

The fact that the proposition *p* is logically equivalent to the propositions "*p* exists" and "It is true that *p*," while the proposition "not *p*" is equivalent to the propositions "*p* does not exist" and "It is not true that *p*," is therefore not an arbitrary convention. This fact follows from the connections between the notions of a declarative sentence, existence and truth, and sheds light on the unique function of the word "exists" as a sentential connective.

The fact that the proposition "*p* exists" says nothing more than the proposition *p*, as follows from their logical equivalence, indicates that the word "exist" and its cognates do not add any distinction to the meaning of the sentences in which they occurs. In this sense it is correct to say that existence is not a property: The word "exists" and its cognates do not help the sentence they are in to differentiate

between possible states of affairs. “Exist” does not provide a coordinate designating a distinct possibility within our conceptual scheme. Used as a sentential connective, it relates to the possible state-of-affairs indicated by the sentence with which it is conjoined, and affirms (or denies) that it is realized. In terms of the model of language introduced in Chap. 2, the distinction between existence and non-existence is not located on a separate dimension of the conceptual space contained in our conceptual scheme. The distinction between existence and non-existence relates to any possibility within our conceptual scheme, and is used to affirm or deny that it is realized (in the same manner that any proposition and its denial do).

This conception of existence bears a great similarity to that of negation. Like the word “not,” the word “exist” does not serve to designate any specific possibility of our conceptual scheme. In both instances, the meaning of these words is not determined by their use as coordinates of a separate conceptual dimension, but rather by the function they serve in the general system of coordinates which systematically maps all the possibilities contained in our conceptual scheme.

Wittgenstein explains how one fact p implies infinitely many others, that is, $\neg\neg p$, $\neg\neg\neg\neg p$, and so on, on the basis of his claim that “¬“ is not a name of an object (1963, propositions 5.43–5.44). According to Wittgenstein, negation relates to the logical place determined by the negated proposition (1963, proposition 4.0641). In terms of the conception of language as a system of coordinates, Wittgenstein argues that negation is not used to designate any separate possibility contained in the conceptual space, but rather is used to point to the possibility designated by the sentence with which in each instance it is conjoined. If negation words did add a distinct conceptual possibility to the sentences they modify it would be impossible to explain the logical equivalence between p, $\neg\neg p$, and $\neg\neg\neg\neg p$, and so on. Likewise, if the word “exist” added a distinct conceptual possibility to the sentences with which it is conjoined, it would be impossible to account for the logical equivalence between p, “p exists,” “‘p exists’ exists,” and so on. The word “exists,” in its use as a sentential connective, relates only to the conceptual possibility designated by the sentence with which it is conjoined, and affirms that it is realized.

I now turn to the other uses of this word. I shall argue that the explanation of the use of the word “exist” as a sentential connective can be extended to cover its other uses.

According to the previous analysis, if “exists” is joined to a complete sentence, for example “‘a is F’ exists,” it relates to the possibility designated by the sentence with which it is conjoined. In this example, the conceptual possibility in question is determined by the two coordinates which constitute the sentence “a is F,” that is, “a” and “F.” The connective sentence “‘a is F’ exists” asserts that this possibility is realized, in the same sense in which the sentence “a is F” asserts that it is realized.

A conceptual possibility can be described more generally or more specifically. This is achieved by omitting coordinates or by including coordinates of further conceptual dimensions. For example, the conceptual possibility designated by the sentence “Moses led the Israelites out of Egypt” is described more generally as

"Moses led the Israelites," and more specifically as "Moses led the Israelites out of Egypt 3,500 years ago."

The concept of existence can therefore be used in order to affirm that a more general possibility than "*a* is *F*" is realized. In the sentences "*a* exists" and "*F*'s exist," the word "exists" relates to possibilities specified by only one of the two coordinates which comprise the sentence "*a* is *F*": The sentence "'*a* is *F*' exists" asserts that the possibility specified by the two coordinates "*a*" and "*F*," according to which object *a* has a property *F*, is realized. The sentence "*F*'s exist," on the other hand, asserts only part of what is asserted by the sentence "'*a* is *F*' exists." It asserts that the property *F* is realized, without attributing this property to any specific object. Similarly, the sentence "*a* exists" asserts only a part of what is asserted by "'*a* is *F*' exists." It asserts that the conceptual possibility specified by the coordinate "*a*," that is, a possible entity, is realized, without ascribing any property to this entity.

Some may object that this explanation assumes, without sufficient justification, that "exist" and its cognates serve the same function in every sentence in which they occur. For it assumes that the very same concept is sometimes conjoined with complete propositions and at other times with (different) parts of propositions. Furthermore, it can be conceded that the very same concept occurs in the propositions "*a* exists" and "*F*'s exist," as is evident from the validity of the inference: Stromboli exists and is an island volcano, so an island volcano exists (Mackie 1976, p. 257). However, the possibility remains that when the word "exist" is conjoined with complete sentences it serves a different function in language from the function it serves when it is conjoined with other expressions.

To show that the word "exist" does serve the same function whenever it is used it is sufficient to show that in sentences of the type "*a* exists" the word "exists" serves the same function as the sentential connective "…exists." For the validity of the inference, "Stromboli exists and is an island volcano, so an island volcano exists," shows that the word "exists" serves the same function both in sentences of the type "*a* exists" and in sentences of the type "*F*'s exist."

To see the function that the word "exists" serves in sentences of the type "*a* exists," it is helpful to examine the implication of negating existence in these sentences. Let's start by negating the predicate in sentences of the type "*a* is *F*." If the predicate *F* introduces a distinction to the proposition expressed by this sentence, then negating the predicate results in a sentence which asserts that a different possibility is realized. Thus, the sentence "*a* is not-*F*" ascribes to an object *a* one of the other properties located on the same conceptual dimension of the property *F* (for example, if *F* is "red," then the sentence "*a* is not-red" ascribes to *a* a color which is not red). There is a fundamental difference between negating the predicate and negating the whole sentence in sentences of the type "*a* is *F*" (in which *F* introduces a distinction to the proposition expressed by this sentence). It is impossible to deduce from the proposition "It is false that '*a* is *F*'" that any possibility is realized.

The reason for the difference between negating a predicate and negating the whole sentence is simple: A sentence is a combination of coordinates which designates one of the possibilities included in our conceptual scheme. If a component in

Table 3.1 The conceptual space of the proposition "Moses was a Hebrew"

Moses was a Hebrew	Moses was not a Hebrew
Someone who is not Moses was a Hebrew	Someone who is not Moses was not a Hebrew

Table 3.2 The conceptual space of the proposition "Moses existed"

Moses existed	Moses did not exist
Someone who is not Moses existed	Someone who is not Moses did not exist

a sentence, used as a coordinate, is conjoined with a negation word, the resulting expression designates another possibility in the same conceptual dimension. If, on the other hand, the whole sentence is conjoined with a negation word, the resulting sentence does not designate any realized conceptual possibility, but rather denies that the conceptual possibility designated by the original sentence is realized.

The difference between negating a sentence and negating only part of the sentence can be demonstrated thus: The conceptual space in which sentences of the type "*a* is *F*" are located can be seen by negating each of the two conceptual components of this sentence. For example, the proposition "Moses was a Hebrew" is located in a conceptual space which includes the following possibilities (ignoring the temporal dimension) (Table 3.1).

Negating the whole sentence, that is, "It is false that 'Moses was a Hebrew'," on the other hand, is not the same as any of the possibilities included in the above. This is clear from the fact that the proposition "It is false that 'Moses was a Hebrew'" does not entail any of these possibilities.[3] The explanation for this fact is that the proposition "Moses was a Hebrew" includes (ignoring the temporal dimension) two different distinctions (designated by the coordinates "Moses" and "Hebrew"). There is therefore a fundamental difference between negating each distinction separately and negating the combination of these distinctions (that is, the whole proposition).

Propositions of the type "*a* exists," for example, "Moses existed," are, however, different. If it is assumed that existence is an ordinary predicate, which is used as a coordinate of a specific conceptual dimension, then the conceptual space in which this proposition is located includes the following possibilities (ignoring the temporal dimension) (Table 3.2).

Note that negating existence and negating the whole sentence are identical in this case. The propositions "It is false that 'Moses existed'" and "Moses did not exist" describe the same conceptual possibility. The inability to distinguish between negating the whole sentence and negating existence in this case implies that the proposition "Moses existed" contains only one distinction (ignoring the

[3] Notice that the proposition "It is false that 'Moses was a Hebrew'" does not entail the proposition "Moses was not a Hebrew," because of the possibility that Moses did not exist.

temporal dimension). That is, it determines a location in the conceptual space of possibilities with the help of a single coordinate ("Moses"). The word "existed" thus does not introduce any distinction to the proposition expressed by this sentence. It relates to the conceptual possibility determined by the word "Moses," that is, to a possible entity, and affirms that it is realized.

In sentences of the type "*a* exists," the word "exists" therefore serves the same function as the sentential connective "…exists." This shows that the word "exist" serves the same function whenever it is used.

This analysis of the concept of existence has an important implication for the question why is there something rather than nothing. If "exist" could have been used as a coordinate of a separate conceptual dimension in our conceptual scheme, then its negation would have designated another possibility on the same dimension. Had that been the case, the proposition "Moses did not exist" would have asserted that one of the possibilities which are included in our conceptual scheme is realized. Hence the proposition "*a* does not exist" would have meant that a property of non-existence is ascribed to an object *a*. That is, the proposition "*a* does not exist" would have asserted that a possible state-of-affairs is realized, in the same sense in which the proposition "*a* exists" asserts that a possible state-of-affairs is realized.

If this was the case it would have followed that the question why is there something rather than nothing would mean, why are some possibilities, rather than others, realized. However, the question why is there something rather than nothing is asking a much more profound question than why are some possibilities realized and other possibilities are not. The person asking the question wants to know *the* reason why *any* possibility is realized at all. Furthermore, the simple answer to the latter question would have been that the claim that no possibility is realized is contradictory. For if the "exists" had designated a conceptual possibility, the claim that something does not exist, for example *a*, would have implied that the possibility that "*a* does not exist" is realized, contrary to the initial assumption that no possibility is realized. Understanding the concept of existence puts an end to the illusion of this simple answer to the riddle of existence.

3.3 Kant, Frege, and Russell on Existence

3.3.1 Introduction

Is existence a property of individuals (or objects)? Or is existence a second-level property, that is, a property of concepts or propositional functions? It seems to me that these questions are answerable only within the confines of a specific conception of language, which properly defines the meaning of the terms involved, such as "property," "second-level property," "individuals" and "concepts." Thus, the ability to offer a complete and coherent explanation of how the concept of

existence functions is a test case for an adequate conception of language, as much as an adequate analysis of the concept of existence itself.

These (possibly) trivial assertions should be kept in mind while comparing the different views on "existence." It is generally agreed that this concept is unique among ordinary predicates. But whether this uniqueness implies that existence is not a property of individuals is not answerable outside the confines of a specific conception of language, which gives a definite sense to the terms involved. This is one reason why Moore, while exploring some of the peculiarities of this concept, suggests that the only way to understand the claim that "existence is not a predicate" is via the difference between the concept of existence and ordinary predicates (1959, p. 116). This also implies that the only possible test for any view of the concept of existence is practical. That is, a successful explanation of the concept of existence must offer a complete and coherent explanation for the different uses of the concept of existence in ordinary language. For example, a successful explanation of the concept of existence must explain its uses in different types of propositions, or the validity or invalidity of different inferences (for example, the ontological argument for the existence of God). The failure of such a view, if irresolvable, indicates either a false insight into the nature of existence, or a deficiency in the conception of language in terms of which it is formulated.

In this section I examine Kant's, Frege's, and Russell's influential views on the concept of existence, and compare their views to the conception of existence which I developed in Sect. 3.2. I argue that there is considerable similarity between their views and the view of existence which I developed in Sect. 3.2. It is helpful to compare these views by drawing a general distinction between two elements in these views, the negative and the positive. According to the negative element, existence is not an ordinary predicate, and therefore the proposition "*x* exists" is fundamentally different from the proposition "*x* is green," for example, notwithstanding the grammatical similarity between these sentences. The negative component is also expressed by the view that existence is not a property of objects. With regard to the negative element, there is a general agreement between all the views of existence which are considered in this section (including the view of existence which is developed in Sect. 3.2).

The disagreement between the different views on existence is reflected in the positive element of these views, that is, with regard to the positive account of the concept of existence. Kant, Frege, and Russell have views of existence that are sometimes equated (For example, see: Forgie 1975, 2000). I believe that Kant, Frege, and Russell do share the same insight into the nature of the concept of existence. This insight can be expressed by saying that existence is a property of concepts or propositional functions, rather than of the object or objects which fall under these concepts. However, although they share the same insight into the nature of the concept of existence, this insight is formulated by each philosopher in different conceptions of language. Thus, Kant's view of existence allows him to account for certain uses of the concept of existence which Frege's and Russell's accounts are unable to. This fact points to a flaw in Frege's and Russell's accounts, which is not due to a false insight into the nature of the concept of existence (an

insight they share with Kant) but rather due to a fundamental flaw in both Frege's and Russell's conception of language.

All the views which are discussed in this section acknowledge the use of the word "exists" in sentences of the type "*F*'s exist," and agree that existence is not a property which is ascribed to the things which fall under the concept *F*. These propositions claim, according to all the views I discuss, that the property *F* is realized, that is, that there is at least one individual which is *F*. Frege's and Russell's views, however, reject as meaningless the use of the word "exists" in sentences of the type "*a* exists," in which *a* is a name which refers, or is supposed to refer, to an individual (a category which according to Frege includes names and definite descriptions, and according to Russell includes expressions such as "this" and "that"). In contrast, according to Kant's view and according to the view of existence developed in Sect. 3.2, the explanation given for the function of the word "exists" in sentences of the type "*F*'s exist" is also applicable to sentences of the type "*a* exists." That is, these views argue that these propositions should not be understood as ascribing a property to an individual in the world, which is referred to by the expression "*a*," but rather as claiming that the conceptual possibility which is expressed by the concept "*a*" is realized, that is, a realization of a possible entity.

I conclude this discussion by an attempt to explain the agreement and disagreement between these views as being fueled by different conceptions of the working of the language. I believe that all these views share the same insight into the nature of the concept of existence, and the only difference between them flows from the different conceptions of language in which each view formulates this insight. I shall argue that Frege's and Russell's rigid conception of language, in which they formulate their insight into the nature of the concept of existence, prevents them from accounting for all the verity of legitimate uses of the word "exist," which can be explained according to Kant's view and according to the conception of language as a system of coordinates. This conclusion points to an advantage of the view of language as a system of coordinates, which map all the possibilities which are included in our conceptual scheme.

3.3.2 Kant

The basis for the modern conception of existence is to be found in the writings of Hume. In *A Treatise of Human Nature* Hume argues that there is no distinct impression from which the idea of existence is derived, and therefore the idea of existence is "the very same with the idea of what we conceive to be existent," and that the idea of existence "when conjoined with the idea of any object, makes no addition to it" (Hume 1978, Book I, Part II, Sect. vi, pp. 66–67).

In the *Critique of Pure Reason* Kant makes a similar point, when he distinguishes between existence and ordinary predicates, and claims that the concept of existence serves a different function in language than ordinary predicates

(B626). In order to understand how Kant thinks the concept of existence should be understood, it is useful to turn to a pre-critical essay of his: *The One Possible Basis for a Demonstration of the Existence of God* (1762). In this essay, Kant argues that existence is not a real predicate; existence he argues is a predicate of a concept, rather than of the object, or objects, which fall under this concept (Kant 1979, pp. 57–61). Notwithstanding the grammatical similarity between "*x* is *F*" and "*x* exists," they are fundamentally different. Existential propositions, explicitly formulated, are of the form: "the concept *x* belongs to an existent thing," rather than: "*x* exist(s)." Thus, in these propositions, the thing predicated is not the object itself, but rather the concept of this object (the "thought" or "combination of predicates").

In this sense, it can be said that according to Kant existence is not a first-level predicate, but a second-level predicate. However, it should be noted that *x* is not necessarily a general concept (for example, "unicorn"). Kant acknowledges the existence of concepts of individuals, or objects. This allows him to explain propositions of the type "*a* exists." For example, in the proposition "Julius Caesar existed," the predicate "belongs to an existent thing" is ascribed to the subject "the concept of Julius Caesar" (Kant 1979, p. 57). This analysis of the concept of existence thus allows Kant to account both for propositions of the type "*F*'s exist" and for propositions of the type "*a* exists."

Kant's view of existence and the conception I developed in Sect. 3.2 are formulated in different terms, and in the confines of distinct theories of language. However, despite the different terminology, both views are similar, if not identical: When language is thought of as a system of coordinates, the uniqueness of the concept of existence is reflected by the unique function that the word "exist" serves in the systematic mapping of the conceptual possibilities contained in our conceptual scheme. This uniqueness, which distinguishes existence from ordinary predicates, justifies the claim that existence is not a property. A similar conclusion is found in Kant's *Critique of Pure Reason*, according to which existence is not a real, but merely a logical, predicate (B626). Furthermore, my analysis indicated that the occurrence of the word "exist" in a sentence does not add any distinction to the proposition which is expressed. Instead, the concept of existence relates to the conceptual possibility designated by the other coordinates with which it is conjoined, and affirms that they are realized. Kant's words in the Critique express the same idea, when he affirms that:

> …nothing can have been added to the concept, which expresses merely what is possible, by my thinking its object (through the expression 'it is') as given absolutely. Otherwise stated, the real contains no more than the merely possible (B627).

3.3.3 Frege

To compare Frege's formulation to that of Kant suggests a striking similarity. For Frege is claiming that existence is a second-level predicate, that is, a property of concepts, rather than first-level predicate, that is, a property of the objects which

fall under these concepts (1970a, pp. 48–50; 1980, pp. 64–65). It appears that the only difference between Kant's and Frege's view of existence regards their formulation of this property, which according to Kant is "belongs to an existent thing," and according to Frege is "not empty."

However, notwithstanding the similar formulations, there is a fundamental difference between these views of the concept of existence. For Kant and Frege attach different meanings to the terms "concept" and "object." According to Kant, the distinction between a concept and an object is a distinction between a meaningful component of language and a thing in the world which falls under that concept (See, for example, B627). Frege's contention that existence is not a property of objects, on the other hand, has a different meaning. His distinction between concept and object is a distinction between two types of entities in the world, which are referred to by different types of expressions in language (1970a, pp. 43, 47–48).

Kant's and Frege's views of existence should therefore be carefully distinguished. In order to understand the implications of the different terminology, two types of existential propositions should be separated: propositions of the type "*F*'s exist," in which the concept of existence is conjoined with a general concept (for example, "Unicorns exist"); and propositions of the type "*a* exists," in which the concept of existence is conjoined with an expression which refers, or is supposed to refer, to an object (For example, "Julius Caesar exists"). For propositions of the type "*F*'s exist," there is no essential difference between Kant's and Frege's analysis of these propositions. However, while Kant applies the same analysis which he uses for propositions of the type "*F*'s exist," to propositions of the type "*a* exists," according to Frege the latter propositions are rejected as senseless. This marks a fundamental difference in Kant's and Frege's view of existence.

One seeming reason for Frege's rejection of propositions of the type "*a* exists" is his strict distinction between first-level concepts and second-level concepts: A first-level concept is a function whose arguments are objects and whose values are truth-values; a second-level concept is a function whose arguments are concepts and whose values are truth-values. Frege's argument for the conclusion that existence is a second-level concept relies on an analysis of the proposition "There is a square root of 4" (1960, pp. 13–14). According to his analysis, this assertion is about a concept rather than an object. This is evident, according to Frege, from the fact that the same thought can be formulated as: "there is something which is a square root of 4," in which a second-level concept, "there is something which," is ascribed to a first-level concept, "square root of 4." However, elsewhere Frege concedes that the same thought can be split up in many ways, each time with a different subject (1970a, p. 49). Thus, it is possible to conceive the same thought either as assertion about a concept or an assertion about an object.

Furthermore, if this is claim is true, and it is possible to formulate existential propositions of the type "*a* exists" as an assertion about a concept, rather than about an object, then Frege's view of existence can successfully account for all the uses of the concept of existence in natural language. For, if Frege can formulate propositions of the type "*a* exists" as an assertion about a concept, he can thereby

fit propositions of this type into his view of the concept of existence. However, notwithstanding this compelling suggestion, Frege clearly distinguishes between the two types of existential propositions, and explicitly rejects propositions of the latter type (1970c, p. 104).

It may be wondered however whether Frege is justified in distinguishing between the two types of propositions, as exemplifying two different functions of existence. As Mackie has pointed out, the concept of existence cannot be ambiguous, as evident by the validity of the reasoning: Stromboli exists and it is an island volcano, so an island volcano exists (1976, p. 257). Furthermore, Frege not only distinguishes between two alleged uses of the concept of existence, but further rejects its use in propositions of the type "*a* exists." However, it is doubtful whether an adequate account of a concept in natural language can simply reject some of its uses.

According to Frege it is a flaw in natural language that it contains expressions which fail to designate an object. In a logically perfect language, on the other hand, Frege stipulates that every proper name will actually designate an object (1970b, pp. 69–70). Frege suggests that when using language to make assertions about reality, rather than telling stories, for example, there is a presumption that the names in that language do successfully refer to objects in the world (1979, p. 60). Thus, according to Frege's conception of language, this use of the concept of existence is superfluous (1980, p. 62). However, even if we intend to make assertions about reality, rather than tell stories, there is always the possibility that we are wrong, and that the presumption that the names we use designate something is false. This possibility necessitates the use of the concept of existence in proposition of the type "*a* exists" and "*a* does not exist," in order to allow for the affirmation or the denial of the presupposition that the names we use designate something. The fact that Frege fails to account for this important use of the concept of existence is a major flaw not only in his view of the concept of existence, but also in his conception of the working of language.

Frege is forced to dismiss the use of the concept of existence in proposition of the type "*a* exists" because of the basic principles of his conception of language suggest these sentences cannot be false. For according to his conception of language sentences which contain names without a reference have no truth-value (Frege 1970b, p. 64). It may be conceded that in propositions of the type "*a* is *F*" there is a presupposition that the name *a* does successfully refers to an object, and therefore that if the presupposition is false then the proposition has no truth-value, as Strawson, for example, affirms (1950, p. 330). However, this is certainly not the case with existential propositions of the type "*a* exists," where presupposing that the name *a* successfully refers to an object would render the propositions superfluous. Propositions of the type "*a* exists" therefore function differently than those of the type "*a* is *F*." However, Frege's conception of language seems unable to account for the unique function of these existential propositions.

It should be noted that Frege's opinion on this issue did not change after he introduced the distinction between sense and reference. However, it may seem that the distinction between sense and reference can be used to explain the possible

falsity of sentences of the type "*a* exists." Quine, for example, has maintained that the problem of the denial of existence is caused by ignoring the distinction between meaning and naming, which for him is identical with Frege's distinction between sense and reference (1953, p. 9).

Quine's own solution to this problem of the denial of existence is formulated in terms which are more in accordance with Russell's conception of language (which I shall discuss next), rather than with Frege's conception of language. However, the question is whether it is possible to use the distinction between sense and reference in order to provide a solution to the problem of denial of existence in the confines of Frege's conception of language. For example, Frege argues that in some contexts the reference of expressions in language is their customary sense (indirect reference), rather than their customary (direct) reference (1970b, pp. 58–59). This allows us to assume that in existential propositions of the type "*a* exists" the reference of the expression *a* is its customary sense, thus explaining the possibility of this sentence being false while including an expression which has no direct reference. However, as attractive as this suggestion may appear to be, it still contradicts other principles in Frege's conception of language: the reference of a sentence, that is, its truth-value, is determined by the reference of its components, and it is clear that the truth of the sentence "*a* exists" is determined by its direct reference, rather than by its indirect reference. Thus, it seems that there is a fundamental problem in Frege's conception of language, which is reflected by its inherent failure to account for the meaningfulness of existential propositions of the type "*a* exists."

To summarize, the same insight into the nature of the concept of existence is shared by Kant, Frege, and the conception developed here. This agreement is reflected most clearly in the analysis of propositions of the type "*F*'s exist": According to Frege, these propositions do not ascribe any property to the things which fall under the concept *F*, but rather claim that the concept *F* is not empty, that is, that there is at least one thing which is *F*. This assertion echoes Kant's conclusion, according to which these propositions assert that the concept *F* "belongs to an existent thing." Finally, both these claims are in agreement with the conclusion of Sect. 3.2, according to which these propositions assert that the conceptual possibility which consists of the property of being *F* is realized.

The disagreement between the views considered here is reflected in their different position regarding propositions of the type "*a* exists." Kant's view and the view of existence developed here regard propositions of this type as being like propositions of the type "*F*'s exist." Frege's conception of language, on the other hand, leaves him no choice but to reject this use of the word "exist" as meaningless.

I have argued that Frege's view of existence is partial, in that it fails to account for a legitimate use of the concept of existence. The considerations above indicate that Frege's rejection of the use of the concept of existence in proposition of the type "*a* exists" is due to a fundamental flaw in his conception of language. This flaw is the reason for Frege's failure to account for this use of the concept of existence, rather than a false insight into the nature of the concept of existence.

The conclusion of this section leads me to Russell's conception of language. For, it seems that Russell successfully solves the problem which Frege did not,

that is, the problem of accounting for the function of expressions in language which fail to refer. This allows Russell to successfully account for many of the uses of the concept of existence which Frege fails to account for. The question remains to be answered, however, whether Russell's view of existence successfully accounts for all the legitimate uses of the concept of existence.

3.3.4 Russell

According to Russell, existence is not a property of individuals, but rather a property of propositional functions (1956, p. 232). The reasoning which underlies Russell's conclusion, according to which existence is a property of propositional functions rather than a property of individuals, is this: an ascription of existence to individuals is meaningless unless it is possible to deny existence from individuals in true sentences. However, if an individual does not exist it is impossible to deny existence from it. There is no point, according to Russell, in a predicate which could not conceivably be false (1956, p. 241). Interestingly, Russell is relying here on a principle which is in agreement with the conclusions of Chap. 2, as to the necessary conditions for the meaningfulness of expressions in language. I am referring specifically to the principle that a meaningful ascription of a predicate assumes the conceptual possibility of its denial.

Notwithstanding the different terminology, it is obvious that Russell shares with both Kant, Frege, and the conception here developed a similar insight into the nature of the concept of existence. Furthermore, Russell's view is also similar to Kant's and mine in one important respect. Russell's view of the concept of existence successfully applies to many existential propositions in natural language of the grammatical structure "*a* exists," for example, "Moses existed," in which existence is seemingly ascribed to an individual. This is due to the fact that according to Russell's conception of language the logical structure of these propositions is actually identical to that of propositions of the type "*F*'s exist" (for example, "Centaurs exist"), that is, $\exists x F x$. Thus, according to Russell, the proposition "Moses existed" asserts that a propositional function of the type "*x* is *F*" (*F* being a description of Moses) is possible, that is, it is true for at least one value of *x* (1956, pp. 242–243).

According to Russell, names in natural language (for example, "Moses") are abbreviated descriptions rather than logically proper names. Russell maintains that a proper name stands for a particular, in the sense that if that particular does not exist then the name has no significance. This leads him to conclude that ordinary names in natural language are actually descriptions, and that the only proper names are demonstrative expressions, such as "this" and "that" (1956, p. 200). Thus, according to Russell, propositions of the type "Moses existed" share the same logical structure with the propositions of the type "Centaurs exist." This allows Russell to apply the same explanation of the function of the concept of existence in both propositions. Although he is sharing with Frege a similar insight

into the nature of the concept of existence, a different conception of language thus enables Russell to account for many of the uses of the concept of existence which Frege is unable to account for.

The question remains whether Russell successfully accounts for all the legitimate uses of the concept of existence. Since Russell successfully accounts for all the uses of the concept of existence in sentences which include ordinary names in natural language, what is left are existential sentences which include proper names according to Russell's use of this term, that is, "this" and "that." However, Russell holds that sentences of the type "this exists" and "that exists" are not meaningful. For according to Russell's conception of language, in propositions of the type "this is *F*," or "that is *F*," a property *F* is being ascribed to an individual, while existence is not a property of individuals. Russell has no suggestion how to interpret these propositions in natural language in a way that is consistent with his view of the concept of existence, but rather dismisses this use of the concept of existence as meaningless.

The question is therefore whether Russell is correct in his claim that sentences of the type "this exists" are meaningless (1956, p. 233). While addressing this question, it must be kept in mind that not every use of these sentences in natural language is deemed meaningless by Russell. For, according to Russell "this" and "that" are used as proper names only when used to refer to particulars, a category which according to Russell includes only things we are acquainted with at the moment. These particulars are not physicals objects, but rather a sense datum (1956, p. 274).

I assume, therefore, that the sentence "this exists" is used as Russell envisages, that is, that the demonstrative expression "this" is used in order to refer to our sense data. It seems to me that Russell is correct in his claim that this use of the concept of existence guaranties the truth of these sentences. However, his conclusion that this use of the concept of existence is meaningless seems to me false. For, as Moore correctly remarked, in relation to any sense data, it is true to say "this might have not existed," and this is true only if the sentence "this exists" in not only meaningful, but also true (1959, p. 126). Russell is therefore wrong, and the sentence "this exists" can be meaningfully used. Russell's view of the concept of existence therefore fails to account for all the legitimate uses of the concept of existence.

The natural solution for this problem is for Russell to apply to the demonstrative expressions "this" and "that" the same analysis he applied to names in natural language, that is, to interpret them as descriptions. For example, it seems prima facie reasonable to interpret the expression "this" as "the thing I am focusing my attention on." If Russell could have followed this suggestion, his view of the concept of existence would have successfully accounted for *all* the legitimate uses of the concept of existence. However, this solution is not available for Russell. For, in Russell's conception of language the demonstrative expressions "this" and "that" are the proper names of language. Interpreting these expressions as descriptions would leave Russell with no other expressions which function as proper names, according to his use of this term. However, sentences which include proper names

are, according to Russell, the atomic propositions in language, which enable the ascription of properties to individuals. Interpreting the demonstrative expressions "this" and "that" as descriptions would therefore leave Russell with no other possibility of referring to individuals, and therefore, with no means of ascribing properties to them. Thus, it seems impossible for Russell to account, within the confines of his conception of language, for the use of the concept of existence in propositions of the type "this exists" and "that exists."

So it must be concluded that, like Frege's view of the concept of existence, Russell's view of the concept of existence is partial. Although Russell successfully accounts for many of the uses of the concept of existence which Frege fails to account for, some legitimate uses of the concept of existence remain unaccounted for by Russell's view of the concept of existence.

Finally, I wish to emphasize two important similarities between Russell's analysis and the one here argued for. These similarities relate both to the connection between truth and existence and to the analysis of propositions of the type "*F*'s exist."

In Sect. 3.2, I argued that there is a close connection between truth and existence, which is reflected in the logical equivalence between "It is true that *p*" and "*p* exists." The connection between truth and existence is explained by the fact that a declarative sentence is supposed to describe what exists, and expresses a true proposition if and only if it successfully describes what exists. This connection between truth and existence can be used to explain Russell's attempt to define existence in terms of truth (1956, p. 232). However, Russell's suggestion obscures an important difference between truth and existence. For while truth is a property of propositions, existence refers to the world: We say that the proposition "few wealthy persons control the economy" is true, but that the existing state of affairs is that few wealthy persons control the economy. This marks an important distinction between existence and truth that should not be ignored. Furthermore, Moore convincingly argues that "exist" cannot mean the same as "…is sometimes true," for "'*x* is a tame tiger' exists" does not mean the same as "Some tame tigers exist" (1959, p. 123).

The connection between truth and existence leads me to Russell's analysis of propositions of the type "*F*'s exist," and to the similarity between his conclusion and mine. Section 3.2 showed that the sentence "*F*'s exist" asserts that the conceptual possibility determined by the coordinate *F* is realized. The difference between this sentence and the sentence "*a* is *F*" is that the latter sentence asserts that a more specific conceptual possibility, which is determined by the both the coordinate *F* and the coordinate *a*, is realized. Thus, according to this analysis, existential sentences of the type "*F*'s exist" assert only part of what sentences of the type "*a* is *F*" assert. Russell makes that same point when he explains that existential sentences of the type "*F*'s exist" assert that the propositional function "*x* is *F*" is sometimes true. Recall that according to Russell, a propositional function is an expression that contains an undetermined constituent, and becomes a proposition (according to Russell's terminology) as soon as the undetermined constituent is determined (1956, p. 230). That is, the propositional function "*x* if *F*" results from omitting the "determined constituent" *a* (or, "the coordinate" *a*), from the proposition "*a* is *F*."

3.3.5 Two Conceptions of Language

The views of existence that that are discussed in this chapter are embedded in different conceptions of language. The view of language as a system of coordinates is fundamentally different from Kant's, Frege's, and Russell's, views, which are based on a fundamental distinction between a subject and a predicate, as two distinct constituents which together comprise a complete sentence. In this section I clarify the distinction between these theories of language, and explain why, even though they share the same insight into the nature of the concept of existence, Frege's and Russell's views fail to explain all the legitimate uses of the word "exist."

In the general framework of the conception of language as a system of coordinates, the distinction between a subject and a predicate does not play a fundamental role. A sentence is conceived as a structured combination of coordinates, in which each coordinate contributes to the determination of the conceptual possibility which this sentence designates. At this fundamental level of language, there is no distinction between the different grammatical parts of a sentence. The different roles of the different parts of a sentence appear at a more advanced level of the analysis, and are reflected in the structure of the different conceptual dimensions in which a proposition is located. These different dimensions are brought out by asking: "What do these expressions contribute to the meaning of the sentences in which they occur?" Because the contribution of the expressions to the meaning of the sentences is determined by their function as coordinates of specific conceptual dimensions, the structure of these dimension reflect the function that these expression serve in language.

Consider the different functions of subject and predicate in the sentence "Socrates is a mortal." While the subject is a coordinate of a dimension in which the different conceptual possibilities are not mutually exclusive; the predicate is a coordinate of a dimension in which the conceptual possibilities are mutually exclusive. The subject, "Socrates," is a coordinate in a conceptual dimension that contains every possible object to which the predicate "mortal" can be meaningfully ascribed (Plato, Aristotle, Kant and so on). It is conceptually possible for two or more of these possibilities to be jointly realized, as in the proposition "Both Socrates and Kant are mortal." The predicate "mortal," on the other hand, is a coordinate of a conceptual dimension which contains the mutually exclusive possibilities of being mortal and being immortal. The proposition "Socrates is mortal and Socrates is immortal" is a contradiction.

The conception of language as a system of coordinates, which at the most fundamental level abstracts from the grammatical distinction between a subject and a predicate, has an advantage over conceptions of language which retain this distinction. One advantage is reflected by the generally accepted distinction between a grammatical structure and a logical structure. It is agreed by both Frege and Russell that the grammatical structure of a sentence does not necessarily reflects its logical structure, that is, the logical connections of the proposition it expresses with other propositions in language. Similarly, the grammatical structure of a

sentence does not necessarily reflect its conceptual structure, that is, the way in which the meaning of its constituents determines its meaning.[4] The grammatical role of an expression therefore does not necessarily reflect its conceptual role. Furthermore, this is the case with the word in question, that is, "exist," as agreed by Kant, Frege, and Russell. A conception of language which does not rely on grammatical distinctions between expressions has therefore an advantage for analyzing the different functions of these expressions, especially ones whose grammatical role does not reflect their conceptual role.

Another advantage of the view of language a system of coordinates is its flexibility. This conception does not use a single rigid paradigm or assume that every sentence in language conforms to a single basic structure. These advantages emerge in the analysis of the concept of existence. In fact, the reason for the failure of both Frege's and Russell's accounts of existence is that they are formulated within the confines of rigid conceptions of language which rely mainly on the distinction between a subject and a predicate.

At the basis of Kant's, Frege's, and Russell's conceptions of language lies the distinction between subject and predicate, as two distinct constituents of sentences in language. The subject is an expression whose function is to refer to an individual in the world; the predicate is an expression whose function is to determine the property which is ascribed to (or denied from) that individual. Any sentence in language either has this simple subject-predicate form, or is a derivation of this basic structure. All three philosophers, Kant, Frege, and Russell, agree that existence is not an ordinary property. That is, they agree that existence is not ascribed to an individual in the world but rather to a concept. In light of these assumptions, they are forced to conclude that existential sentences are not of the simple subject-predicate form, and that existence is not an ordinary predicate.

Kant solves the problem simply by interpreting existential sentences differently than ordinary subject-predicate sentences: while in ordinary propositions of the type "*a* is *F*" the property *F* is ascribed to the individual *a*, in the proposition "*a* exists" the property is ascribed to the concept of the individual *a*. This is the same in the case of propositions of the type "*F*'s exist," in which the property is ascribed not to the objects which fall under the concept *F*, but rather to the concept *F* itself.

While Kant simply explains the unique function of existential sentences, Frege and Russell are not content with this modest explanation of the function of the concept of existence. They both share the assumption that all the sentences in language function in a similar way, according to the paradigm of the function of the subject and the predicate outlined above. A successful account of existential sentences therefore implies, according to Frege and Russell, interpreting existential sentences according to the familiar pattern of the workings of the language. Frege and Russell found an ingenuous solution to this difficulty, with the help of the idea of a second-level predicate. If existence is a second-level predicate,

[4] The logical structure of a sentence may be identical with its conceptual structure. However, in the scope of this book I do not discuss this intricate question, as it is not germane to my argument.

then existential sentences can be interpreted along the lines of the ordinary subject-predicate sentences, the only difference being that in existential sentences the subject expression refers to a concept, to which the property is ascribed (or denied). Ingenious as it is, this idea creates a problem for the explanation of the function of sentences of the type "*a* exists," due to the fact that the expression *a* is normally used in order to refer to an individual. The problem is to explain how the same expression can function differently in different contexts, in the confines of this rigid conception of the working of the language. Thus, Frege and Russell are forced to reject this use of the concept of existence, because of their insistence of a single explanation for the function of sentences in language.

There is therefore a general agreement that existence is not an ordinary property. Furthermore, all the views considered in this chapter share the same insight into the nature of the concept of existence. However, both Frege's and Russell's rigid conceptions of language are unable to account for some of the uses of this concept. I do not argue that it is impossible to account for all the legitimate uses of the concept of existence in the confines of a conception of language based on the distinction between a subject and a predicate. However, the simple explanation for the function that the concept of existence serves in language is evidence for the productivity of the conception of language as a system of coordinates.

3.4 Existence, Meaning, and Contingency

The previous analysis addressed the connection between existence and meaning. Existential sentences, including those in which the word "exist" is used as a sentential connective, are used to affirm that a conceptual possibility is realized. However, any positive declarative sentence likewise affirms that a conceptual possibility is realized. The fact that the concept of existence has the same use as that of a declarative sentence implies that a necessary and sufficient condition for the meaningfulness of the word "exist" is the meaningfulness of declarative sentences in general. That is, every conceptual scheme that displays a conceptual complexity which allows formulating declarative sentences has the resources which are both necessary and sufficient for the concept of existence.

The (descriptive) meaning of every meaningful expression in language is determined by its contribution to the meaning of the declarative sentences in which it occurs. A necessary and sufficient condition for the meaningfulness of declarative sentences is therefore the meaningfulness of expressions in general. Thus, a necessary and sufficient condition for the meaningfulness of the word "exist" is meaningfulness in general. Every conceptual scheme thus includes the necessary and sufficient conditions for sustaining the concept of existence. This conclusion is not surprising in light of the fact that the concept of existence is used in order to affirm that possibilities contained in our conceptual scheme are realized, and that the meaning of every meaningful component in language is its role in the systematic mapping of these possibilities.

The connection between contingency and meaningfulness is that both a necessary and sufficient condition for the meaningfulness of expressions in language is the conceptual complexity which lets us formulate contingent propositions: First, a contingent proposition is expressed by a meaningful sentence, and therefore the ability to formulate contingent propositions is a sufficient condition for the meaningfulness of expressions in language. Second, the ability to formulate contingent propositions is a necessary condition for the meaningfulness of expressions in language. For the meaning of every expression in language is its contribution to the meaning of the sentences in which it occurs. This implies that the meaning of every meaningful expression in language results from its appearance in meaningful sentences. However, the meaningful sentences in language (not only in contrast to meaningless combinations of signs, but also in contrast to empty sentences, which express conceptual truths or contradictions), are sentences which express contingent propositions. This is because the necessary condition for a meaningful occurrence of an expression, according to which its occurrences both in the positive and in the negative should describe a conceptual possibility, also applies to complete sentences. It follows that both the affirmation and the denial of a meaningful sentence describe a conceptual possibility, and this is the case if and only if this sentence expresses a contingent proposition. This consideration shows that the meaningful sentences in language are the sentences which express contingent propositions. A necessary condition for the meaningfulness of expressions in language is therefore the ability to formulate contingent propositions. Hence, a necessary and sufficient condition for the meaningfulness of expressions in language is the conceptual complexity that lets us formulate contingent propositions.

To summarize, every conceptual scheme contains both the necessary and sufficient conditions for formulating contingent propositions, hence the conceptual complexity which is both necessary and sufficient for sustaining the concept of existence.

3.5 Conclusions

A necessary and sufficient condition for the meaningfulness of the word “exist” is the meaningfulness of expressions in language in general, and a necessary and sufficient condition for the latter is the conceptual complexity which lets us formulate contingent propositions. The conceptual structure which underlies the concept of existence, and describes the necessary features of reality, therefore characterizes every possible conceptual scheme.

An implication I will later rely on is the connection between existence and contingency: A necessary and sufficient condition for the meaningfulness of the word “exist,” that is, for including the concept of existence in any conceptual scheme, is the conceptual complexity reflected by our ability to formulate contingent propositions. This is not surprising in light of the fact that both the concept of existence and (positive) contingent propositions are used for affirming that a conceptual possibility

is realized. Accordingly, only of those things described by contingent propositions can it be meaningfully said that they exist.[5] To show which features of reality are necessary I must turn to discuss the contingency of propositions in language.

The meaning of a sentence in language, as with any other meaningful component in language, is determined by the function it serves in describing reality. The conceptual complexity reflected in the contingency of propositions is therefore necessary for describing reality. This implies describing any possible reality requires the use of contingent propositions. The features of reality which require the use of contingent propositions for their description are therefore the necessary features of reality. These features I shall discuss in Chap. 4.

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[5] A further implication is that mathematical and logical truths do not describe mathematical and logical realms of reality.

Chapter 4
Contingency

Abstract In this chapter I identify the features of reality whose description requires the use of contingent propositions. I argue that contingent propositions are required if and only if there is a need for propositions which can be both true and false in different circumstances. Indexical expressions enable the same proposition to be expressed in different contexts, thus allowing it to be both true and false. Examination of the different indexical expressions shows that temporal indexical expressions are the ones that do this. Furthermore, describing the change in the temporal A-determinations of past, present, or future, requires using contingent propositions. Thus, the conclusion of my analysis is that time, and more specifically the change in the determinations of past, present and future, is the feature which explains why contingent propositions are needed for describing reality, and therefore is a necessary feature of reality.

Keywords A-determinations • Change • Contingency • Indexical • Time

4.1 Introduction

In Chap. 3 I showed that describing any possible reality requires the use of contingent propositions. In this chapter I shall identify these features of reality whose description requires the use of contingent propositions. I shall argue that it is a change in the truth-value of propositions that have temporal indexical components which explains why contingent propositions are needed in descriptions of reality (For example, the proposition "World war II occurred in the past" was once false but is now true). Any possible reality is therefore a temporal reality, and is characterized by change in the temporal determinations of past, present, and future.

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In Sect. 4.2 I make the argument that contingent propositions are needed only if describing reality requires the use of propositions which can be both true and false (in different circumstances). Notwithstanding this conclusion, it is doubtful whether the same proposition can actually be *both* true and false. It is necessary in this context to distinguish between a sentence and a proposition: A sentence, as a structured combination of signs, can in different circumstances express different propositions, and therefore can express in different circumstances propositions with different truth-values. However, in the present context it is assumed that the same proposition can be both true and false, rather than that the same sentence can express different propositions with different truth-values.

In Sect. 4.3 I discuss the possibility of the same proposition being actually both true and false. I distinguish between demonstrative and indexical expressions, and argue that only the latter expressions enable the same propositions to be expressed in different contexts, thus making it possible for the same proposition to be both true and false in different circumstances. This implies that only indexical expressions can explain the contingency of propositions in language. The proof that indexical expressions enable the same propositions to be expressed in different contexts depends on another important assertion, according to which indexical expressions are irreducible, and therefore indispensable for describing reality. This implies that there are features of reality whose description necessitates the use of indexical expressions.

In the sections that follow I examine different indexical expressions, which include the first-person ("I"), the spatial indexical expression "here," and the temporal indexical expression "now," in order to determine which indexical expression (or expressions) actually does enable the same proposition to be both true and false. In Sect. 4.4 I show that the use of the indexical expression "I" does not enable the same proposition to be both true and false. In Sect. 4.5 I show that the use of the spatial indexical expression "here" does enable the same proposition to be both true and false. However, I shall argue that the use of the spatial indexical expression "here" not only assumes the temporal indexical expression "now," but is also reducible to it. This conclusion implies that the explanation for the possibility of the same proposition being both true and false lies in the use of the temporal indexical expressions. In Sect. 4.6 I examine the temporal indexical expression "now," and show that the use of the temporal indexical expression "now" enables the same proposition to be both true and false in different circumstances.

My conclusion is that the change in the temporal A-determinations of past, present (now), and future explains the need for propositions which can actually be both true and false, and therefore that contingent propositions are needed to describe such change. Thus, the conclusion of my analysis is that time, and more specifically the change in the determinations of past, present and future, is the feature which explains why contingent propositions are needed for describing reality, and therefore is a necessary feature of reality. This, I believe, explains the affinity between time and modality, as reflected, for example, in Spinoza's *Ethics* (see, for example, Spinoza 2002, part 2, proposition 44, corollary 1), and in modern logic (see, for example, Parsons 2003).

4.2 Contingency

The Chap. 3 I established that any possible reality has at least some features that can only be described by means of contingent propositions. It might seem that it would be enough to insist that a possible reality *allow*, rather than require, that contingent propositions be used. Assume, for instance, that there is a hypothetical reality in which there is no need for propositions which can be both and false (that is, contingent proposition), but only for propositions which are either only possibly true or only possibly false (that is, tautologies and contradictions). There would seem to be nothing to *prevent* using conceptual complexity (here: contingent propositions) when it is uncalled for to describe such a reality.

It should be kept in mind, however, that the meaning of every meaningful component in language is determined by the function it serves in describing reality. Accordingly, if a certain complexity of language does not contribute to a description of reality, it is ipso facto not meaningful.[1] Every possible reality therefore contains a feature the description of which *necessitates* the use of contingent propositions, in the sense that it would be impossible to describe that feature without them.

The question which arises is, what are the necessary conditions for a hypothetical reality to necessitate the use of contingent propositions? To answer this question, the conditions under which a certain conceptual complexity becomes necessary for describing reality need to be clarified.

The conceptual complexity of language lets us formulate different propositions by the aid of different combinations of signs. However, not every possible combination of signs is acknowledged by the rules of language as an acceptable description of reality (that is, as expressing a proposition). This is especially clear when the combination of signs is not even acknowledged as a syntactically well-formed sentence, for example, “The good is more or less identical than the beautiful” (Wittgenstein 1963, proposition 4.003). Contradictions are a different example of combinations of signs which are deemed unable to describe reality, in this case by the semantic rules of a language. This is reflected by the fact that the meaning of such combinations of signs is sufficient for determining their falsity.

A reality is described by the use of true propositions. Thus, a certain complexity of language is necessary for describing reality if and only if it is necessary in order to formulate true propositions. Contingent propositions are therefore necessary for describing reality if and only if both a proposition and its negation are necessary for describing reality, and this is true if and only if both propositions are true (in different circumstances). This explains the need for contingent

[1] It does not follow that the word “bachelor,” for example, is meaningless because the synonymous expression “a man who never married” makes it redundant for describing reality. For my argument relates to a conceptual complexity, rather than a linguistic complexity. The introduction of the word "bachelor," as an abbreviation of the phrase “a man who never married,” does not contribute to the conceptual complexity of a language, but rather to its linguistic complexity. It introduces a new word, rather than a new concept.

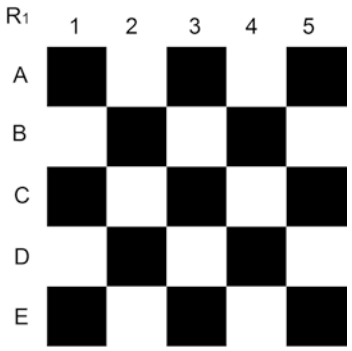

Fig. 4.1 Simple hypothetical reality R_1

propositions for describing reality, because only contingent propositions can be both true and false in different circumstances.

The previous considerations can be clarified by the following example. Consider the following simple hypothetical reality R_1, which consists of a two-dimensional space, which is either black or white (Fig. 4.1).

Reality R_1 can be fully described with the help of only 25 sentences, which include two spatial coordinates and one of color, thus: A-1-B[lack], A-2-W[hite], A-3-B, and so on.[2] Any other combination of signs, for example, A-1-W, which expresses a false proposition, is superfluous for describing reality R_1. This seems to imply that such combinations of signs, which supposedly express false propositions, need neither express contingent propositions, nor even be considered a meaningful combination of signs, in the language which is used to describe reality R_1. Furthermore, it seems that for a language to fully describe reality R_1, the combinations of signs which express the true propositions, that is, A-1-B, A-2-W, and so on, do not need to express contingent propositions.

If the previous considerations are correct, reality R_1 can be fully described by a language whose semantic rules imply, for example, that the combination of signs "A-1-B" expresses a true proposition, while the combination of signs "A-1-W" expresses a false proposition. An example for this suggestion can be found in the semantic rules of propositional calculus, which imply that the combination of signs "$p \vee \neg p$" expresses a true proposition, while the combination of signs "$p \wedge \neg p$" expresses a false proposition. In fact, it seems that in order to fully describe reality R_1 it possible to use a language in which the combinations of signs "not-A-1-B" and "A-1-W" will not even be a syntactically well-formed sentence, in the same sense in which the combination of signs "$p \neg p$" is not a well-formed formula in propositional calculus. Thus, it seems that the minimal conceptual complexity

[2] Russell and Wittgenstein were divided on the question whether a complete description of a reality requires a general proposition. While Russell thought that there are general facts (1956, pp. 183−184, 236), Wittgenstein thought the opposite (1963, proposition 4.26). However, this debate is irrelevant for the present example, because the number of facts in reality R_1 is fixed and finite.

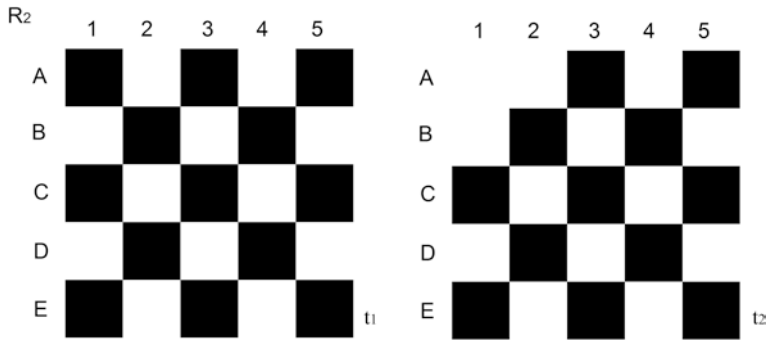

Fig. 4.2 Hypothetical temporal reality R_2

which is needed in order to fully describe reality R_1 includes only 25 necessary propositions. Furthermore, in the spirit of the *Tractatus* it should be said that the conceptual complexity of the language should reflect the complexity of the reality that it represents (Wittgenstein 1963, proposition 4.04). If contingent propositions are not required for describing reality R_1, it seems that reality R_1 should not, and perhaps even cannot, be described by the use of contingent propositions. The hypothetical reality R_1 is therefore not a possible reality.

It may seem that time is an obvious candidate for explaining the need for contingent propositions for describing reality. In order to examine this suggestion, let us consider a hypothetical temporal reality R_2, which results from the addition of time to reality R_1. For simplicity, I assume that this reality includes only two different times, t_1 and t_2, thus (Fig. 4.2).

Prima facie, the proposition A-1-B is true at time t_1 while false at time t_2. If this is correct, then this proposition must be contingent in order to allow for a full description of reality R_2. The question, however, is how to understand the proposition "A-1-B": is it a general proposition, namely that there is a time in which the color of A-1 is black; or a singular proposition, namely that at that specific time the color of A-1 is black? If the former is the correct interpretation of proposition "A-1-B," then this proposition is true both at time t_1 and time t_2, and need not be a contingent proposition. If the latter is the correct interpretation of the proposition "A-1-B," then this proposition has an implicit temporal component, and should be explicitly formulated as, for example, "A-1-B-t_1." According to this interpretation, reality R_2 is fully described with the help of 50 necessary propositions, which include 2 spatial coordinates, a color coordinate, and a temporal coordinate. The conclusion seems to follow, therefore, that describing reality R_2 does not necessitate the use of contingent propositions.

It may be objected that the demand that a certain complexity of language be actually used, in order to explain its need, is too strong. In order to explain why a certain complexity of language is needed for describing reality, all that I am required to show is that this complexity describes a possible state of affairs. In the

case under consideration, the need for any contingent proposition p is explained by the fact that reality includes both the possibility that p and the possibility that not-p. Thus, according to this objection, the hypothetical reality R_1 includes 50 different possible states of affairs, 25 of which are actualized. Hence the language which is needed in order to fully describe reality R_1 consists of 50 contingent propositions, of which 25 proposition are actually true. Alternatively, the same objection can be formulated in terms of "possible worlds": language must describe not only the actual world, but all the possible worlds which are accessible from the actual world.

The answer to this objection is that it is misguided. Obviously, if reality includes unrealized possibilities, the language which is needed in order to describe this reality must allow for these possibilities. Likewise, if it is assumed that the idea of possible worlds gives an accurate account of modality, it is clear that the language used for describing the actual world must not only include the conceptual complexity which is required to describe not only the actual world, but also all the accessible possible worlds. However, the question is what explains the inclusion of these possibilities in a certain reality? For example, if indeed reality R_1 includes the possibility of A-1-W, what constitutes this possibility? What can explain the difference between a reality which includes the possibility of A-1-W and a reality which does not include this possibility? Or, using the idea of possible worlds, what can explain the difference between a reality in which the actual world is the only possible world and a reality in which the actual world is only one of many possible worlds which are accessible from it? The attempts to rely on these notions in order to explain the need for contingent propositions fail, for they only restates in different terms what needs to be explained. Obviously, their failure to offer a substantive answer to the question I am asking does not imply that they are not beneficial or fruitful for investigating other aspects of modality. However, in the present context they leave the question under consideration unanswered.

The point I am making here relates to the conclusions of Chap. 3. Obviously, if p is a contingent proposition, the claim that "It is possible that not-p" is true. The latter proposition is however a necessary truth. The sentence "It is possible that not-p" is therefore vacuous, and merely reflects, rather than explains, the conceptual complexity contained in our conceptual scheme. The "existence of possibilities" is not a substantive explanation of the need for contingent propositions to describe reality, for only things described by contingent propositions can be meaningfully said to exist.

A different attempt to explain the need for contingent propositions is to turn to epistemology. The suggestion is that although reality may be described without using contingent propositions, the fact that we do not know which state of affairs actually obtains forces us to use a language which includes contingent propositions, that is, propositions which can be both conceivably true and conceivably false. However, this suggestion fails, for the supposition that we do not know if a state of affairs obtains or not assumes that both possibilities are open, and therefore assumes, rather than explains, the conceptual complexity which is reflected by contingent propositions.

What is required, in order to explain the need for a certain conceptual complexity for describing reality, is to show how this complexity is actually used for describing reality. The conceptual complexity of contingent propositions, which is currently under consideration, is reflected by the possibility that propositions may be both true and false. This implies that in order to explain why contingent propositions are needed to describe a certain realm of reality, it must be shown that describing this realm of reality requires some propositions to be true on some occasions and false on others.

It follows from the previous consideration that the need for contingent propositions for describing reality can be found only in propositions whose truth-value is not absolute, but varies in different circumstances. Obviously, showing that describing a certain realm of reality requires the use of propositions whose truth-value varies in different circumstances proves that one type of contingent propositions, that is, contingent propositions whose truth-value varies in different circumstances, are necessary for describing this realm of reality. However, propositions whose truth-value varies in different circumstances can also explain the inclusion in language of contingent propositions with an absolute truth-value.[3] For contingent propositions with an absolute truth-value can be reduced to propositions whose truth-value varies in different circumstances. For example, sentences which include the temporal indexical expressions "past," "present," and "future" can be used to define contingent propositions with an absolute truth-value of the type "ψ precedes φ," thus: "ψ precedes φ" if and only if "ψ preceded φ in the past, or ψ precedes φ now, or ψ will precede φ in the future" (Prior 1968, p. 64).

It is doubtful, however, whether the same proposition can be both true and false in different contexts. In fact, some may argue that if a sentence expresses propositions with different truth-values in different circumstances, then it follows that it does not express the same proposition in different circumstances. I should stress that it is necessary, in order to explain the need for contingent propositions, for the same proposition to be both true and false in different circumstances, rather than for the same sentence, that is, the same combination of signs, to express both true and false propositions in different contexts. In Sect. 4.3 I present a proof that indexical expressions let the same proposition be expressed in different circumstances. This proof relies on a second claim, which is important for the present discussion, according to which indexical expressions are indispensable for describing reality. This, I shall argue, is due to the fact that indexical expressions are irreducible to expressions which do not include indexical expressions, and therefore

[3] The truth-value of almost all propositions in some natural languages is sensitive to time. This is due to tense, which does not permit temporally neutral propositions to be formulated in these languages. However, it is possible to introduce a convention, according to which propositions in the present tense which do not include temporal indexical expressions are interpreted as temporally neutral propositions. Thus, according to this convention, the propositions "*a* is *F*" is interpreted as "*a* was *F*, or a is *F* now, or *a* will be *F*." As mentioned by Frege, this is not an arbitrary convention, for there are times in which the present tense is used in order to remove temporal restrictions, as in the case of mathematical propositions (Frege 1984, p. 358[64]).

descriptions which do not include indexical expressions cannot be synonymous with descriptions which include indexical expressions. Together the two claims show that indexical expressions can explain why contingent propositions are needed for describing reality. What remains to be examined, in the sections that follow, is which indexical expression actually enables the same proposition to be both true and false.

4.3 Indexical and Demonstrative Expressions

The following sentences include different indexical and demonstrative expressions:

(1) This is New York.
(2) I live in New York.
(3) Dan lives here.[4]
(4) There is no university in New York now.

The first distinction I would like to turn attention to is the distinction between demonstrative expressions, for example, "This" in sentence (1), and indexical expressions, for example "I," "here," and "now" in sentences (2)–(4).[5] The expression "This" is a demonstrative expression, because its reference is determined either by the intention of the speaker who utters this expression, or by an accompanying act of demonstration.[6] It is impossible to utter, for example, "This is New York," without intending to refer to something specific, or without an accompanying act of demonstration, and yet to successfully refer to anything, or express a proposition. The category of demonstrative expressions includes, for example, the expressions "That," "you," "he" / "she," and "here."[7] In contrast, the reference of indexical expressions, such as "I," "here," and "now," is independent of the intention of the speaker or an act of demonstration, and is determined exclusively by the circumstances of their use.[8]

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[4] The sentence should be understood as tenseless, that is, as: "Dan lived, lives, or will live here". This lets me focus on the spatial indexical component of the sentence.

[5] The distinction between demonstrative and indexical expressions derives from Kaplan (1989, pp. 490–491).

[6] There is a controversy as to what determines the reference of a demonstrative expression. However, this controversy has no significance for the present discussion.

[7] The expression "here" can be used both as a demonstrative expression, for example, when the speaker points to certain place and says: "We shall park here tonight," and as an indexical expression, in which it is used to refer to the position of the speaker. I should point out that in sentence (3) the expression "here" is used as an indexical expression.

[8] The scope of their reference (for example, whether the indexical expression "now" refers to the present day or the current year) can, however, be determined by the intention of the speaker.

Each of the demonstrative and the indexical expressions which appear in sentences (1)–(4) lets the same sentence express propositions with different truth-values in different circumstances. However, the question is whether these expressions enable the same proposition to be both true and false. The answer to this question depends on an answer to another question: namely, whether sentences which include these expressions express the same proposition in the different circumstances in which they are used.

Some might argue that the possible difference in truth-value indicates that different propositions are being expressed by sentences (1)–(4) in different circumstances. However, that depends on the specific understanding of the term "proposition." There are different legitimate uses for this term that depend on its function in the confines of a specific conception of language, which itself can be concerned with different aspects of language. Further complexity is introduced because of the special topic of indexical expressions, which raises further difficulties (see, for example, Perry 1979). Fortunately, in the present context there is no need to go into this intricate field. In the confines of the present discussion, which concerns only the question of contingency, it is sufficient to rely on a general characterization of the term "proposition," which will not resolve all the difficulties and contentions surrounding this notion; but it will enable me to draw the distinction between a sentence, as a mere combination of signs, and the content of the sentence, which is the subject of the truth-value.[9] The basis of this distinction is the arbitrary relation which obtains between signs and content: the same signs can be used in order to express different content, and the same content can be expressed by different signs. This distinction does not rely on any complicated theoretical considerations, and can be demonstrated with the help of a simple (if not trivial) example: the same sentence can express different propositions, for example, "Dan was at the bank;" while different sentences can express the same proposition, for example, "Dan has a canine" and "Dan has a dog."

The criterion I use in order to determine whether the same proposition is expressed by the same sentence in different circumstances is this: if the same sentence expresses different propositions in different circumstances, it is possible to distinguish between the different propositions with the use of different signs.[10] The consideration which supports this criterion is straightforward: This distinction between sentences and propositions stems from the arbitrary relation that obtains between signs and content. The claim that different content is expressed by the same sentence therefore implies that the use of the same signs in order to express

[9] Obviously, this characterization does not imply that a difference in truth-value (in different circumstances) necessarily indicates a different content.

[10] I am not suggesting or implying that this is the only possible criterion. However, I should point out that it is impossible to use Frege's criterion for a difference in sense, in order to determine whether the same proposition is expressed in different circumstances (1970, pp. 56–57 [25–26]). For, as has been argued by Evans, Frege's criterion is not applicable to at least some of the cases currently under consideration (Evans 1990, pp. 84–85).

this content is coincidental. This distinction therefore implies the possibility of distinguishing between the different contents by the use of different signs.

I should point out that this criterion does not assume that every language actually contains the linguistic complexity (in contrast to the conceptual complexity) which lets any two different propositions formulable in that language be expressed by the means of two different sentences. This criterion assumes, however, that it is possible to introduce into every language the linguistic complexity which is needed in order to reflect its conceptual complexity, thus enabling any two different propositions in that language to be formulated by means of different sentences. This can be done simply by introducing new words into that language, which would reflect the conceptual distinctions which that language includes.

An important implication of this criterion is this: Suppose we examine whether two occurrences of the same sentence express the same proposition. This criterion implies that if a certain sign (or combination of signs) can be used in order to substitute part of the sentence in one occurrence with any sign, without any change in meaning, but not in the other occurrence of this sentence, then it follows that these sentences express different propositions. If, however, it is always possible to use the same sign (or combination of signs) in order to replace parts of a sentence in each occurrence, without a change in meaning, then it follows that these sentences express the same proposition in all circumstances. In order to understand this criterion, let us examine the sentence mentioned earlier, "Dan was at the bank." This criterion implies that if it is possible to replace the world "bank" in one occurrence of this sentence with "land alongside a river or a lake," without a change of meaning, but not in another occurrence of this sentence, then it follows that different propositions are expressed in each circumstance. If, on the other hand, whenever a certain phrase can be used to substitute the word "bank" in one occurrence of this sentence, without a change in meaning, the same phrase can also be used in order to replace the word "bank" in the other occurrence of this sentence, then the same word is used with the same meaning in both occurrences. Thus, it is possible to conclude that the same proposition is expressed at both occasions.[11]

This criterion can therefore be used in order to determine whether demonstrative and indexical expressions let the same sentence in which they appear express the same proposition in different circumstances. This criterion can be used in order to determine, for example, whether the sentence (1) "This is New York" expresses the same proposition whenever it is used, or whether it expresses a different proposition each time: If it is possible to replace the word "This" with another expression, without a change in meaning, at one occasion, but impossible to replace this word with the same expression at another occasion without a change in meaning, then it follows that at each occasion this sentence is expressing a different proposition.

[11] This criterion may seem vacuous, for its application seems to assume that it is possible to distinguish between the different meanings of the word "bank" in each occurrence of this sentence. As I show next, this criterion is still useful for the current purpose.

However, in light of the above discussion, a simpler way of answering on this question has emerged. To recall, the question I am considering is whether two occurrences of a sentence, in which there is an indexical or a demonstrative expression, express the same proposition. If different propositions are expressed on each occasion, then according to the criterion I formulated earlier it must be possible replace this expression on one occasion with a different expression, without a change in meaning, but not on the other occasion. That is, it must be possible to express each proposition by means of a sentence which uniquely conforms to this proposition. This, however, is tantamount to a reduction of these expressions.

Thus, suppose it is shown that either demonstrative or indexical expressions are irreducible, in the sense that a sentence which includes an expression of this category is not synonymous with any sentence which does not include these expressions. This implies that it is not possible to replace these expressions with any expression in one occasion, without a change of meaning, but not in another occasion. According to the criterion I formulated earlier, this conclusion indicates that sentences which include these expressions express the same proposition at the different occasions of their use. The irreducibility of these expressions therefore implies that they let the same proposition be expressed on the different occasions.

Turning our attention first to demonstrative expressions, it seems that these expressions are reducible, in the sense that in each occasion of their use they can be replaced with expressions which do not include demonstrative expressions. It makes no difference whether the reference of a demonstrative expression is determined by the intention of the speaker or by an accompanying act of demonstration. Either way, each occurrence of a demonstrative expressions can be replaced by a description, which either describes the intention of the speaker or the accompanying act of demonstration. For example, a particular occurrence of the demonstrative expression "this," which occurs in the sentence (1) "This is New York," can be replaced by either the "The city we are seeing," or "The city I am pointing at."

Thus, in the case of demonstrative expressions there are two possibilities: either the demonstrative expression can be replaced by an expression which includes an indexical expression or it can be replaced by an expression which does not include an indexical expression. If the demonstrative expression can be replaced by an expression which does not include an indexical expression, then the resulting sentence expresses the same proposition in each occasion of its use. However, the truth-value of this proposition is absolute, as it is independent of the circumstances in which the sentence is expressed. If the demonstrative expression is replaced by an expression which includes an indexical expression, then the question is whether indexical expressions let the same proposition be expressed on different occasions, as discussed next. It can therefore be concluded that demonstrative expressions do not let the same proposition be expressed on the different occasions of their use.

Turning now to indexical expressions, it is important to stress the fact that the reference of these expressions is not determined by the intention of the speaker or an accompanying act of demonstration. A significant implication of this fact, which distinguishes indexical expressions from demonstrative expressions, is that indexical expressions are irreducible. As I explained earlier, the irreducibility of

indexical expressions implies that in different occasions of their use, sentences which include indexical expressions express the same proposition.

The claim that indexical expressions are irreducible originates from the writings of Perry, although Perry himself did not distinguish between demonstrative and indexical expressions (1977, 1979). Perry's contention, which is formulated in terms of Frege's conception of language, is that sentences which do not include indexical expressions do not have the same sense as sentences which include them. Obviously, indexical expressions are not generally reducible, in the sense that it is impossible to replace all the occurrences of an indexical expression with a single expression which does not include indexical expressions. This is clear from the fact that a sentence which includes an indexical expression expresses in different circumstances a proposition, or propositions, with a different truth-value, while a sentence which do not include indexical expressions expresses a proposition with a determined truth-value in every occasion. However, it is also impossible to replace a specific occurrence of an indexical expression with an expression which does not include indexical expressions. Any attempt to replace an occurrence of an indexical expression will result in a sentence with a different sense, as Frege's criterion for a difference in sense clearly shows (1970, pp. 56–57 [25–26]): For any expression φ, with which we attempt to replace, for example, the indexical expression "now" in the sentence "The meeting takes place now," it is possible to believe that "The meeting takes place at φ," but not that "The meeting takes place now," or vice versa.

It is important to note that Frege's criterion, although formulated in epistemic terms, actually relies on the semantic difference between the two sentences. Obviously, it is possible for someone who does not understand the meaning of either of the sentences "Dan is a bachelor" and "Dan is man who has never married" to accept one while rejecting the other. Frege, however, would not want to say that these sentences have a different sense. Whoever understands these sentences should understand that they are synonymous, and therefore would be unable to accept one assertion while rejecting the other. Accurately formulated, Frege's criterion for a difference in sense therefore states that two sentences have a different sense if whoever understands them cannot accept one proposition while rejecting the other. As this formulation clearly shows, the epistemic aspect of Frege's criterion serves merely as an indication that there is a semantic relation between different sentences.

In the case under consideration, it is obvious that there is a possibility that a subject who understands both sentences will accept one proposition while rejecting the other. For, as the previous example clearly demonstrates, while the sentence "The meeting takes place at φ" may express a proposition which is true at all times, the sentence "The meeting is taking place now" only expresses a true propositions at the time of the meeting. In order to know that this sentence expresses a true proposition, further information is therefore required, according to which "now is φ." This clearly shows that the two sentences do not have the same sense. It therefore follows that a sentence which includes an indexical expression does not have the same sense as a sentence which does not includes an indexical expressions.

Is it not possible, however, that in every case in which the subject believes that "The meeting takes place now" there is another sentence, which does not include an indexical expression, which expresses what the subject actually believes? According to this suggestion, a sentence which includes an indexical expression does not explicitly express the specific proposition which the subject actually believes. Thus, it might seem that although it is possible to believe that "The meeting takes place at φ" without believing that "The meeting is taking place now," in fact in each time a subject believes that "The meeting is taking place now" he actually believes a proposition which is expressed by a sentence of the type "The meeting takes place at φ."

This suggestion, however, fails for the following reason: as shown by Perry, the subject's beliefs do not determine the reference of the indexical expressions he uses (1977, pp. 486–488; 1979, pp. 7–8). The indexical expression "now" necessarily refers to the time in which it is used, while the subject's beliefs can be wrong and refer to another time. There is a possibility, therefore, that the subject believes both that "The meeting takes place at φ" and that "The meeting is taking place now," while one proposition is true and the other is false. This clearly shows that the proposition in which the subject believes, when he believes that "The meeting is taking place now," is not identical with the proposition "The meeting takes place at φ." The fact that the reference of indexical expressions is independent from the subject's beliefs reflects an essential feature of indexical expressions, which distinguishes them from demonstrative expressions, and precludes their reduction.

I should point out that this conclusion does not imply that indexical expressions are irreducible to other indexical expressions, but only that a complete reduction of indexical expressions is impossible. This conclusion implies that indexical expressions in general are necessary for describing reality, but it does not imply that each indexical expression is necessary for describing reality. This is due to the possibility of defining indexical expressions of certain type (for example, spatial indexical expressions) with the help of indexical expressions of a different type (for example, temporal indexical expressions).

The possibility of reducing some indexical expressions to other indexical expressions raises the question whether there is a basic indexical expression, with which it is possible to define every other indexical expression. An example for such a reduction was suggested by Reichenbach, who suggests defining all the indexical expressions with the help of the expression "this token" (1947, p. 284). This expression is defined so that each of its tokens refers to itself. This implies that the expression "this token" is an indexical expression, rather than a demonstrative expression, due to the fact that its reference is independent of the intention of the speaker, or an accompanying act of demonstration, and is determined exclusively by the circumstances of its use.[12] Reichenbach suggests that it is possible to

[12] In this respect, it is different from the expression "this," which Russell uses in an attempt to define all the indexical expressions, whose reference is determined by the attention of the subject (Russell 1940, p. 108). The expression "this," as used by Russell, is therefore a demonstrative expression, rather than an indexical expression.

define all the other indexical expressions with the help of this expression. For example, "I" is defined as "the person who utters this token," "now" is defined as "the time at which this token is uttered," and so on.

Reichenbach's suggestion raises several difficulties.[13] However, in the present context what I wish to point out that Reichenbach's suggestion for the reduction of indexical expressions, and similar attempts, has no implication on the present discussion. What interests me is the possibility of the same proposition being both true and false in different circumstances. My aim is to examine the different indexical expressions in order to determine whether the different features they signify (space, time, and so on) can explain the possibility of the same proposition being both true and false in different circumstances. If Reichenbach's reduction of the indexical expressions is accepted, the question I am asking is simply translated into the question, what feature of tokens (that is, the identity of the subject, spatial position or temporal position) cam explain the possibility of the same proposition being both true and false in different circumstances; and if more than one feature can explain this possibility, which of these features is more fundamental. It therefore makes no difference for the present purpose whether there is a basic indexical expression, which can be used in order to define all the other indexical expressions.

The conclusion I reach is therefore that a complete reduction of indexical expressions is impossible. This conclusion implies that indexical expressions in general are necessary for describing reality, in the sense that descriptions which can be formulated by means of indexical expressions cannot be formulated without the use of indexical expressions. This conclusion is significant for the present discussion in two different respects. Firstly, in this discussion I am trying to find a use for propositions which can be both true and false in describing reality. If indexical expressions were reducible to expressions which do not include them, the conclusion would follow that there is no need and so no use for propositions which can be both true and false for describing reality. Secondly, the conclusion that a complete reduction of indexical expressions is impossible implies, according to the criterion I devised earlier, that sentences which include indexical expressions express the same proposition in different circumstances.[14] This is an important step in explaining the possibility of the same proposition being both true and false.

I now turn to the different indexical expressions. First I examine whether each indexical expression actually allows the same proposition to be both true and false. For the present discussion only proves that indexical expressions fulfill one necessary condition for explaining the possibility of the same proposition being both true and false in different circumstances, but not that every indexical expression actually allows the same proposition to be both true and false in different

[13] Reichenbach's suggestion can be criticized both on the ground that propositions which include indexical components do not seem to imply the existence of any tokens, and on the ground that this suggestion implies that these propositions are false unless expressed explicitly (Gale 1968, p. 207).

[14] As the analysis of the first-person in Sect. 4.4 shows, this conclusion should be restricted to sentences which are expressed by the same subject.

circumstances. Second, I examine whether each indexical expression is necessary for describing reality, or whether it is possible to reduce some indexical expressions to other indexical expressions. Finally, I consider whether describing reality actually requires propositions to be both true and false.

4.4 The First-Person

The first indexical expression I examine is the one used to refer to the first-person, that is, "I." The expression "I" is an indexical expression, rather than a demonstrative expression, because its reference is independent of the speaker's intention or an accompanying act of demonstration. This is reflected by the fact that a subject who wakes up from a coma suffering from amnesia and says "I feel pain" successfully refers to himself.

How can the indexical expression "I" enable the same proposition to be both true and false? This is possible only if this expression refers to different subjects. This is the case if the same sentence, for example (2) "I live in New York," is expressed by different subjects. Assume that I, who live in New York, and Dan, who does not live in New York, both express this sentence. Does this possibility explain the need of propositions which can be both true and false for describing reality? That is, does describing this possibility require the same proposition to be both true and false?

In order to answer this question, we must first address the question of how to describe this possibility. Obviously, the proposition "It is true that 'I live in New York' and false that 'I live in New York'" does not correctly describe this possibility, as evident from the fact that it is a straightforward contradiction. In trying to describe this possibility, it must be kept in mind that the reference of the indexical expression "I," and therefore the truth-value of the proposition which is expressed, is determined according to the identity of the person who gives expression to it. The description of the possibility of two different subjects uttering the sentence (2) "I live in New York" therefore depends on the point of view from which this possibility is described.

Let us consider the proposition Dan expressed. While considering the truth-value of this proposition, I cannot simply ask whether the sentence "I live in New York" expresses a true proposition, for its truth-value is determined according to where I live, rather than where Dan lives. The fact that I hear Dan uttering this resentence does not enable me to determine the truth-value of the proposition which he asserts. In order to determine the truth-value of this proposition, I must translate the sentence he utters.[15] In light of the fact that in order to determine the truth-value of the proposition which is asserted I must identify the person who utters the sentence "I live in New York," it seems that the correct way to translate the sentence I hear is by adding an expression which describes the person who utters this sentence. For example, a simple translation of the sentence Dan utters is

[15] For a similar claim, see: Castañeda (1966, p. 145).

"It is true in relation to Dan that 'I live in New York'" (or, "When Dan utters 'I live in New York' it is true"). Thus, by examining the truth-value of this sentence, I am able to determine the truth-value of the proposition Dan Asserts. This sentence, however, is synonymous with the sentence "Dan lives in New York," as evident from the fact that it is impossible for whoever understands them to accept one proposition while rejecting the other. This implies that I must use a proposition which is different from the proposition Dan expressed, in order to understand his assertion.[16]

I should point out that the synonymity of the sentences "It is true in relation to Dan that 'I live in New York'" and "Dan lives in New York" does not contradict the conclusion of Sect. 4.3, according to which indexical expressions are irreducible to expressions which do not include indexical expressions. For the expression "I," in the sentence "It is true in relation to Dan that 'I live in New York'," does not function as an indexical expression. In fact, the synonymity of the sentences "It is true in relation to Dan that 'I live in New York'" and "Dan lives in New York" indicates that the expression "I" does not function as an indexical expression in the sentence "It is true in relation to Dan that 'I live in New York'." This is evident from the fact that, in contrast to the function of the indexical expression "I," this expression does not refer to the subject who utters it, and is altogether independent from the circumstances of its use. The expression "I" functions in this sentence as a variable, which stands in place of the expression "Dan," which precedes it.

Turning back to the description of the situation in which two subjects utter the sentence "I live in New York," it is now clear that this possibility is described differently from different points of view. From my point of view, this possibility is described as "It is true that 'I live in New York' and false in relation to Dan that 'I live in New York'," or simply "It is true that 'I live in New York' and false that 'Dan lives in New York'." The last formulation is especially important, because it makes it clear that describing this situation does not require the same proposition, that is, "I live in New York," to be both true and false. In fact, even if in my conceptual scheme the proposition "I live in New York" had been a necessary truth, this description would still have been consistent in my conceptual scheme. Furthermore, it is clear that describing this possibility, from any point of view, does not require the same proposition to be both true and false. For the indexical expression "I" refers to different subjects only when expressed from different points of view, while describing this possibility requires choosing a particular point of view from which it is described (including the point of view from nowhere). It can therefore be concluded that the indexical expression "I" does not

[16] Frege makes a related claim (although for different reasons), according to which a first-person thought of any subject cannot be thought by any other subject (1984, pp. 358–359 [65–66]). I should point out that Perry's criticism of this conclusion is directed mainly against its coherence with the confines of Frege's conception of language, and especially in light of Frege's conception of sense, and therefore is irrelevant for the present discussion (Perry 1977, pp. 488–491). For criticism of Perry and his interpretation of Frege's conception of sense, see: Evans (1990, pp. 88–91).

enable the same proposition to receive different truth-values, and therefore cannot explain why contingent propositions are needed for describing reality.

4.5 Spatial Indexical Expressions

In this section I turn to the indexical expression "here." The reason I focus on this spatial indexical expression is that it is generally agreed that the spatial indexical expressions do not signify any objective features of reality, but merely a relation to the subject who utters them. This implies that the spatial indexical expression "here," which refers to the spatial position of the subject, is the basic spatial indexical expression, which can be used to define all the other spatial indexical expressions.

Consider sentence (3), "Dan lives here," which I remind you should be understood as tenseless, that is, as "Dan lived, lives, or will live here."[17] In light of the fact that the spatial indexical expression "here" merely refers to the spatial position of the subject who utters this expression, and does not signify an objective feature of reality, this sentence must be uttered in different locations in order to express propositions whose truth-values differ. A change in the truth-value of the proposition expressed by this sentence therefore indicates a change in the location of the subject who utters this sentence.[18] For example, suppose that the subject first utters this sentence where Dan does not live, for example, in New York, and latter utters this sentence where Dan does live. This possibility is described (where Dan lives) by the following proposition:

(3a) It is true that "Dan lives here," but it was false (in New York) that "Dan lives here."

Proposition (3a) describes the change in the truth-value of the proposition "Dan lives here." This proposition implies that the proposition "Dan lives here" was false in the past, and that it is now true. Notice that the second conjunct in sentence (3a), that is, "it was false (in New York) that 'Dan lives here'," is not synonymous with the sentence "it was false that 'Dan lives in New York'." That is, sentence (3a) is not synonymous with sentence (3b):

(3b) It is true that "Dan lives here," but it was false that "Dan lives in New York."

For although proposition (3a) implies proposition (3b), the contrary does not hold. This is due to the fact that the latter proposition does not imply that the subject was ever in New York, while the former proposition does imply that the subject was in New York in the past.[19] This implies that the expression "here," in the

[17] This allows me to focus on the spatial indexical component of this sentence.

[18] The possibility of this sentence being expressed by different subjects is dealt with in Sect. 4.4.

[19] In fact, the former proposition implies that any subject, not only the subject who utters this sentence, was in New York. However, in light of the conclusions of Sect. 4.4, I ignore the possibility of different subjects who utter the sentence "Dan lives here."

sentence "it was false (in New York) that 'Dan lives here'," does function as an indexical expression, and is essential to the description of this possibility (in contrast to the expression "I" in the sentence "It is true in relation to Dan that 'I live in New York'").

Proposition (3a) therefore not only assumes that the proposition "Dan lives here" can be both true and false, but that this proposition was actually false in the past and is actually true now. If the proposition "Dan lives here" could not have been both true and false, that is, if this proposition would not have been a contingent proposition, proposition (3a) would have been a contradiction. It can therefore be concluded that the possibility described by proposition (3a) could only have been described if the same proposition could be both true and false. Thus, this possibility explains why contingent propositions are needed for describing reality.

However, before it can be concluded that the spatial indexical expression "here" holds the key to the need for contingent propositions, one more issue needs to be addressed. As I previously explained, proposition (3a) assumes a change in time. That is, it supposes that the sentence "Dan lives here" was expressed by the same subject at two different locations, and this is possible only if the subject changed its position in time. This raises the suspicion that it is the temporal component of this proposition which explains its possibility to be both true and false in different circumstances. Furthermore, this dependence is general, and is not limited to sentence (3a). The possibility of the same proposition, which includes a spatial indexical component, being both true and false in different circumstances assumes a change in time. This is due to the fact that a spatial indexical expression, for example, "here," cannot refer to different locations at the same time while being used by the same subject.[20] Thus, any difference in the reference of a spatial indexical expression (used by the same subject) assumes a change in time.

It might be objected that a difference in the reference of the spatial indexical expression "here," as used by one subject, does not assume a change in time. Gale, for example, suggests that someone can simultaneously utter two different tokens of "here," which refer to different places, by holding up cards with "here" inscribed on them, one in each hand (1969, p. 407). This suggestion, however, confuses the use of "here" as a demonstrative expression with its use as an indexical expression. As a demonstrative expression, the word "here" can refer to different places simultaneously, depending on the intention of the subject or the act of demonstration which accompanies its expression. However, as an indexical expression, which is the use of this expression which is currently under consideration, the word "here" cannot denote different places simultaneously, and refers exclusively to the location of the subject who utters this expression.

It can therefore be concluded that any difference in the reference of a spatial indexical expression assumes a change in time. This implies that it is the temporal component of proposition (3a) which explains the possibility of the same proposition being both true and false in different circumstances. I should mention that the

[20] Again, the present discussion is limited to the case in which only one subject utters the same sentence.

conclusion of Sect. 4.3 is that a complete reduction of indexical expressions is impossible, but not that indexical expressions cannot be defined with the help of other indexical expressions. This is the case with the spatial indexical expression "here," which can be defined with the help of the temporal indexical expression "now" (and the first-person), as: "the location I am in now." Notice that it is impossible to use the spatial indexical expression "here" in order to define the temporal indexical expression "now." The expression "now" is not synonymous with "the time I am here," because I can be in the same location at different times.[21] This implies that the temporal indexical expression "now" is more basic than the spatial indexical expression "here."

Furthermore, not only can the spatial indexical expression "here" be defined with the use of the temporal indexical expression "now," it can be shown that the spatial indexical "here" *assumes* the temporal indexical "now." One might have thought that though the spatial indexical expression "here" can be reduced to the temporal indexical expression "now," this possibility is not available in conceptual schemes which do not include the temporal indexical expression "now." It can be proved, however, that the spatial indexical expression "here" implies the temporal indexical expression "now," and therefore any conceptual scheme which includes the former expression must also include the latter expression: To begin with, it should be noted that the spatial indexical "here" must include a temporal determination. For the subject is located in different places at different times, while the spatial indexical "here" refers to a unique position in space, that is, the current location of the subject. This implies that the spatial indexical "here" includes a temporal determination. Additionally, the temporal determination which is included in the spatial indexical "here" must be a temporal indexical (that is, "now"). For, any other possibility would imply the possibility of reducing the spatial indexical expression "here" to an expression which does not include any indexical expressions. As I proved in Sect. 4.3, however, this is impossible. It can therefore be concluded that the spatial indexical "here" not only can be reduced to, but actually assumes, the temporal indexical "now."

The conclusion of this section is therefore that the spatial indexical expression "here" does enable the same proposition to be both true and false in different circumstances. However, my analysis shows that the spatial indexical "here" assumes the temporal indexical "now," and can be reduced to it. This implies that the explanation of how the same proposition can be both true and false in different circumstances is explained by the temporal indexical component of this proposition, rather than its spatial component. This conclusion leads me to the examination of the temporal indexical expressions.

[21] This marks an important disanalogy between time and space. This disanalogy follows from the fact that any difference in the reference of indexical expressions, whether temporal or spatial, assumes that they are uttered at different times, but not that they are uttered in different places (assuming they are uttered by the same subject). This disanalogy has been drawn attention to in different terms by several philosophers, for example, see Hardin (1984, p. 122), Mellor (1998, pp. 95–96) and Dolev (2000, p. 70).

4.6 Temporal Indexical Expressions

The first question that I need to address, in light of the wide selection of indexical expressions available (for example, past, present (now), future, yesterday, tomorrow and so on), is which, if any, of these expressions is the basic temporal indexical expression. My answer is that the temporal indexical expression "now" (or "present") is the basic temporal indexical expression, which is necessarily included in any conceptual scheme that includes temporal indexical expressions. This is evident from the fact that propositions which include a temporal indexical component describe reality from a point of view which is located at the present (that is, "now"). This claim can be shown to be true by the following consideration: For every sentence p, which includes a temporal indexical expression, adding the prefix "now" results in a proposition which has the same truth-value as the original proposition. For example, "I was in New York yesterday" has the same truth-value as "Now (it is true that) 'I was at New York yesterday'."[22] This implies that temporal indexical expressions assume the existence of a unique position in time, denoted by the indexical expression "now," in relation to which their reference is determined. It therefore follows that every conceptual scheme that includes temporal indexical expressions must include the temporal indexical "now" (or "present").

In light of this conclusion, I concentrate in what follows on the temporal indexical expression "now." However, it can be shown that any conceptual scheme which includes the temporal indexical expression "now" (the "present") also includes the temporal indexical expressions "past" and "future": The indexical expressions "past" and "present" can be defined with the help of the indexical expression "present" and the temporal relation "before," thus: *x* is past if and only if *x* is before the present; *x* is future if and only if the present is before *x*. However, any conceptual scheme which contains temporal distinctions (that is, any temporal conceptual scheme) includes the temporal relation "before," which lets us distinguish between different positions in time. Hence, while past, present, and future can be distinguished they cannot be completely separated from one another.

Consider sentence (4) "There is no university in New York now." Its suggestion that the same proposition can be both true and false at different times is expressed, for example, by the following sentence:

(4a) It is false that "There is no university in New York now," but in 1492 it was true that "There is no university in New York now."

Proposition (4a) describes reality from a point in time (that is, now) in which there is a university in New York, but it claims that in the past (that is, in 1492) the proposition "There is no university in New York now" was true. Proposition (4a) therefore not only assumes the possibility of the same proposition being both true

[22] In contrast, for example, to the proposition "Yesterday (it was true that) 'I was at New York yesterday'."

and false in different circumstances, but actually implies that the same proposition, that is, "There is no university in New York now" has different truth-values at different times.

The analysis of the temporal indexical expressions raises a complication which does not exist in the case of spatial indexical expressions. For while it is generally agreed that spatial indexical expressions are subjective, in the sense that their reference is determined in relation to the position of the subject, rather than by an objective feature of reality, the same does not hold with regard to the temporal indexical expressions. The status of the temporal indexical expressions is under controversy. According to supporters of the B-theory of time (the detensers), the temporal indexical expressions are analogical to the spatial indexical expressions, and similarly their reference is determined in relation to the time in which they are used by the subject. According to the supporters of the A-theory of time (the tensers), on the other hand, the temporal indexical expressions signify objective features of reality, and the change in the A-determinations of past, present, and future is an essential feature of time, which explains why time (rather than space) is the dimension of change. This controversy has significant implications. However, as I explain presently, it is irrelevant for the present discussion.

According to the B-theory of time, which holds that the spatial indexical expressions are analogical to the temporal indexical expressions, proposition (4a) not only claims that in 1492 there was no university in New York, but also that the subject who utters that sentence was present at that time.[23] For according to this conception of time, being "now" is not an objective feature of reality, but merely a relation of simultaneity to the utterance of the temporal indexical expression "now" by the subject. This is the reason why sentence (4a) is not synonymous with sentence (4b):

(4b) It is false that "There is no university in New York now," but true that "There was no university in New York at 1492."

For although proposition (4a) implies proposition (4b), the contrary does not hold: It is possible both that there was no university in New York in 1492, and that the proposition "There is no university in New York now" was never true—simply because the subject who utters this sentence never existed at the time in which there was no university in New York. Thus, the fact that sentences (4a) and (4b) are not synonymous implies that describing this possibility necessitates the same proposition to actually be both true and false at different times.

According to the A-theory of time, on the other hand, sentences (4a) and (4b) are synonymous. This may give raise to the claim that describing this possibility does not require the same proposition to be both true and false. For proposition (4b) seems to show that, in order to describe the possibility described by

[23] There may have been other subjects at that time. However, I remind you that, in light of the analysis of the first-person, I am currently limiting the discussion to the case in which the same subject utters the sentence "There is no university in New York now."

proposition (4a), there is no need that the same proposition be both true and false. However, according to the A-theory of time, sentence (4a) reflects the correct analysis of proposition (4b). For, according to this conception of time, the change in the temporal A-determinations of past, present (now), and future is essential for time. This conception of time therefore implies that the proposition "There is no university in New York now," which is now false, was true in the past.

It can thus be concluded that the need for propositions which are both true and false in different circumstances, and therefore the need for contingent propositions in describing reality, is found in describing the change in the A-determinations of past, present, and future. As I have explained, it makes no difference whether the temporal A-determinations are objective, or whether they are subjective. Even in the latter case, in which the change in the temporal A-determinations is merely the result of describing reality from a subjective point of view, describing this change still requires the use of contingent propositions.

4.7 Conclusions

In Chap. 3 I argued that describing any possible reality requires the use of contingent propositions. In this chapter I argued that contingent propositions are needed only if describing reality requires using propositions which are actually both true and false in different circumstances. The necessary features of reality are therefore the features whose description requires the same proposition to be actually both true and false in different circumstances.

My analysis establishes that only indexical expressions allow the same proposition to be actually both true and false in different circumstances. Furthermore, indexical expressions are irreducible to expressions which do not include indexical expressions, hence are indispensable for describing reality. Finally, it is temporal indexical expressions which explain the possibility of the same proposition being actually both true and false in different circumstances.

Propositions which contain temporal indexical components therefore account for the contingency of propositions in language, and so form the basis for the meaningfulness of language. Although not every meaningful sentence in language contains a temporal indexical expression, this analysis implies that any contingent proposition whose absolute truth-value is defined with the help of propositions that contain a temporal indexical component.

The one and only feature of reality whose description requires the same proposition to be actually both true and false is the change in the temporal A-determinations of past, present, and future. Only contingent propositions can be both true and false in different circumstances, and therefore the need for contingent propositions for describing reality is explained by the change in the temporal A-determinations. Any possible reality is therefore a temporal reality, and is characterized by a change in the determinations of past, present, and future.

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Chapter 5
Idealism

Abstract In this chapter I conduct a conceptual analysis of the propositions which ascribe the determinations of past, present, and future, and of the change in the truth-value of such propositions. I argue that the change in the determinations of past, present, and future assumes the existence of a subjective and temporally extended point of view (consciousness) over reality, from which reality can be described. Furthermore, the change in these determinations assumes the existence of a realm of reality which is both temporal and objective, and the possibility of periods of time in which the consciousness from whose point of view reality is described, does not exist. The conclusion of this chapter is an idealistic conception of reality—according to which every possible reality assumes the existence of a consciousness internal to it, from whose point of view the reality is described, and its existence determined.

Keywords A-determinations • Change • Consciousness • Idealism • Objectivity • Time

5.1 Introduction

The conclusion of Chap. 4 is that any possible reality can only be described by including propositions which can actually be both true and false (in different circumstances). Further, the one and only feature of reality the description of which requires the same proposition to be both true and false is the change in the temporal A-determinations, that is, past, present, and future. Every possible reality is therefore a *temporal* reality: it is characterized by a change in the determinations of past, present and future. In this chapter the elucidation of such necessary features of reality (begun in Chap. 4) will be extended, by analyzing change in the determinations of past, present, and future. The aim of this analysis is to bring out the feature of reality which underlies this change. For this purpose, I shall conduct a conceptual analysis of the propositions which ascribe the determinations of past,

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present, and future, and of the change in the truth-value of such propositions, in order to disclose the conceptual complexity which underlies them.

The conclusion of this chapter is that the change in the determinations of past, present, and future assumes the existence of a subjective and temporally extended point of view (consciousness) over reality, from which reality can be described. Furthermore, the change in these determinations assumes the existence of a realm of reality which is both temporal and objective (in the sense that it is independent of any consciousness of it), and the possibility of periods of time in which the consciousness from whose point of view reality is described, does not exist. This conclusion is an idealistic conception of reality—according to which every possible reality assumes the existence of a consciousness internal to it (that is, a consciousness which is part of this reality), from whose point of view the reality is described, and its existence determined.

Section 5.2 contains an analysis of the change in the determinations of past, present, and future via an analysis of the distinctions of 'past', 'present', and 'future' themselves. The purpose of this analysis is to elicit some of the necessary conditions for the meaningfulness of these distinctions. The conclusion of this analysis is that the concepts of past and future assume the distinction between the past and the future and the (present) consciousness of the past and the future. An implication of this conclusion is that the distinctions between past, present and future are subjective, in the sense that they assume the existence of a consciousness, from whose point of view (in the present) they are determined.

Following this analysis, in Sect. 5.3 I shall turn to an investigation of change in temporal determinations. My aim in carrying out this investigation is to draw attention to the structure of reality which underlies the change in the truth-value of propositions which ascribe temporal A-determinations. The conclusion of this section is that change in temporal A-determinations assumes the existence of a realm of reality which is both temporal and objective, in the sense that it is independent of any consciousness of it (similarly to the physical realm in our conceptual scheme). Furthermore, the change in these determinations is shown to assume the possibility of periods of time in which the consciousness from whose point of view reality is described, does not exist.

The conclusion of this chapter is therefore that every possible reality assumes the distinction between a subjective and temporally extended point of view over reality, which constitutes a consciousness, and a realm of reality which is both temporal and objective. This conclusion is thus idealistic: every possible reality presumes the existence of an internal point of view over it—a consciousness—from which it is described.

5.2 Consciousness

The subject matter of the present analysis is our conceptual scheme, with its rich conceptual complexity. The question is what, out of all the rich conceptual complexity which is included in our conceptual scheme, is necessary for describing reality. Chapter 4 showed that change in the temporal A-determinations

of past present and future is necessary for describing reality, and therefore must be included in every conceptual scheme. In this section I shall begin the analysis of the change in the A-determinations of past, present, and future by focusing on these determinations themselves. I argue that a necessary condition for the inclusion of these distinctions in any conceptual scheme is a conceptual complexity which lets us distinguish between the past and the future and the (present) consciousness of the past and the future.

The distinction between the past and the future and the consciousness of the past and the future matters in two ways: Firstly, this distinction assumes the independence of the past and the future from a present consciousness of them. Secondly, this distinction indicates the subjectivity of the distinctions between past, present, and future, in the sense that these distinctions assume the existence of a consciousness, from whose point of view (in the present) they are determined.

An important implication is that propositions which include temporal indexical components describe reality from the point of view of a consciousness. The conceptual complexity which reflects the fact that *our* conceptual scheme is used in order to describe reality from the point of view of a consciousness is reflected by the use of the first-person. The first-person, that is, "I," refers to the consciousness from whose point of view reality is described.[1] Accordingly, the fact that our conceptual scheme describes reality, with the help of the distinctions between past, present, and future, from the point of view of a certain consciousness, is expressed by the fact that our conceptual scheme also includes a conceptual complexity which describes the first-person consciousness of the past, present, and future.[2] In this chapter I argue that this conceptual complexity, which is reflected by the distinction between the past, present, and future and the consciousness of them, is necessary for the meaningfulness of the distinctions between past, present, and future. The distinctions between past, present, and future are not only subjective in the sense that they assume the existence of a consciousness, from whose point of view (in the present) they are determined, but they are also subjective in the sense that they are used in order to describe reality only from the point of view of that consciousness. This implies (because of the fact that distinctions between past, present, and future are necessary for describing reality) that every possible conceptual scheme describes reality from a subjective point of view, which constitutes a consciousness.[3]

As a first step, the conceptual complexity under discussion needs to be singled and clarified. This conceptual complexity is reflected by the distinction between propositions which describe the past, present, and future, and propositions which describe the first-person consciousness of the past, present, and future:

(1a) φ in the past.
(2a) φ in the present.
(3a) φ in the future.

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[1] This subject is further discussed and explained in Chap. 6.

[2] For example, "I am conscious of the fact that in 1492 there was no university in New-York."

[3] Obviously, this conclusion does not imply that objective descriptions of reality are impossible.

Table 5.1 The conceptual dimension of the first-person

I am conscious of *p*.
Someone that is not-me ("not-I") is conscious of *p*.

(1d) I am conscious that φ in the past.
(2d) I am conscious that φ in the present.
(3d) I am conscious that φ in the future.

I begin by arguing that the distinction between descriptions of the past and the future and descriptions of the first-person consciousness of the past and the future (that is, the distinction between propositions (1a) and (1d), and between (3a) and (3d)) is necessary for the meaningfulness of the distinctions between past, present, and future.

A few preliminary remarks are in order. Firstly, I am now ignoring the conceptual complexity which is expressed by the indexical expression "I" (which is the subject of Chap. 6). In order to avoid any unnecessary conceptual complexity, I analyze a conceptual scheme which does not acknowledge the possibility of subjects of consciousness other than the self. The consequence of eliminating the possibility of other subjects of consciousness is demonstrated by propositions (1c)–(3c), which are analogical to propositions (1d)–(3d) in our conceptual scheme:

(1c) There is a consciousness that φ in the past.
(2c) There is a consciousness that φ in the present.
(3c) There is a consciousness that φ in the future.

The difference between propositions (1c)–(3c) and propositions (1d)–(3d) is that the former propositions are formulated in a conceptual scheme which does not acknowledge the possibility of subjects other than the self (that is, the subject of consciousness which is referred to by the first-person). Eliminating the conceptual possibility of subjects other than the self implies the loss of the first-person, because the conceptual complexity of the first-person assumes the possibility of other subjects of consciousness, as evident from the conceptual dimension in which the expression "I" is located (Table 5.1):

As evident from this conceptual dimension, the meaningfulness of the first-person assumes the possibility of subjects of consciousness other than the self. Eliminating this possibility therefore implies the loss of the first-person.

An important reason for ignoring the conceptual complexity of other subjects of consciousness, besides the unnecessary complication it adds for the analysis, it that this conceptual complexity has not yet proven necessary.[4] As aforesaid, a conceptual scheme which does not include the possibility of other subjects of

[4] Although I do not discuss the question of its necessity directly, in Chap. 6 I reject a Strawsonian argument for its necessity.

consciousness does not include the concept of the self (that is, the first-person) either. In such a conceptual scheme there is no room for ascribing consciousness, because in such a conceptual scheme every consciousness necessarily belongs to a single consciousness, which is the only possible consciousness this conceptual scheme allows. This is the consciousness which is referred to, in our conceptual scheme, by the first-person. Propositions (1c)–(3c) therefore must not be understood as quantified propositions, neither general nor existential, but rather as referring to a single specific consciousness, which is the consciousness from whose point of view reality is described (which is referred by the first-person in our conceptual scheme).

In light of this clarification, the purpose of my present analysis is to prove that every possible conceptual scheme which includes the distinctions between past, present and future (1a)–(3a) also includes the conceptual complexity which is reflected by propositions (1c)–(3c). This I shall prove by showing that the distinction between the past and the future and the consciousness of the past and the future is necessary for the meaningfulness of the distinctions between past, present, and future.

A second preliminary remark is required at this point. It is sufficient to show that the concepts of past and future assume the concept of consciousness in order to show that the concept of the present also assumes the same concept, for the necessary conditions for the meaningfulness of the words "past" and "future" are also necessary conditions for the meaningfulness of the word "present." The reason is that the meaningfulness of the word "present" depends on the concepts of past and present: the concept of present is located in a conceptual dimension which includes the general possibility of being "not-present," which consists of the possibilities of being past and being future. A conceptual scheme which does not include the conceptual possibilities of being past or being future therefore does not include the conceptual dimension in which the concept of the present is located, and therefore does not include the concept of present.

A third preliminary remark relates to the unique position of the present. As I already said, the past and the future must be distinguished from the *present* consciousness of them. The significance of the present is explained by the fact that propositions which include temporal indexical components describe reality from a point of view located in the present. This is reflected by the fact that that adding the sentential connective "In the present (it is true that)…," to any sentence which includes a temporal indexical expression, does not affect the meaning which is expressed. Recall that a necessary condition for an expression to contribute for meaning of a sentence is that this expression contributes for the determination of the truth-value of the proposition expressed by this sentence. However, the addition of the sentential connective "In the present…" does not change the truth-value of the expressed proposition: this proves that it does not contribute to the meaning of this sentence. For example, the proposition "The sky is blue ψ," in which ψ is a temporal indexical component, is logically equivalent to the proposition "In the present (it is true that) 'The sky is blue ψ'," which proves that the sentential connective "In the present…" does not contribute to the meaning of

the latter sentence. In contrast, the sentential connectives, "In the past…" and "In the future…," *do* contribute to the meaning of the sentence in which they occur, as is evident from their influence on the determination of the truth-value of the propositions which they express. Thus, the proposition "The sky is blue ψ" is not logically equivalent to any of the propositions, "In the past (it was true that) 'The sky is blue ψ'" and "In the future (it will be true that) 'The sky is blue ψ'." As I have said, the fact that the sentential connective "In the present…" cannot contribute to the meaning of sentences which include a temporal indexical expression is explained by the fact that these sentences describe reality from a point of view which is located in the present.

The unique position of the present calls for a final explanatory remark. There is a fundamental difference between the position of the present and the position of the past and the future, which has to do with the distinction between the way things are and a self's consciousness of them. The concept of the present does not assume independence from the present consciousness of it, as do the concepts of the past and the future. This difference pertains to the subjective realm of reality in our conceptual scheme (that is, to the mental realm of reality), which is not independent from simultaneous consciousness of it: While it is impossible to infer, from premises about the way things are in the objective realm of reality (that is, the physical realm), the existence of consciousness of the way things are, it is possible to make inferences with regard to the subjective realm of reality. For example, the premise that there is a pain now implies that there is a consciousness of it at the present. It is impossible, however, to infer directly the existence of present consciousness from premises about the way things were in the past and will be the future. In other words, not everything in the present is independent of a present consciousness of it, but everything in the past and the future is independent of a present consciousness of it. My claim is that this is not accidental, for the independence of the past and the future from the present consciousness of them follows from the meaning of these concepts. That is, there is a contradiction in the idea of a realm of reality, or entities, whose existence in the past or the future assumes present consciousness of them.

Following these clarifications, I turn to the analysis of the distinctions between past, present, and future. My aim is to prove that the concepts of past and future assume the distinction between the way the things are in the past and the future and the present consciousness of them. I show that without the distinction between the way things are and the consciousness of them, the distinctions between past, present, and future lose their temporal implication, and collapse into simultaneous distinctions.[5] For this purpose, I rely on another conceptual distinction which is

[5] The resulting distinctions can be explained by an analogy to distinctions which describe the present subjective realm of reality in our conceptual scheme. For example, spatial distinctions which characterize the visual phenomenological realm, that is, "there is a white spot to the *left*, red in the *middle*, and green to the *right*."

included in our conceptual scheme. This is the distinction between the past, present, and future and the impressions of the past, present, and future:

(1b) There is an impression that φ in the past.
(2b) There is an impression that φ in the present.
(3b) There is an impression that φ in the future.

The concept of impression relates to the subjective realm, and describes the way things seem for the subject. The concept of impression can be identified via its relation with the concept of consciousness: While consciousness implies the existence of an impression, the contrary does not hold. That is, propositions (1b)–(3b) do not imply propositions (1c)–(3c), while propositions (1c)–(3c) do imply propositions (1b)–(3b). The relation between these concepts can also be formulated by the claim that consciousness is the existence of a correct impression.[6] I stress that the concept of impression is not phenomenological, and does not indicate the existence of a sense data or a mental image, for otherwise it would be impossible to infer the existence of an impression from the existence of consciousness. For it does not follow, from the premise that I am consciousness of the existence of wall behind me, that I have either a sense data or a phenomenological impression of it.[7]

The concept of expression is further clarified by the distinction between the way things are (1a)–(3a) and the impression of them (1b)–(3b). This distinction consists of two elements: Firstly, claims about the way the things are (1a)–(3a) do not imply the existence of impressions (1b)–(3b). This is explained by the "possibility of ignorance," which follows from the independence of things from consciousness of them. For the independence of consciousness implies that it is impossible to infer the existence of consciousness from premises about the way things are, and therefore also impossible to infer conclusions about the existence of impressions. Secondly, propositions about impression (1b)–(3b) do not imply propositions about the way things are (1a)–(3a). This is explained by the "possibility of error," which allows the possibility that there be an impression of how things are, while things are not so in reality.

The importance of the concept of impression for the present discussion lies in the possibility of error.[8] The fact that the existence of present impressions has no implications regarding the way things are in the past and the future (that is, that

[6] The existence of a correct impression cannot be identified with knowledge, for the concept of knowledge assumes epistemic justification.

[7] The concept of impression is similar, in this respect, to the concept of belief. However, notwithstanding the similarity between the two concepts, I prefer the concept of impression, which lacks the epistemic implications of the concept of belief. I should stress that the concept of impression, as understood in the present discussion, is not necessarily identical to the concept of impression in natural language. For the present purpose, it is sufficient to see it as a technical term, which is I have introduced in order to explicate a distinction which is implicit in our conceptual scheme.

[8] In this respect, the concept of impression differs from the concept of consciousness, for the consciousness of p implies p.

proposition (1b) does not imply proposition (1a), and that proposition (3b) does not imply proposition (3a) has a special significance in the present context. For this fact implies that impressions have no temporal implications. If it can therefore be shown that without the independence of the past and the future of present consciousness of them these conceptual distinctions collapse into distinctions which describe present impressions, it would prove that without the independence of the past and the future from present consciousness of them they lose their temporal implication (and so does the concept of the present, which depends on the concepts of past and future).

As said, my aim in this section is to prove that the distinctions between past, present, and future assume the independence of the past and the future from the present consciousness of them. That is, that they assume a distinction between the way things were in the past and will be in the future (1a) and (3a) and are in the (present) consciousness of the things in the past and in the future (1c) and (3c). This proof consists of two parts: To begin with, I show that without the possibility of ignorance and the possibility of error the distinction between the past and the future (1a) and (3a) and the impressions of the past and the future (1b) and (3b) collapses, and that this implies the loss of the temporal implication of the distinctions between past, present, and future. Subsequently, I show that without the possibility of ignorance, which reflects the independence of the past and the future from present consciousness of them, the possibility of error is likewise lost. Taken together, the two parts of this proof imply that the independence of the past and the future from a present consciousness of them is a necessary condition for the meaningfulness of the temporal distinctions between past, present, and future. The conclusion thus follows that every possible conceptual scheme (which includes the distinctions between past, present, and future) includes the conceptual distinctions between the way things are in the past, present, and the future (1a)–(3a), the consciousness of the past, present, and future (1c)–(3c), and the impressions of the past, present, and future (1b)–(3b).[9]

I begin with proving the dependence of the distinctions between past, present, and future on the possibilities of ignorance and error. In order to prove that a conceptual scheme which does not include the possibilities of ignorance and error does not include the distinctions between past, present, and future either, I show that the loss of these possibilities implies the collapse of the distinction between the way things are in the past and the future (1a) and (3a) and the present impressions (1b) and (3b). (Present impressions have no temporal implications in the sense that they describe the present subjective realm of reality and do imply conclusions about the past and the future).

However, there is a doubt whether the collapse of the distinction between the past and the future and the present impressions implies that temporal distinctions are lost. For even if it is conceded that the implication of eliminating this distinction is the loss of one of the sides of this distinction, the question remains as to

[9] The implication of this conclusion is discussed at the end of this section.

which side of this distinction is lost. The answer to this question depends on the effect of eliminating the possibilities of ignorance and error on the resulting distinctions. If the resulting distinctions between past, present, and future function similarly to the distinctions which describe the present impressions in our conceptual scheme, then the implication of eliminating the possibilities of ignorance and error is loss of the temporal distinctions between past, present and future.

The proof of the dependence of the temporal distinctions between past, present, and future on the possibilities of ignorance and error therefore consists of two parts: Firstly, I show that without the possibilities of ignorance and error there is a necessary correlation between the way things are in the past and the future and the present impressions of them. This correlation implies the collapse of the difference between the two sets of distinctions. Secondly, I show that the resulting distinctions function similarly to the distinctions which describe the present impressions of the past and the future, rather than the way things are in the past and the future. Taken together, these prove that eliminating the possibilities of ignorance and error implies the loss of the temporal implication of the distinctions between past, present, and future.

The proof itself is straightforward, and relies on nothing more than the meaning of the possibilities of ignorance and error: Firstly, the meaning of the possibility of ignorance is that propositions regarding the past and the future (1a) and (3a) do not imply conclusions regarding impressions of the past and the future (1b) and (3b). Eliminating the possibility of ignorance therefore entails that propositions regarding the past and the future (1a) and (3a) do imply the existence of impressions of the past and the future (1b) and (3b).[10] The meaning of the possibility of error is that propositions regarding impressions of the past and the future (1b) and (3b) do not imply conclusions about the past and the future (1a) and (3a). Eliminating the possibility of error therefore entails that propositions regarding impression of the past and the future (1b) and (3b) do imply conclusions about the past and the future (1a) and (3a). Eliminating the possibilities of ignorance and error therefore implies the collapse of the distinction between the way things are in the past and the future and the present impressions of the past and the future.

Secondly, the implication of eliminating the possibilities of ignorance and error is that the distinctions of past and future function similarly to the distinctions which describe the present impressions, rather than distinction which describe the past and the future. For like distinctions which describe the present subjective realm of reality in our conceptual scheme, the resulting distinctions are not susceptible to the possibilities of ignorance and error. The conclusion therefore follows that eliminating the possibilities of ignorance and error implies the collapse of the distinction of past and future into distinctions which describe the present subjective realm of reality, which therefore lose their temporal implication. Due to

[10] Notice that this conclusion follows because the conceptual scheme under consideration includes only the existence of the consciousness from whose point of view reality is described (which in our conceptual scheme is referred to by the first-person).

the dependence of the concept of present on the concepts of past and future, this implies the elimination of the temporal distinctions of past, present, and future.

Naturally, the results of the collapse of the distinction between the way things are in the past and the future and the present impressions of the past and the future, cannot be described as "impressions." For the concept of impression assumes a distinction between the impression and the thing which it is an impression of. The loss of the distinction between the way things are in the past and the future and the present impressions of the past and the future therefore implies that the resulting distinctions cannot be described as impressions. In order to understand the meaning of the resulting distinctions it is helpful to rely on the analogy between the temporal distinctions of past, present, and future and the spatial distinctions of left, middle, and right. These spatial distinctions are applicable not only to physical space, but also for to phenomenological visual space. The phenomenological realm in the future (as part of the subjective realm of reality) is not susceptible to the possibilities of ignorance and error. Due to this fact, the distinctions which result from eliminating the distinction between the past and the future and the impressions of the past and the future can be interpreted as describing yet another dimension which characterizes the phenomenological visual space.

I now turn to the second stage of the proof that the distinctions between past, present, and future assume the independence of the past and the future from present consciousness of them. The first part proved that eliminating *both* the possibility of ignorance and the possibility of error implies the loss of the temporal distinctions between past present and future. This conclusion therefore implies that these distinctions assume either the possibility of ignorance or the possibility of error. However, in the present context there is a special significance for the possibility of ignorance, which reflects the independence of the past and the future from present consciousness of them. Without the possibility of ignorance there is no room for the distinctions between the past and the future (1a) and (3a) and the consciousness of the past and the future (1c) and (3c), and therefore no room for the concept of consciousness. Due to the fact that my present interest is in the concept of consciousness, I show next that eliminating the possibility of ignorance implies eliminating the possibility of error, and therefore, according to the first stage of my proof, also to the loss of the temporal distinctions of past, present, and future. The implication of this conclusion is that every possible conceptual scheme (which includes the temporal distinctions of past, present, and future) includes the concept of consciousness, and acknowledges the distinction between the past and the future and the present consciousness of the past and the future.

The distinction between the past and the future and the impressions of the past and the future is formulated in the following propositions, in which p is a proposition which describes either the past or the future:

(4) p but there is no impression of p.
(5) Not-p but there is an impression of p.

Proposition (4) reflects the possibility of ignorance, while proposition (5) reflects the possibility of error. However, notwithstanding the fact that they are both

supposed to describe conceptual possibilities, close inspection reveals that they both unable to receive the truth-value "true." In this context it is important to remember that these propositions are formulated in a conceptual scheme which does not acknowledge the possibility of other subjects of consciousness. These propositions are therefore analogical to the following proposition in our conceptual scheme (which includes the possibility of multiplicity of subjects):

(6) *p* but I have no impression of *p*.
(7) Not-*p* but I have an impression of *p*.

As is evident from these formulations, propositions which describe the possibilities of ignorance and error are unable to receive the truth-value "true": If the subject who utters this propositions accepts *p* as true, it follows that he has an impression of *p*; and if he accepts the proposition not-*p* as true, it follows that he has the impression of not-*p*, and therefore it is impossible that he has the impression that *p*.[11] For example, the proposition "The sky is gray but I have no impression the sky is gray" cannot be accepted as true, for the first conjunct of this proposition describes the existence of the impression whose existence is denied by the second conjunct of this proposition.

The difficulty to which I have drawn attention to arises from the fact that these propositions (6)–(7), as evident from the conceptual complexity they include (that is, the first-person and the concept of consciousness), express the point of view (that is, consciousness) from which reality is described. From this point of view they are supposed to employ the conceptual distinction between the way things were in the past and will be in the future and the present impressions of them. However, as I have shown, it seems impossible to implement this distinction with regard to the consciousness from whose point of view reality is described.[12] Allegedly, from the point of view from which reality is described, it is impossible to identify the possibilities of ignorance and error.

In order to prevent a misunderstanding, it is important to emphasize that these propositions (4)–(7), which express the possibilities of ignorance and error, do describe a conceptual possibility. This is evident from the truth of the propositions "It is possible that (6) '*p* but I have no impression of *p*'" and "It is possible that (7) 'not-*p* but I have an impression of *p*'." However, the question that remains to be answered is how it is possible for a conceptual scheme to acknowledge these possibilities, without its being able to acknowledge their realization.

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[11] It may seem that it is possible that the subject does not understand the meaning, or implication, of the belief he holds, and therefore that he both believes that p and not-*p*, and therefore that he has both the impression that *p* and the impression that not-*p*. However, the question is whether it is possible to sustain the conceptual distinction between *p* and the impression of *p*, given the meaning of these propositions, and what is implied by them. This is why the possibility that the subject does not recognize the fact that the proposition "*p* and not-*p*" is contradictory is irrelevant for the present considerations.

[12] There is no difficulty, on the other hand, in implementing this distinction in the third-person, for the propositions "*p* but he has no impression of *p*" and "not-*p* but he has an impression of *p*" do not raise the same difficulty as proposition (6)–(7).

Table 5.2 The conceptual space of proposition (4)

(4a) In the past it was true that "*p* but there is no impression of *p*."
(4b) In the present it is true that "*p* but there is no impression of *p*"
(4c) In the future it will be true that "*p* but there is no impression of *p*"

Table 5.3 The conceptual space of proposition (5)

(5a) In the past it was true that "not-*p* but there is an impression of *p*"
(5b) In the present it is true that "not-*p* but there is an impression of *p*"
(5c) In the future it will be true that "not-*p* but there is an impression of *p*"

In order to explain how a conceptual scheme can include the distinction between *p* and the impression of *p*, as reflected by propositions (4) and (5), the conceptual space in which these propositions are located should be examined. The conceptual dimension which is relevant for the present analysis is the temporal dimension, which includes the following possibilities (Table 5.2 and 5.3):

As I explained earlier, our conceptual scheme describes reality from a point of view which is located in the present. This is reflected by the fact that proposition (4) is identical to proposition (4b) and proposition (5) is identical to proposition (5b). The different conceptual possibilities in Tables 5.2 and 5.3 allow us to make the distinction between p and the impression of p with regard to the past [(4a) and (5a)] and the future [(4c) and (5c)]. The conceptual dimensions listed here show how it is possible to differentiate between the way things are and the impressions of them: Although in relation to the present it is impossible to distinguish between *p* and the impression that *p*, it is possible to do so with relation to the past and the future. For example, while it is impossible to accept the proposition (4b′) "The sky was gray but I *have* no impression that the sky was gray" as true, the proposition (4a′) "The sky was gray but I *had* (at that time) no impression that the sky was gray" can be accepted as true. This proposition does not raise the same difficulty due to the possible expansion of consciousness in time. For example, it is possible that I am now conscious that in the past the sky was gray, while at that time I was not conscious of this fact.

Time therefore is what enables to implement the distinction between the way things are and the impression of them, and allows for its inclusion in a conceptual scheme. Furthermore, the change in the determinations of past, present, and future explains how acknowledging this distinction in relation to the past implies acknowledging this distinction in relation to the present.

Proposition (4a) can thus explain the inclusion of the possibility described by proposition (4b) in a conceptual scheme. Proposition (4c) offers an analogical explanation, with the only difference that this proposition assumes the possible contraction of consciousness in time. Finally, while propositions (4a) and (4c) explain the inclusion of the possibility of ignorance in a conceptual scheme (4b), propositions (5a) and (5c) offer an analogical explanation for the inclusion of the possibility of error in a conceptual scheme.

It can be concluded that the conceptual possibilities assumed by propositions (4a)–(4c) and (5a)–(5c) explain the inclusion of the possibilities of ignorance and error in a conceptual scheme. Without the inclusion of possibilities (4a) (4c) (5a) and (5c), a conceptual scheme cannot acknowledge the possibilities ignorance and error, and therefore cannot include the distinction between the way things are in the past and the future and the present impressions of them. Time is therefore what enables to distinguish between the past and the future, and the impressions of the past and the future—by allowing the expansion and contraction of consciousness in time.

I can now make the argument that the possibility of ignorance is necessary for sustaining the distinction between the way things were in the past and will be the future and the present impressions of them (and therefore for sustaining the possibility of error). I shall do this by arguing that without the possibility of ignorance none of the propositions which are included in the said conceptual space can receive the truth-value "true," including the propositions which express the possibility of error.

The consequence of eliminating the possibility of ignorance is that the past and the future cease to be independent of the present consciousness of them. Accordingly, eliminating the possibility of ignorance implies the elimination of all the possibilities described by propositions (4a)–(4c). But eliminating the possibility of ignorance also implies eliminating the possibility of error. For the possibility of ignorance is necessary to allow propositions which express the possibility of error to receive the truth-value "true": Proposition (5b), as previously explained, cannot be accepted as true. Proposition (5a) assumes the possibility of the expansion of consciousness in time, for it assumes that there is now an impression which did not exist in the past. However, the implication of eliminating the possibility of ignorance is that at each point in time there is a consciousness of everything in the past and the future, including every future consciousness. That is why eliminating the possibility of ignorance implies that our consciousness cannot expand in time. Eliminating the possibility of ignorance therefore implies that (5a) cannot be accepted as true. Similarly (5c) assumes the possibility of the contraction of consciousness in time, for example, the possibility of forgetting things. However, the implication of eliminating the possibility of ignorance is that at each point in time there is a consciousness of every past consciousness. That is why eliminating the possibility of ignorance implies that our consciousness cannot contract. Eliminating the possibility of ignorance therefore implies that proposition (5c) cannot be accepted as true. Eliminating the possibility of ignorance thus implies eliminating the possibility of error.[13]

It can be concluded that eliminating the possibility of ignorance implies the loss of the conceptual space containing propositions (4a)–(4c) and (5a)–(5c). That conceptual space supports both the possibility of ignorance and the possibility of

[13] The dependence of the possibility of error on the possibility of ignorance explains why the subjective realm in the present, which is not independent from present consciousness of it (the possibility of ignorance), is not susceptible to the possibility of error.

error, that is, the distinction between the past and future and the present impressions of them. According to the conclusion of the first part of the argument of this section, this implies the loss of the temporal distinctions between past, present, and future.

A necessary condition for the meaningfulness of the distinctions between past, present, and future is therefore the independence of the past and the future from the present consciousness of them. This implies that every possible conceptual scheme (which includes the distinctions between past, present, and future) includes the distinction between the way things are in the past and the future [(1a) and (3a)] and the present consciousness of the past and the future [(1c) and (3c)].

The conclusions of this section can be now summarized. The aim of this section was to reveal some of the necessary conditions for the meaningfulness of the distinctions between past, present, and future. Although the analysis focuses on the concepts of past and future, the necessary conditions for the inclusion of these concepts in any conceptual scheme are also the same necessary conditions for the inclusion of the concept of the present. This shows that a necessary condition for the inclusion of the distinctions between past, present, and future in a conceptual scheme is that this conceptual scheme acknowledges the distinction between the past and the future and the impressions of the past and the future. That in turn requires the independence of past and the future from present consciousness of them. Hence, too, every possible conceptual scheme which includes this distinction also distinguishes between the past and the future and the present consciousness of them.

The last point needs clarification. The conceptual complexity which supports the distinctions between past, present, and future includes the concept of consciousness: These distinctions are therefore subjective—determined in relation to a consciousness, from whose point of view they are used in describing reality. This consciousness is referred to by the first-person in our conceptual scheme. This indicates that every conceptual scheme (which includes the distinctions between past, present, and future) includes the conceptual apparatus which describes reality from a point of view of a consciousness.

According to the conclusions of Chap. 4, propositions which describe reality with the help of the determinations of past, present, and future are the basic propositions of language. The present analysis shows that temporal distinctions between past, present, and future assume the existence of a consciousness, from whose point of view reality is described. It can therefore be concluded that every possible reality includes a consciousness, from whose point of view it is described.

Before concluding this section, there are some significant questions that I need to address. First, the relevance of the objectivity of the past and the future to the meaningfulness of the distinctions between past, present, and future needs to be clarified. As I show next, the importance of the independence of the past and the future from present consciousness of them is that this fact determines the temporal position from which reality is described, that is, the present. As I said in the beginning of this section, the point of view from which reality is described is located in the present. The question is what distinguishes a certain position in time and

determines it as the point of view from which reality is described, that is, as the present?

The answer is given by the previous analysis. The necessary feature of the past and the future is their objectivity; it explains the uniqueness of the present, and thus determines its location. The way in which the objectivity of the past and the future determines the location of the present is this: The objectivity of the past and the future distinguishes between things which are before or after the point of view from which reality is described and the things which are simultaneous with it. This is due to the fact that things in the past and the future are independent of the consciousness of them (the point of view from which reality is describe), while this is not the case with regard to the things in the subjective realm of reality, which are simultaneous with this point of view. Thus, the objectivity of the past and the future distinguishes between what is earlier or later than the point of view from which reality is described, that is, the past and the future, and what is simultaneous with this point of view, that is, the present. Thus the objectivity of the past and the future determines the temporal location from which reality is described.

The last point underscores the connection between the subjective realm of reality (that is, the mental realm) and the objectivity of the past and the future. This connection might seem surprising, if not paradoxical. However, the previous analysis implies that even the subjective realm of reality is necessarily subject to a weak form of objectivity. It seems therefore that there is a need to distinguish between two senses of objectivity, the weak and the strong. The strong sense of objectivity only characterizes the physical realm of reality, while the weak *also* characterizes the mental realm of reality.

I shall clarify this distinction. To begin with, the strong sense of objectivity—the common concept of objectivity in philosophical discussions. Strong objectivity is characterized by an object's independence from a consciousness of it at any time (by any subject). Physical objects, for example, a rock, are objective in the strong sense because their existence is independent of every subject's consciousness at every point in time. A rock can exist without any subject's consciousness of it, not only before or after the time of its existence, but also during the time of its existence. A pain, on the other hand, is not objective in the strong sense, because pains assume the simultaneous consciousness of a subject. Thus, strong objectivity characterizes the physical realm in our conceptual scheme, but not the mental realm.

The strong sense of objectivity should be distinguished from a weaker sense of objectivity. Weak objectivity is characterized by an independence from a consciousness not simultaneous with it (by any subject), but not necessarily from a simultaneous consciousness of it. Such a weak sense of objectivity characterizes the subjective realm of reality in our conceptual scheme, that is, the mental realm. For although the things which exist in this realm assume the existence of simultaneous conscious of them (by at least one subject), they are independent of consciousness of them at times other than the time of their existence (by any subject). For example, a pain is objective in this weak sense, because although it assumes the consciousness of the subject at the time of its existence, it is independent of

such consciousness by every subject at times other than the time of its existence. For it is possible not only that other subjects might never be aware of this pain, but also that the subject of this pain is himself not aware of the pain he is about to feel, or forgets it immediately when it is past. Even the mental realm, which is the subjective realm of reality in our conceptual scheme, is therefore objective in this weak sense.[14]

It seems to follow that everything is necessarily subject to weak objectivity. For the conclusion of the previous analysis is that past and future events are necessarily independent of the present consciousness of them. However, the reference of the indexical expression "present" (or "now") is not fixed, and can possibly refer to any point in time, in relation to which every other point in time is either past or present. So the independence of the past and the future from present consciousness of them implies the independence of every point in time from consciousness of it at different times.

The independence of the past and the future from present consciousness of them, which characterizes even the mental realm, leads me to the question of the dependence of the mental realm in simultaneous consciousness of it. The previous analysis shows that the temporal distinctions of past, present, and future assume the existence of a consciousness. Consciousness, however, belongs to the subjective realm, which assumes simultaneous consciousness of it (that is, consciousness of consciousness). In fact, it is possible to prove that both consciousness and impression belong to the subjective realm of reality, which assumes simultaneous consciousness of it.[15] Although this claim might seem trivial, due to its significance for the present discussion I cannot assume its correctness without a sufficient proof.

The following consideration shows that consciousness and impression are assume consciousness of them at the time of their existence, and therefore describe the subjective realm of reality. Firstly, I should point out that the consciousness [/ or impression] of *p* is expressed by the subject by the proposition *p*, rather than by the proposition "I am conscious of *p*" [/ "I have the impression that *p*"]. For the latter propositions describe his consciousness of his consciousness [/ impression] of *p*, rather than his consciousness [/ impression] of *p*. Accordingly, if it is possible for the subject to have a consciousness [/ impression] of *p* while not

[14] This use of the term "weak objectivity," which characterizes even pains, the traditional paradigm of subjectivity, is justified because it is based on the traditional notion of objectivity, that is, independence from consciousness. I should also stress that there is a theoretic possibility of forms of subjectivity which are more extreme than the one which characterizes pains. For example, the previous analysis proves that the past and the future are necessarily independent from present consciousness of them, and therefore that everything is independent of consciousness of it at a time other than the time of its existence. However, it is conceivable that there might be things whose existence assumes consciousness of them at the time of their existence by every subject of consciousness ("collective pain").

[15] That is, to prove that propositions (1b)–(3b) and (1c)–(3c) describe the subjective realm of reality.

conscious of them, this possibility is reflected (among the rest) by the subject's acceptance of the proposition *p* as true, while rejecting the proposition "I am conscious of *p*" [/ "I have the impression that *p*"] as false. However, whoever understands these propositions cannot accept the former while rejecting the latter. For the proposition "*p* but I am not conscious of *p*" [/ (6) "p but I have no impression that *p*"] cannot receive the truth-value "true."[16] This is the reason why the subject can infer from any proposition *p*, which he accepts as true, the conclusion "I am conscious of *p*" [/ "I have an impression that *p*"]. This propositions describes his consciousness of his consciousness [/ impression] of *p*. It therefore follows that if the subject has a consciousness [/ impression], he is also conscious of his consciousness [/ impression]. Consciousness and impression are therefore not independent from simultaneous consciousness of them, and therefore belong to the subjective realm of reality.[17]

It can therefore be concluded that the distinctions between past, present, and future assume the existence of a subjective realm of reality, which is characterized by the weak objectivity, while assuming simultaneous consciousness of it. As explained, this is a mental realm, which constitutes a consciousness.

5.3 Objectivity

In Sect. 5.2 I argued that the meaningfulness of the distinctions between past, present, and future assume the existence of a subjective realm of reality, that is, a consciousness. The existence of a realm of reality which is objective in the strong sense, on the other hand, has not yet been proved to be a necessary feature of reality (from now on I simply use the term "objective" to refer to the strong sense of objectivity). The necessary features of reality elicited thus far are not therefore in contradiction with a solipsistic conception of reality, which acknowledges only the existence of the self. However, Sect. 5.2 concentrated on the determinations of past, present, and future themselves. I shall now look at the change in these determinations, which is a necessary feature of reality according to the conclusions of Chap. 4. My aim in this section is to draw attention to the structure of reality which underlies this change.

To analyze change in the determinations of past, present, and future I must consider the conceptual complexity used to describe such change, that is, how propositions which contain temporal indexical components change their truth-values. The question is, what structure of reality requires such conceptual complexity. As I show next, the change in the truth-value of propositions assumes the existence of a realm of reality which is both temporal and objective, and the possibility of

[16] These propositions are sometimes described as "pragmatic contradictions." However, this description misses the conceptual aspect of the falsity of these propositions.

[17] This implies an infinite regress. However, this is not a vicious regress.

periods of time in which the consciousness, from whose point of view reality is described, does not exist.[18]

As said, change in the determinations of past, present, and future is reflected by a change in the truth-value of propositions containing temporal indexical components. Consider the changing truth values of the proposition "There is no university in New-York in the present":

(4a) It is false that "There is no university in New-York at the present," but (a) in the past it was true that "There is no university in New-York at the present."[19]

The question is why this conceptual complexity, reflected by the change in the truth-value of propositions, is necessary for describing reality. That is, what feature of descriptions of reality explains the need for such complexity? Why is it impossible to be content with propositions which simply describe the way things were in the past and the way they are now? For example, why is it impossible to use, instead of proposition (4a), proposition (4b):

(4b) It is false that "There is no university in New-York in the present," but true that (b) "There was no university in New-York in the past."

I begin with by clarifying the difference between proposition (4a) and (4b). The difference is that while proposition (4a) implies a change in the truth-value of the proposition "There is no university in New-York in the present," proposition (4b) has no such implication. The first conjunct in both propositions asserts the falsity of the proposition "There is no university in New-York in the present," that is, the existence of a university in New-York at present. The difference between propositions (4a) and (4b), however, is in the second conjunct of these propositions. The second conjunct in proposition (4a), that is (a), asserts the past truth of the proposition "There is no university in New-York at present," which implies the second conjunct in proposition (4b), that is (b) "There was no university in New-York in the past." However, the second conjunct in proposition (4b), that is (b) does not imply the second conjunct of proposition (4a), that is, that (a) the proposition "There is no university in New-York at present" was once true. The difference between proposition (a) and proposition (b) is therefore that while proposition (a) implies proposition (b), the converse does not hold. According to proposition (a), not only was there no university in New-York in the past, but the said point in time was once in the present. Thus, proposition (4a) implies a change in the temporal determinations of past, present, and future, while proposition (4b) has no such implication.

Some may object that the concepts of past, present, and future themselves imply that everything that is past was once present, and therefore that claim that

[18] This conclusion does not contradict the conclusions of Sect. 5.2, as I shall explain at the end of this chapter.

[19] The only change between this sentence and sentence (4a) in Chap. 4 is the replacement of the expression "1492" with the expression "the past." This change is meant to simplify the discussion.

(b) there was no university in New-York in the past does imply that (a) the proposition "There is no university in New-York at present" was once true. However, I believe that there is an important conceptual distinction between the two propositions, which is significant for understanding the nature of the change in the temporal determinations of past, present, and future.

Although not always formulated in these terms, the distinction between propositions (4a) and (4b) lies at the heart of a controversy between two rival conceptions of time, the A-theory of time and the B-theory of time. According to the B-theory of time, the determinations of past, present, and future are subjective, and fixed in relation to a subject, similarly to the spatial determinations of south, here, and north. According to the A-theory of time, on the other hand, these determinations are objective and necessary for time. It is the change in these determinations, according to this conception of time, which constitutes the "flow of time," explains the connection between time and change, and distinguishes between time and space.

In Chap. 4 I showed that, in accordance with the A-theory of time, the temporal A-determinations are not only semantically irreducible, but also reflect an important distinction between time and space. However, the analysis of these determinations in Sect. 5.2 has shown that these distinctions are subjective, in the sense that they are determined in relation to a point of view over reality which constitutes a consciousness. A necessary condition for the determination of "in the present" to apply to anything is therefore that the subject, in relation to which the temporal A-determination of "present" is fixed, exists at that time. This is why it is possible that although there was no university in New-York in the past (that is, proposition (b) is true), the proposition "There is no university in New-York at present" might never have been true (that is, proposition (a) is false). That is, the proposition "There is no university in New-York in the present" might never be true, if the subject simply does not exist at the same time as the university. Thus, according to the conclusions of Sect. 5.2, proposition (4b) does not imply proposition (4a).[20]

It can therefore be concluded that while proposition (4a) describes a change in the truth-value of the same proposition, and therefore a change in the temporal A-determinations, proposition (4b) has no such implication. The distinction between propositions (4a) and (4b) can therefore be used in order to illuminate the conceptual complexity which underlies the change in the temporal A-determinations. The necessary conditions for maintaining the distinction between propositions (4a) and (4b) are also necessary conditions for the change in the temporal A-determinations. For the loss of the distinction between these

[20] I should mention that there is an alternative reading of sentence (4a), which may be called a conditional reading, according to which proposition (4a) is implied by proposition (4b). According to the conditional reading, proposition (4a) asserts that if the subject existed at an unspecified time in the past, the proposition "There is no university in New-York in the present" would then have been true. However, proposition (4a) cannot be understood conditionally, for it is supposed to describe the actual change in the temporal A-determinations, and therefore the actual past truth of the proposition "There is no university in New-York in the present."

propositions implies that reality can be fully described with the help of the conceptual complexity reflected by proposition (4b), which does not ascribe different truth-values for the same proposition. In light of the conclusion of Chap. 4, according to which any possible reality can only be described through the use of propositions which receive different truth-values, the necessary conditions for maintaining the distinction between propositions (4a) and (4b) are necessary features of reality.

As said, the distinction between propositions (4a) and (4b) is reflected by the fact that while proposition (a) implies proposition (b), the contrary does not hold. The previous example explains how this is possible: Suppose that although there was no university in New-York in the past, the proposition "There is no university in New-York in the present time" was never true, simply because the subject did not exist at the time in which the university did. Thus, the description of this state of affairs (that is, the fact that in the past there was no university in New-York while there is one now), from the point of view of the subject, does not include any change in the temporal A-determinations.

The last example demonstrates the fact that our conceptual scheme acknowledges the possibility of periods of time in which I, that is, the subject from whose point of view reality is described, did not exist. Due to the fact that the subject did not exist during these periods of time, and therefore cannot be conscious, this possibility assumes the existence of a realm of reality which is independent from simultaneous consciousness of it. Conjoined with the conclusion of the previous section, according to which every point in time is necessarily independent from any consciousness of it at other times, this example implies the existence of a realm of reality which is both temporal and objective, in the sense that it is independent from consciousness of it from any point in time.

As this example makes clear, the possibility of periods of time in which the subject does not exist, and therefore the existence of a realm of reality which is both temporal and objective, is a sufficient condition for maintaining the conceptual distinction between propositions (4a) and (4b). However, it does not follow that it is a necessary condition for maintaining this distinction, and therefore it does not follow that the existence of a realm of reality which is both temporal and objective is a necessary feature of reality. As I show next, the existence of a realm of reality which is both temporal and objective, as well as the possibility of periods of time in which the consciousness from whose point of view reality is described does not exist, are necessary conditions for the maintaining distinction between proposition (4a) and (4b), and are therefore necessary features of reality.

The distinction between propositions (4a) and (4b) assumes the existence of a realm of reality which is both temporal and objective. For a conceptual scheme which includes only a subjective realm of reality, in the sense that it assumes a simultaneous consciousness of it, cannot support the distinction between propositions (4a) and (4b).[21] Such a scheme could be derived from our normal conceptual

[21] In accordance with Sect. 5.2, in what follows I ignore the conceptual complexity of the first-person, which I shall discuss in Chap. 6.

scheme if we added to it the assumption that there are no things whose existence is independent from a simultaneous consciousness of them. The question is whether mapping the remaining space of possibilities requires the conceptual complexity reflected by the distinction between propositions (4a) and (4b). The answer to this question depends on whether the remaining space of possibilities includes the possibility of proposition (b) being true while proposition (a) is false. If the answer is negative, then this conceptual scheme is unable to support the distinction between propositions (4a) and (4b). This implies that the conceptual complexity reflected by proposition (4b), which does not include the ascription of different truth-values for the same proposition, is sufficient for describing a reality which does not include an objective realm. In light of the conclusions of Chap. 4, it follows that a reality which does not include an objective realm is not a possible reality.

This line of argument may be criticized, by arguing that eliminating the distinction between propositions (4a) and (4b) implies a contrary conclusion, according to which describing the resulting reality necessarily requires the ascription of different truth-values for the same proposition. For if eliminating the possibility of an objective realm of reality implies the loss of the distinction between propositions (4a) and (4b), it might be argued that the conceptual complexity of proposition (4a) is implied by the conceptual complexity of proposition (4b). According to this line of thought, if the resulting reality requires the conceptual complexity of proposition (4b) for its description, it *ipso facto* requires the conceptual complexity of proposition (4a) for its description.

In response to this objection it should be noted that the consequence of eliminating the distinction between propositions (4a) and (4b) is not that the conceptual complexity of proposition (4a) is implied by the conceptual complexity of proposition (4b). To the contrary, the loss of the distinction between these propositions implies that the complex conceptual apparatus, reflected by the complexity of proposition (4a), is redundant for describing the resulting reality, and therefore loses its meaning (which, I remind you, is the function it serves in describing reality). There is no use for the excessive complexity of proposition (4a), as evident from the fact that the simpler complexity of proposition (4b) is sufficient for describing reality. Again: the excessive conceptual complexity of proposition (4a) is used in order to describe the change in the temporal A-determinations of past, present, and future. If this complexity is found redundant for describing the resulting reality, then describing this reality does not involve any change in the temporal A-determinations.

I now can argue that the distinction between propositions (4a) and (4b) is indeed lost in the conceptual scheme which results from eliminating the objective realm of reality: The implication of eliminating the objective realm of reality is that for every x which exists at time t, there is a consciousness of x at t, and therefore the proposition "x is in the present" is true at that time.[22] Eliminating the

[22] Bear in mind that the consciousness in question is the consciousness referred to in our conceptual scheme by the first-person. That is, this is the consciousness from whose point of view reality is described.

objective realm of reality therefore allows inferring propositions of type (a), that is, "In the past it was true that 'φ is in the present'," from propositions of the type (b), that is, "φ is in the past." As explained, this implies the elimination of the distinction between propositions (4a) and (4b), and therefore that there is no need for propositions whose truth-value changes in time for describing the resulting hypothetical reality.

Allegedly, all that is required to sustain the distinction between propositions (4a) and (4b) is a realm of reality which is independent of a simultaneous consciousness of it, rather than a realm of reality which is independent from consciousness of it of any time. However, the conclusion of Sect. 5.2 is that the past and the future are necessarily independent from a present consciousness of them. The realm of reality which is required in order to sustain the distinction between propositions (4a) and (4b) is not only independent from a simultaneous conscious of it, but from consciousness of it of any time, and is therefore an objective realm of reality.

I should stress that although I relied on a single example [given in propositions (4a) and (4b)], the conclusion I reach is general: Once the possibility of an objective realm of reality is eliminated, all changes in the temporal A-determinations in this reality are implied by simple propositions which describe the way things are in the past, present, or future. Thus, the conceptual complexity used to describe the change in the temporal A-determinations becomes redundant for describing this reality.

I can therefore conclude that the distinction between propositions (4a) and (4b) assumes the existence of an objective realm of reality. Furthermore, this realm of reality is temporal, for I have shown that the distinction between propositions (4a) and (4b) assumes the possibility of periods of time in which there is no consciousness of this realm of reality, which is possible only if this objective realm of reality is temporal.[23]

I shall next make a stronger claim: the distinction between propositions (4a) and (4b) assumes, in addition to the existence of a realm of reality which is both temporal and objective, the possibility of periods of time in which the consciousness from whose point of view reality is described does not exist. That is, the possibility that the proposition (b) "φ is in the past" is true while the proposition (a) "In the past it was true that 'φ is in the present'" is false, assumes not only that there is no consciousness of φ at the time of its existence, but further, that the consciousness from whose point of view reality is described does not exist at that time. This conclusion is stronger than the previous one about the existence of a realm of reality which is both temporal and objective. For while the possibility that there may be periods of time in which the consciousness from whose point of view reality is described does not exist, implies the existence of a realm of reality which is both temporal and objective, the contrary does not hold.

[23] According to the conclusions of Chap. 4 every possible realm of reality is temporal. However, in this context it is .important to formulate explicitly the importance of time for sustaining the distinction between propositions (4a) and (4b).

That periods of time in which a point of view of reality does not exist, is needed to sustain the distinction between propositions (a) and (b), has to do with the meaning of proposition (a), "In the past it was true that 'φ is in the present'." This proposition does not assert that there was a consciousness of φ, or that the proposition "φ is present" was considered to be true, but rather that the proposition "φ is in the present" *was* true. The proposition "φ is in the present" was true if φ existed in the past and if the point of view (that is, the consciousness), from which reality is described, was located at that point in time, even if the said consciousness was not aware of φ. For example, even if the subject was not aware of the fact that there was a storm on the sun at that time, the proposition "There is now a storm on the sun" was true in his conceptual scheme. It is important to distinguish between two different claims: The subject, who was not aware of the existence of the storm, did not ascribe the truth-value "true" to the proposition "There is now a storm on the sun." However, this proposition was nevertheless true in his conceptual scheme. In fact, this is what the subject's lack of consciousness for the storm consists in: Although the proposition "There is now a storm on the sun" was true, the subject did not ascribe this proposition its correct truth-value. This implies that if the point of view from which reality is described was located at the time in which the proposition "φ is present" was true, this proposition was in fact true in this conceptual scheme, whether or not there was a consciousness of this fact.

Accordingly, if it is assumed that the consciousness from whose point of view reality is described, exists at every time, it is possible to infer the conclusion that (a) "In the past it was true that 'φ is in the present'" from the premise that (b) "φ is in the past." It therefore follows that without the conceptual possibility of periods of time in which the consciousness from whose point of view reality is described does not exist, the distinction between propositions (4a) and (4b) would be lost.

The claim that the correct interpretation of proposition (a) is that the proposition "φ is in the present" was true, rather than that this proposition was ascribed the truth-value "true", is important for understanding the need for propositions which receive different truth-values for describing reality: Proposition (4a) is supposed to explain the need for the possibility of the proposition "φ is in the present," which is currently false, having been true. For this purpose, it is necessary to describe a case in which this proposition was in fact true, rather than mistakenly ascribed the truth-value "true."

It must be borne in mind that the considerations which guide this discussion relate to the need for propositions describing reality to receive different truth-values. The possibility of mistakenly ascribing different truth-values to the same proposition does not prove the need for propositions which can be both true and false for describing reality: While the proposition "p was true while now it is false" implies that p is a contingent proposition, the proposition "p was thought to be true and now it is thought to be false" does not imply the contingency of p, for both contradictions and tautologies can be mistakenly thought to be both true and false at different times. Accordingly, the possibility of a lack of consciousness does not explain why propositions describing reality need to be able to receive different truth-values, but only why propositions are needed which can mistakenly

thought to be both true and false, and for this purpose both tautologies and contradictions are sufficient. This is why the possibility of a lack of consciousness is insufficient in itself to explain the need for proposition describing reality to receive different truth-values.

In light of these considerations, I can now explain why eliminating the objective realm of reality entails the collapse of the distinction between propositions (4a) and (4b): The implication of eliminating the objective realm of reality is that the consciousness from whose point of view reality is described exists at every time. This implies the collapse of the distinction between propositions (4a) and (4b), for it allows us to infer from the premise that (b) "φ is in the past" the conclusion that (a) "In the past it was true that 'φ is in the present'." In other words, eliminating the objective realm of reality implies the collapse of the distinction between propositions (4a) and (4b) because it implies that the consciousness from whose point of view reality is described, exists at every time. Sustaining the distinction between propositions (4a) and (4b) therefore requires the possibility of periods of time in which the consciousness from whose point of view reality is described, does not exist, and it is this possibility which implies the existence of a realm of reality which is both temporal and objective.

This last conclusion is of great importance. As I shall show in Chap. 6, the possibility of periods of time in which the consciousness from whose point of view reality is described does not exist, is necessary for allowing this consciousness self-consciousness.

Finally, it can be mistakenly thought that the conclusion that every possible reality contains a realm which is independent of simultaneous consciousness of it (and therefore independent from a consciousness of it at every point in time), is explained by the fact that the previous analysis focused on a proposition which contains the indexical component "present." However, it can be shown that this conclusion does not depend on the identity of the temporal indexical component. Let us examine the proposition:

(4a″) "It is false that 'There was no university in New-York yesterday', but (a″) yesterday it was true that 'There was no university in New-York yesterday'."[24]

Proposition (a″) should not follow from the proposition (b″) "There was no university in New-York the day before yesterday," in order that describing this state of affairs would require the same proposition to receive different truth-values. However, this distinction assumes that the consciousness from whose point of view reality is described did not exist yesterday, and therefore the possibility of periods of time in which this consciousness did not exist. This possibility, however, assumes the existence of a realm of reality which is both temporal and objective.

[24] The temporal indexical expression "yesterday" is used because it refers to a specific point in time, in contrast to the expression "in the past;" it therefore is simpler to work with.

The conclusion I reach is that the change in the temporal A-determinations assumes the possibility of periods of time in which the consciousness from whose point of view reality is described, does not exist. This possibility assumes the existence of a realm of reality which is both temporal and objective. This structure of reality is the explanation of the need for propositions which receive different truth-values for describing reality, and therefore is a necessary feature of reality.

5.4 Conclusions

Chapter 4 showed that every possible reality is characterized by a change in the temporal determinations of past, present, and future. In the present chapter I analyzed how propositions which contain temporal indexical components change their truth-value.

Propositions which include temporal indexical components describe reality from a temporally extended point of view over reality, which constitutes a consciousness. An implication is that reality assumes the existence of a consciousness from whose point of view this reality is described.[25] The existence of a subjective realm of reality is not sufficient, however, for explaining why propositions whose truth-value changes in time are needed for describing reality. Another feature of reality, which is necessary for change in the temporal determinations of past, present, and future, is the existence of a realm of reality which is both temporal and objective, in the sense that it is independent from a consciousness of it at every point in time. The existence of this realm of reality follows from the possibility of periods of time in which the point of view from which reality is described, does not exist. Such a possibility is needed for the temporal determinations of past, present, and future to change.

The conclusion of Sect. 5.2 of this chapter is idealistic, in the sense that it implies that every possible reality assumes the existence of a consciousness from whose point of view this reality is described. On the other hand, a conclusion of Sect. 5.3 of this chapter is that every possible reality assumes the existence of an objective realm of reality, which is independent from a consciousness of it at every point in time. Furthermore, another conclusion of Sect. 5.3 is that every possible reality assumes the possibility of periods of time in which the consciousness from whose point of view reality is described does not exist.

In order to see how these conclusions cohere with one another, and achieve a better understanding of the idealistic conception of reality developed in this chapter, two explanatory remarks are in order. First, although according to the conception of reality here developed, in accordance with classic idealism, while every possible reality assumes the existence of a consciousness, it does not assume that

[25] As explained in Chap. 4, on the basis of propositions which include temporal indexical components, and therefore describe reality from a specific point in time, it is possible to formulate general descriptions, which do not assume a specific temporal point of view over reality.

this consciousness is aware of everything that exists in this reality. Although every possible state of affairs assumes the existence of a point of view of reality, from which it is described, it does not assume an awareness of this consciousness. This is the point of departure between classic idealism and the conception of reality I developed in this book. Second, although every possible state of affairs assumes the existence of a point of view of reality from which it is described, it does not assume that this point of view is simultaneous with it. That is, in contrast to classic idealism, according to which existence assumes *simultaneous* consciousness of it, the conclusion of this analysis is that every possible state of affairs assumes a point of view over it, which can either precede, follow, of be simultaneous with it. This clarifies why there is no contradiction between the dependence of reality on a point of view which is internal to it, from whose point of view it is described, and the possibility of periods of time in which this point of view does not exist.[26]

Reference

Williamson, T. (2007). *The philosophy of philosophy*. Oxford: Blackwell.

[26] The idealistic conclusion of this chapter implies that there are no "elusive objects" which are incapable in principle of being thought of—as suggested for example by Williamson (2007, pp. 16–17)—and therefore cannot be investigated by conceptual analysis. An implication of my analysis in this chapter is that existence is relative, and determined in relation to a consciousness which is internal to reality, from whose point of view the reality is described. Furthermore, my analysis of the concept of existence in Chap. 3 showed that the word "exists" relates to one of the possibilities which are included in our conceptual scheme, and confirms that this possibility is realized. The idea of "elusive objects" is therefore self-contradictory.

Chapter 6
Self-Consciousness

Abstract In this chapter I undertake an analysis of self-consciousness. In the course of this analysis two distinct options for the explanation of self-consciousness are identified and examined. According to the first (Strawsonian) view, self-consciousness is based upon the distinction between the self and other subjects of consciousness; according to the second (Kantian) view, self-consciousness is based upon the distinction between the self and the world. The first option is rejected, and a variation of the second option is adopted. According to it, in self-consciousness one is conscious of oneself as a temporally extended point of view (consciousness) over an objective and temporal realm of reality. The conclusion of this chapter is that the conceptual complexity which is necessary for any conceptual scheme is identical with the conceptual complexity which supports self-consciousness, and therefore that every conceptual scheme has the complexity which enables self-consciousness.

Keywords Kant • Objectivity • Self-consciousness • Strawson • Time

6.1 Introduction

In Chap. 5 I established that every possible reality assumes the existence of a temporally extended point of view that constitutes a consciousness, from which it can be described. In the present chapter I shall argue that the necessary features of reality as previously characterized are sufficient to allow this consciousness an awareness of its own existence as a consciousness, that is, self-consciousness. To this purpose, I undertake an analysis of self-consciousness, in order to highlight the conceptual structure which supports it. What will emerge is a Kantian view of self-consciousness, according to which self-consciousness assumes the existence

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of an objective and temporal realm of reality of which the subject is conscious.[1] The conclusion of this chapter is that the conceptual complexity which is necessary for any conceptual scheme is identical with the conceptual complexity which supports self-consciousness, and therefore that every conceptual scheme has the complexity which enables self-consciousness. The consciousness, from whose point of view reality is described, therefore necessarily possesses the conceptual resources which suffice for its own self-consciousness.

The analysis of self-consciousness adumbrated here does not rely on the conclusions of the previous chapters regarding the necessary features of reality. The independence of this analysis from those conclusions assures that the correspondence which will emerge from it, between the conceptual complexity which supports self-consciousness and the conceptual complexity which every possible conceptual scheme contains, is not a trivial result of previous conclusions.

I shall begin in Sect. 6.2 by noting a difficulty for the explanation of self-consciousness. Given our view of the conditions for the meaningfulness of expressions in language, the problem arises of how to account for the meaningfulness of the first-person ascriptions of existence and consciousness, that is, the expressions "I exist" and "I am conscious," which are necessary for self-consciousness. The difficulty arises due to the seeming impossibility of first-person denials of existence and consciousness. My analysis of self-consciousness is motivated by an attempt to solve this problem. While doing this the necessary conditions for self-consciousness will be identified.

I proceed by critically examining two distinct conceptions of self-consciousness. One conception is the familiar Kantian one, according to which self-consciousness is based upon the distinction between the self and the world. According to this conception, the self-conscious subject is conscious of himself as a consciousness of an objective and temporal realm of reality, that is, one whose existence is independent of any consciousness of it (which in our conceptual scheme is the physical realm). This conception of self-consciousness explains the meaningfulness of first-person ascriptions of existence and consciousness on the basis of the possibility of first-person denials of existence and consciousness in the past and the future. According to the second conception, self-consciousness depends

[1] Kant's conception of self-consciousness is developed mainly in the Transcendental Deduction of the Categories (B129–169) and the Refutation of Idealism (B274–279). Kant's analysis of self-consciousness has inspired many attempts to prove the alleged connection between self-consciousness and objectivity. One of the most influential attempts to establish this connection is Strawson's. In his "Objectivity Argument," Strawson has suggested a reconstruction of Kant's main argument in the Transcendental Deduction of the Categories, which is independent of Kant's more controversial doctrines of the *Critique of Pure Reason* (Strawson 1966, pp. 97–112). Although Strawson's argument has inspired the present analysis, it has been itself extensively criticized, and today there seems to be a general agreement concerning its shortcomings (For criticism of Strawson's Objectivity Argument, see: Cassam 1997, pp. 91–116; Harrison 1970; Mackie 1974, pp. 99–101; Rorty 1970; Stevenson 1982). Different arguments, influenced by Kant and Strawson, can be found in current discussions. However, recent works which survey these arguments suggest that they all fail to establish the connection between self-consciousness and objectivity (Cassam 1997; Strawson 1999).

upon the distinction between the self and other subjects of consciousness.[2] This conception of self-consciousness explains the meaningfulness of first-person ascriptions of existence and consciousness on the basis of third-person ascriptions of existence and consciousness.

I argue that the distinction between the self and other subjects of consciousness is in itself neither a sufficient nor a necessary condition of self-consciousness, and that self-consciousness therefore must be based upon the distinction between the self and the world. Hence, in self-consciousness one is conscious of oneself as a temporally extended point of view (a consciousness) over an objective and temporal realm of reality.

According to the analysis of the concept of existence (undertaken in Chap. 3), the necessary conditions for the meaningfulness of the concept of existence are identical to those of meaningfulness in general. The conceptual complexity which supports the concept of existence, and reflects the necessary features of reality, is therefore necessary for a conceptual scheme. As I show in this chapter, this conceptual complexity is identical to the conceptual complexity which supports self-consciousness. This implies that the consciousness, from whose point of view reality is described, necessarily possesses the conceptual resources which suffice for its self-consciousness.

The concept of self-consciousness is analyzed here in Sect. 6.2. Self-consciousness reflects awareness of the existence of the subject as a conscious being. However, the impossibility of first-person denials of existence and consciousness raises the difficulty of explaining the possibility of first-person ascriptions of existence and consciousness, and presents a problem for the explanation of self-consciousness.

In Sect. 6.3 the concept of consciousness is examined. An analysis of this concept shows that it assumes a weak form of objectivity, which implies independence from consciousness of at least one subject, at least at some time.[3]

In Sect. 6.4 the concept of the self is discussed. It emerges that the concept of the self assumes the possibility of other subjects of consciousness. In light of this conclusion, I examine the possibility of explaining the meaningfulness of first-person ascriptions of existence and consciousness on the basis of third-person ascriptions of existence and consciousness. However, I find that the possibility of other subjects of consciousness fails to solve the problem of self-consciousness. Furthermore, I argue that this conceptual complexity is not necessary for self-consciousness.

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[2] This conception of self-consciousness was first explicated by Strawson in Chap. 3 ("Persons") of *Individuals* (1959, pp. 87–116). It should be noted, however, that Strawson actually thinks that the distinction between the self and the world is the core of self-consciousness, although it is only a necessary condition for self-consciousness, but not a sufficient condition, and that the distinction between the self and other subjects is another necessary condition for self-consciousness.

[3] This weak form of objectivity should not be confused with the weak objectivity which was discussed in Chap. 5.

In Sect. 6.5 I argue that it is time that both provides the objectivity which is assumed by the concept of consciousness and suffices for explaining the meaningfulness of first-person ascriptions of existence and consciousness. I argue further that the possibility of first-person denials of existence and consciousness in the past and the future, which solves the problem of self-consciousness, assumes the existence of an objective and temporal realm of reality, and the possibility of periods of time in which the subject does not exist.

I summarize the conclusions of this chapter in Sect. 6.6, focusing on two main subjects: the conception of self-consciousness developed in this chapter and the agreement between the conclusions of the current analysis and those of Chap. 5. As I show, the conceptual complexity which supports self-consciousness is necessary for a conceptual scheme. This implies that the consciousness, whose existence is a necessary feature of reality, necessarily possesses the conceptual recourses which suffice for its self-consciousness.

6.2 The Problem of Self-Consciousness

I begin my analysis of self-consciousness with the (perhaps trivial) observation that self-consciousness is a particular instance of consciousness: among all the things of which we are conscious there is also the self. I will not determine at this stage how we are conscious of ourselves, whether as a physical object, or as a mental being (and as either a thinking, experiencing or a conscious being), or as a being who has both physical aspects and mental aspects. Following Descartes in the *Meditations*, I am content initially with the claim that when one is conscious of oneself one is conscious of one's existence (Descartes 1984, p. 17). This is a trivial point, because from the proposition that "*a* is conscious of *b*" it follows that "*a* is conscious of *b*'s existence." This also implies that consciousness is actually a propositional attitude. For any proposition of the form "*a* is conscious of *b*" can be translated as the proposition "*a* is conscious that '*b* exists'."

In light of the above consideration, I now examine the proposition "I exist," which describes (at least partly) the content of self-consciousness. What follows from the analysis in Chap. 2 is that the word "exist" cannot contribute to the meaning of the sentence "I exist." A word, to remind you, contributes to the meaning of a sentence by designating one of at least two possibilities. With regard to the word "exist" in the phrase "I exist" it seems that there is only one possibility, that is, that I exist, because the proposition "I don't exist" cannot possibly be truly asserted—Descartes's lesson to the ages.[4] It seems therefore that in first-person singular ascriptions of existence there is only one possibility, namely, that I exist. So, in light of the conditions for the meaningfulness of expressions in language, it

[4] In Castañeda's opinion it is a straightforward self-contradiction (1994, p. 161). However, the truth of the proposition "It is possible that I might not have existed" proves that it is not a self-contradiction.

seems that the ascription of existence in the first-person, which exhausts the content of this proposition, is not meaningful.[5]

This point is important both for the understanding of self-consciousness and for explaining the mystery surrounding that notion. In fact, it is a necessary feature of self-consciousness: self-consciousness is not just consciousness of the existence of some specific object in the world, nor even of a specific subject of consciousness, even if that subject is the conscious subject himself or herself. Self-consciousness, as consciousness of oneself, is the consciousness of the uniqueness of a certain subject, that is, as being the subject of that very consciousness. In fact, this uniqueness of the subject is precisely the feature that is demonstrated in the proposition "I exist," which demonstrates that the "I" is not like any other object or subject in the world, the existence of which is to be established by an empirical inquiry or observation. The subject must recognize the unique position of a certain subject, reflected by the fact that he cannot be conscious of the nonexistence of this specific subject: the proposition "I don't exist" cannot be true, for this subject is me.[6]

It is this unique feature of the proposition "I exist" that explains 'the elusiveness of the self', which has puzzled philosophers since Hume (1978, p. 252). As already pointed out by Wittgenstein, the failure to "observe" the self (that is, the self's existence) is conceptually tied to the impossibility of observing the self's non-existence (1963, Propositions 5.632, 5.633, 5.634). The semantic question raised here can therefore be translated as the question: "How can one be conscious of one's own existence, given the fact that one is prevented from being conscious of one's non-existence?"

The challenge I am faced with at this point is to explain the meaningfulness of first-person ascriptions of existence. It should be stressed that our conceptual scheme does include the possibility of first-person non-existence, as reflected in the truth of the proposition "It is possible that I might have not existed." Hence the word 'exist' does contribute to the meaning of "I exist." For this reason, indeed, "I exist" has descriptive content. What is in need of explanation, however, is exactly the meaningfulness of that ascription. The question is how the ascription of existence in the first-person could possibly be meaningful given the fact that its denial cannot be true, that is, how does our conceptual scheme include the possibility of first-person non-existence while (so it seems) refusing to recognize the possibility of its being realized. My aim in what follows is to expose the conceptual structure that supports and therefore explains the conceptual complexity reflected in the proposition "I exist."

Before embarking on this, I would like to refute a quick response to the question asked. The suggestion is that the meaningfulness of the proposition "I exist"

[5] It would be misleading to say that this proposition should be suspected of being nonsensical, but following the early Wittgenstein we might say that it is to be suspected of being senseless in the manner in which tautologies are (Wittgenstein 1963, Proposition 4.461).

[6] In the Sect. 6.3 I offer a stricter explanation of this consideration. I should stress that this claim follows from general considerations regarding the nature of self-consciousness, rather than from my model of conceptual analysis.

should be analyzed into the propositions "*a* exists" and "I am *a*.[7]" This suggestion, however, fails for the following reason: either there is no difficulty in denying existence to *a*, in which case, because of this fundamental difference between "I" and "*a*," the problem arises as to the possibility of my identification of myself as *a*, or else the proposition "*a* exists" is subject to the same difficulty as the proposition "I exist," in which case the same problem arises again.

This is the place to raise the following question: How is one to be conscious of oneself in order to be self-conscious? In trying to answer this question I am keeping in mind that the answer must explain the uniqueness of self-consciousness as illustrated in the previous analysis. What I am looking for is a particular way of conceiving the "I" needed for self-consciousness, a way that would account for the impossibility of denying existence in the first-person.

According to a distinguished tradition, which includes such notable figures as Descartes and Kant, the subject is conscious of himself or herself as a thinking being. However, I see no justification for the introduction of the concept of thought into the analysis of self-consciousness, although the proposition "I think" does display the characteristic feature necessary for self-consciousness (that is, like the proposition "I exist," the proposition "I think" cannot be false). The same goes for the concept of experience, as used for example by Strawson in his "Objectivity Argument" (1966, pp. 97–112). Furthermore, the proposition "I experience" simply does not display the characteristic feature of self-consciousness, for its denial is possible.

The only concept needed for analyzing self-consciousness is the concept of consciousness itself, that is, one should be conscious of oneself as a conscious being. The consideration that lies behind this claim is straightforward, and it follows from the simple understanding of the concept of self-consciousness itself: a consciousness that is conscious of itself. It seems therefore that as a minimal requirement for self-consciousness is that one must think of the "I" as conscious. It is also not surprising, in light of the above consideration, that the proposition "I am conscious" when asserted displays the unique characteristic necessary for self-consciousness, that is, the proposition "I am not conscious" cannot possibly be accepted as true.

I can now explain more clearly the uniqueness of self-consciousness (although not yet solve the problem it poses). As I have shown, our conceptual scheme does recognize the possibility of the self's non-existence. What is impossible is that the self could be conscious of its own non-existence. In self-consciousness one is conscious of oneself as the consciousness through which reality is described, and given that fact the self-conscious subject can deduce its own existence by a *reductio ad absurdum*: Assume that the proposition "I don't exist" (or "I am not conscious") is true. Given that reality is described from the subject's point of view, it is possible to deduce from this assumption the proposition "I am conscious that 'I don't exist'," from which it follows that "I am conscious" and "I exist." This yields a contradiction; hence our assumption must be false: that is, the proposition "I exist" (or "I am conscious") must be true.

[7] This suggestion is due to Castañeda (1994, p. 165).

Table 6.1 The conceptual dimension of "consciousness"

a is conscious that p
a is not conscious that p

6.3 The Concept of Consciousness

I now turn my attention to the proposition "I am conscious," in order to offer a more detailed description of the content of self-consciousness, for not only does the proposition "I exist" follow from the proposition "I am conscious," but the latter proposition also describes the way I must conceive of myself in order to be self-conscious. In order to achieve a better understanding of the proposition "I am conscious" I begin this section with an analysis of the concept of consciousness. It must be emphasized that the concept of consciousness has significance at two different levels for the understanding of self-consciousness as consciousness of consciousness: both for the understanding of consciousness in general and for understanding the specific content of consciousness in (the specific) case of self-consciousness, that is, consciousness of consciousness.

The concept of consciousness in general, as exemplified in the proposition "I am conscious," is derived by abstraction from the particular content of states of consciousness, as exemplified in the proposition "I am conscious that *p*." This conclusion follows from the fact that the proposition "I am conscious that *p*" implies the proposition "I am conscious." In order to understand the general proposition I shall begin by analyzing the latter proposition.

The concept of consciousness then is located in the conceptual dimension that includes the possibilities of Table 6.1.

It follows from this that the concept of consciousness is used to distinguish between the things of which a subject is conscious and the things of which that subject is not conscious. It is easy to show that the concept of consciousness assume an objective reality, that is, that without the possibility of objective states of affairs (that is, states the existence of which is independent of consciousness of them by at least one subject of consciousness at some moment in time) the conceptual dimension in which the concept of consciousness is located would be lost. This claim is proved by the following consideration: let us assume that for every state of affairs *y*, for every subject of consciousness *x*, for every time *t*, *x* is conscious of *y* at *t*; in other words, assume that every subject is at all times conscious of all states of affair. The question is whether the conceptual scheme that results from weaving this assumption into our conceptual scheme includes the concept of consciousness. This ultimately depends on whether the word "conscious" can be said to contribute to the meaning of the sentences in which it occurs. While it is true that the analysis of propositional attitudes can potentially be complicated, the concept of consciousness raises no special difficulties. For it follows from the proposition that "*a* is conscious that *p*" that *p* is true.[8] The question asked can

[8] Consciousness in this respect is similar to knowledge, which also implies truth.

Table 6.2 Ascription and denial of specific states of consciousness

I am conscious that *p*
I am not conscious that *p*

therefore be translated as the question whether the addition of the word "conscious" to the sentence p adds anything to the meaning of the proposition which is expressed. In order for a word to contribute to the meaning of a sentence, its occurrence in that sentence, both in the affirmative and in the negative, must result in a description of a possible state of affairs. However, according to this assumption it is impossible that *p* if there is a subject who is not conscious that *p*. It follows that the word "conscious" does not contribute to the meaning of the sentences in which it occurs in the resulting conceptual scheme. It can thus be concluded that a conceptual scheme that does not include the possibility of states of affairs the existence of which is independent of the consciousness of at least one subject of consciousness, at least at some time, does not include the concept of consciousness. The concept of consciousness therefore assumes objectivity, that is, an existence which is independent of the consciousness of it, by at least one subject of consciousness, at least at some time.

It is important to underscore the implications of the above conclusion. For example, it does not follow from it that Berkeley's conception of reality is contradictory. Berkeley's conception of reality includes the existence of conscious beings but not of objects the existence of which is independent of any state of consciousness of them at any time, that is, matter (Berkeley 1982). My conclusion however is only that the concept of consciousness conceptually depends on a modest concept of objectivity, which requires only an existence that is independent of consciousness of it by at least one subject of consciousness at some time, although it may depend on at least one state of consciousness of it at some time. Pains are objective in this respect, because although pain does not exist without the subject's consciousness of it at the time it is felt, that is, the time of its existence, its existence is independent of the consciousness of other subjects of consciousness and of the subject's conscious of it at times other than the time that it is felt (that is, the time of its existence).[9]

I now turn my attention to the first-person ascription and denial of specific states of consciousness (Table 6.2).

At first sight it seems as though there is no problem with the first-person ascription and denial of consciousness as long as this denial is specific, for the proposition "I am not conscious that *p*" can be true (as when *p* is false). However, this impression is wrong. And on closer examination, the familiar problem of the meaningfulness of first-person ascriptions of consciousness appears: To repeat, a necessary condition for the word "conscious" to contribute to the meaning of the sentence in which it occurs, *p* must describe a state of affairs whose existence

[9] This use of the term "objectivity," which applies even to pains, is still justified in light of the theoretical possibility of absolute subjectivity, that is, things that their existence assumes consciousness of them by every subject at any time. It should also be stressed that this sense of objectivity, demanded by self-consciousness, is strengthened in the course of this analysis.

Table 6.3 The conceptual space of *p* and the first-person consciousness of *p*

1. I am conscious that p and p	3. I am conscious that p and not p
2. I am not conscious that p and p	4. I am not conscious that p and not p

is independent of at least one subject's consciousness of it. Furthermore, in first-person ascriptions of consciousness, *p* must describe a state of affairs that is independent of the subject's consciousness of it for this ascription to be meaningful. For, if *p* is not independent of the subject's consciousness of it, the claim that the subject is conscious that *p* does not add anything to the claim that *p*. If, therefore, it is impossible to draw the distinction between *p* and the subject's consciousness of *p* in the first-person, then the first-person ascription of consciousness is not meaningful. In other words, if it is conceptually impossible to make the conceptual distinction reflected in the proposition "*p*, but I am not conscious that *p*," the distinction between *p* and the subject's consciousness of *p* cannot be sustained. However, the proposition "*p*, but I am not conscious that *p*" involves a contradiction, because the self-conscious subject can deduce from the proposition that *p* the conclusion "I am conscious that *p*," and therefore the contradiction "I am conscious that *p* and I am not conscious that *p*."

This last point may be illustrated by the following consideration, which demonstrates the impossibility of drawing the distinction (relying only on the conceptual resources so far provided) between *p* and the consciousness of *p* in the first-person. Here is the conceptual space covered by the proposition *p* and the concept of consciousness in the proposition "I am conscious that *p*" (Table 6.3).

Examining the possibilities contained in this conceptual space we can first dismiss proposition (3) as not representing a conceptual possibility, because of the fact that *p* follows from the proposition "I am conscious that *p*," which leads to contradiction. Proposition (2) can be dismissed as not representing a conceptual possibility because of the fact that in the first-person the subject can deduce "I am conscious that *p*" from the proposition *p*, and therefore proposition (2) asserts a contradiction. The conceptual space, therefore, seems to contain only two possibilities, which are described by propositions (1) and (4), such that propositions "I am conscious that *p*" and *p* are logically equivalent. That is, it seems that there are simply not enough conceptual resources to sustain the conceptual distinction between *p* and the subject's consciousness of *p*. This conceptual space can be fully mapped with the help of the proposition *p* and its denial, and therefore the meaningfulness of the ascription of consciousness in the first-person remains unexplained.

6.4 The Concept of the Self

The preceding discussion highlights another conceptual dimension in the conceptual space of the proposition "I am conscious," that is, the conceptual dimension in which the word "I" is located. Taking into account the conceptual dimension that contains the concept of consciousness gives rise to the conceptual space of Table 6.4.

Table 6.4 The conceptual space of the proposition "I am conscious"

I am conscious	I am not conscious
Someone that is not me is conscious	Someone that is not me is not conscious

What clearly emerges is that the proposition that describes self-consciousness is located in a conceptual space that includes the possibility of different subjects, other than the conscious self.[10] More specifically, the word "I" is located in a conceptual dimension that includes the possibility of subjects different from the conscious self, and its meaning is its use as a coordinate on that dimension.

Setting forth the conceptual space in which the proposition "I am conscious" is located has revealed the possibility of denying consciousness without a contradiction: It is possible to deny consciousness in the third person. This finding raises the possibility that a first-person denial (and therefore also ascription) of consciousness is supported by the possibility of denial of consciousness in the third person. That possibility can be explained thus: one can be conscious of one's consciousness only if one can be conscious of the possibility of one's not being conscious. Because one can never be conscious of one's not being conscious, but can be conscious of other subjects not being conscious, one can be conscious of one's own consciousness by identifying oneself as a member of the category of objects about which one can be conscious of their not being conscious.

Because the proposition "I am conscious" describes more fully the content of self-consciousness than the proposition "I exist," it is not surprising that the same explanation fits the latter proposition: the proposition "I exist" is located in conceptual space that includes the possibility of the non-existence of others, and thus suggests that first-person non-existence is supported by the possibility of the non-existence of others.

The conclusion that seems to follow, therefore, is that self-consciousness depends conceptually upon the possibility of the existence of other subjects of consciousness. The possibility of the existence of other subjects of consciousness is needed first of all for the meaningfulness of the word "I," as it is used in the sentence "I am conscious." Without the possibility of the existence of other subjects of consciousness the conceptual dimension in which the word "I" is located would be lost, and the word "I" would lose its meaning.[11] Now, I have shown earlier that the possible existence of other subjects of consciousness provides a sense of objectivity which is a sufficient condition for the meaningfulness of the concept of consciousness. There is no need, in light of this fact, for the existence of an objective realm of reality (one independent of any state of consciousness of it), in order to support the concept of consciousness. Furthermore, as the possible existence of other subjects of consciousness appears to solve the problem of the meaningfulness of first-person ascriptions of consciousness, the above seems to imply that

[10] This conclusion is not new, as it was already drawn (in different terms) by Strawson (1959, p. 99). However, it should be stressed that in the present discussion this claim follows from the conditions for the meaningfulness of the word "I," and not from the concept of a predicate, a difference that will prove important in what follows.

[11] This is the case with the individual whom Strawson calls a "true solipsist" (1959, p. 73).

self-consciousness is based on the distinction between the self and other subjects of consciousness, and not on the distinction between the self and the world.

The last conclusion, I believe, is false. This is so, I shall argue, because the distinction between the self and other subjects of consciousness is neither a sufficient condition for self-consciousness, nor even a necessary condition for self-consciousness. The necessary condition for the existence of self-consciousness, I argue, is the distinction between the self and the world.

The reason why the distinction between the self and other subjects of consciousness is insufficient for self-consciousness is that this distinction is not sufficient to account for the meaningfulness of first-person ascriptions of consciousness. The problem, let me remind you, is to explain the possibility of first-person ascription of consciousness in light of the impossibility of first-person denial of consciousness. The suggestion is that third person ascription and denial of consciousness could support first-person ascription and denial of consciousness. However, the connection between the different possibilities in the conceptual dimension that includes "I" is not strong enough to support the denial of consciousness in the first-person. The reason is that this dimension includes more than two possibilities, none of which entails any of the others. As I argued earlier, a minimal conceptual dimension must include at least two possibilities. In a case where there are only two possibilities, each possibility depends on, and must therefore entail, the other possibility. For example, the possibility of an ascription of consciousness depends on the possibility of the denial of consciousness, and vice versa. The conceptual dimension of "I," on the other hand, includes many different possibilities. It is true that the possibility that "I am conscious" entails the possibility of the existence of at least one other subject who is conscious, but the contrary does not hold: all that follows from the possibility that "Kant is conscious," for example, is the general possibility that someone other than Kant is conscious, but not that "I am conscious." The possibility of first-person ascription of consciousness simply does not follow from the possibility of third-person ascription and denial of consciousness, and so this last possibility is not sufficient for self-consciousness. Thus the old problem of explaining first-person ascriptions of consciousness remains unsolved, for now it seems that in order to identify myself as a member of the category of subjects of consciousness I must first identify myself as a subject of consciousness, which was exactly the problem that the identification of the self as a member of that category sought to resolve.

So far I have explained why the distinction between the self and other subjects of consciousness is not sufficient for self-consciousness. In what follows I show that the distinction between the self and other subjects of consciousness is not even necessary for self-consciousness.

The assumption that self-consciousness depends on the possibility of other subjects of consciousness is based on the fact that first-person ascriptions of consciousness depend upon the possibility of third-person ascriptions of consciousness. However, what I have assumed so far without sufficient examination is the claim that self-consciousness requires the ascription of consciousness at all. I shall now argue that this assumption is false.

In order to prove that self-consciousness does not require the ascription of consciousness, I shall assume that there are no other subjects of consciousness, and remap the remaining conceptual space. The resulting conceptual scheme would not contain the conceptual possibility of other subjects of consciousness. In the resulting conceptual scheme, therefore, the conceptual space would not contain the conceptual dimension in which the word "I" is located, and so in such a conceptual scheme the word "I" is meaningless.

The question now is what would be the corresponding proposition in the new conceptual scheme for the proposition "I am conscious" in our conceptual scheme. It is obvious that we can't simply omit the word "I" from the sentence "I am conscious," because the resulting expression would not express a proposition. However, it does not follow from this fact that the resulting conceptual scheme does not have the conceptual resources necessary for self-consciousness. What needs to be taken into account is the fact that the proposition "There is consciousness" (or "Consciousness exists") follows from the proposition "I am conscious." The proposition "I am conscious," therefore, can also be formulated as "There is (some) consciousness and it is mine (of 'I')." In light of the last formulation it is easy to identify the proposition corresponding to the proposition "I am conscious" in the resulting conceptual scheme. Because of the fact that in the resulting conceptual scheme there would be no different subjects of consciousness, what would be lost in such a conceptual scheme is the identification of the existing consciousness as my consciousness. The resulting proposition in the new conceptual scheme, corresponding to the proposition "I am conscious" in our conceptual scheme, would therefore be the proposition "There is consciousness."

The question now is whether the resulting conceptual scheme has the conceptual resources to support self-consciousness. It is easy to show that it does, because the corresponding proposition in the resulting conceptual scheme, that is, "There is consciousness," would still display the same unique characteristic of the proposition that describes self-consciousness in our conceptual scheme (that is, "I am conscious"), which stands at the heart of self-consciousness. The reason is that the subject in the resulting conceptual scheme can still deduce the existence of the consciousness just as the subject in our conceptual scheme can deduce its existence: by assuming the proposition "There is no consciousness," the subject could deduce that "There is consciousness that 'there is no consciousness'," from which follows the conclusion "There is consciousness" (because the proposition "There is consciousness that p" implies that "There is consciousness"). This yields a contradiction, hence the assumption must be false, and so, "There is consciousness" must be true.

This result is perhaps not so surprising, in light of the fact that all that is lost in the resulting proposition is the reference to a specific consciousness, and this is so only because there is only one consciousness possible in the resulting conceptual scheme, which is the consciousness that in our conceptual scheme would be identified as "I." The proposition "There is consciousness" will therefore express the subject's consciousness of himself, and hence it can be concluded that the notion of an "I" is not a necessary condition for self-consciousness.

Table 6.5 The temporal dimension of first-person ascription and denial of consciousness

I was conscious that p	I was not conscious that p
I am conscious that p	I am not conscious that p
I will be conscious that p	I will not be conscious that p

6.5 Self-Consciousness, Time, and Objectivity

The conclusion drawn from the previous analysis is that self-consciousness is independent of the possibility of other subjects of consciousness. However, there are at least two questions that must be answered. First, can it be concluded safely that self-consciousness relies on the distinction between the self and the world? Second, keeping in mind that we cannot rely on the possibility of other subjects of consciousness, what is the explanation for the meaningfulness of first-person ascriptions of consciousness?

To begin with the second question, the explanation of the possibility of first-person denials of consciousness is to be found in another conceptual dimension in which the proposition "I am conscious that *p*" is located, one that thus far I have not made explicit. Among the conceptual components of a sentence are not only the words in that sentence, but also the declination of verbs contributing to the determination of the truth-value of the proposition which is expressed by this sentence. The proposition "I am conscious that *p*" therefore also contains a temporal conceptual component. Taking into account the temporal dimension and the conceptual dimension of the concept of consciousness, the proposition "I am conscious that *p*" is located in the conceptual space of Table 6.5.

The temporal dimension of the conceptual space in which the proposition "I am conscious that *p*" is located clearly explains the meaningfulness of first-person denials of consciousness. Although in the present tense and in the first-person it is impossible to draw the distinction between *p* and my consciousness of *p* (as I explained at the end of Sect. 6.3), it is possible to draw that distinction in relation to the past and to the future. That is, although the proposition "*p* but I am not conscious that *p*" is contradictory (because it entails the proposition "I am conscious that *p* and I am not conscious that *p*"), the proposition "*p* but I was not consciousness that *p*" involves no contradiction, for all that follows from that proposition is the proposition "I am (now) conscious that *p* but I was not conscious that *p*." Time offers the possibility expressed by the proposition "*p* but I was not conscious that *p*" because it allows me to expand my consciousness and thus acquire consciousness of things of which I wasn't conscious in the past. The possibilities of past and future denials of consciousness, therefore, account for the meaningfulness of first-person ascriptions of consciousness in the present tense.

The temporal dimension, therefore, explains the possibility of denying consciousness and existence in the first-person, as illustrated in the conceptual possibilities of Tables 6.6 and 6.7.

In each case it can be seen that the conceptual dimension of time explains the possibility of self-consciousness by making possible the denial of consciousness

Table 6.6 The conceptual space of self-consciousness

I was conscious	I was not conscious
I am conscious	I am not conscious
I will be conscious	I will not be conscious

Table 6.7 The conceptual space of first-person ascription of existence

I existed	I did not exist
I exist	I do not exist
I will exist	I will not exist

and existence in the first-person. This possibility can be explained thus: I can be conscious of my existence and my consciousness only in contrast to the possibility of my non-existence and non-consciousness. Time allows me to achieve consciousness of these possibilities by allowing the expansion and contraction of my consciousness in time, and thus enabling me to achieve consciousness of the limits of my existence and consciousness without a contradiction.

Turning now to the question of whether self-consciousness relies on the distinction between the self and the world, understood as an objective realm of reality, distinct from the subject, this question might be answered in the affirmative based on the following false consideration: the fact that the possibility of other subjects of consciousness is neither sufficient nor necessary for self-consciousness, as previously demonstrated, leads to the conclusion that self-consciousness is based upon the distinction between the self and the world. For, as I argued in Sect. 6.3, without the possibility of states of affairs the existence of which is independent of consciousness of them by at least one subject of consciousness at some time, the conceptual dimension in which the concept of consciousness is located would be lost. However, as I have argued, self-consciousness is possible in a conceptual scheme that includes only one possible subject of consciousness. Neutralizing the element of time, it follows that a necessary condition for the concept of consciousness to be included in a conceptual scheme is that this conceptual scheme must include the possibility of states of affairs the existence of which is independent of any consciousness of them, that is, an objective realm of reality.

The above argument is not valid, and its flaw lies in its disregard of the objectivity offered by time. It must be kept in mind that even pain is objective in the weak sense needed for the concept of consciousness, for although its existence is not independent of the subject's conscious of it at the time of its existence, it is independent of the subject's conscious of it at other times: I can forget the pain I felt or not be conscious of the pain I am about to feel. Even if p describes a feeling of pain, there are therefore two possibilities that exist for me at any time different than the time of the existence of the pain: that I am conscious of that pain or that I am not conscious of that pain. Hence, it is not necessary, in order for the concept of consciousness to contribute to the meaning of sentences in which it can

appear, for example "I wasn't conscious that *p*," that *p* should describe a state of affairs that is objective in the strong sense of objectivity of the physical realm in our conceptual scheme. The concept of consciousness, therefore, does not depend conceptually upon the existence of an objective realm of reality. It seems therefore that self-consciousness is possible even for a solipsistic consciousness, that is, for a consciousness that is conscious only of itself.

Furthermore, the attempt to prove that self-consciousness necessitates the existence of an objective and temporal realm of reality, which is similar to the physical realm in our conceptual scheme, looks even less promising in light of the strong objectivity offered by mathematics and logic. Thus, the proposition *p*, in the proposition "I was not conscious that *p*," may express a mathematical or logical truth of which I am conscious now but of which I was not conscious in the past. It seems, therefore, that self-consciousness does not even assume the existence of sensations, for the subject may achieve self-consciousness by conceiving itself as conscious of an objective but non-temporal realm, such as that of mathematics or logic.

However, although mathematical truths and pains are sufficient to support the meaningfulness of first-person denials of consciousness, by enabling self-denials of consciousness in the specific propositions (that is, "I was not conscious that *p*") they are not sufficient to explain the general propositions "I was not conscious" and "I did not exist," which are necessary for self-consciousness. The reason for this is that the propositions "I was not conscious" and "I did not exist" assume the possibility of an objective time, that is, time in which I was not conscious and did not exist, and therefore the existence of an objective and temporal realm of reality. This is obvious from the fact that what these propositions actually claim is that there was a time in which I was not conscious and did not exist. It is clear that these claims could not be true in a solipsistic conceptual scheme, which does not identify the possibility of objective time, which is independent of consciousness of it by the subject. Similarly, it is also obvious that the objective realms of mathematics and logic, which are atemporal, cannot explain the possibility of a time in which I did not exist or was not conscious. It is possible to conclude, therefore, that self-consciousness depends upon the distinction between the self and the world, that is, between the self and an objective and temporal realm of reality.

As I have indicated, the concept of consciousness is of significance at two different levels for the understanding of self-consciousness as consciousness of consciousness: it is significant both for understanding consciousness in general and for understanding the specific content of consciousness in the specific case of self-consciousness. It follows, therefore, not only that the concept of consciousness presupposes the existence of an objective realm of reality, but also that in self-consciousness the subject must be conscious of himself or herself as being conscious of an objective realm of reality.

The last point is crucial, because some thinkers have criticized similar analyses of self-consciousness on the ground that all they can possibly show is that the subject should believe in the existence of an objective realm of reality, but not that it actually exists (See, for example, Stroud 1968, p. 255). It is clear, however, that

such criticism has no force against the present analysis: not only have I shown that the concept of consciousness assumes objectivity, I have also shown that in self-consciousness the subject must be conscious of himself or herself as being conscious of an objective realm of reality. Consciousness (unlike belief) requires truth, that is, the proposition p follows from the premise "*a* is conscious that *p*." Self-consciousness, therefore, demands truth and not just belief, and if the subject is conscious of an objective realm of reality, it follows that this realm actually exists.[12]

As a final point I would like to consider whether the result of this analysis could be used as an answer to skepticism, as Kant seems to have believed. In the Refutation of Idealism Kant sought to refute what he described as 'Problematic Idealism,' which he attributed to Descartes, according to which only the existence of the self is certain, and the existence of objects outside of us is doubtful (B274–279). I believe the present analysis can offer a similar proof, which on the basis of self-consciousness proves the existence of an objective realm of reality of which the subject is conscious.

6.6 Conclusions

My above analysis is motivated by the attempt to solve the problem of how to account for the meaningfulness of the first-person ascriptions of existence and consciousness, which are necessary for self-consciousness. This problem arises because of the seeming impossibility of first-person denials of existence and consciousness, which are necessary conditions for the meaningfulness of first-person ascriptions of existence and consciousness. The conclusion of the above analysis is that the possibility of first-person denial of existence and consciousness is explained by time, which entails a demand for objectivity. The final conclusion of this chapter is that in self-consciousness one is conscious of oneself as a temporally extended point of view (consciousness) over an objective and temporal realm of reality.

The foregoing conceptual analysis has revealed the complex conceptual structure that supports self-consciousness. The implication is that Kant was right, and that self-consciousness is not based on any specific representation, but is a conceptually complex consciousness which involves the consciousness of the self as a temporally extended point of view (consciousness) over an objective and temporal realm of reality.

I must stress that I have only attempted to sketch the necessary conditions for self-consciousness, and not the sufficient conditions. Further analysis might perhaps demonstrate that space is also a necessary condition for objectivity, that the subject should identify himself as an object in the world, that the experience of a

[12] Consciousness in this respect is unlike thought, which may explain the claim that analysis of self-consciousness can only prove that the subject must believe in the existence of an objective realm of reality, because the traditional analysis of self-consciousness is based on the proposition "I think."

self-conscious being must display certain characteristics, or perhaps that the objective realm of reality should be subject to causal laws. However, all these suggestions lie beyond the scope of this book.

Finally, comparing the conclusions of this chapter, regarding the conceptual complexity which supports self-consciousness, with the conclusions of Chap. 5, regarding the necessary features of reality, a remarkable similarity appears. To begin with, Chap. 5 showed that reality is necessarily described from an internal and an extended point of view, which constitutes a consciousness. Furthermore, every possible conceptual scheme includes the conceptual complexity reflected by the distinction between the objective reality and the consciousness of it. This implies that every possible conceptual scheme contains the conceptual complexity which lets a consciousness have awareness of itself and of the distinction between itself and objective reality. According to my analysis, this is the content of self-consciousness. Finally, the conceptual complexity which permits the same proposition be both true and false (as reflected in the change in the determinations of past, present, and future), assumes the possibility of periods of time in which the consciousness, from whose point of view reality is described, does not exist, and therefore the existence of an objective and temporal realm of reality. This possibility I have shown to be assumed by the meaningfulness of first-person ascriptions of existence and consciousness, and therefore by self-consciousness.

The conceptual complexity necessary for a conceptual scheme is therefore identical to the conceptual complexity which supports self-consciousness. It can therefore be concluded that every possible reality not only assumes the existence of a consciousness internal to it, but further allows this consciousness awareness of its existence as a consciousness, that is, self-consciousness.

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Chapter 7
Natural Laws

Abstract In this chapter I argue that a weak version of the principle of the uniformity of nature is a necessary truth. According to this principle, every reality for which the question of its subjection to natural laws can arise is subject to natural laws. I argue that this question arises only for a subject who knows of the existence of objective reality, qua objective. I show that a necessary condition this knowledge is that the subject can acquire knowledge of past and future events, which he does not perceive directly through his senses, and that only natural (contingent) regularities enable the subject to do so. The necessary features of reality, which are uncovered in the previous chapters, are sufficient for raising the question whether reality is subject to natural laws. Hence, the conclusion of this chapter is that every possible reality is subject to natural laws.

Keywords Hume • Kant • Natural laws • Objectivity • Uniformity of nature

7.1 Introduction

In Chap. 6 I established that the necessary features of reality as previously characterized are sufficient to allow this consciousness an awareness of its own existence as a consciousness, that is, self-consciousness. According to my analysis, self-consciousness assumes the existence of an objective and temporal realm of reality of which the subject is conscious. In the present chapter I shall argue that the necessary features of reality which are uncovered so far are necessary for raising the question whether reality is subject to natural laws, and that every reality for which the question of its subjection to natural laws can arise is subject to natural laws. Hence, the conclusion of this chapter is that every possible reality is subject to natural laws.

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The question whether reality is subject to natural laws was put on the philosophical agenda by Hume, who formulated his query in terms of the "Uniformity of Nature," that is, the question whether, or on what grounds, we assume that "the course of nature continues always uniformly the same" (1978, p. 89). The question whether reality is subject to natural laws is of major importance. Natural laws are an essential feature of our conception of reality, and play a key role in our thinking about our place in it, both as agents and as spectators.[1] However, Hume argued, the claim that nature is subject to natural laws is not a conceptual truth ("relation of ideas"), for it is possible to "conceive a change in the course of nature" (Hume 1978, p. 89). As a contingent proposition ("matter of fact"), however, not only is it impossible to *verify* this principle, due to the unrestricted general character of this claim, which extends way beyond our perceptions, it is not even *confirmable*. For any attempt to confirm the principle of the uniformity of nature is question-begging. It requires drawing a conclusion regarding what we do not perceive, based on the things that we do perceive, and therefore necessarily assumes the uniformity of nature—the same principle it seeks to confirm.[2]

Many have wrestled with Hume's conclusion, in an attempt to establish at least the legitimacy, if not the truth, of the claim that nature is subject to natural laws. However, there seems to be almost unanimous agreement amongst philosophers that Hume was right in his claim that the principle of the uniformity of nature is not a conceptual truth, and nowadays it seems that philosophers take this principle for granted.[3] A notable exception is Kant. Although Kant agreed with Hume that the principle of the uniformity of nature is not a conceptual truth, he nevertheless maintained that it is a necessary truth. In his *Critique of Pure Reason*, in the "analogies of experience" (B218-B265), Kant attempts to prove that objective reality is necessarily subject to causal laws. Hume found one of the sources of the "illusion" of the existence of the external world in our expectation of regularities (Hume 1978, p. 195). Kant reversed the order and, following his attempt to establish the necessary existence of an objective reality of which any self-conscious subject has experience, tried to prove that a necessary condition for a subject to acquire

[1] Hume, who came up against this question while analyzing the concept of causation, associated this question with the justification of induction, which he thought necessary for identifying the relation of cause and effect. Unfortunately, associating the question of the lawfulness of nature with the analysis of causation and the justification of induction masks the independent importance of this question. Whether or not causation should be analyzed in terms of regularity, that is, constant conjunction between cause and effect, as Hume believed (1978, p. 87), and even if inductive reasoning does not assume the principle of the uniformity of nature (Okasha 2001), and even if science does not rely on induction (Popper 1972), the question whether reality is subject to natural laws remains one of major importance.

[2] This is true even if there are inductive inferences that do not assume the uniformity of nature, for such inferences are not acceptable in the context of justifying the principle of the uniformity of nature (see, Lange 2002, pp. 231–232). Any attempt to establish the uniformity of nature empirically is therefore circular.

[3] See, for example, Okasha 2001, p. 313. See also Lange's (2002) criticism of Okasha's arguments.

knowledge of objective reality is the subjection of this reality to natural laws. Nowadays there seems to be a general agreement that this argument is flawed (as discussed in detail in Sect. 7.2). However, I believe that Kant's argument offers an important insight into the connection between objectivity and natural laws.[4]

Following Kant, I argue in this chapter that a weak version of the principle of the uniformity of nature is a necessary truth. I do not argue that every *possible reality* is subject to natural laws. I merely attempt to demonstrate that every possible reality about which the question whether it is subject to natural laws can arise is subject to natural laws. Hence, my argument takes the form of a transcendental argument, which shows that a necessary condition for positing the question of the uniformity of nature is that this reality is subject to natural laws.[5]

I wish to stress that I do not attempt to prove that reality is subject to *causal* laws. The concept of causality is both complex and profound, and is beyond the scope of this chapter. Rather, I attempt to prove that reality is subject to some *natural regularity*. This regularity is similar to casual laws in that it connects occurrences in the past and the future, thus allowing conclusions to be drawn, based on occurrences at one time, as to occurrences at other times.[6]

After examining (in Sect. 6.2) Kant's attempt to tie objectivity and regularity, I begin my analysis (in Sect. 6.3) by listing some of the necessary conditions for positing the problem of the uniformity of nature. I argue that this question arises for a subject only regarding a reality which he knows to be objective. A difficulty then emerges (in Sect. 6.4) of how to explain the subject's knowledge of the existence of objective reality, qua objective. The difficulty stems from a seemingly contradictory demand that the subject should know of the existence of things of which he has no knowledge. I show that this difficulty is solved by temporality, which allows the expansion and contraction of the subject's knowledge, allowing him to acquire knowledge of the existence of things in the past and the future of which he has no knowledge at the time of their existence. I further show (in Sect. 6.5) that this type of knowledge requires that the subject's knowledge of reality would

[4] Another exception to the prevailing tendency is Strawson. Although Strawson does not explicitly claim that the principle of the uniformity of nature is a conceptual truth, following Kant he offers an interesting line of thought to that effect. In Chap. 2 ("Sounds") of his *Individuals* (1959), Strawson attempts to build an objective reality, composed solely of sounds, with the help of a reoccurring sequence of sounds, whose regularity simulates the regularity which is established by natural laws. However, although this line of thought is fascinating, it hardly proves that objectivity assumes natural laws.

[5] I do not attempt to confront directly the claim that the principle of the uniformity of nature is a contingent truth. Disproving the arguments of your opponents is always the easiest way to support your own view. However, in the present context I believe that the burden of proof lies on the shoulders of those who believe that the principle of the uniformity of nature is a conceptual truth. I agree with Hume that it *seems* to us as though we can conceive a change in the course of nature. Although this is merely a subjective fact, it is sufficient to shift the burden of proof to those who believe that the principle of the uniformity of nature is a conceptual truth.

[6] This may be all there is to causal laws. However, this question extends beyond the scope of this Chapter.

extend beyond the things he perceives by his senses, and therefore that sense perception alone cannot account for this knowledge. Finally, I argue (in Sect. 6.6) that the subject can extend his knowledge beyond the things he perceives, thus acquiring knowledge of objective reality, qua objective, only if this reality is subject to natural laws. It follows that every possible reality in which the question whether it is subject to natural laws can arise is subject to natural laws. I summarize the conclusions of this chapter in Sect. 7.7.

7.2 Kant's Second Analogy of Experience

Kant puts forward the most influential response to Hume's challenge. His answer to Hume is introduced in the context of the general metaphysical framework of the *Critique of Pure Reason*. Fortunately, his main arguments, including his attempt to show the link between objectivity and natural laws, are largely independent of other, less acceptable, aspects of his system.[7]

Kant's attempt to disclose the connection between objectivity and natural laws appears in the "analogies of experience" (B218-B265). Previously, in the transcendental deduction of the categories (B116-B169), Kant seeks to prove that a subject must have experience (that is, knowledge) of an objective reality. This is because the unity of his consciousness, which requires a unity of apperception (that is, self-consciousness), assumes objectivity.[8] The purpose of the analogies is to prove that the ability to identify objective determinations requires objective reality to be subject to natural laws.

In what follows, I concentrate on the second analogy (B232-B256), which offers a direct answer to the challenge posed by Hume. The principle that Kant seeks to establish in the second analogy is a version of the principle of the uniformity of nature, which states that, "all alterations take place in conformity with the law of the connection of cause and effect" (B232). Kant attempts to prove this principle by showing that a necessary condition for a subject to acquire knowledge of objective reality is that this reality is subject to causal laws.

According to Kant, time is a necessary feature of reality, and therefore a subject can have knowledge of objective reality only if he can identify objective temporal relations.[9] The ability to identify objective temporal relations requires the subject

[7] This includes Kant's dubious category of the synthetic-a priori, which, following Bennett, is interpreted in the present context as referring to truths about non-trivial conceptual connections (Bennett 1966, p. 43). Thus, although Kant himself rejects this classification, I construe him in what follows as arguing that the principle of the uniformity of nature is a conceptual truth.

[8] "The transcendental unity of apperception is that unity through which all the manifold given in an intuition is united in a concept of the object. It is therefore entitled objective…" (B139).

[9] Kant's argument focuses on the concept of change. However, his argument makes a general point, which relates to the ability to distinguish between simultaneous and successive (objective) events.

to be able to distinguish between subjective and objective temporal relations. The difficulty of distinguishing between them stems from the fact that perceiving two distinct things successively does not imply that they are objectively successive. For example, the roof of the house can be seen before the basement (B238), although they exist simultaneously. Kant argues that in order to determine the objective temporal relations of events a rule is required. This rule relates to the necessary order of events, and determines, given two adjacent events, which is earlier and which is later (B234). Thus, these rules allow the subject to reconstruct the objective order of events out of the subjective flux of perceptions. Kant identifies these rules with the laws of causality, which state that that if something is posited, something else always follows (B183). Hence, a necessary condition for a subject to have knowledge of objective reality is that this reality is subject to causal laws.

Kant's argument raises several problems. In the current context I mention only two major difficulties which are significant for the following discussion. The first difficulty is that even if Kant is right in his claim that some form of regularity is needed in order to distinguish between subjective and objective temporal relations, the regularity that is required is minimal, and hardly amounts to full-fledged laws of nature. For example, all that is required in order to determine the temporal relation between two distinct events is a rule which states that if events of type *a* and events of type *b* are adjacent to one another, then the event of type *a* occurs before the event of type *b*. Hence, there is no need to postulate a necessary connection between two events, such that the occurrence of one implies the occurrence of the other, in order to determine the objective temporal relation of these events.

The second difficulty raised by Kant's argument lies in the premise that the distinction between a subjective point of view and objective reality implies a distinction between subjective and objective temporal relations, that is, between the way temporal relations are perceived and the way they are in reality. The fact that our conceptual scheme includes the distinction between subjective and objective temporal relations fails to prove that this distinction is implied by the distinction between a subjective point of view and objective reality. Objectivity implies independence from knowledge or consciousness, and it is not immediately obvious if, and how, this idea implies the distinction between subjective and objective temporal relations.

Turning back to the actual world, it seems that the distinction between subjective and objective temporal relations does not follow directly from the distinction between a subjective point of view and objective reality. In the actual world, this distinction is the result, for instance, of a possible change in the point of view of the subject over objective reality [for example, the roof of the house is seen before the basement (B238)]. Another explanation for this distinction is the possible lapse of time between the occurrence of an event and its perception (for example, thunder and lightning seem successive although they are simultaneous). As long as it is not shown that these (or other similar) possibilities are necessary for sustaining the distinction between the subjective point of view and objective reality, it cannot be assumed that the ability to distinguish between subjective and objective temporal

relations is necessary in order for a subject to acquire knowledge of the existence of objective reality.

Although Kant's argument ultimately fails, I find his transcendental maneuver promising. In what follows I attempt to formulate a more tenable case for substantiating the connection between objectivity and natural laws, while relying on a similar line of reasoning.

7.3 The Problem of the Uniformity of Nature

My aim is not to prove that *every possible* reality is subject to natural laws. In the present context I merely attempt to demonstrate that *every possible reality for which the question of its subjection to natural laws can arise is subject to natural laws*. In light of this restriction, a transcendental argument is called for, which would demonstrate that the necessary conditions for positing this question include the subjection of this reality to natural laws. Accordingly, I now turn my attention to some of the necessary conditions for positing the problem of the uniformity of nature.

In order to uncover the necessary conditions for positing the problem of the uniformity of nature, it is useful to consider the problem of induction. For if it were possible to confirm empirical generalizations of the form "all S are P," a positive answer to the question whether reality is subject to natural laws could be given empirically (although not a positive answer to the question whether reality is *necessarily* subject to natural laws).

Obviously, there is no difficulty in confirming restricted generalizations, such as subjective generalizations. For example, the generalization "everything I see now is blue" is confirmable by my experience. The problem of the uniformity of nature relates to unrestricted objective generalizations—natural laws. They are objective in the sense that they extend beyond the limited experience of the subject, and therefore their truth can be questioned, and as Hume showed, it is questionable whether they are even confirmable.

A necessary condition for introducing the problem of the uniformity of nature is therefore a distinction between a subject and an objective reality, one which is epistemicly independent of the subject's knowledge of it. The distinction between a subject and objective reality implies the possibility that the subject's knowledge of reality is partial, in the sense that it is possible that the subject has no knowledge of certain facts.

This possibility has implications on the nature of the subject's sense perception (in the present context, the term "sense perception" is understood in general terms as a direct, that is, non-inferential, means for acquiring knowledge of contingent objective facts). It implies not only that the subject's perception is possibly partial, in the sense that there may be things that the subject does not perceive, but also that the subject cannot perceive (unrestricted) general facts (if there are indeed such entities). For generalizations extend beyond perception and apply to everything in reality, while objectivity implies that there is always a possible counterexample to

a generalization which the subject does not perceive. Thus, it is impossible to validate an objective generalization based on perceptions alone. Every proposition of the form "All *S* is *P*" is equivalent to a proposition of the form "There is no *S* which is not *P*," which cannot be established based on perception alone.

Another necessary condition for positing the question of the uniformity of nature is the subject's *knowledge* of objective reality, qua objective. For the problem of the uniformity of nature arises for a subject only if he knows of the possibility that reality extends beyond his knowledge, and admits his inability to empirically confirm the existence of natural regularities. The notion of knowledge I am referring to here is minimal, and I rely only on the premise that the subject has some form of justified belief that objective reality exists.[10]

7.4 Knowledge, Objectivity and Time

Following Kant, the background requirements for introducing the problem of the uniformity of nature serve as the premises of my argument. I therefore assume that a subject has some form of knowledge of the existence of objective reality (that is, reality which is independent of any knowledge of it), qua objective. (From this point I shall omit the phrase "qua objective" and simply refer to the subject's knowledge of objective reality). I begin (in this section) by describing a difficulty in explaining knowledge of objectivity. I then show that this difficulty is solved by temporality, by enabling the subject to acquire knowledge of things in the past, which he has no knowledge of at the time of their existence. This ability is thus shown to be necessary for knowledge of the existence objective reality

In order to know of the existence of objective reality, qua objective, the subject must know of its independence of his knowledge. However, it is not clear how the subject can know that there are things that he does not know, or even that there are things which would have been the same even if he would not have known about them. The subject's difficulty of acknowledging the independence of reality from his knowledge is explained by the fact that he can never be justified in accepting the proposition "*p,* and I do not know of *p*." For, if he is justified in believing that *p*, he is no longer justified in believing that he does not know of *p*. Hence, a subject seems to have no justification for accepting the existence of objective reality. Notice that it is not sufficient to grant the subject knowledge of the existence of objective facts if he merely accepts the logical possibility of "*p*, and I do not know of *p*," for in this case he merely knows of the logical possibility of objective facts, but not that such facts truly exist.

[10] This demand for justification is general, and is not committed to any specific account of knowledge (For example, it does not exclude reliabilist-externalist theories of justification). However, my use of the term "knowledge" obviously contradicts accounts which deny that knowledge can be analyzed in terms of justified belief (see, for example, Williamson 2000).

It is important to realize that the answer to this problem must be theoretical, rather than practical. Practically, it is possible to rely, for example, on the evidence of another subject in order to learn about things I do not know. However, the question is how the subject can justifiably accept that there are things he does not know. Relying on other subjects of consciousness does not answer this question, as evident from the fact that the proposition "I do not know that *p* but *b* knows that *p*" raises the same difficulty it sought to solve. This implies that any attempt to explain our notion of objectivity based on inter-subjectivity is doomed to failure.

The problem is how to explain the subject's knowledge of the limits of his own knowledge. Objectivity allows that *p,* while the subject does not know of *p*. However, it seems that the subject cannot know this possibility *directly*, by knowledge of particular cases of its realization. How else can this type of knowledge be explained?

It might seem that this problem can be solved by a distinction between a definite and an indefinite knowledge, that is, general knowledge that a fact exists, without knowing its specific attributes. However, it cannot answer the question I am raising here. To begin with, indefinite knowledge itself is in need of explanation. How is it possible for the subject to attain indefinite knowledge of objective facts if it is impossible to attain any definite knowledge of objective facts? Furthermore, indefinite knowledge of objective reality raises the same problem it meant to solve. Even if *p* is an indefinite proposition, it still requires explanation of how the subject can justifiably accept the proposition "*p,* and I do not know of *p*."

The answer to this question is found in the possibilities offered by temporality. Consider the following possibilities:

(a) *p*, and I did not know (in the past) that *p*.
(b) *p,* and I do not know (now) that *p*.
(c) *p*, and I will not know (in the future) that *p*.

Making explicit the temporal distinction included in proposition (b), and examining the possibilities this distinction suggests, offers an explanation for a subject's ability to know of the limits of his knowledge. Although drawing the distinction between objective reality and our knowledge of it in the present (b) is problematic, there is no difficulty in drawing this distinction in the past and the future. According to proposition (a) the subject is aware now that there were things the subject did not know in the past, and according to proposition (c) that subject knows now there will be things that subject would not know in the future. For example (a) I may find out in the morning that a lunar eclipse occurred during the night; (c) or I may learn that a lunar eclipse will occur tonight, while I will be sleeping. This epistemic independence characterizes objectivity, and therefore knowledge of this type serves as a basis for our knowledge of the objectivity of reality.

Propositions (a) and (c) reflect the possible expansion and contraction of knowledge in time and, furthermore, our knowledge of it. There may have been things I did not know in the past, but came to know now. Analogically, I may now know things which I will not know in the future (for example, I may forget them). The subject expresses his knowledge of the expansion and contraction of

his knowledge in time by propositions (a) and (c). Time thus enables us to explain the subject's ability to know of the limits of his knowledge, and thus learn of the distinction between objective reality and his limited knowledge of it.

This conclusion leads us to another background premise concerning the problem of the uniformity of nature. That is, time is a feature of every reality to which the question of its subjection to natural laws can possibly arise.[11] Following Kant, time is thus found to be the basis of knowledge of objective reality. However, contrary to Kant's position, this distinction is not interpreted in terms of a distinction between objective and subjective temporal relations. Rather, the subject's knowledge of the distinction between himself and objective reality relies on the possible expansion and contraction of his knowledge in time.

7.5 Perception

In light of the conclusion that a necessary condition for knowledge of objective reality is knowledge of propositions of type (a) and (c), let us now turn our attention to the necessary conditions for expanding and contracting our knowledge. In what follows, I concentrate on propositions of type (a), in which the subject acquires knowledge of things in the past of which he had no previous knowledge. However, the considerations I present are general, and equally apply to the propositions of type (c). I show in this section that sense perception is unable to account for this type of knowledge, which requires the subject to extend his knowledge beyond the things he perceives.

Knowledge of objective reality can be acquired either directly or indirectly. The direct form of acquiring knowledge of objective reality is sense perception (as I defined this term in Sect. 6.3). This knowledge is direct in the sense that it provides the subject with knowledge which is not the conclusion of any inferences or reasoning based on previous knowledge of reality. When asked, "How do you know that there is a chair in the room?" a possible reply would be, "I see a chair in the room," and there is no sense in further inquiring how I reach this conclusion. Obviously, it does not imply that this claim cannot be supported by other claims, or that it cannot be defeated by further evidence. However, sense perception offers the possibility of acquiring knowledge which is not deduced from any other premise.

[11] This conclusion might seem trivial, because of the tendency to interpret the principle of the uniformity of nature in spatio-temporal terms. According to this interpretation, the uniformity of nature implies that space and time are causally inert. The inertness of space and time enables us to formulate laws of nature, which apply equally to an indefinite number of cases, regardless of their spatio-temporal position. According to this interpretation of the principle of the uniformity of nature, either time or space is a necessary condition for raising the problem of the uniformity of nature. However, although I find this interpretation insightful, it is not as obvious as it may seem, and I do not rely on this interpretation in my analysis.

The first option that should be examined is therefore that a subject relies only on perceptions to acquire knowledge of objective reality. This implies that the subject does not rely on the premise that objective reality is subject to natural regularities. According to this suggestion, a subject acquires knowledge of things in the past, of which he had no previous knowledge (which implies that he is not relying on memories), based on perceptions alone. He would not be relying on any inferences, but rather directly acquire knowledge of the past. This "perception of the past" can be understood by analogy with ordinary perception, the only difference being that the things which are perceived are in the past. This is different from memory, because this form of perception does not rely on previous perceptions. Rather, this form of perception enables a subject to acquire knowledge of things in the past which he did not perceive at the past.

This hypothetical form of perception may raise some queries. However, this suggestion does not involve any straightforward contradiction. In fact, science tells us that ordinary perception is actually a perception of the past, because of the time it takes for information to reach our sense organs. Moreover, positing this hypothetical possibility is meant only to help uncover the significance of natural laws in explaining our knowledge of objective reality. As I show next, this hypothetical form of perception is unable to account for propositions of type (a).

Perceptions alone are unable to account for propositions of type (a), because the subject is incapable, based on perceptions alone, to determine that he perceives the past, rather than the present or the future. In order to understand why, recall that this suggestion implies that the time of perception is different from the time that is perceived. This is a straightforward implication of the possibility of perceiving the past. The subject therefore has to determine, based on his perceptions alone, that his current perceptions reflects past events.

There are two possibilities. Either the temporal order of the subject's perceptions necessarily reflects the correct order of things, or the temporal order of his perceptions does not necessarily reflect the correct order of things. The latter possibility implies a distinction between subjective and objective temporal relations, because it allows, for example, perceiving later events before their antecedents, perceiving successive events simultaneously, and vice versa.

I begin with the former possibility, according to which the temporal order of the subject's perceptions necessarily reflects the objective order of things. If this is the case, the subject can indeed perceive the past. This is possible, for example, if the subject's perceptions are always one year later than the things he perceives. However, if this is the case, it is difficult to see how the subject can determine the temporal relation between his perceptions and the things he perceives, in order to determine that he perceives the past. That is, he is unable to determine whether what he currently perceives is past, present, or future. As long as the subject is relying only on his perceptions, all that is available to him is the correct order of things, and he has no way of determining their position in time. For as long as the relations between the things in time are maintained, their temporal location is left undetermined, and this is true according to both a relational and an absolute conception of time.

Notice that the subject cannot rely on the temporal relations that obtain between his perceptions and his internal states in order to determine the correct temporal location of the things he perceives. For without assuming some form of regularity that links his internal states to external (objective) occurrences—which would contradict the premise that he is relying only on his perceptions—it is impossible for the subject to determine the correct temporal relation between his subjective states and objective reality.

The other possibility is that the temporal order of the subject's perceptions does not necessarily reflect the correct order of things. In this case, the subject must be able to determine the objective temporal relations based on the (subjective) temporal relations of his perceptions. This is not only a necessary condition for any knowledge of objective reality. It also a necessary condition for the subject to know that he perceives the past, as required by propositions of type (a). However, it is impossible for the subject to infer, from the subjective order of his perceptions alone, the objective order of things. Thus, as long as the subject is relying on his perceptions alone, he cannot know that he perceives the past, or even learn of the distinction between his perceptions and objective reality.

7.6 Natural Laws

Section 7.5 shows that it is impossible to explain knowledge of objective reality based on perception alone. As the first argument shows, perceptions alone cannot explain the knowledge of propositions of type (a), and is therefore insufficient for knowledge of objective reality. This implies that a necessary condition for this type of knowledge is that the subject is able to extend his knowledge of reality beyond the things he perceives by his senses. In other words, knowledge of objective reality requires the possibility of knowledge of the existence of things that are not perceived. Explaining this possibility is the key to uncovering the connection between objectivity and natural laws. Since knowledge requires justification, the question is: what are the necessary conditions for allowing a subject to infer the existence of something unperceived?

To begin with, because the conclusion is a contingent fact, the inference must include contingent premises. These premises must include propositions that are justified directly by perceptions. This is because perceptions, as a direct means for acquiring knowledge of contingent objective facts, must form some kind of basis for any knowledge of objective reality.[12] However, the inference must include other contingent premises, which are not directly confirmable by perceptions (although they can, and indeed must be, confirmable indirectly by perceptions).

[12] I do not assume a foundationalist conception of knowledge, for I do not suggest that our *whole* knowledge is based on perceptions alone. Furthermore, this premise does not imply a denial of the possibility that the propositions which are based on perceptions would be dismissed based on a variety of different considerations.

This is because the conclusion of this inference, regarding an unperceived fact, is necessarily logically independent of the premises which describe the facts which are perceived by the subject. In other words, the premises, which are based on sense perception, and the conclusion, should describe different facts (see also, Wittgenstein propositions 1963, 1.21, 2.061, 5.135).

For simplicity, I discuss in what follows an inference that includes only one premise which describes a perceived fact. However, the same considerations apply equally to inferences which include multiple similar premises. Obviously, this premise is a singular proposition, because perception only provides us with knowledge of singular propositions. Accordingly, I assume that the subject perceives a state of affairs which is described by a proposition of the type "a is F at time T_1 and Place S_1." The conclusion of this inference relates to the existence of a past state of affairs [as required by propositions of type (a)], for example, "There exists a y, such that y is P at time $T_1 - \Delta t$ and place $S_1 - \Delta s$." The question is, therefore, what other premise (or premises) φ is (or are) required in order for the following inference to be justified:

(1) a is F at time T_1 and place S_1.
(2) φ
(3) There exists a y, such that y is P at time $T_1 - \Delta t$ and place $S_1 - \Delta s$.

Premise (2) is supposed to connect between premise (1) and the conclusion (3), which describe different and independent states of affairs. This can be done either with the help of a singular proposition, which relates directly to the facts that must be tied together, or with the help of a general proposition. According to the first option, premise (2) is (or at least implies) a proposition of the type:

(2a) If (1) "a is F at time T_1 and place S_1" then (3) "There exists a y, such that y is P at time $T_1 - \Delta t$ and place $S_1 - \Delta s$."

The resulting argument is valid, and the subject is justified in inferring the conclusion, thus extending his knowledge beyond the things he perceives. However, this suggestion begs the question. For according to premise (2a) there is a connection between the truth-values of propositions (1) and (3). In order to be justified in accepting this proposition as true, given that the subject accepts proposition (1) as true, he must know that proposition (3) is also true. However, this argument is called for exactly because the subject is not justified in believing that proposition (3) is true. It can therefore be concluded that premise (2a) is unable to explain the subject's ability to extend his knowledge beyond his perceptions.

The only legitimate way to connect propositions (1) and (3), and explain the subject's ability to extend his knowledge beyond his perceptions, is therefore with the help of a general proposition. As a general proposition, it relates to an indeterminate number of cases, and ties together different propositions by connecting the general terms which occur in them. According to this suggestion, premise (2) is (or at least implies) a proposition of the type:

(2b) For every x, for every w, for every v, if x is F at time w and place v, then there exists a y, such that y is P at time $w - \Delta t$ and place $v - \Delta s$.

Notice that premise (2b) does not involve the fallacy of begging the question, because knowledge of the truth of proposition (2b) does not necessarily rely on knowledge of the truth of proposition (3). Although it may seem that in order to know the truth of a generalization one is required to examine every singular case that falls under it, this is not the case with natural laws, but only with accidental generalizations (Goodman 1965, p. 23).

Furthermore, if the uniformity of nature is an a posteriori premise, then it might seem reasonable to argue that knowing the truth of a generalization requires knowing the truth of every instance. However, if the principle of the uniformity of nature is an a priori truth, as I maintain in this chapter, then there is no need to examine every instance in order to *confirm* a generalization. Obviously, the claim that reality is subject to natural laws does not imply that every instance can be generalized. However, the principle of the uniformity of nature legitimizes generalizing, while shifting the focus to the question: in what circumstances is it legitimate to generalize? Furthermore, what is important in the present context is the role that generalizations fulfill in explaining our ability to extend knowledge beyond perceptions. Obviously, this kind of reasoning is always corrigible. However, we are not aiming at skepticism in this chapter; the important role filled by the premise that reality is subject to natural laws, in explaining the ability to extend knowledge beyond perceptions, is undeniable.

My conclusion is therefore that it is impossible to extend knowledge beyond the things perceived, based on a connection which obtains between singular facts alone. This connection (if indeed it is possible to call it a "connection") is necessarily unique, and therefore this knowledge requires knowledge of all the facts involved. The only possibility of connecting singular facts, one of which is unknown to the subject, is with the help of a generalization. Hence, without relying on generalizations it is impossible to extend our knowledge beyond the things we directly perceive.

Only the premise that reality is subject to natural laws can therefore explain the possibility of propositions of type (a). This implies that the principle of the uniformity of nature is necessary for knowledge of objective reality. The claim that every objective reality, which can be known to be objective, is subject to natural laws, is therefore a necessary truth.

The previous analysis shows that knowledge of objective reality relies on the premise that reality is subject to natural regularity. Without relying on the existence of natural laws, the subject could not know of the limits of his knowledge, and therefore would be unable to know of objective reality. Hence, every possible reality is subject to natural laws.

I should note that this conclusion relates to regularity in a broad sense. However, this regularity is similar in some important respects to the way we conceive laws of nature, for it connects together past and future occurrences in terms of necessary and sufficient conditions. For example, in propositions of type (a), the subject acquires knowledge of a past fact p, of which he had no prior knowledge. In order to make this possible, the subject must rely on his knowledge of another fact q, such that q is a sufficient condition (possibly with some other conditions) for p.

It may seem that the regularity that is required in order to explain the ability to extend knowledge beyond perceptions, need not necessarily connect occurrences at different times. It may appear, for example, that the subject can rely on regularities which obtain between simultaneous occurrences. Thus, the subject can infer the existence of a past occurrence, of which he had no prior knowledge, based on other occurrences at that time, which he knew. However, this suggestion does not enable, for example, the subject to know of the existence of periods of time in which he had no knowledge at all of reality (for example, periods of time in which he was asleep), a possibility which follows from the existence of objective reality. In order to know of this possibility, the subject must rely on his knowledge of the occurrences before or after this period of time. Hence, the subject can infer the existence of a period of time in which he had no knowledge of reality at all based only on natural regularities which connect occurrences at different times.

My analysis focused on propositions of type (a). However, the considerations I presented are equally relevant to propositions of type (c). This is also true regarding the nature of the regularity which is required in order to explain propositions of type (c). In fact, the need for natural laws that link occurrences at different times is even more evident in propositions of type (c), because we have no "recollection" of the future. Hence, in order to explain the propositions of type (c), the subject must rely on regularity, which binds together occurrences at different times, such that former occurrence are sufficient for inferring the existence of later occurrences.

There is a familiar criticism of transcendental arguments, according to which all that transcendental arguments can prove is that the subject should believe such and such, but not that things are objectively so (see, for example, Stroud 1968, p. 255). However, I remind you that the context of the present discussion is not skeptical, and the ability to acquire knowledge of objective reality is not currently in question. Rather, presently I am inquiring about the necessary conditions for acquiring knowledge of objective reality.

If the subject *knows* of objective reality (rather than *merely believes* in its existence) based on the premise that reality is subject to natural laws, as the previous analysis shows, it is impossible that he merely believes (rather than knows) that reality is subject to natural laws. The previous analysis shows that the premise that objective reality is subject to natural laws forms a basis for our knowledge of objective reality. Knowledge require justification, and if a subject believes in the existence of objective reality, based on the false premise that it is subject to natural laws, he does not truly knows of objective reality, even if his belief is incidentally true.

7.7 Conclusions

My conclusion is therefore that a necessary condition for knowledge of objective reality is that this reality be subject to some natural laws. These laws connect together occurrences in different times, such that the existence of one is a

necessary or a sufficient condition, possibly together with some background conditions, for the existence of the other. Every possible reality for which the question of its subjection to natural laws can arise is therefore subject to some natural laws of this nature. Furthermore, this question arises for a subject only regarding a reality which he knows to be objective. This condition is fulfilled by the necessary conditions for self-consciousness, which are uncovered in Chap. 6 as necessary features of reality. Hence, the conclusion of this chapter is that every possible reality is subject to natural laws.

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Chapter 8
Conclusions

Abstract The conclusion of this book is idealistic. Every possible reality assumes the existence of a consciousness, which is part of this reality, from whose point of view this reality is described, and its existence is determined. Existence is therefore relative, rather than absolute, and determined in relation to a point of view of a consciousness, which is part of reality. The conclusion that existence is relative, and determined in relation to a point of view which is internal to reality, implies an answer the question "Why is there something rather than nothing?" For an implication of the idealistic conception of reality outlined in this book is that a reality necessary exists.

Keywords Existence • Idealism • Necessary existence • Relative

My aim in this book was to isolate certain features of reality which are necessary. For this purpose I analyzed the concept of existence, revealing the conceptual complexity which supports this concept. I showed that there are necessary connections which hold between existence, time, consciousness and objectivity, which is constituted by natural laws; together these yield a necessary structure for reality.

My analysis relied on a view of language as a network of coordinates. According to this view of language, the meaning of every meaningful component in language is determined by the function it serves in mapping the totality of conceptual possibilities contained in its conceptual scheme.

I found that the concept of existence is used in order to affirm that a certain conceptual possibility is realized. The necessary conditions for the meaningfulness of the word "exist" I showed to be identical with the necessary conditions for the meaningfulness of expressions in language, as well as with the necessary conditions for the contingency of propositions. Only those things which are described by contingent propositions can therefore be meaningfully said to exist.

Describing any possible reality necessitates the use of contingent propositions. My analysis of this constraint showed that describing reality requires the use of

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contingent propositions only if describing this reality requires the same proposition to actually be both true and false in different circumstances. It emerged that it is a change in determinations of past, present, and future which explains the change in the truth-value of propositions which describe reality. Every possible reality is thus a temporal reality, and is characterized by change in the determinations of past, present, and future. Propositions that contain temporal indexical components are therefore the basic propositions of language, and form the basis for every meaningful proposition in language.

My analysis of the distinctions of past, present and future showed that they presume a distinction between the past and the future and the (present) consciousness of the past and the future. These distinctions, I argued, are therefore subjective, in the sense that they are determined from the point of view of a consciousness, from whose point of view they are used for describing reality. Change in these determinations I subsequently showed to imply the possibility of periods of time in which this consciousness does not exist. This possibility implies a distinction between this consciousness and a temporal and objective realm of reality, which is independent of any consciousness of it.

My analysis of self-consciousness revealed that it is constituted by an awareness of the distinction between this consciousness, as a temporally extended point of view over reality, and a temporal and objective realm of reality, of which this consciousness is aware. This implies that the necessary features of reality described earlier are sufficient for allowing the consciousness, from whose point of view reality is described, an awareness of its existence as a consciousness, that is, self-consciousness.

Finally, an analysis of the problem of the "uniformity of nature" shows that every reality for which the question of its subjection to natural laws can arise is subject to natural laws. Furthermore, I argued that this question arises only for a subject who knows of the existence of objective reality, qua objective, and that these conditions are identical to necessary features of reality which are uncovered in the previous chapters. Hence, every possible reality is subject to natural laws.

The conclusion of this book is idealistic. The view of reality developed here does not imply that every existent thing assumes consciousness of it. On the contrary, according to this conception of reality every possible reality includes a realm of reality which is independent of any consciousness of it. However, every possible reality further assumes the existence of a consciousness, which is part of this reality, from whose point of view this reality is described, and its existence is determined. For propositions which have temporal indexical components are basic to descriptions of reality, and these presuppose a point of view. Every description in language, whether concerning existence or non-existence, ultimately presumes a point of view which is internal to reality. Existence is therefore relative, rather than absolute, and determined in relation to a point of view of a consciousness, which is part of reality.

The conclusion that existence is relative, and determined in relation to a point of view which is internal to reality, implies an answer the question "Why is there something rather than nothing?" According to this conception of existence, every

possible reality presumes the existence of an internal point of view of it, from which its existence is determined. There is no possible external point of view over reality from which it is possible to determine its existence. As the meaningfulness of any proposition in language presumes the existence of a point of view which is internal to reality, from which this proposition describes this reality. Thus, the sentence "There is nothing" expresses a self-contradiction. For the meaningfulness of this sentence assumes the existence of a point of view which is internal to a reality. Thus, the proposition "There is nothing" both implies the existence of reality while simultaneously explicitly denies its existence. Likewise, the sentence "There is something" expresses a conceptual truth. For the meaningfulness of this sentence assumes the existence of a point of view which is internal to reality. Thus, the meaningfulness of this sentence implies the proposition it expresses. An implication of the idealistic conception of reality outlined in this book, is therefore that a reality necessary exists.