

Knowledge of How Things Seem to You:

Readings in *From Brain to Cosmos*

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Abstract

This document consists primarily of an excerpt (chapter 4) from the author's book *From Brain to Cosmos*. That excerpt presents a study of a specific problem about knowledge: the logical justification of one's knowledge of the immediate past. (This document depends heavily upon the concept of subjective fact that the author developed in chapters 2 and 3 of *From Brain to Cosmos*. Readers unfamiliar with that concept are strongly advised to read those chapters first. See the last page of this document for details on how to obtain those chapters.)

For more information about the author's book *From Brain to Cosmos*, or to learn where to find other chapters of the book, please consult the last page of this document.

Chapter 4

On Knowing What Just Happened

In the last two chapters I introduced some concepts and devices for the description of experience. My first application of these devices will be to a problem about knowledge. This is the problem of justifying beliefs about the past. With the help of the concepts of subjective fact and of consciousness events, I will argue that some of one's knowledge of the past can be known with certainty. More precisely, I will contend that there are certain facts about immediate past experience which are true if and only if they seem true. Such facts can (with certain provisos) be known with the same degree of certainty as facts about the way things seem now.

Later in the book I will discuss other questions about the trustworthiness of experience (such as experience of other minds and of physical objects). These problems are beyond the scope of this chapter.

Certain Knowledge About Experience

In most cases, the fact that something seems to be the case does not guarantee that it really is the case. We may ask whether there are any statements whose truth is implied by their apparent truth: that is, statements which, if they seem to be the case, are the case. The existence of statements of this sort would imply that some of our knowledge is, at least in a restricted sense, certain — not merely highly probable, as is most of our knowledge. The main objective of this chapter is to show that there are statements of this kind.

When attempting to show that there are statements of this sort, we are better off not using any premises which are less certain than the knowledge whose certainty we seek to evaluate. If we use such premises, the argument for the certainty of the knowledge in question becomes uncertain, undermining our sought-after confidence in the certainty of the knowledge. Although an argument whose premises are truly certain may be an unattainable ideal, we will aim toward this ideal by building the argument on facts about what seems to be the case.

In addition to restricting our premises in this way, we should restrict our forms of argument in certain ways. For example, we should not employ inductive reasoning, or any other technique of argument or proof which, by its very nature, can lead from more certain premises to less certain conclusions. We also may exclude the use of certain

deductive arguments, as I will point out shortly. If we are thorough, we even will restrict the sizes of the arguments we use: those arguments cannot be too long!

One's confidence in the validity of a very long argument depends upon one's beliefs about the reliability of memory. If an argument is too long to keep in mind all at once, then one believes its conclusion because when one reaches the conclusion, one recalls that one went through the earlier steps and found them correct. (This kind of recall may be aided by the making of notes — either actual notes on paper or so-called "mental notes"). When one finally gets to the conclusion, it seems to be the case that the argument had earlier steps which were correct. But one does not now remember those steps all at once; if the argument is long enough, one cannot hold all the premises in memory now, together with enough steps to recognize the argument as formally valid now. Hence, if we aim for the highest possible degree of certainty, we should not assume uncritically that a very long argument really is correct. (Even if you are not a Cartesian skeptic, certainly you must misremember things at times.)

Short arguments sometimes can escape this difficulty. When thinking about very short arguments, one can (and often does) hold the essential features of the whole argument in memory all at once. Metaphorically speaking, one "sees" that the argument is correct. Thus, if one wants to prove to oneself that a particular kind of experience is reliable, one must use short arguments of this kind to do so. Any argument which claims to show that certain sorts of

experience are completely trustworthy must be so short that we can grasp the argument all at once *now*, in a single mental act. (If the understanding of the argument requires some preliminary thinking which is not part of the argument, then that is acceptable too.)

Some general claims about subjective fact can be grasped *now* in just this fashion. Consider the claim (made in Chapter 2) that "Pluto is overhead" is neither the case for you now nor not the case for you now. It may take some time to understand the concepts necessary to grasp the meaning of this claim. It may even take some time to convince yourself of the reasons given in Chapter 2 for accepting this claim, or to find your own reasons for accepting it — if you are going to accept it at all. But once you understand the claim and become sufficiently familiar with the argument for it, you can grasp this claim, together with its main supporting reason, *all at once right now*. One who has read and understood previous chapters, and who understands the Pluto claim and the arguments for it, could explain and justify this claim without having to rifle through the earlier pages of the book. Once one grasps the concept of being the case for, the actual argument necessary to establish the claim in question is not that long. It can be summarized in one informally worded sentence: "Pluto doesn't seem like *anything* to you; it just *isn't there* for you." One can grasp this kind of justification *now*, without having to cite past arguments whose many steps one no longer remembers.

There is nothing wrong with using long arguments to lead

up to a claim whose justification can afterwards be grasped without the aid of such arguments. Without such longer arguments we would get nowhere. But since we are trying to derive our conclusions from facts about how things seem, we must try to use only arguments which can be grasped "all at once" — as when one "sees" a brief argument after following it through and understanding all of its steps.

Seeming to Seem

It often *seems* to an observer that something *seems* to be the case. The following examples illustrate this fact.

(1) I am looking at an orange square. Someone asks me "What seems to be in front of you?", so I begin to pay attention to what I am seeing. I realize that it seems to me that there is an orange square. It seems to me, at the moment of this realization, that it seems to me that there is an orange square.

(2) Does there seem to be a book here? It seems to you, at the moment when you realize that you are reading a book, that it seems to you that there is a book in front of you.

(3) Look straight ahead. Then suddenly look away at some other object. The moment after you looked away, it seems to you that something has just

happened. Statically looking at the new object is not the same experience as looking at the new object after just having moved your eyes. In the latter case, you get the impression that something has just taken place. This feeling is not present if you merely stare at the new object.

(4) You hear a sudden, loud noise resembling a gunshot. At once you are aware that "something happened." You didn't just hear the noise — you were "hit" by the noise sensation, then became aware that something happened. Before you had time to think "Hey, what was that?", you became aware that something had occurred, that things had altered. What happened was that you perceived a noise. (The external physical event that caused the noise also happened, but it happened before you heard the noise; the experience resulted from a later perceptual process.) Although you did not yet have time to think about it, it seemed to you that you just had an experience happen. In other words, it seemed to you that something seemed to be the case.

I will discuss examples (3) and (4) first, and will return to (1) and (2) later.

In examples (3) and (4), an experience seems to have occurred just a moment ago. In (3) the experience was one of a change within the visual field; in (4), it was one of a loud auditory bang. These examples can be redescribed in

terms of subjective fact. When they are redescribed, they come out as examples in which something seems to have just seemed, in the immediate past, to be the case. In (3), it seems to be the case for you now that a different view seemed to exist. In (4), it seems to be the case for you now that there seemed to be a loud noise.

In both of these cases, it seems *to you now* that some fact was, or is, the case for you — but not that that fact is the case for you *right now*. It seems to you now that that fact was the case *for you sometime* — specifically, in the immediate past. In (3) or in (4), the relevant fact (the occurrence of the other view or of the bang) does not seem to be the case for you *now*. It seems to have been the case for you in the *immediate past* — in a preceding moment of time.

We can restate these examples in the language of consciousness events. In example (3), it is the case for your present consciousness event that there is a consciousness event for which certain facts are the case. (In the preceding sentence, I used "there is" to cover, not only putatively present consciousness events, but putatively past and future ones as well. I can indulge in this practice because the quantifier over consciousness events has been interpreted substitutionally (recall Chapter 2); hence quantifying over past and future consciousness events does not commit us to the reality of past or future entities. The reader who is uncomfortable with this usage of "there exists" may replace this "there exists" by "there was, is, or will be.") In example (4), it is the case for your present consciousness event that

there is an instance of seeming (consciousness event) in which there is a loud bang.

These examples illustrate an interesting fact about experience: that it can seem to be the case that an instance of seeming *just happened*.

Experiences of this sort must not be confused with experiences involving memory. It may seem to me at 1 pm that I went to work this morning. But in that case, it does not seem to me that my arrival at work just happened. At 1 pm, none of the consciousness events which make up my experience of arriving at work seem to me to exist. They are no longer part of my inner world — as the older visual perspective in example (3), or the loud bang in example (4), still are for a moment after they happen. Only the memory of what happened this morning remains; I can no longer notice myself experiencing my arrival at work, as I can now notice myself experiencing the loud noise which I heard a fraction of a second ago.

The consciousness events which I had while arriving at work much earlier in the day do not exist for me at 1 pm. But in example (3), the consciousness event for which the previous view exists is part of the subjective realm of the next consciousness event. The fact that something was just experienced (that is, that there was a consciousness event for which something was present) is the case for the next consciousness event.

Examples (1) and (2) are much like examples (3) and (4). In them, it seems to a subject that in some instance of seeming, things seem a certain way. (Of course, the subject

might never think of describing his or her experience in this way, but the relevant instance of seeming exists for him or her nevertheless.) In examples (1) and (2), it is not so clear whether the consciousness event which seems to exist seems to be *immediately past* or seems to be *present but being replaced*. But in either case, the apparent transitoriness of the instance of seeming is evident. The general sort of experience involved is the same as in examples (3) and (4): it seems to me now, that something or other seems (or seemed) to me to be the case.

The Redundancy of Seeming

One of the most notable *logical* characteristics of seeming is this: if it seems to be that things seem a certain way, then things do in fact seem that way. (In symbols: if it seems that it seems that P, then it seems that P.) This putative fact has been discussed in the literature, and has been made quite explicit by Dennett.¹ Here I argue that this putative fact really is the case, and I also explore the reasons why it is the case. The following example illustrates this characteristic of seeming.

Suppose that I am now seeing an orange square. A Cartesian skeptic, or a behaviorist, comes along and says: "I admit that you are having the experience colloquially called 'seeing an orange square.' You claim that it seems to you that there is an orange square, and I concede that you are neither psychologically nor linguistically confused nor lying.

Yet it does not really seem to you that there is an orange square. Instead, it merely *seems to you* that it seems to you that there is an orange square."²

An appropriate informal reply to this skeptic runs as follows. When I say that it *seems* to me that there is an orange square, I am, of course, describing the way things appear to me. Consider what the skeptic is saying when he says that it *only seems* to me that it seems to me that there is an orange square. The positive part of what he is claiming amounts to this: that it appears to me as if an orange square were apparent to me. But how can this be true unless an apparent orange square does in fact figure in my experience in some way? Even if I am easy to deceive, I cannot be fooled in such a way that it seems to me that there seems to be an orange square, unless an apparent orange square plays some part in the experience which is deceiving me. To manipulate my experience so that it seems to me that I am experiencing an orange square, you would have to introduce an orange square into my experience in some way or other. If you did not do this, then it could not even seem to me that there *seems* to be an orange square. But if you did do this, then it really *would* seem to me that there is an orange square. If there is no orange square at all in my experience, then how could it seem to me that there even *seems* to be such a thing? Evidently, the mere *appearance* that there *appears to be* an orange square involves the *appearance of an orange square*.

One may formulate this argument slightly more rigorously as follows. Let P be some sentence; for the first

stage of the argument, let P be a sentence asserting the existence of an object of a particular sort, say the Eiffel Tower. This sentence expresses a singular existence claim; as such, it is fraught with philosophical problems. However, these problems do not affect us here; the important point is that it may seem that P is true, as it would, for example, to a tourist looking at the Eiffel Tower. Suppose that it seems to be the case that it seems to be the case that P. Rewriting this in terms of instances of seeming, we get: in some instance of seeming x, it seems, in some instance of seeming y, that P. But this implies that in instance x, the instance y seems to exist. (Otherwise it could not seem in x that anything was true of y.) Now suppose that P is not the case for x. Then for x, there is no Eiffel tower. There simply is no such object for x; the "inner world" or "point of view" embodied in x just does not contain the Eiffel Tower. Thus, for x, it cannot seem to be the case that there is a consciousness event for which such a tower exists. No fact about the Eiffel Tower can seem to be the case in x, for in the point of view embodied in x, no trace of the Eiffel Tower is to be found. The consciousness event y may exist for x, but it cannot be the case that for x, there is a consciousness event for which the Eiffel Tower exists. For x, y cannot be such a consciousness event.

For the second phase of the argument, let P be an arbitrary sentence which may be true or false, but which may seem to someone to be true. For P to seem true to you, it must seem to you that a certain situation obtains; for example, if P is "It is hot in here," then it seems to you that P

if and only if it seems to you that your surroundings are hot. (If the apparent truth of P is not associated with an apparent situation in this way, then P could not seem to be the case to anyone; there would be nothing that it is like to experience that P.) Suppose that it seems to be the case that it seems to be the case that P. Once again, we rewrite this using two consciousness events: in some instance of seeming x, it seems that in some instance of seeming y, it seems that P. Now suppose that P is not the case for x. Then for x, the situation associated with P does not obtain; for x, there is no such situation at all. It follows that it cannot seem in x that there is a consciousness event for which the situation associated with P obtains. There simply is no such situation for x. Therefore, if P is not the case for x, then for x, there is no consciousness event y such that P is the case for y. (There may be a consciousness event y which exists for x, and is such that *in fact* P is the case for y. But this would not imply that for x, P is the case for y.)

This argument points out an important feature of the phenomenon we call seeming: namely, that what seems to seem to be the case, seems to be the case. The argument rules out the possibility that something "only seems" to someone to seem to be the case. Of course, the argument does not rule out mistakes about how things seem. It allows that many mistakes of this sort are possible, or arguably are possible. For example, I might be fooled into believing that it has seemed to me that there is an orange square, when in fact it has not so seemed. (Things of this sort happen in typical cases of erroneous memory.) However, mistakes of

this kind are irrelevant to the argument of the preceding paragraphs. The fact that it seems to me that there seems to be an orange square presupposes the fact that there *does* seem to be an orange square.

The arguments of the last few paragraphs issue in one conclusion: if it seems to you that it seems that P, then it really does seem that P. The claim that the appearance of something is merely an appearance of an appearance, as opposed to a *real appearance*, betrays conceptual confusion. There can be no difference between an "apparent appearance" and a "real appearance," since all appearances only consist in what is "apparent." (Recall endnote 1.)

If things "really seemed" one way but appeared to seem some other way, then that *other way* would be the way things really seem to you. The other way would be the appearance that you actually get. If the fact P only seemed to seem to be the case, then P would play a part in the way things seem — in how things seem to you at the moment. Hence P would in fact seem to be the case.

If we recall the discussion of the consciousness sense of "seem" in Chapter 2, we can see where the above conclusion really comes from. It is a partial rendering of what we mean by "to seem" in the consciousness sense. We can best understand this by thinking of seeming as a modal operator, as we did in the appendixes to Chapter 3. The following paragraph (which non-logicians may skip over) shows this.

Let S be a "seeming operator"³ — that is, an operator such that for any sentence P, SP is true if and only if it seems that P (either simply, or in some particular instance).

Let M be some unspecified modal operator. Suppose that SMP does not entail SP. Then it can seem that MP even if P does not seem to be the case. If MP can seem to be the case whether or not the fact that P plays any role in experience, then "MP," by itself, cannot convey information about the role played in anyone's experience by the fact that P. Such an operator M cannot adequately represent seeming or appearance. A modal operator of this kind may be interesting and important — the past tense operator of tense logic is one obvious example⁴ — but it cannot be an operator representing seeming. To qualify as a seeming operator, a modal operator must not give an apparently true result when applied to a sentence which has *nothing at all* to do with what is being experienced.

This argument shows that the rule that "what seems to seem to be the case, really seems to be the case" is a general logical property of consciousness. It is one of the criteria which a sense of "to seem" must meet to be considered identical to the consciousness sense of "to seem."

We can put this rule in the language of subjective fact (and avoid further repetitions of "seem" and "appear") as follows. Let P be a sentence. If for some consciousness event, it is the case that it seems to be the case that P, then it seems to be the case that P. Proceeding further, we can replace "it seems to be the case that" with the strictly equivalent "it is the case for some consciousness event that." Then we get: If for some consciousness event it is the case for some consciousness event that P, then it is the case for some consciousness event that P.

This conclusion becomes less convoluted when we write it in a slightly more symbolic way:

If for some instance of seeming x , it is the case that (for some instance of seeming y , it is the case that P), then for some instance of seeming z , it is the case that P .

I will call this conclusion the *principle of subjective redundancy* (PSR), because it says, in effect, that multiple consecutive occurrences of "it seems that" are redundant.

The PSR has an interesting consequence. It reveals that there is a certain sense in which *you cannot be mistaken about what seems to be the case for you*. This consequence has little to do with older philosophical views about the infallibility of knowledge about one's own mental states (see below for more about these views). The PSR allows that you can make mistakes about what seems to be the case for you; it allows that you might describe appearances wrongly, even to yourself. But it forbids one kind of perceptual error: it says that things cannot seem one way but appear as though they seemed another way. The very idea of such an error is incoherent, as one learns when one fully grasps the notion of subjective fact.

Earlier I pointed out that an immediate past consciousness event can exist for a present consciousness event. When this happens, the present consciousness event and the immediate past one satisfy the PSR, where they play the roles of x and y respectively. Hence one's present perceptions of the

immediate past consciousness event are free of a certain kind of error. But this conclusion holds only for a past consciousness event so recent that it still exists for you, like the consciousness events in examples (1)-(4) above.

The PSR implies that our knowledge of some other consciousness events besides the present one is absolutely trustworthy, though only in a very peculiar and painfully limited way. This absolute trustworthiness can be summarized as follows: If I notice that I just had an experience, then I really had that experience. For all I know, that experience may be deceptive in many respects; there also may be much about it that I did *not* notice. But nevertheless, the experience really happened.

The PSR does not rule out the possibility of mistakes about one's own mental states, or even of mistakes (made slightly after the fact) about the way that things seem to oneself. The PSR appears to be weaker than certain other claims which have been made regarding the certainty of judgments about one's own mental states — for example, the claim of Bertrand Russell,⁵ and possibly that of Peter Carruthers.⁶ The PSR does not address the question of whether it is possible to believe wrongly that one is in a particular mental state; it does not rule out the possibility that I do not feel pain but only believe that I do.⁷ It does rule out the possibility that it seems to me that it seems that I am in pain, whereas actually I do not seem to myself to be in pain. But that is different from being wrong about being in pain. By no means does the PSR imply that *introspection* is

a reliable source of knowledge. It does not even guarantee that introspective knowledge, as ordinarily understood, is possible. Introspection involves sustained observation of, reflection on, and remembering of psychological processes; it does not merely tell us the way that things just seemed for us. The PSR also does not imply that phenomenological descriptions of one's own mental states — descriptions of the sorts used by philosophers of the various schools of phenomenology — always can be trusted.

The peculiar, limited sort of "incorrigibility" which the PSR implies is not threatened by the untrustworthiness of memory. The immediate awareness that something has just happened is different from memory, as memory ordinarily is understood. Instead, it involves something like what Russell called "knowledge by acquaintance."⁸ It happens before memory sets in, so to speak. Psychologists have used the term "sensory memory" to designate the transient sort of memory which persists briefly after a sensation ceases to be actually felt.⁹ Sensory memory may, at least during its earliest phase, involve the existence of an immediate past consciousness event for the present one. However, the existence of an immediate past consciousness event for the present one is not merely a special case of sensory memory, since it can involve an awareness of other mental phenomena besides sensations.

The PSR does allow us to claim qualified infallibility of a very restricted sort for one very special kind of knowledge. This knowledge can best be described as knowledge by acquaintance with what seems to be the case for us. What

we know by acquaintance with our own apparent inner worlds cannot be gainsaid. What seems to be in your inner world, is in fact in your inner world — where "inner world" refers only to the realm of facts that seem to be the case for you. The PSR does not imply even limited infallibility for *all* statements or beliefs about what seems to be the case. (For example, if I try to utter a sentence describing what seems to be the case for me, and this sentence is too long to *seem* to me to have been uttered, then I cannot be absolutely sure what seemed to be the case when I started the sentence.) But if I know, *immediately* after hearing a loud noise, that it seemed that there was a loud noise, then this knowledge is certain. It ceases to be certain very quickly.

The special, short-lived incorrigibility provided by the PSR is intuitively plausible. If I have just felt a great shock, then I cannot reasonably doubt that something has happened, and specifically, that I felt a great shock. I may doubt all sorts of things about the shock: that the shock was objectively real, that there really was a persistent subject who experienced the shock, that the shock really took the amount of time that it seemed to take, and so forth. But the fact that *I felt a shock* is beyond doubt.

(I should mention here that the existence for a consciousness event *x* of another consciousness event *y* does not imply that any particular fact that is the case for *y* also is the case for *x*. The PSR only insures that what seems, during *x*, to be the case for *y*, really is the case for some consciousness event.)

Later I will have more to say about knowledge of

consciousness events. For now the crucial point is the incorrigibility, in a very limited and special sense, of some knowledge of consciousness events other than the present one.

The PSR and Knowledge

The PSR allows one to justify claims about something other than one's present experience, beginning with facts about how things seem now. With its help, one can pass from facts about how things seem to facts about how things seem, or seemed, in another consciousness event. Hence *the PSR enables us to complete one step in the first part of the project of this book*. It does not give us knowledge of reality beyond how things seem, but it does let us draw a conclusion about the reality of the past — or, more precisely, about the status of certain facts which we ordinarily would regard as past. If there is a way things seem, and if it seems that there was an experience which just happened, then we can conclude that there really was a way things *seemed*.

The conclusion that one can know for certain what one has just experienced may seem obvious to everyone except a Humean skeptic.

The PSR probably is the weakest rule that will suffice to get us from facts about how things seem now, to other facts of any sort. Indeed, one can argue that the PSR must hold for knowledge to be possible at all. It is difficult to see how

one can justify any belief grounded in experience unless one grants the PSR, or some principle close to it. If the PSR is denied, something like the following could happen: I feel a great shock, notice that feeling, and yet do not have any grounds for justifying the claim that any experience has occurred. If knowledge is this elusive, then it is difficult to see how anyone can manage to know anything; one could not take note of the immediate past at all, and one could not know what just happened. If the PSR is false, then it is difficult for me even to justify the claim that it *seems to me* as if I just wrote a word. Thus the outright denial of the PSR might well lead to an utterly blank skepticism far deeper than Descartes' proposed doubt.

Fortunately, one never has to live with such skepticism. One can learn that this degree of skepticism is absurd by appealing to the PSR — a rigorized version of the vital logical principle that *to seem to seem, is to seem*.

In the remainder of the book, I will assume that consciousness events other than the present one can be known to exist in the way described in this chapter. Beginning from the experience-derived fact that there are consciousness events which exist for one another, I will attempt to justify other claims about the world.

Notes

Bibliographical references, cited here by author and year, can be found in the "Works Cited" section of the book. Numbers following such citations are page numbers unless otherwise indicated.

Chapter 4. On Knowing What Just Happened

1. See Dennett 1991, 132, 317-318; see also Dennett 1969, 157, where the words "seem to seem" are employed in an example sentence. (The phrase "seem to seem" also occurs in Dennett 1991, 132.) For an illuminating fantasy involving issues of how things seem to seem, see Smullyan 1981.

2. Dennett comes close to saying this when he says "*There seems to be phenomenology.*" (Dennett 1991, 366; italics Dennett's). See also Dennett's remarks on a perceived illusory pink ring (Dennett 1991, 362-365).

3. Dennett (in Dennett 1969, 157) has used the term "'seems-to' operator" in reference to a concept which appears to be similar or identical to the one I am capturing with my "seeming operator."

4. Tense logic is discussed in (for example) Newton-Smith 1980 (especially 52-54) and Prior 1957.

5. I refer to Russell's view in Russell 1912, 19.

6. On Carruthers' view, see Carruthers 1986, 29-32. But Carruthers does give an example supporting certainty about

how things seem (1986, 30). One might wonder whether the PSR implies Carruthers' views on certainty in Carruthers 1986, although I do not think that it does.

7. With regard to this possibility and related ones, see Carruthers 1986, 28-32.

8. Russell 1912, 48 (see also 46-47).

9. For a brief description of sensory memory, see Kagan and Havemann 1976, 63-64.

Works Cited

(Note added later: This list pertains to the entire book, not just to the excerpts.)

This list contains all works used as sources of information or ideas in this book. It is not a comprehensive bibliography of any sort. Many of the topics discussed in this book are subjects of vast bodies of published literature; others, such as introductory physics, are covered in many good books. In cases of these sorts, I concentrated on typical reference sources which I felt would be useful to the reader, or which I personally found helpful. (In areas of active research, these may not be the most current works available.) No slight is intended toward any work not mentioned in this list.

Dates following author's names are meant to be (approximate) publication dates unless a separate publication date is given, in which case they are meant to be (approximate) dates of first publication or creation. The latter dates come from the works themselves or their front matter, or occasionally from Durant 1953. Dates listed in this section should not be treated as exact; some may be educated guesses.

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About This Document and *From Brain to Cosmos*

Mark Sharlow's book *From Brain to Cosmos* was out of print at the time this document was prepared (late 2010). Most of the chapters of *From Brain to Cosmos* appear in the following documents, which may be available online:

“An Introduction to Subjective Facts” (chaps. 2-3)

“Knowledge of How Things Seem to You” (chap. 4)

“Personal Identity and Subjective Time” (chap. 5)

“Subjective Facts and Other Minds” (chap. 6)

“Time and Subjective Facts” (chaps. 5, 7-9)

“Conscious Subjects in Detail” (chaps. 5, 10-12)

“Beyond Physicalism and Idealism” (chap. 13)

“Which Systems Are Conscious?” (chap. 14)

Each of the above documents has “Readings in *From Brain to Cosmos*” as its subtitle and Mark F. Sharlow as its author.

Copies of the printed book may be available through sellers of used books.

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