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LA THÈSE A ÉTÉ
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THE TRUSTWORTHINESS OF MEMORY

by

Stanley Myers Browne

A Dissertation Submitted to the
School of Graduate Studies
in Partial Fulfillment of the Requirements
for the Degree of

Doctor of Philosophy

The University of Ottawa
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Preface

When I initially began to investigate the topic of the trustworthiness of memory, my interest in this topic was stimulated by a desire to find out why philosophers have tended to give less attention to memory than to perception. It occurred to me that the philosophers' rather incurious treatment of memory was, to say the least, surprising, since most of the things we claim to know presuppose memory. Furthermore, on the personal side, the phenomenon of memory held a special interest for me. On many occasions I had observed that the veracity of one man's memory claims was often rejected, because a group of people all said that the man's memory wasn't trustworthy. This suggested to me that the justification of a person's memory claim was not necessarily dependent upon the testimony of others.

I decided, therefore, to make a detailed examination of the philosophical literature on memory. But I had no idea when I began my examination that the successful completion of my dissertation would require that I digest a vast amount of the psychological literature as well. As a result of my diverse readings, I somehow feel that no philosopher can even remotely attempt to provide an analysis of what happens when we remember without an understanding

of the underlying psychology. What I have learned from my investigations into the phenomenon of memory is that there needs to be much more work done on this topic by philosophers. Our knowledge of the world is based upon both memory and perception.

The writing of this dissertation has been aided by the patient and thoughtful criticisms of my advisor and friend, Professor Andrew Lugg. Without a doubt, if it had not been for his unfailing support, the completion of this dissertation would have been difficult to achieve.

Finally, I extend a special acknowledgement of indebtedness to my wife, Joy, for her encouragement and faith in my ability to see this dissertation through to completion. Words cannot express the total input which she has given to me while writing this dissertation.

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Some dues may be just a bad memory; but you can't
really take that for granted unless you can trust your memory.

James Baldwin, Just Above My Head

CHAPTER I: INTRODUCTION

This thesis investigates the important problem of the nature and justification of memory claims. I argue for the following contentions: (1) that memory should be analyzed as a constructive process, the recall of stored information occurring only after an elaborate process of reconstruction; (2) that we should refuse to entertain the skeptical claim that our confidence in the trustworthiness of memory in general is invalid; and (3) that a contextualist view of justification is the most promising approach to justifying our particular memory claims. Finally, as a corollary of the preceding contentions, I argue that certain considerations which bear upon the problem of validating our trust in the reliability of memory show that foundationalism must be rejected as offering a coherent view of the nature of justification.

In this chapter my concern is (a) to provide a brief historical perspective on the philosophical treatment of memory with a view toward explaining why the study of memory should be one of the main concerns of epistemologists and (b) to describe the various issues which relate to the problem of the analysis of memory, skepticism and memory, and the justification of memory.

Section 1: The Philosophical Treatment of Memory

Nearly two hundred years ago Thomas Reid asserted that philosophers give less attention to memory than to the senses.¹ Similar observations about the common omission of memory from epistemological studies can be found in the philosophical literature up to the present. In 1886, Alexius Meinong asserted that hardly anyone has assumed that memory could be of basic interest for epistemological investigations;² in 1946 C. I. Lewis asserted that epistemological studies have generally avoided memory;³ and in 1977 Joseph Margolis stated that the literature on the epistemic status of memory is noticeably short.⁴

It would be no exaggeration to say that both Reid and Meinong are correct in their assessments of the attention given to memory by epistemologists. In Reid's case, the literature available to him on memory from the modern world was quite scant: there was Hume's classic but brief discussion of memory in his work A Treatise Of Human Nature,⁵ and Locke's equally brief discussion of memory in his book An Essay Concerning Human Understanding.⁶ From the ancient world there was Plato's comparison of memory to a wax tablet and to an aviary in his Theaetetus,⁷ and there was Aristotle's analysis of memory images as mnemonic tokens of past perceptual experiences in his discussion of

"Memory and Reminiscence". And we could say the same thing about Meinong that we have said about Reid, save that Meinong had Reid's work on memory available to him.

If we peruse the literature written on memory between 1886, when Meinong made his point about the lack of concern for the study of memory by epistemologists, and 1946, when Lewis made his point that "epistemological studies have quite generally avoided" the problem of the validity of memory, we find that there are but a handful of works on memory. But would we not be hard pressed to make a similar assessment of Margolis's assertion? Isn't Margolis exaggerating when he claims that the literature on memory is noticeably short? The literature now available, unlike that available to Lewis, Meinong and Reid, seems sufficiently plentiful to doubt the credibility of Margolis's assertion.

However, there is a sense in which Margolis's assertion is warranted. If we compare quantitatively the amount of literature written on memory to that written on perception, then we must surely agree that Margolis's assertion tends to be correct. Moreover, if the notion of the epistemic status of memory refers to the claim that memory is a premise of knowledge, then it would be correct to say that the literature on this subject is noticeably short. And if we interpret the notion of the epistemic status of memory

to refer to the claim that memory is a source of knowledge, then the literature about this claim is quantitatively miniscule in comparison to what is written about perception. Undoubtedly philosophers have given much less attention to memory than to perception.

What is interesting about this phenomenon is whether we should interpret the philosophers' incurious treatment of memory to mean that the study of memory is philosophically unimportant. If we were to attempt to answer this question by examining the philosophical literature written on memory, we would discover that no one has said that memory is unworthy of serious epistemological consideration. On the contrary, we would discover that there are some philosophers (Lewis, for example) who feel embarrassed by the common omission of memory from epistemological studies. And others like Meinong who believe that someone should plant the flag of epistemology into an area (memory) in which it has more than a valid claim. Thus, it seems that there are some philosophers who believe that memory is worthy of serious epistemological consideration, because memory is supposed to be both a premise of knowledge and a source of knowledge. Let us consider these two claims, one at a time.

The basic idea behind the claim that memory is a premise of knowledge is that we cannot avoid appealing to memory in arriving at our knowledge of the world. This idea has been variously formulated. For example, Russell claims

that memory is a premise of human knowledge because most of the facts which scientific laws are based on are admitted solely because they are remembered.⁹ Similarly, Richard Brandt claims that if we discount memory we would have no evidence at all that certain observations were made or that certain experimental arrangements were of a particular kind.¹⁰ And C.I. Lewis asserts that it is doubtful that any theory could ever be plausible which is not based on inferences from past experience.¹¹ In the view of these philosophers, then, memory is epistemologically important, because our scientific laws and theories are arrived at on the basis of inferences from past experience. However, we need to elaborate upon the idea that memory is a premise of knowledge because we need to have a clearer view of exactly what this involves. And we will need to show in more detail why the study of memory should be one of the main concerns of epistemology.

Let us agree that scientific laws are inferred inductively from past particular facts. For example, if we believe the law that whenever salt is dissolved in a liquid, then the freezing point of the liquid is lowered. We may ask ourselves how we came to believe this law. The answer is that we remember that on a number of past occasions that when salt was dissolved in a liquid the freezing point of the liquid was lowered. It is from facts such as these that we infer the law that whenever salt is dissolved in a liquid the freezing point of the liquid is lowered. Thus, our law is inferred from past examined cases.

The important point about this discussion does not concern the validity of inductive inference from past to future; it rather has to do with the fact that this inference rests on premises about the past. In other words, we assume now that certain past events did in fact occur.

As I noted above, Russell argued that the premises about the past are admitted solely because they are remembered. But why do we admit remembered premises about the past? Upon analysis we find that we do this because we assume that an event remembered probably did take place. In other words, we are confident that the general though not invariable trustworthiness of memory is veridical; we assume that memory is, as a rule, generally correlated with a past event. In Russell's words, it is this (i.e., the hypothesis that an event remembered probably did take place) that is the memory premise of knowledge.¹² Thus, we may say that the hypothesis of the general trustworthiness of memory serves as a premise of knowledge.

But even if we agree that memory is a premise of knowledge, why should this fact alone warrant the claim that memory should be one of the main concerns of epistemologists? By way of answering this, consider Lewis's assertion that if we cannot account for what everyone must assume is true -- the general trustworthiness of memory -- then our theories

would be inadequate.¹³ Although Lewis did not explain what he meant by this assertion in any great detail, he does say that the validity of empirical knowledge depends on inferences based on past experience.¹⁴ What this means with respect to our present discussion is that the unaccountability of our confidence in the general trustworthiness of memory would cast doubt upon our acceptance of any memory claim about the occurrence of a past event. For we assume that memory is generally reliable when we accept any particular memory claim as veridical. This particular issue will be discussed later in this chapter and in detail in Chapter Four.

But the question I want to bring out at present is whether there is any reason to believe that we cannot account for our confidence in the general trustworthiness of memory?

The answer to this question is affirmative. Indeed, even for those philosophers who believe that our acceptance of the hypothesis of the general trustworthiness of memory is necessary if science is to be accepted as mainly true, believe that there are serious problems in justifying the hypothesis. For example, Lewis argues that the problem of the validity of memory "constitutes a Gordian knot",¹⁵ because any attempt to validate our trust in memory must assume that some memories are trustworthy. And Russell argues that the general trustworthiness of memory "is not

capable of being made even probable by arguments which do not assume memory".¹⁶ Thus, it is argued that no non-circular justification of memory is possible.

Now I believe that the reason why philosophers like Lewis, Meinong and Margolis seem concerned about the fact that philosophers have traditionally paid so little attention to memory is that they understand that memory is a premise of knowledge. But they also understand that the problem of the validity of memory constitutes, in the words of Lewis, a Gordian knot. Thus, they feel that philosophers should give more attention to memory than they have heretofore given it. Therefore we may say that one area of concern of the phenomena of memory concerns the justification of memory.

But as I noted earlier it is also claimed that memory is a source of knowledge concerning the occurrence of past events. Now this claim is different from the claim that memory is a premise of knowledge. We may agree that memory is a premise of knowledge, even as -- along with some philosophers -- we reject it, as a source of knowledge. In other words, although it may be correct for us to say that the notion of the epistemological status of memory entails the view that memory is a premise of knowledge, it may or may not entail the view that it is a source of knowledge. Clearly, memory gives us information about the past.

But does it give us information about the past because it is a source of knowledge? Perhaps we say that memory gives us knowledge about the past because we have retained information about the occurrence of past events. Thus we may say that another area of concern with respect to memory concerns the analysis of memory.

Before I proceed to describe how philosophers have sought to answer the various questions which deal with the nature and justification of memory, I consider why memory has been given so little attention, even though there are good reasons for considering it, as we have just seen. The first thing I wish to point out is that there is no discussion of this issue in the philosophical literature. There are, of course, assertions about the lack of attention given to memory in contrast to the attention given to perception. But few have attempted to explain this phenomenon. The following is a brief, but plausible explanation.

A. D. Woozley, a contemporary memory theorist, has claimed that some philosophers have assumed that memory should play second fiddle to perception.¹⁷ Why this should be the case one can only conjecture. For example, Locke has asserted that "memory...is...in the next degree to Perception",¹⁸ and he has referred to it as "this secondary Perception".¹⁹ This seems a rather odd thing for him to say, especially when we consider that he also asserts that "where it

[memory] is wanting, all the rest of our Faculties are in a great measure useless: and we...would not proceed beyond present objects, were it not for the assistance of our memories."²⁰ But there seems to be no good reason why memory should be any less important than perception. Nonetheless, I think that one possible explanation for the general assumption that memory should play second fiddle to perception is that philosophers have traditionally treated memory as though it were analogous to perception. Thus, they have thought that memory introduces no new problems. The same issues crop up in memory as do in perception. But if this is the correct explanation for the rather curious treatment of memory, then it is mistaken. For, as we shall see, it maybe seriously questioned whether memory is in fact analogous to perception. Therefore, in the absence of any clear consensus about whether memory is analogous to perception, we should refrain from assuming that memory introduces no new questions for epistemologists.

But whatever the correct explanation may be, I believe that there is sufficient evidence in the entire corpus of literature on the subject of memory to show that there are serious problems with both the analysis and the justification of memory. Thus, let us consider in more detail exactly how philosophers have treated the problems of the analysis and justification of memory.

Section 2: The Analysis of Memory

The problem of the analysis of memory is primarily concerned with the question of what happens when we remember and when we forget. Traditionally philosophers have analyzed memory in a variety of ways. They have assumed that it should be analyzed as a mental occurrence in the sense that images are present in each act of remembering.²¹ Or, they have assumed that the immediate object of a memory experience is the actual event remembered.²² Alternatively, they have assumed that memory should be analyzed as the retention of knowledge on the grounds that when we remember we do not discover anything which we did not already know.²³ Finally, some have argued that memory should be analyzed as a constructive process.²⁴ On this view, the recall of stored information only occurs after an elaborate process of reconstruction.

As far as the issue of what and when we forget is concerned, the memory theorists of the image school of thought have virtually nothing to say. By contrast, some memory theorists of the retained knowledge view have tacitly assumed that forgetting occurs when the memory trace -- the internal representation of the specific information stored -- begins to decay. But the most informative explanations of the processes which occur when we forget are discussed by

proponents of the constructive analysis of memory. Thus, most of the data upon which we base our discussion of memory will come from this school of thought.

Let us now take a brief look at these various analyses of memory. As I noted in the above paragraph, philosophers have traditionally assumed that memory should be analyzed either as a mental occurrence or in terms of direct experience of the actual event remembered. In other words, there are two classical theories of memory analysis: realism and representationalism. On the realist view, the immediate object of a memory experience is the actual event remembered, while on the representationalist view, the immediate object of a memory experience is an image which represents the event remembered.

(a) Realism

The realist view of memory may appear to be a rather odd position for someone to maintain. For how could someone argue that a past event is actually before the mind when we remember? As Sidney Shoemaker has remarked, "not many philosophers have explicitly endorsed this view."²⁵ Thus, this would suggest that there are a few philosophers who have argued for a realist analysis of memory. For example, A. D. Woozley claims that "an act of memory has for its cognitive object the actual event remembered";²⁶ and

Samuel Alexander claims that the pastness of an object is directly apprehended.²⁷ Simply stated the central idea of a realist view of memory is that acts of remembering do not require any mediation between the rememberer and the event remembered. In Alexander's words, "I may see a man and remember that I heard his conversation yesterday. There I have the actual man before me".²⁸ As this example makes clear, a realist will assume that an analysis of memory will show that the immediate object of our memory experience is the actual event remembered.

I will evaluate this extraordinary view of memory in Chapter Two. For now we will proceed to describe the representational view of memory.

(b) Representationalism

Unlike the realist view of memory which assumes that no mediation occurs between the rememberer and the event remembered, representationalism assumes that our memory of past is mediated by images which are copies of past events.²⁹ On this view of memory, when we remember we remember via images which represent the event remembered. Thus the representational view of memory assumes that memory should be analyzed in terms of images which are copies of past events. According to this view of memory, when someone remembers a past event, his memory of that event consists at least partly, in his viewing of something that is not past

at the time at which the person has the memory. In other words, what a person sees or has in view when he remembers is an image which exists at the moment of the memory experience. But the image is something that exists now, so it is something that is not past at the time of remembering.

However, according to the proponents of this view the image is a copy or picture of the event remembered. For example, Locke argued that we have "the Power to revive again in our minds those ideas [images], which after imprinting have disappeared, or have been as it were, laid aside out of Sight."³⁰ Ideas for Locke are images or in his words, "pictures" of past perceptions. Likewise, Hume argued that "when we remember any past event the idea of it flows in upon the mind in a forcible manner".³¹ And Russell argued that "memory of past sensations seems only possible by means of present images".³² Thus, on the representational view of memory the immediate object of a memory experience is an "image" of past remembered events.

Now there are various objections to both the representational and realist analyses of memory. I would, therefore, like to briefly describe what arguments I will bring to bear against the traditional analyses of memory.

(c) Objections to Traditional Analyses of Memory

As I noted earlier, the realist view of memory assumes that the actual event remembered is before the mind when

we remember. But this view seems unintelligible to many people. If the event remembered belongs to the past, how can part of the remembering of it belong to the present? In other words, when an event is past, it ceases to exist; therefore the object of memory cannot be identical with the event remembered. For the sake of simplicity, let us refer to this argument as the argument from time.

Although this may seem to be a powerful objection to the realist view of memory, there are certain rejoinders to this objection. For example, C. D. Broad and A. D. Woozley have claimed that the argument from time is baseless because there is no a priori reason why past events cannot enter into a cognitive relation with a present mental event (i.e., the remembering).³³

However, I argue that the realist view of memory must be rejected despite Broad and Woozley. Their position is seriously flawed, even incoherent. If realism were true, it would mean that the same event could be both contemporaneous with certain other events, and also succeed these events. Moreover, I will argue that there is a systematic difference between the memory of a past event and the event remembered. That is, we cannot identify the past experience with the present memory, because the past experience is different in many respects from the present memory.

Likewise, the representational analysis of memory as formulated by Hume and Russell must be rejected because neither of their analyses can be corroborated by their hypotheses.

It should be pointed out, however, that my rejection of the representational analysis of memory is a rejection of only a specific type of representational theory. When I come to consider the constructive view of memory analysis I will consider the view which asserts that memory traces are internal representations of stored information. Thus, we must not conclude that simply because we reject the representational analysis of memory now under discussion, that all other sorts of representational theories must be rejected.

(d) Retained Knowledge View

The views considered up to now assume that memory is analogous to perception.³⁴ The claim that memory is analogous to perception is usually interpreted to mean that memory is a source of knowledge just as perception is a source of knowledge.

But in contrast to this view there are some philosophers who believe that it a mistake to treat memory as though it were analogous to perception. They argue that memory should be analyzed as the retention of knowledge rather than the acquisition of knowledge, since memory is not a source of

knowledge. According to the retained knowledge view when we say that someone remembers something, what we mean is that he has learned something and not forgotten it. As Gilbert Ryle has noted, "a person may recall a particular episode twenty times a day, but no one would say that he twenty times discovered what happened".³⁵ Therefore, memory does not resemble perception because memory is not a source of knowledge.

I will argue in Chapter Three that the retained knowledge view of memory should be rejected because it is the case that memory is in all crucial respects analogous to perception. The view which I shall argue for assumes that memory is a constructive process just as perception is a constructive process. To explain what this means, let me briefly consider the constructive theory of memory analysis.

(e) Constructive View of Memory

In contrast to the retained knowledge view of memory, the constructive view of memory asserts that memory is analogous to perception. On this view the role which stored information plays in recall is like the role which stimulus information plays in perception. As Ulric Neisser has noted, perception is constructive because one does not see objects simply because they are there; rather we see objects after an elaborate process of construction which makes use of relevant stimulus information.³⁶ Likewise, we do not recall

objects simply because traces of them exist in our mind; rather we recall them after an elaborate process of reconstruction which usually makes use of relevant stored information.

The constructive view of memory is diametrically opposed to the retained knowledge view of memory in the sense that it does not try to avoid appeal to mentalistic descriptions of memory acts as does the retained knowledge view. On the contrary, as Zenon Pylyshyn has noted, the constructive view of memory tacitly assumes that "explanations of cognitive phenomena will have to appeal to [mentalistic terms]...because it appears that certain regularities in human behavior can only be captured in such terms."³⁷ Thus, I maintain that the constructive theory of memory analysis is the most plausible candidate for explaining what happens when we remember.

The conclusion which I will deduce from the above argument is that there is nothing wrong in saying that memory is a source of knowledge concerning the occurrence of past events. If it is true that in each act of remembering there is the creation of something new, then it would seem to follow that memory can be a source of knowledge.

I also argue that the notion of a memory trace cannot be excluded from any analysis of memory. Contrary to what philosophers like Norman Malcolm and Carl Ginet have claimed,³⁸

7 I argue that Neisser's view of memory traces ought to be accepted. In Neisser's words, "Today's experience must leave some sort of trace behind if it is to influence tomorrow's construction".³⁹ On this view, the information upon which we reconstruct the past consists of traces of prior processes of construction.

Finally it should be noted that the constructive view of memory is closely modelled on recent developments in cognitive science. That is, it assumes that mental events like remembering are computational in the sense that information enters the organism through the sense organs to be transformed, stored, reorganized and later retrieved and used. On this view of memory, we assume that the way a program works inside a computer provides a good analogue to the way the mind works inside the brain, since both are descriptions of the vicissitudes of the input of information. Thus, memory theorists who accept the constructive aspects of remembering are concerned with the internal processes that occur during acts of remembering.

Before I complete my description of the constructive theory of memory, I should say a few words about the causes of forgetting. Basically, there are two theories of forgetting: trace decay and interference. According to the trace theory forgetting occurs when the memory trace -- the internal representative of the information stored in memory --

fades or grows weaker over time. Thus, trace decay is a passive process similar to the decay of radioactive material. In contrast to the trace theory, the interference theory posits the view that we forget because our retention of any given item is interfered with by other items we have learned that resemble it in some way. This may happen in one or two ways. Either we forget as a result of what psychologists call retroactive interference (or retroactive inhibition): forgetting occurs as a result of interference from something we have learned after the initial learning experience. Or, we forget because of the effects of proactive inhibition: interference from material that has been learned before.

In Chapter Three we will consider arguments which maintain that the interference theory seems to be the most important theory of forgetting. But for now we should proceed to describe the various issues concerning the justification of memory, since this is another area of concern among memory theorists.

Section 3: The Justification of Memory

In the preceeding section I have briefly described certain issues which pertain to the analysis of memory. In this section I will briefly describe issues involved in the

justification of memory. However, before I describe these issues I would like to point out that the analysis of memory is not identical to the justification of memory. It is primarily concerned with giving a narrative of the factors -- i.e., the structure and mechanics of memory -- that lead us to adopt the memory belief we do in fact possess. On the other hand, the justification of memory is concerned with the reasons that logically justify our memory beliefs. For example, what we learn need not be correct: We learn bad habits as well as good ones. Thus, the question of how we learned what we did is distinct from the question of the justification for relying on memory.

It is true that certain philosophers have claimed that the problem of the justification of memory is not a problem about the nature of memory because the problem of the justification of memory is how to give a non-circular justification of our memory claims. But I believe that it might be a mistake to assume that the justification of memory will never need to make use of our analysis of memory. For one thing, if we are concerned with the justification of some particular memory, then it would surely be reasonable to take into account any empirical data relevant to the justification in question. If we know that there is a high degree of probability that a certain amount of interference has occurred between an initial learning

experience and the memory recall, we may be inclined to either withhold judgement about the credibility of the judgement, or we may reject it altogether. My point is that the entire problem about the trustworthiness of memory must be explicable in terms of both the nature and justification of memory, although neither is dependent on the other in the sense explained above.

With this bit of introduction we may now proceed to consider what the problem of the justification of memory consists of. Briefly, the problem of the justification of memory consists of two sub-problems: The first deals with our justification for relying on the hypothesis of the general trustworthiness of memory. The second deals with the justification of particular memories. As we shall see in the following subsections the reason for treating the problem of the justification of memory in two parts is based on the assumption that we can test our memory judgments only on the assumption of the general trustworthiness of memory.⁴⁰ The problem, at least one of them, is whether we can justify our confidence in the general trustworthiness of memory. I will, therefore, discuss the problem of skepticism and the general trustworthiness of memory.

(a) Skepticism and the General Trustworthiness of Memory

The skeptical challenge to the problem of the justification of memory in general is that no non-circular justification of memory is possible.⁴¹ Briefly, the skeptical argument proceeds as follows. Suppose that we want to prove that the general trustworthiness of memory is true, that is, that memory is in the main a reliable indication of the event of which it purports to be a memory of. We would have to cite cases in which past rememberings have been veridical. But these past cases can only be known through memory. Thus, there is no way of arriving at things we know through memory by any attempt which does not assume memory.

I am in general agreement with the view of those philosophers who hold that view. We do not really need to answer the skeptic because on analysis we can show that the skeptical challenge is a bogus challenge. In other words, I believe that we should accept Michael Williams's claim that we should refuse to entertain the skeptical question, "What justifies our total system of beliefs?".⁴² For, if the "contextualization of the notion of justification brings with it contextualization of the notion of doubt",⁴³ then the skeptical claim that memory in general may be unreliable makes no sense independent of any concrete epistemic situation. In Chapter Five I will develop this line of

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argument in greater detail. But for now I want to describe what sorts of proposals are given to explain how we should proceed in justifying particular memory beliefs.

(b) The Justification of Particular Memories

Various proposals are put forth to explain how we should proceed to justify our particular memory claims. Briefly stated, these proposals are the original justification view, the independent evidence view and the coherence view of justification.

According to the original justification view of memory what originally justified one's belief continues to justify it at present in the sense that one's justification for knowing that something happened is the very same justification which one had at the time of the original incident. As David B. Annis has asserted, "if no part of the original justification is involved in justifying S's belief that h at t_1 , then it is not a case of memory".⁴⁴

I will argue that this view of memory should be rejected because I believe that there are cases of memory which the original justification view of memory will have a difficult time accounting for. And I will argue that the proponents of this view of memory ascribe to a mistaken view about the nature of unlearning.

In contrast to the original justification view, there is the independent evidence view which asserts that a good

reason for believing that a past event occurred is that there is independent evidence that it was so.⁴⁵ For example, suppose that a person claims to remember putting an insurance policy in a safe deposit box. To check the correctness of his memory, all we need to do is look in the box to see if the insurance policy is there. If it is, then his memory claim is veridical; if it is not, then it was delusive. The point of this example is that the person's memory was supported by something better than another memory. It was supported by the observation of the insurance policy in the box, giving actual corroboration that the person's memory was reliable.

I will argue in Chapter Four that the independent evidence view of memory should be rejected. I argue, contrary to philosophers such as A. J. Ayer and R. F. Holland, that it is false to claim that "it is only because there is independent evidence that when someone says that he remembers something the chances are that it was so".⁴⁶ I will argue that there are cases in which we would be willing to allow it to stand that someone remembers something, even when there is no independent evidence to corroborate the belief in question.

In contrast to both the original justification view and the independent evidence view, there is the coherence view of memory justification. On this view, a person's

memory beliefs are justified on their coherence with other memory beliefs and any independent evidence there may happen to be. The basic idea of this view of memory is formulated by Lewis: "If a sufficient number of such seeming recollections hang together sufficiently well and are not incongruent with any other evidence, then it may become highly probable that what [one] recollects is fact."⁴⁷

We may restate the coherence view of memory justification, as follows: p is justified for S if and only if p coheres with the rest of S's beliefs.

I maintain that this view of memory justification is essentially correct. It clearly avoids the objections which are put forth against the independent evidence view. It allows that a person's memory beliefs can be justified in the absence of any independent evidence to corroborate the belief in question. And it avoids the pitfalls of the original justification view of memory by not getting bogged down in an untenable view of memory recall.

The coherence theory also stands up against certain objections which are brought against it. It is not true that a coherence theory of justification will make it possible to believe anything whatever; it does not in itself cut justification off from the world. Furthermore, it would be a mistake to claim that we must accept a foundationalist

view of justification in place of a coherence view, if we want to avoid being caught in an infinite regress of justification.

On the contrary, I will argue that we should accept a contextualist view of justification which assumes that it is a mistake to assume that justification must have an essence, that it must conform to one pattern of justification in all contexts of inquiry. This is not true. For we should refuse to say what justification consists in independently of any concrete epistemic situations. What this means is that we should accept a radical contextualization of the notion of justification, thus making justification dependent on the context of inquiry. To paraphrase Michael Williams, it might be better to describe the approach to justification which I am suggesting as a contextualist view of justification, since this view of justification would not be a theory of justification in the usual sense of the word. A contextualist view of justification will involve coherence, but it is not a theory in the sense that the coherence view is a theory. There is no universal pattern of justification independent of all contexts of inquiry.⁴⁸

Section 4: Foundationalism and Memory Beliefs

There is an interesting consequence which follows from the contention that traditional epistemological theories cannot be regarded as giving a plausible conception of the nature of justification. For example, traditional theorists have assumed that the traditional conception of justification cannot be extended to cover the justification of memory claims because the assumption of certainty for memory is contradicted by the fact that we remember remembering things and later finding them false. However, they have failed to carry this argument to its logical conclusion. They have overlooked the fact that there are certain considerations which bear upon the problem of validating our trust in the reliability of memory which show that foundationalism must be rejected. In other words, it is implausible to claim that empirical knowledge rests on a foundation of epistemologically basic beliefs which are intrinsically credible. Knowledge does not rest on a foundation of perceptual knowledge because considerations which bear upon the problem of validating our trust in the reliability of memory show that foundationalism must be rejected as offering a coherent view of the nature of justification. I will develop this line of argument of Chapter Seven when I consider the implication of the problem of the justification of memory beliefs for foundationalism in general.

CHAPTER II

THE TRADITIONAL ANALYSIS OF MEMORY

The traditional analyses of memory are generally thought to be unacceptable descriptions of what happens when we remember. The realist view of memory is said to be "completely worthless", because it offers no more than the semblance of an explanation of our ability to remember.¹ And the representational view of memory is supposed to suffer from crippling disabilities, because the theory makes it impossible for us to know if we are actually remembering as opposed to merely thinking that we remember the past occurrence of some event.² Moreover, it is sometimes argued that both the realist and representational analyses are "misguided", because they imply that the same memory can disappear and reappear over and over again.³ Thus there seems to be no good reason why we should endorse either the realist or the representational analyses of what happens when we remember.

My objective, therefore, in this chapter is to provide a detailed account of the reasons which warrant the rejection of these two traditional analyses of memory. My strategy for dealing with this issue is as follows. First, I compare realism and representationalism. Second, I explain why we should not endorse their analyses of what happens when we remember the occurrence of a past event.

Section 1: Realism and Representationalism

As I noted in the first chapter of this thesis the realist view of memory assumes that the immediate object before the mind when we remember is the actual event remembered. And the representational view assumes that when we remember we remember via images which represent the event remembered. Consider the following descriptions of realism as formulated by Samuel Alexander, Richard Taylor and A. D. Woozley. According to Alexander,

The pastness of the object is a datum of experience, directly apprehended. The object is compresent with me as past... For example, I may see a man and remember that I heard his conversation yesterday. Here I have the actual man before me; but my memory of his conversation is not first taken by itself and then referred to him as I heard him yesterday. The memory-object is itself the object, and the only one I have, of the consciousness that I heard him yesterday.⁴

Similarly, Taylor claims that "the epistemological object of a normal memory is a past event in propria persona, and not some subjective image or other surrogate thereof."⁵ And Woozley claims that "the immediate object of remembering is the event remembered."⁶

As the above citations make clear, realists believe that the immediate object of our memory experiences is the actual event remembered. Alexander clearly supports this view of realism as evidenced by his claim that when he remembers

seeing a certain man, it is "the actual man" who is the object of his memory experience. Likewise, Taylor's use of the phrase "in propria persona" suggests that he, too, would agree that the actual event remembered is the immediate object of a memory experience. Thus we may say that according to a realist view of memory "S remembers an event only if the immediate object of S's remembering is the actual event remembered".

Now compare the above description of realism with the following descriptions of representationalism as formulated by Hume and Russell. On Hume's view,

We find by experience, that when any impression has been present with the mind, it again makes its appearance there as an idea, and this it may do after two different ways: either when in its new appearance it retains a considerable degree of its first vivacity and is somewhat intermediate betwixt an impression and an idea; or when it entirely loses that vivacity, and is a perfect idea. The faculty, which we repeat our impressions in the first manner is called the MEMORY, and the other the IMAGINATION.⁷

And on Russell's view, "memory of past sensations seems only possible by means of present images" which are recognized as copies of past sensible experience.⁸

As is reasonably clear both Hume and Russell believe that a person's memory of past events is mediated by the presence of an image which is alleged to be a copy of some past experience. Russell explicitly asserts that the

mechanism which puts us in contact with past events is the memory-image which is a copy of our past experiences. And Hume asserts a similar view as evidenced by his claim that remembering involves the occurrence of an idea (or image) which repeats our past impressions.

Thus, representationalism assumes that remembering is always mediated by the appearance of images which represent the occurrence of past events, while realism assumes that no mediation occurs between the rememberer and the event remembered. Images, which are a necessary component of a representational analysis of memory, have no significant role to play in the realist analysis of memory. As we will see in the sections below, both the realist and the representationalist have certain particular reasons why they either accept the inclusion of memory-images in an analysis of what happens when we remember, or why they exclude them from analyses of memory. However, the point I want to emphasize now is that the difference between realism and representationalism is that the representationalist assumes that remembering is always accompanied by the presence of images which are copies of past events.

Realism and representationalism both assume that remembering is a mental occurrence which takes place in the present. Both realism and representationalism assume that all memory occurrences are analyzable into present contents.

For example, Russell quite emphatically believes that "everything constituting a memory-belief is happening now";⁹ and Woozley also believes that "remembering is a cognitive act of the mind which occurs now".¹⁰ But the realist and the representationalist will part company on the question of what counts as the present contents of memory. A realist would argue that the present content of a memory experience is the actual event remembered, whereas a representationalist would argue that the present content of a memory experience is an image which represents or copies the event remembered. Thus, although both classical theories of memory will assume that remembering is a mental occurrence, and is analyzable into present contents, they differ about what the present contents of memory are.

I should also point out here that the realist and representationalist both believe that memory is a source of knowledge because memory is, in certain fundamental respects, analogous to perception. However, I shall not discuss this issue in this chapter because it seems more appropriate to discuss it in the next chapter when I consider the question whether memory is or is not analogous to perception.

Having contrasted realism and representationalism, it is now time to make a detailed analysis of the classical theories of memory analysis.

(a) Realism

As is reasonably clear from the preceeding descriptions of realism, all of the aforementioned philosophers believe that the immediate object of a memory experience is the actual event remembered. However, their particular formulations of realism require some elaboration, because it may not be quite clear to the reader what Alexander means when he asserts that the pastness of an object is directly apprehended. Or, what Woozley means by the notion of a "cognitive object".

For example, when Alexander claims that the pastness of an object is directly apprehended, he means that the immediate object of our memory experience is the actual past event. In his own words, "I may see a man and remember that I heard his conversation yesterday. There I have the actual man before me". As this example makes clear, Alexander believes that an analysis of memory will show that the immediate object of our memory experience is the actual event remembered.

Now Woozley and Taylor also believe that the actual event is the immediate object of a memory experience. However, we need to clarify what Woozley means when he asserts that an act of memory has for its cognitive object the actual event remembered. This notion of a cognitive

object refers to what we remember, namely the actual past event which is the immediate object of a memory experience:

Thus, we may say that the central idea of a realist view of memory is that acts of remembering do not require any mediation between the rememberer and the event remembered. In Alexander's words, the pastness of an object is directly apprehended.

There are not many philosophers who have explicitly endorsed a realist view of memory. This is understandable because it seems rather odd to assert that an event can be present to our minds which occurred and ended years ago. Can we say of someone now that he can remember the death of Socrates? The realist answer to this question is that we should distinguish between different senses of memory. It is argued first that the philosophically important sense of memory is memory of events, rather than habit memory and memory of facts. For example, although I can claim to remember the fact that Socrates died in 399 B. C. or that the American Civil War ended in 1865, my memory of these events does not depend upon my having experienced them. Indeed, it cannot because the death of Socrates and the termination of the Civil War are events which did not occur during my lifetime. I cannot have any conscious recollection of these events because I did not witness them. Likewise

with the habit memory of how to do something like riding a bicycle, fixing a broken window or swimming. My memory of how to ride a bicycle or how to swim need not involve my having any recollection of the occasion on which I learned to do these things. The evidence that I do remember how to swim consists in my ability to swim rather than in my ability to recollect the occasion on which I learned to swim.

In contrast there is the memory of events which is supposed to "constitute the essence of memory".¹¹ That is, when I claim to remember seeing Martin Luther King speak at Howard University, my memory of this event falls within my own lifetime; and it is an event which I actually witnessed. There is also a derivative sense of the remembering of events in which the event remembered is one in which the rememberer remembers witnessing some of the effects of an event which occurred within his own lifetime. For example, although I was not present at the time Idi Amin overthrew the government of Milton Obote I can say that I have memory of this event because I heard about the coup over the Voice of Kenya, read news reports about the coup in the local newspaper, saw Milton Obote in exile in Dar-es-Salaam. In other words, the experiences which I claim to remember were "roughly contemporaneous with the event remembered."¹²

According to the traditional view it is memory of events that is philosophically interesting, because it is only through memory of events that we can come to know that past events actually occurred. As Stanley Shoemaker has remarked, philosophers have tended to ignore or rule out of consideration cases in which the fact remembered is about the remote past (e.g., that Socrates died by drinking hemlock).¹³ This suggests that memory of facts and habit memory "cannot be reduced to memory of events experienced or witnessed by the rememberer".¹⁴

Thus traditional memory theorists will assume that unless we analyze what happens in memory of events, we have not succeeded in understanding memory.

The distinction between memory of events and memory of facts is closely allied to the psychologist's distinction between episodic and semantic memory. Episodic memory is similar to memory of events, and semantic memory is similar to memory of facts. Episodic memory is basically autobiographical, and it contains information about where and when an episode occurred. Semantic memory, on the other hand, contains our general knowledge about the world, it is nonautobiographical and it contains no learning tags in conjunction with the facts we know. If I remember that my daughter ate cream of wheat for breakfast this morning or

that my wife cooked eggplant for dinner last night, then these rememberings would be examples of episodic memory. But if I remember that the square of the hypotenuse of a right triangle equals the sum of the square of the other two sides, then this type of remembering would be an example of semantic memory. Unlike episodic memory, semantic memory does not contain any references to specific experiences of learning.¹⁵

Tradition holds that the two types of memory are different, but psychology casts doubt on this. Episodic (memory of events) and semantic (memory of facts) memory are not totally independent of each other. Psychologists tell us that semantic memory does influence episodic memory: we need knowledge of semantic memory to perceive and categorize stimuli (e.g., how does your episodic memory know what a cat is?). Moreover, they believe that entry of information into semantic memory may be through stored, autobiographical codings in episodic memory. Thus, if memory of events is episodic memory and memory of facts semantic memory, then we should not assume that the distinction between memory of events and memory of facts is as sharp as it is usually made out to be. There may be, as the psychologists tell us, much more interaction between semantic and episodic memory than we may have previously thought there was.¹⁶

But in spite of these findings concerning the interaction between episodic and semantic memory, it would seem convenient to posit one kind of memory for facts and another kind for events. As a matter of historical emphasis, neither philosophers nor psychologists have devoted much attention to memory of facts or to semantic memory. Moreover, it would seem intuitively necessary to posit one kind of memory for facts and another for events, since a view that presupposed one unitary memory would have a difficult time reconciling some new experimental findings in psychology with a unitary view of memory.¹⁷ Hence, the primary type of memory which we will deal with in this thesis is memory of events.

The discussion of the different senses of remembering, it will be recalled, is prompted by our attempt to show how the realist tries to answer the question of whether we have the power to remember any past event whatever. The realist's answer is that we can only remember what has been a sensible experience in our own lifetime. But if it is true that we can only remember what has been a sensible experience in our own lifetime, does it follow that the realist view of memory is correct?

As noted, the realist view of memory assumes that the actual event remembered is before the mind when we remember.

But this view seems unintelligible. If the event remembered belongs to the past how can part of the remembering of it belong to the present? In other words, when an event is past, it ceases to exist; therefore, the object of memory cannot be identical with the event remembered.

The realist answer to this objection is that once an event has happened, it does not cease to exist, it exists eternally in the sense that as more and more events take their places in the temporal order of things, it retreats more and more into the distant past. Broad, for example, makes the following argument. He claims that it is a mistake to assume that simply because the remembering of a past event exists in the present as does the "objective constituent" -- the immediate object of a memory experience -- of the situation, then it follows that the objective constituent of the memory situation cannot be identical with the event remembered.¹⁸ According to Broad, if an event ceased to exist as soon as it ceased to be present, then it plainly could not stand in any relation to anything. But when we say that an event is past, we imply that it stands in the relation of temporal precedence to the present. Moreover, we also say that one event preceeds a second event and follows a third. But if all events ceased to exist when they ceased to be present, then all statements

which denote that an event is past, or that one event preceeds another would be nonsensical. Thus, Broad argues, past events are always "there" waiting to be remembered, and therefore, there is no general metaphysical objection why certain past events cannot become objects of direct acquaintance.¹⁹

What Broad's argument amounts to is a rejection of the argument from time which claims that once an event has happened it ceases to exist; and therefore, cannot be a direct object of anyone's memory. I believe that Broad's argument is basically sound when he asserts that there is no general metaphysical objection to a naively realistic view of memory. If we accept the view that past events form a continuum in the ever lengthening temporal order of things, then there seems to be no good reason why we should not say that past events exist eternally. Past events do not cease to exist; rather, they retreat more and more into the distant past. However, it is one thing to say that past events exist eternally, and another to say that they can become the direct object of our memory experiences. It may be the case, as Broad claims, that past events are "there" waiting to be remembered, but it surely does not follow that what is "there" can be the direct object of our memory experience. If we could

directly apprehend past events we would have to be there and here. But we cannot travel back in time. The idea of being at different times at different times is nonsensical. We could, of course, imagine being projected back in time, in the sense that from a given moment we would have only such experiences as would be appropriate to that period in history. But these experiences would not constitute a literal recapture of the experiences that anyone had actually had before. If they succeed our present experiences they could not also precede them. It is self-contradictory to assign one and the same event two different places in the same time order. Thus, if observing a past event requires that we have an experience which is earlier than any experience we are actually having, then it is a necessary fact that we cannot observe a past event.²⁰ Therefore we may accept the realist premise that once an event has happened it continues to exist eternally, but must reject his conclusion that the past event can be the direct object of our memory experience.

The argument from time has also been rejected on empirical grounds. Woozley has claimed that the argument from time is "worthless" because it "does not consist of citing cases where the immediate object of remembering is clearly not the object remembered".²¹ But Woozley's

objection is also problematic. It does not follow from the fact that we have yet to produce any empirical evidence to show that the immediate object of remembering is not the actual event remembered; that the direct object of our remembering is the actual event remembered. But if this is how Woozley is arguing he commits the fallacy of argumentum ad ignoratiam.

Perhaps all he is arguing is that there never could be any sort of empirical evidence which could be cited to show that the immediate object of one's memory is not the actual event remembered. Woozley formulates his objection to the argument from time as follows:

Now, what empirical evidence, acquired from the nature of one's experience of the present, could show that what seemed to be an experience of the past in the way that memory⁴ seems was not in fact an experience of the past at all, except in an indirect and elliptical sense?²²

What Woozley's claim amounts to is this. On his view of memory, when someone has a memory experience "one thinks of it as retrocognitive" in the sense that "part of the actual experience of remembering is to date the event remembered somewhere in the past". So, if the nature of a present memory experience is to date it as past, then any empirical evidence from the nature of one's own experience of the present must be retrocognitive. In other words,

what Woozley means is that there could never be any empirical evidence to show that the immediate object of a memory experience is not the actual event remembered. According to Woozley's way of thinking, it is part of the nature of a memory experience to think of the immediate object of our memory as belonging to the past. Thus, if we were to look at our own memory experience in an attempt to show that the immediate object is not the actual event remembered, then this would be an exercise in futility. When we remember, we think of the immediate object of our memory as belonging to the past. Therefore, we will never be able to show that the immediate object of our memory experience is not the actual event remembered.

I do not believe that Woozley's argument is acceptable. Although it may be the case that when someone has a memory experience he thinks of it as past, it surely does not follow that the object of his experience is the actual event remembered. Thinking that something is a past event does not make it the actual past event. What Woozley has done is to construe remembering in such a way that it is simply a restatement of the realist view of memory. The reader may recall the following objection of Woozley's rejection of the argument from time. "What empirical evidence, acquired from the nature of one's experience of

the present, could show that what seemed to be an experience of the past in the way that memory seems was not in fact an experience of the past at all".²³ Now the phrase "in the way that memory seems" is nothing more than a restatement of the realist view: Even if it is the case that we cannot bring forth any empirical evidence to show that the immediate object of a memory experience is not the actual event remembered, then it is also the case that we cannot bring forth any empirical evidence to show that the immediate object is the actual event remembered. Therefore, I maintain that Woosley has not given us any convincing argument to warrant our acceptance of a realist view of memory.

Another important argument against realism is that events are fixed in time and, therefore, cannot be literally identical with succeeding memories of them.²⁴ For if it could, the same event could be contemporaneous with a certain other event, and yet also succeed it. For example, suppose that Ted Kennedy saw the President sign the Voting Rights Act of 1965, and at the time of the enactment Ted Kennedy had a toothache. Further, suppose that he later remembers the President signing the Act, but this time he does not have a toothache, but an earache. Now if the realist view of memory were correct, we would have to say

that the original event can be both contemporary with the toothache and can succeed it in time and become contemporary with the earache. But this cannot happen if events are fixed in time.

The realist answer to this contention is that a distinction should be drawn between an event which is present and an event which is presented to us on various occasions.²⁵

That is, the realist argues that although it is true that an event can be present to us but once, it does not follow that it cannot be presented to us more than once. Broad

explains this point as follows. According to Broad the realist will concede the point that events are fixed in time in the sense that the same event cannot be present more than once. But there is no a priori reason why it

might not be presented to acquaintance dozens of times.

Indeed, it is the essence of a realist theory of memory to maintain that this actually happens. Thus, the realist

may argue that a certain past event can be presented to acquaintance many times, although it is present only once.

To explain, let us suppose that an astronomer in East

Africa is able to observe all thirty-six orbits of a

certain spaceship whenever the spaceship travels over the

eastern coast of Africa. On each orbit over, the coast,

the spaceship is present to the astronomer but once; however,

it is presented to him on several occasions. Therefore, the realist argues that there is no good reason why one and the same event cannot be presented to us on different occasions.

But even if we allow it to stand that one and the same event may be presented to us at different times, this does not vindicate the realist point of view. It is possible for our memory of a past event to differ from the event remembered; and because of this discrepancy between the memory and the event remembered, the realist cannot support his claim that our memory of a past event is identical to the event remembered. For if the memory has a different determinate characteristic than the original event, then we must reject the realist view of memory.

Let us suppose that when I have a memory experience my memory signifies to me that I heard the jingling of bells and felt the chill of winter. And suppose further that I am asked whether the jingle sounded loud or soft. On the realist view, it follows that I should be able to say whether the jingle was loud or soft. But when I attend to my memory I am unable to tell whether the jingling was soft or loud. If the realist view of memory is correct, I should be in direct contact with the original experience, and therefore be able to tell by direct inspection exactly how the jingling sounded. Here there is a systematic

difference between the memory and the remembered event. But if the realist view of memory is true there should not be any difference in detail between the memory and the event remembered.

Richard Brandt has argued that if an original event was really presented to us when we remember, then we should be able to make some determinate judgements about certain characteristics of the past event. For example, Brandt asserts that "if we are looking at a garden gate, we can tell how many vertical bars it has; but we are unlikely to be able to tell this from memory. Why not, if the original is presented?"²⁶ Thus, Brandt argues that a realist theory of memory cannot be taken seriously.

In response to these objections the realist may argue that we should distinguish between the claim that memory provides us with direct experience of the event remembered from the claim that memory provides us with immediate knowledge of past events. What this means is that the realist wants to distinguish between the claim that the materials of remembering are always original events, and the claim that the original events are always the ones we think they are. For example, Woozley provides the following example to illustrate the point of the distinction presently discussed.²⁷ He asks us to suppose that he remembers an

umpire being hit on the ankle, and that the umpire was wearing gray flannel trousers, when in fact he was not. According to Woozley, what has happened is that he has confused two different original events: the umpire and some other man who was wearing gray flannel trousers on the same day that the umpire was hit on the ankle. Thus, Woozley argues that original events are always the immediate object of our rememberings, but they may not be the original events we think they are.

But is it enough to claim that the immediate object of any memory is an actual past event? I think not. We must also know that that which we are acquainted with is the object of our memory claims. But the realist can only answer that we sometimes remember correctly and other times incorrectly. But there is nothing in the realist view of memory to assist us in determining when our memories are veridical. Moreover, if memory provides us with immediate knowledge of past events by putting us into direct contact with the past, then it seems that we should have no difficulty remembering details. But as we have seen, this does present difficulties, as evidenced by our inability to determine whether the jingle of the bell was soft or loud.

The realist reply to this objection is that the same

event can have different characteristics depending upon whether it is the object of a memory experience or a perceptual experience.²⁸ But I can see no good reason for holding this view. If we accept this claim, how are we to determine what characteristics an object does or does not have? For example, let us suppose that I perceive that a certain object x has the property ϕ at time t . Let us also suppose that at time t_1 I remember that x has the property ψ . But x cannot be both ϕ and ψ . But if realism were true, we would be in the untenable position of maintaining that x is both ϕ and ψ . Thus, on the realist view of memory we would be unable to determine what characteristics an object does or does not have.

I maintain, therefore, that in light of the objections which I have adduced against a realist theory of memory, that we should reject realism in favor of some other theory of what happens when we remember.

(b) Representative Theory of Memory

It would be no exaggeration to say that until fairly recently the dominant theory of memory has been the representative theory.²⁹ As noted earlier, this view of memory asserts that when we remember we remember via images which represent the event remembered. On this view of memory

a person's memory of a past event is mediated by the occurrence of images which represent the event remembered. The memory image is treated very much like a sense-datum; just as sense-data appear to link us with physical objects, then so memory images appear to link us with the past. It is therefore assumed by the proponents of the representative view of memory that remembering is a present occurrence in some way resembling what is remembered. In other words, since everything which constitutes a memory belief is happening now and not at a past time to which the belief is said to refer, it is argued that all memory occurrences are analyzable into present contents. Thus, we must look to our own memory experiences to discover the evidence that would confirm our memory claims.

Exactly what the precise nature of this evidence is supposed to be is variously described by the proponents of the representative theory. I shall begin my discussion of this view of memory by considering Hume's classical exposition of the theory, then I will consider Russell's exposition. The rationale for treating Hume's and Russell's view of memory in the order just described is that Russell's analysis of memory is intended to be an improvement upon certain defects of Hume's analysis.

When Hume attempted to find out what happens when we

remember, he looked to his own memory experiences as the basis upon which to carry out his analysis. This produced the following results. He believed that experience has shown him that both remembering and imagining are done via images. He also believed that the difference between remembering something and imagining something could be determined by the greater force and vivacity of memory-images as opposed to "faint and languid" imaginings. Or, he added, it could be determined because memory preserves the original form of the event remembered, whereas imagination is not tied down to the same order and form of the original impression.³⁰

But Hume's analysis of what happens when we remember must be rejected. First, there is no way that we can tell by introspection whether a string of images preserves the order of the original event which they are supposed to represent. For example, the American poet Sterling Brown gives a description of a case in which a person claims to remember how certain events came about when in fact the person was only imagining how the event came to be. In Brown's poem "Remembering Nat Turner" he writes that,

An old white woman recalled exactly
 How Nat crept down the steps, axe in his hand,
 After murdering a woman and child in bed,
 "Right in this here house at the head of these stairs"
 (In a house built long after Nat was dead).

She pointed to a brick store where Nat was captured,
 (Nat was taken in the swamp, three miles away)
 With his men around him, shooting from the windows
 (She was thinking of Harper's Ferry and old John Brown).
 She cackled as she told how they riddled Nat with bullets
 (Nat was tried and hanged at Courtland, ten miles away).
 She wanted to know why folks would come miles
 Just to ask about an old nigger fool.³¹

In the above example, the rememberer gives every indication that her memory of Nat Turner's activities is vivid and forceful. But how, on Hume's principles, could she ever discover that the information which is recalled, preserves the original order of the event remembered? According to Hume she would find by experience that her memory of Nat Turner's activities follows the original order of the event remembered. But Hume cannot without pain of self-contradiction maintain this position. Thomas Reid was the first philosopher to notice this difficulty in Hume's theory when he claimed that when Hume asserts that we find by experience that there is a relationship between impressions and subsequent ideas he can only mean that we remember that our impressions are frequently followed by ideas which resemble them.³² And this would involve having an immediate knowledge of the past which is incompatible with Hume's claim that remembering is done via images which represent the event remembered.

In addition to the difficulties which Hume's theory of memory has, there are serious difficulties with any

project which posits the view that memory preserves the original order of the event remembered. According to the cognitive psychologist Ulric Neisser, our memory of past events is constructive in the sense that the rememberer recreates the original stimulus material at the time of recall in terms of his own conception of the world, and the recall of information may only coincidentally match the original stimulus material.³³ For example, consider the case of Salo Finkelstein, "the lightning calculator", who always imagined the numbers he worked with as written with chalk on a blackboard in his own handwriting, regardless of how they had been presented to him.³⁴ In this example, Finkelstein's imagery possesses all of the clarity and vividness which anyone could hope to have in a memory experience. But in spite of the apparent clarity and vividness of Finkelstein's memory imagery it does not copy the originally perceived material. Regardless of how the numbers had been presented to Finkelstein, he always imagined them as written with chalk on the blackboard in his own handwriting. Furthermore, Neisser has noted that there are certain psychological studies which might be regarded as the definitive refutation of the hypothesis that the order of ideas [images] repeats the order of the original event. Neisser cites a case in which "subjects were asked to

memorize a list in which all the words belong to certain categories -- animals, cities, weapons, or the like -- but are presented in a randomized sequence".³⁵ The order of recall is left to the subject's own discretion, with the result that the typical subject would recall first a cluster of words from one category, then some from a second group and so on. Thus, the results of this study showed that the order of recall does not repeat the order of the original event, as Hume had supposed. I conclude therefore that the hypothesis that memory preserves the original order of the event remembered is untenable.

But even if memory does not preserve the order of the original event, might it not be the case that the vivacity of a memory image is a good distinguishing mark between memory images and imagination images? We know that Hume believed that the vivacity and liveliness of an image was a sure indication that the image belonged to memory rather than imagination. But Hume's test for distinguishing memory images from imagination images must be rejected because some imagination images can be just as vivid and lively as are some memory images. For example persons who suffer from delusions of grandeur might very well imagine that they are eminently gifted with respect to a certain skill, and the images which they conjure up in their minds may be as vivid

and clear as are those that accompany their memory of some past event.

Furthermore, it would be a mistake to suppose that simply because someone is a good visualizer, his memory must be more accurate than those who lack this talent. Neisser has cited examples of certain psychological experiments which show that "visualizers are often more confident than other subjects in describing a picture they have seen earlier, but not more accurate."³⁶ The explanation for this phenomenon is that "many details of the image may be importations and additions".³⁷ For example, in Brown's poem "Remembering Nat Turner", the rememberer certainly seems quite confident that her recollections of Nat Turner's activities are correct, but in spite of her confidence, her recollections are inaccurate. The details of her memory images are the result of biased importations and additions. Thus, it seems safe to say that the vivacity of images should not be regarded as distinguishing marks of genuine rememberings.

The insufficiency of Hume's analysis of memory has led philosophers to search for other conditions which might afford us a means to distinguish memory images from imagination images. For example, Russell follows Hume insofar as he believes that memory is a form of "mirror knowledge"³⁸ in the sense that memory of past events is only possible

by means of present images which are copies of the event remembered. But he also believes that the mere occurrence of an image would not suggest any connection with anything that has happened before, because we sometimes imagine things that have never happened.³⁹ The mere presence of an image of a golden mountain would not in itself afford us any reason to believe that we have seen a golden mountain at any time in our past lifetime. Therefore, Russell, like Hume, was led to search for some distinguishing mark between memory images and imagination images.

On Russell's view the distinction between memory images and imagination images can be made in terms of the feeling of familiarity and the feeling of belief that accompanies memory images. The feeling of familiarity leads us to trust our memories and the feeling of belief confers meaning upon them, a meaning that may be expressed in such words as "this happened". Russell's claim that memory images are distinguished from imagination images by the feeling of familiarity is however different from Hume's view. A person may have some very vivid images without having any feelings of familiarity with the image. An LSD user may have a vivid image of something, yet there is no reason to assume that the LSD user has ever been acquainted with the prototype of the image. The having of a vivid image does

not in itself imply that we must be familiar with the event the image is a copy of. Therefore, I maintain that we should not say that Hume's use of vividness is similar to Russell's use of familiarity.

Should we accept Russell's analysis of memory? I think not. On the one hand, familiarity is not a sufficient mark of one's having a genuine memory experience. Experiences of familiarity may be misleading; we may fail to recognize a man we know, or misrecognize a stranger. For instance, if someone were to ask me whether I remember the name of a certain philosopher who teaches at a particular university in the mid-west I might be convinced by the familiarity test that his name is Jones. Jones might be the name of another man who is closely associated with Smith, the philosopher, and when I am asked the name of the philosopher in the mid-west I mistakenly say Jones rather than Smith. Likewise, it would be a mistake to think that familiarity is a sufficient characteristic to distinguish memory images from imagination images, for we can think of cases in which our images do not have familiar feelings about them, yet what we claim to remember actually happened. Therefore, familiarity is not a sufficient mark of one's having a genuine memory experience.

In a similar vein, we must reject Russell's claim that

images without belief are insufficient to constitute memory, because the mere occurrence of images would not suggest that they had any connection with a real past experience.⁴⁰ According to Russell, the memory belief confers meaning upon the memory, it makes us feel that the image points to an object which existed in the past.⁴¹ For example, suppose that we bring to mind an image of a spaceship orbiting the earth. When we attend to the image we may have a feeling which may be expressed in the words "this will happen", or we may have a feeling which may be expressed in the words "this has happened".⁴² In the latter case it is the feeling of belief which makes us refer the image to something which has happened, and without this feeling of belief the mere occurrence of images would constitute imagination rather than memory. Therefore, in memory, the pastness lies, not in the content of what is believed, but in the nature of the belief-feeling.

But Russell's claim that belief is a necessary condition in the analysis of memory is a disputed issue by some philosophers. They maintain that there might be cases in which we are prepared to say that someone remembers something, but he does not believe that he remembers. For example, C. B. Martin and Max Deutscher cite a case in which someone asks a painter to paint an imaginary scene.⁴³

The painter agrees to do this, but the scene which the painter thinks is a purely imaginary scene is recognized by his parents as being a very accurate representation of a scene which the painter saw just once in his childhood. As ~~Martin and~~ Deutscher conclude,

Although the painter sincerely believes that his work is purely imaginary, and represents no real scene, the amazed observers have all the evidence needed to establish that in fact he is remembering a scene from childhood. What other explanation could there be for his painting being so like what he has seen?⁴⁴

Martin's and Deutscher's criticism of the postulate that remembering something requires that we believe that it happened is motivated by a desire to cast doubt upon the traditional view of memory. For example, Hume and Russell assume that we must find the difference between real and delusory rememberings from within our own experience. As we have seen, Hume argues that it is the greater force and vivacity of memory images which distinguish them from imagination. Furthermore, they assume that we must at least believe that a memory image is a copy of a past event if we can be said to remember it.

In the example which Martin and Deutscher give it seems correct to affirm their claim that the painter does remember although he does not believe that he is remembering the scene which he paints. What other explanation could there

be for the accurate representation of the painter's picture? We could say that the painter has played a bad joke on everyone, and that he really does believe that he remembers the scene which he paints. Or, we could say that his parents are mistaken in their judgement that the picture is an accurate representation of a scene which the painter saw only once in his life. But if we assume (as we certainly may) that both the painter and his parents are sincere in their respective judgements, then the painter does actually remember although he does not believe that he has ever seen the scene which he paints. Thus, if we cannot show that the painter does not remember, then belief as a component of memory has to be excluded from an analysis of knowledge.

In sum, Russell's analysis of what happens when we remember must be rejected because (a) familiarity is not a sufficient mark of one's having a genuine memory experience, and (b) it is doubtful that we can show that belief is a necessary component of remembering the occurrence of past events.

Section 2: Objections to the Traditional Analysis

In this section I present two very general objections to the traditional analyses of memory. First, I argue that

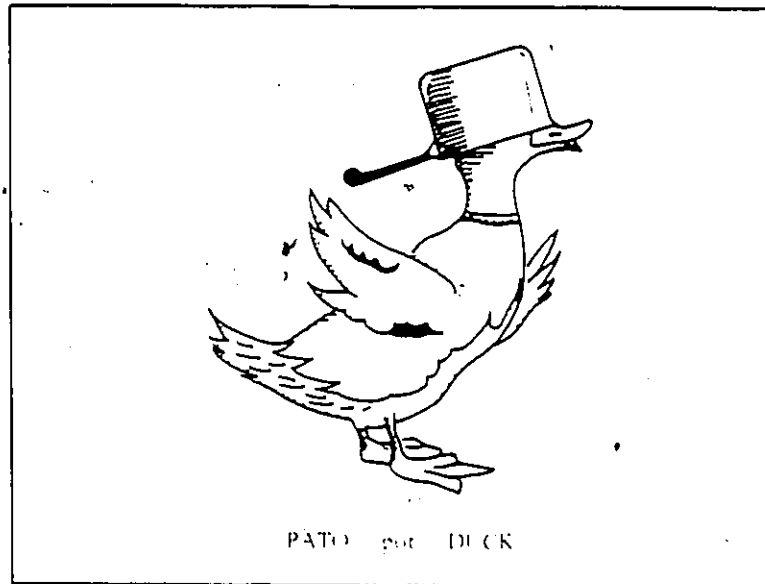
images are not necessarily required in an analysis of what happens when we remember. Second, I argue that both the realist and representationalist views of memory must be rejected because they mistakenly assume that the same memory can disappear and reappear over and over again. I shall not, in this chapter, consider the objection that the traditional analyses of memory mistakenly assume that memory is analogous to perception. This objection will be discussed in the next chapter, since it seems more appropriate to discuss it in conjunction with the retained knowledge view of memory. Therefore, let us proceed to discuss the role of images in an analysis of memory.

The image is supposed to explain how we come into contact with certain past events. It is, as it were, a picture or copy of past events. This view, moreover, can be separated from the view just criticized. Perhaps, traditional representative analyses of memory are incorrect, but is it so obvious that memory (at least of events) is not a matter of having images?

Why should images seem so necessary to any analysis of memory? The answer to this question, I believe, is that there seems to be little doubt that in some cases memory images carry practical information which the rememberer needs for the recall of information. In other words, we

may say that images are mnemonic devices which assist the rememberer in recalling some bits of information from memory. One fairly common mnemonic device is the "method of loci", which dates from the time of the Greeks.⁴⁵ For example, when a whole series of items is to be remembered, the method of loci may be used as an aide-memoire. What the rememberer does is to imagine a well known building such as his home, and picture each item at some particular place in the building. He can then mentally "walk" through the building, retrieving one item from the living room sofa, another from the kitchen sink, another from the dining table, and so forth. Another mnemonic device which is useful in acquiring the vocabulary of a second language, is the "keyword" device. This device consists of two stages. In the first stage, the rememberer forms an association between the vocabulary word and a similar sounding English word. For example, the Spanish word for duck is pato, and as a keyword "pot" might be used. The second stage consists of forming an image of the keyword interacting with the translation of the vocabulary word. Thus, an image of a duck with a pot on its head might be formed.

Consider the following illustration of how imagery might be used to associate the Spanish word for "duck" with its English translation.⁴⁶



In all of the preceding examples of mnemonic devices the image carries practical information which the rememberer needs for the recall of information.

However, the function of imagery should not be overestimated. As Neisser has noted, "the image hardly seems to be a step in the recall process at all, but rather a kind of cognitive 'luxury', like an illustration in a novel".⁴⁷ For example, a person may try to recall the name of the first American to fly in space. He may have an image of a spaceship as he recalls the name of John Glenn. But the spaceship itself does not provide the answer: the name is not

part of that image. The image is simply an aide-memoire; it does not constitute the memory.

Furthermore, the postulation of images is dispensable, because there are cases in which some people claim that when they remember, their memories are never accompanied by images. Indeed, Neisser has reported that it is possible to be a "lightning calculator" without any imagery at all. The fact that some people are good visualizers does not in itself show that images are necessarily required in an analysis of what happens when we remember. Nor does the fact that some people are poor visualizers show that they are not remembering when they claim to remember the past occurrence of some event. Therefore, I maintain that the postulation of images is not required to explain what happens when we remember. Indeed, it seems to be the case that the more readily one's memory functions the less likely it uses images.

The analyses of memory which we have considered in this chapter all assume that the same memory can disappear and reappear over and over again.⁴⁸ And they assume that memory does not have any "power of variation"; it "preserves the original form" of the actual event remembered.⁴⁹ However, I will argue that both of these assumptions are mistaken.

First consider the claim that memory does not have any power of variation. I argue that adaptive variation is

very much a characteristic of memory. We have already had occasion to consider certain aspects of this claim when I argued that the details of memory images are often the results of biased importations and additions. But a more important objection rests on the observation that memory is a constructive process. As noted earlier the constructive view of memory assumes that when we remember the rememberer recreates the actual event remembered in terms of his own conception of the world. From a psychological point of view, there seems to be general agreement that reorganization takes place in line with the interests and values of the rememberer. In a series of experiments on remembering F. C. Bartlett has shown that verbatim recall of any story occurs very rarely.⁵⁰ For example, in the story of "The War of the Ghosts", when the Indian is dying and the "black thing" comes out of his mouth (representing his soul to the Indians), British subjects sometimes recall this as blood streaming from the Indian's mouth or as escaping breath. Furthermore, Bartlett found that the phraseology of the remembered version of the story was different -- more modern -- than the original;⁵¹ proper names and titles disappeared along with all mentions of supernatural elements. Thus, it is a mistake to assume, as Hume does, that memory does not have any power of variation. As Bartlett's

experiments on remembering have shown, a person will assimilate the original information -- the original event -- to mirror his own experiences, culture or vocabulary. Therefore it would be a mistake to assume that memory will always preserve the original order of the event remembered.

Furthermore, it would be a mistake to claim, as Locke did, that the mind has the power to revive again those ideas which it was formerly acquainted with. It is not the case that the same memory can disappear and reappear over and over again.

Now some people may feel that our rejection of the reappearance hypothesis is counter-intuitive. If someone remembers the lines from a certain poem and recites these lines over and over again, then surely he has the same memory on each occasion when he recites the poem. But this assumption would not be correct. According to Neisser, "when repetition does occur, as in dramatic acting...we ascribe it either to long, highly motivated practice or to neurotic defensiveness".⁵² In other words, variation is the rule rather than the exception when we remember. Therefore, we must conclude that the traditional assumption that the same memory can disappear and reappear over and over again is mistaken.

Section 3: Concluding Remark

In this chapter I have argued that we should reject both the realist and representationalist analyses of what happens when we remember. But this does not mean that there may be no other representative theories of remembering. Indeed, as we will see in Chapter Four, the constructive view of memory assumes that memory traces are one of the mechanisms which puts us into contact with past events. According to one interpretation, traces are mental representations of past events. Thus, our rejection of the traditional representational analysis of memory does not warrant the inference that all representational theories of memory are unacceptable. We have not yet proven this claim. But it should be clear that all of the traditional analyses of memory are beset by serious difficulties.

Chapter III

MEMORY AND PERCEPTION

The theories of memory considered thusfar are modelled on perception. They all assume that memory is analogous to perception. If our perceptions are a source of knowledge concerning the occurrence of events in our present environment, then remembering is a source of knowledge about the occurrences of past events. And, if perceptions are mental occurrences, then so too are rememberings.¹ But these assumptions are rejected by many contemporary memory theorists.² Sidney Shoemaker for example, argues that memory is not analogous to perception, because memory is not a source of knowledge. According to Shoemaker, memory is the retention of knowledge rather than the acquisition of knowledge. Furthermore, he argues that there is no justification for the view that remembering is a mental occurrence in the present as is perception.³

However, I will argue that what happens when we remember the occurrence of a past event is similar to what happens when we perceive something in our present environment. The analogy which I offer asserts that the role which stored information plays in recall is like the role which stimulus information plays in perception. We do not see objects simply because they are there, but only after an

elaborate process of construction which makes use of relevant stimulus information. Likewise, we do not recall past events simply because traces of them exist in our minds, but only after an elaborate process of reconstruction which makes use of relevant stored information.⁴ On my view, then, memory, like perception, should be analyzed as a constructive process.

This is not to say that the constructive approach to memory is simply a version of the traditional approach. The traditional analyses of memory assume that we can discover what happens when we remember by simply introspecting the contents of our minds when we remember. But the constructive approach to the analysis of memory assumes that the way the mind works is analogous to the way a program works inside a computer. Information enters the organism through the sense organs to be transformed, stored, retrieved and used. Secondly, unlike the traditional analyses of memory, which assume that people are passive storers of information, the constructive approach assumes that they actively search, reorganize and create information.

In order to establish these conclusions I begin by critically examining the claim that memory and perception are analogous, because they are both sources of knowledge. Then I consider the claim that they are analogous because

they are mental occurrences. This is followed by a discussion of the computational view of mind. Finally, I re-examine the dispositional argument of memory analysis.

Section 1: Remembering as a Source of Knowledge

As I noted in the introduction to this chapter, all of the classical theories of memory assume that memory is analogous to perception. If perception is a source of knowledge concerning the occurrence of events in our present environment, then remembering is a source of knowledge concerning the occurrence of past events. To many contemporary memory theorists this analogy is inadequate in certain fundamental respects. Gilbert Ryle, for example, argues that it is a mistake to assume that memory is analogous to perception.⁵ And Shoemaker asserts a similar point in his discussion of memory.⁶ According to these philosophers, memory should not be analyzed as a source of knowledge. Instead, memory is the retention of knowledge rather than the acquisition of knowledge. In this section, I will argue that memory is analogous to perception in certain fundamental respects. However, my reasons for maintaining this position are in no way similar to those given by the classical memory theorists. The hypothesis which I argue for is this: both perception and memory are constructive

processes. In perception we do not see objects simply because they are there, but only after an elaborate process of construction which makes use of relevant stimulus information. Similarly, we do not recall objects simply because traces of them exist in our minds, but only after an elaborate process of reconstruction which makes use of relevant stored information. Finally, I argue that the retained knowledge view of memory should be rejected, because it entails the reappearance hypothesis.

Traditionally, the classical memory theorists were inclined to treat memory as though it were analogous to perception. When they considered the fact that what is remembered is past while the remembering takes place in the present, they assumed that there must be some present content of a memory experience which affords us some grounds for asserting the existence of something outside of our own mental experiences. This present content was commonly thought of as a memory image and it was treated like a sense-datum. For example, just as philosophers have debated the question whether the sense-datum is a mental representation of an external object, or whether it is a constituent of the object, they have asked whether the memory image is a present symbol of a past event, or whether it is the past event itself. Likewise, just as they have debated the

question whether our perception of external objects is immediate or inferred, they have asked whether memory is direct awareness of objects or an inferential procedure. It is indeed just this inclination to treat memory as though it were analogous to perception that has led some philosophers to look to their own present memory experience as the grounds for explaining what happens when we remember.⁷

The explanation given by the classical memory theorists for treating memory as though it were analogous to perception must be rejected. In the first place, as we have already seen, images are not necessary in order to recall a past event. The reader may recall our account of Neisser's hypothesis that the image hardly seems to be a step in the recall process at all, but rather a kind of cognitive luxury, like an illustration in a novel. Furthermore, the traditional inclination to use introspectist psychology has already been shown to be an untenable method for determining what happens when we remember. Therefore, neither the explanation for treating memory as though it were analogous to perception, nor the assumed psychology of the traditional analysis support the perceptual analogy.

Indeed, according to many contemporary memory theorists the entire enterprise of assuming that memory is analogous to perception is a big mistake. Gilbert Ryle asserts that

it is a "mistake" to assume that memory is analogous to perception, because memory is neither a cognitive process nor a source of knowledge.⁸ Charles Landesman asserts that there is a central difference between memory and perception which throws doubt upon the traditional assumption about the analogy; namely that "perception is an acquisition of new knowledge", while "remembering is an expression or manifestation of knowledge already attained".⁹ And Shoemaker expresses similar reservations about the cogency of the analogy between memory and perception.¹⁰ Since we will discuss the claim whether memory is a cognitive process in the next section, we may proceed to examine the explanations which are given to show that memory is not a source of knowledge.

Historically, the traditional assumption that memory is analogous to perception first came under attack with the publication of Ryle's book The Concept of Mind. Since most of the other criticisms of the analogy are simply reiterations of Ryle's argument, we may focus our attention upon his explanation of this analogy. According to Ryle, "remembering ... means having learned something and not forgotten it".¹¹ Remembering is the retention, not the acquisition of knowledge. In Ryle's words, "a person may recall a particular episode twenty times a day, but no one would say that he

twenty times discovered what happened."¹² For example, a person may recall many times a day what it felt like to lose his innocence, but to paraphrase Ryle, no one would say that he discovered many times a day what it felt like to lose his innocence. Likewise, a spelunker may recall several times a day what it felt like to see a colony of bats hanging from the ceiling of an unexplored cave which no one else has seen. But no one would say that the spelunker discovered several times a day what it was like to see a colony of bats hanging from the ceiling of an unexplored cave.

According to Ryle, then, when we say that someone remembers something, this means that he has learned something and not forgotten it. When a person who has retained something in memory recalls it, he is, as it were, exporting something from his memory. Alternatively, perceiving something as opposed to remembering something may be a "source of knowledge" in the sense that perceiving is a way of acquiring knowledge. In Ryle's words, remembering does not belong to the "stages of manufacture and assembly" as does perceiving but it belongs to the "stage of export".¹³ So memory is the retention of knowledge rather than the acquisition of knowledge.

Ryle believes that when a person perceives something, it

implies in some cases that he is constructing something. To manufacture and assemble something requires the use of some materials which are put together in such a way that one creates something that did not exist before. But Ryle seems to think that when we remember, we are only recalling something that already exists. Therefore, perception is constructive; it is the creation of something new. But remembering is only the exportation of something which already exists.

However, this point of Ryle's is mistaken. Remembering is as much a constructive process as is perception. Let us first consider the constructive processes which are involved in perception, then let us consider how the same constructive processes are involved in memory.

Our perception of objects is constructive in the sense that we make use of stimulus information to construct the objects we claim to see.¹⁴ The constructive processes consist of two stages: the preattentive mechanisms form segregated objects of analysis and help to direct further processing, and the act of focal attention makes sophisticated analyses of the chosen object. In order to explain what this means I will provide a brief explanation of the way humans process information. Then I will compare memory and perception with a view toward showing how the constructive

processes of perception are analogous to the constructive processes of memory.

Cognitive psychologists tell us that information enters the organism into the sensory information store.¹⁴ This store is assumed to be of large capacity and contains more information than can be reported. It is assumed that information is represented in this store in a more or less literal form. It is also assumed to be visual in nature. Hence, the name iconic information. While in this store the information undergoes a crude analysis for physical features such as sensory modality, loudness, spatial location and shape. The mechanisms which perform this analysis are the preattentive mechanisms which segregate the objects which are to receive further processing. The objects which are segregated for further analysis are segregated in a crude and holistic fashion. As a result of this preattentive analysis, some of the iconic information is recoded into short term memory. The information which is recoded into short term memory may be verbal in nature or visual in nature. This recoding process may or may not be subject to attentional control. However, once information has entered into short term memory, voluntary control of the information comes into play. That is, the act of focal attention comes into play. It is at this stage that the organism makes a

analysis of the objects chosen by the preattentive mechanisms. It is only at this second stage of analysis that the person makes a deliberate and detailed analysis of the chosen object.

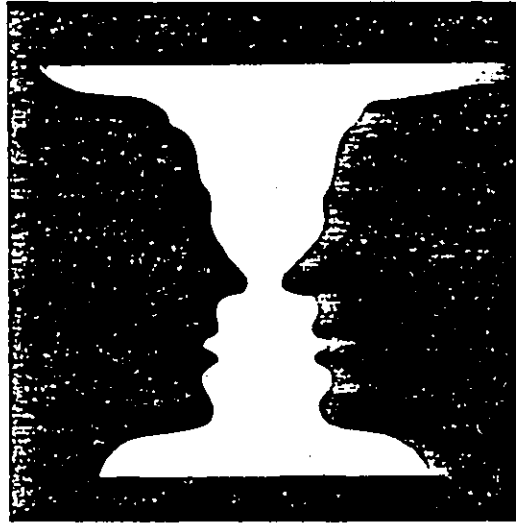
Now let us compare memory and perception with a view toward showing that the constructive processes of perception are analogous to the constructive processes of memory.

Consider the following examples. At every moment there are hundreds of sensory signals impinging on us from both external and internal sources. However, we can selectively process certain signals to the exclusion of others. A classic example of this ability is the phenomenon that occurs at gatherings such as cocktail parties: in the midst of a noisy crowd where a number of conversations are going on, one can selectively listen to one conversation and exclude the others. In order to do this one might use certain physical features of the auditory messages one is receiving to select the conversation one wants to listen to. One might use such features as the pitch of the speaker's voice or the spatial location of the voice as a means for cueing in on the conversation. When one does this, it is a result of the preattentive mechanism. No analysis has as yet been made of the meaning of the conversation, or the value of what is being said. But after the preattentive mechanisms

have segregated the chosen conversation from the others, then the act of focal attention comes into play. The person may now center his attention on that one conversation so that he can perceive or understand it from as many sides as possible. The important point about this example is that the processes of focal attention cannot come into play until the preattentive mechanisms have segregated the object to be analyzed.¹⁵

The preattentive processes involved here are global and holistic.¹⁶ This means that each figure or object must be separated from others in its entirety as a potential framework for the detailed analyses of attention. The processes of focal attention will operate on the objects segregated by the preattentive processes. At this stage of analysis it is determined that an object is oblong or round, an enemy, a long lost love, and so on.

The idea which underlies the distinction between the preattentive processes and the processes of focal attention is that the appearance of a part depends on the whole in which it is embedded. For example, the contour which divides figure from ground "belongs" to the figure only and changes its shape if a figure-ground reversal occurs. Consider the following figure, Rubin's ambiguous "Peter-Paul Goblet".¹⁷



Rubin's ambiguous figure, the "Peter-Paul Goblet."

What the above explanation of the difference between the preattentive processes and the processes of focal attention means is that the detailed properties and features we see in an attended figure are, in a sense, optimal. A person does not see objects simply because they are there, but only after a process of construction. Indeed, to use an example from Neisser, we may compare "the perceiver with a paleontologist, who carefully extracts a few fragments of what might be bones from a mass of irrelevant rubble and 'reconstructs' the dinosaur that will eventually stand in the Museum of Natural History".¹⁸

By the same token, remembering is constructive. It, like perception, belongs to the stage of manufacture and

assembly. The model of the paleontologist which was applied to perception in the above paragraph also applies to memory. We do not recall objects simply because traces of them exist in our minds, but we recall them after a process of reconstruction which makes use of relevant stored information. When someone tries to recall what life was like on his first day in the military, he recalls certain episodes or events, and on the basis of these events he will reconstruct a memory. That is, reconstruction refers to the process by which a person recreates that which he claims to remember in terms of his own conception of the world. What a person says that he remembers may only coincidentally match the original stimulus information, because he may be actively constructing a memory from a few stored pieces of information.

In the next chapter I will provide a further discussion of the notion of reconstruction, and the notion of memory traces which is the information upon which reconstruction is based. But the point which I want to emphasize at present is that Ryle's argument against the analogy between perception and memory must be rejected. Indeed, when Ryle claims that remembering belongs to the stage of export, this seems to be another way of saying that remembering is the arousal of something that already exists. But the reappear-
ance hypothesis has already been shown to be unsatisfactory.

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Memory traces are not simply aroused, they are used to construct our memories of past events.

What I argue is that remembering, like perceiving, requires the use of a two stage mechanism. First, the primary processes (i.e., preattentive mechanism) make arrays or crudely defined "objects"; the information in memory. Then the secondary processes (i.e., focal attention) will develop and further elaborate upon the materials made available by the primary processes. This being the case, Ryle and all others are mistaken when they claim that memory is not analogous to perception. Indeed, when Shoemaker claims that the retained knowledge view of memory is the most acceptable view, he believes that it is the only alternative to the "fantastic view", namely the view which asserts that we are constantly re-acquiring on the basis of a continuous supply of fresh evidence, everything we remember.¹⁹ But there is nothing fantastic about this view, if we accept the fact that remembering is constructive. The information in memory is used to construct our memories of things past. Surely there is nothing fantastic about this view of memory.

Is memory, then, a source of knowledge? Remembering does seem to have all the earmarks of "finding", "solving", or "getting to something". The reconstructive nature of

memory seems to provide support for the view that memory is a source of knowledge. This shows that Ryle's example of the person who recalls a particular episode twenty times in a day does not really show that memory is not analogous to perception. As certain cognitive psychologists have noted, adaptive variation rather than precise repetition is the governing principle of mental life. A person may recall an episode many times a day, but in each recall there may be only a superficial resemblance to what was earlier remembered. The reader may recall our discussion of the reappearance hypothesis when we discussed Bartlett's memory experiments which showed that the precise repetition of any event is extremely difficult to achieve.²⁰ Rather, reorganization of information in line with the interest of the subject is to be expected.

I maintain, therefore, that the entire question about whether memory is or is not a source of knowledge should be rephrased in terms of whether memory is a source of information. Such a reformation of the problem is more compatible with the computational view of mind (i.e., the view which asserts that the way the mind works is analogous to the way a computer works). On this view we may say that the idea of data processing refers to the converting of

raw data into useful information. The word "data" refers to any unprocessed facts, which have to be processed to become useful. By analogy, sensory stimuli are unprocessed facts (in older philosophical language -- impressions or sense-data), and information consists of collections of stored data which may be used depending upon the required task.*

The important point is that we can speak of stored information without implying that what is stored is error-free. Errors sometimes get into a computerized data processing system, perhaps because the input data are not correct. Nevertheless, the information is used by the computer to perform an operation. Likewise, a person may store incorrect information because the input data were not correct (one may remember seeing a man when there was no man, only a mannequin). However, we can surely say that the person has stored certain bits of information without implying that what is stored is knowledge and therefore error-free. What is stored may or may not be knowledge, but it is still information. Therefore, I would argue that both memory and perception may both be regarded as sources of information rather than of knowledge.

*We will discuss this view in Section three below.

Therefore, in light of the discussion of the analogy between memory and perception in this section, I maintain that memory is analogous to perception.

Section 2: Remembering as a Mental Occurrence

In the last section we argued that memory and perception are analogous because both of them are constructive processes. In this section we will examine the claim that memory and perception are analogous because both of them should be analyzed as mental occurrences. That is, according to classical theories, remembering is a mental occurrence taking place in the present. As Woozley has noted, memory is a cognitive act of the mind directed toward past events.²¹ Similarly, Russell claims that an act of remembering is present, that it is a present occurrence somehow related to what is remembered.²² On this view when we say that someone remembers something, we assume that he is experiencing some sort of mental event such as a feeling of familiarity or a feeling of vivacity. However, it is sometimes argued that there is no justification for the view that remembering is a mental occurrence in the present.

Sidney Shoemaker argues that the classical memory theorists mistakenly suppose that occurrent uses of the word 'remember' are primary; whereas nonoccurrent or dispositional uses are to be analyzed in terms of the occurrent

ones.²³ For example, when the word remember is used in the present tense it does not normally report an occurrence. If we say "Muhammad Ali remembers throwing his Olympic gold medal over the side of a bridge", we are not saying anything about what is presently occurring in Ali's mind. This statement could be true even if Ali is currently asleep, or, thinking about some present business venture. However, classical memory theorists often suppose that this present tense use of the word 'remember' is secondary. When we say that someone remembers in this sense what we mean is that if certain conditions were satisfied -- if he were asked certain questions or thought about the matter -- then he would remember in the primary sense of the word 'remember' which is used to report a mental occurrence. Now Shoemaker claims that it is true that to remember something in the nonoccurrent sense of remember is to have a disposition, but this is not primarily or exclusively a disposition to remember in the occurrent sense of the word 'remember'. According to Shoemaker, when someone remembers something in the nonoccurrent sense, he will be disposed to give correct answers and to behave in certain ways. For example, if someone remembers putting his cigarette lighter on the dining table, then he will be disposed to look on the dining table when he wants his lighter. But Shoemaker argues that doing

these various things is not remembering. When a person has answered a question correctly and without effort, thereby showing that he remembers something in the nonoccurrent sense, it would be absurd to say that he nonoccurrently remembers something only while answering the question, and ceases to remember it nonoccurrently as soon as he has finished answering the question.

It is true that we do sometimes grope for an answer to a question or we try to remember something by searching our memory. When this happens, memory images and experiences of remembering often occur of the kind to which the classical memory theorists have attached so much importance. But Shoemaker argues that "cases of trying to remember and coming to remember can hardly serve as paradigms of the operation of memory".²⁴ These "occur only when there has been a breakdown in the operation of memory,"²⁵ i.e., when something has been forgotten.

What Shoemaker's argument amounts to is a proposal for a behavioral construal of remembering as opposed to a mentalistic construal of remembering. That is, he wants to eliminate the subjectivism of introspectionist psychology (which is used by the classical memory theorists to analyze what happens when we remember) in favor of a behavioral analysis of what happens when we remember. However, it is

doubtful that Shoemaker's proposal will prove successful:

This does not mean that we must accept introspectionism: introspection is quite insufficient as a research strategy for studying the higher mental processes like remembering. We can think of each observer as having his own private research laboratory (i.e., mind) with the result that the findings of different observers differ even under uniform testing conditions. Our rejection of Shoemaker's proposal rather means that we should accept a mentalistic construal of remembering as opposed to a behavioral one.

What is wrong with a behavioral analysis of remembering in particular, and mental life in general, is that "there is no noncircular way to specify the relevant dispositions".²⁶ As Gilbert Harman has argued, the relevant dispositions are dispositions to act in certain ways given certain situations, but these situations include beliefs about the situation and desires concerning it. What a person will do if he bites his lip will depend on whom he believes is watching and what desires he has about his relationship to the watchers. However, beliefs are dispositions to act in certain ways given certain desires, and desires are dispositions to act in certain ways given certain beliefs. A belief that the temperature will drop to zero degrees will be manifested in the wearing of an overcoat only in the

presence of a desire not to get cold; and a desire to stop smoking will manifest itself in acts that lead to a cessation of smoking only if one believes that these acts will help one to stop smoking. Therefore, it is argued that there is no noncircular way to specify the relevant dispositions in behavioral terms.

In a similar vein, Jerry Fodor argues that it is "highly unlikely that mental causes can be identified with behavioral dispositions, since the antecedents of many putatively behavioral hypotheticals turn out to contain mentalistic vocabulary ineliminably."²⁷ According to Fodor mental causes have their overt effects in virtue of their interaction with one another, and behaviorism cannot provide a satisfactory analysis of the interaction among mental states. For example, a disposition to take an antihistamine will only become manifest when one has a cold if it is accompanied by many other mental states: the desire to get rid of a cold, the belief that a cold exists, the belief that the antihistamine will lead to a reduction of the cold, the belief that it is not immoral to take antihistamines when one has a cold, and so on. Fodor argues that such beliefs must be operative as causal agents contributing to the production of the behavioral effect. Behaviorism in other words, cannot provide a satisfactory analysis of mental etiologies which are operative in producing a certain behavioral effect.

There is one final argument which bears directly upon Shoemaker's view about the occurrent and nonoccurrent uses of the word 'remember'. If the distinction between these two uses of the word 'remember' merely reflects the difference between remembering and the ability to remember, then there are certain considerations which would suggest that we should not accept a behavioral analysis of remembering. As C. B. Martin and Max Deutscher claim, an understanding of the ability to remember is immediately dependent upon an understanding of the actual occurrences of remembering. There are two reasons for thinking that this argument is basically sound. First, if Shoemaker's claim were correct, then it follows that it would be extremely difficult (if not impossible) to acquire an understanding of the retrieval processes involved in remembering something. We know that there are various mnemonic techniques which some people use to retrieve information from memory. And we also know that memory often involves the use of active, reconstructive processes to retrieve information. But if, as Shoemaker claims, we were to concentrate our attention on dispositions to remember, we forgo any opportunity to study the retrieval processes, because the retrieval of information from memory is a mental process. That is, these processes cannot be mere dispositions to behave in certain ways. Second, if

we interpret the notion of "actual occurrences of remembering" to include the entire memory process, we would be in a position to study the processes that occur at the time of the encoding of information. That is, we would be in a position to study the various forms of information elaboration which are used in the transfer of information from short term memory to long term memory. But if we were to accept a behavioral analysis of remembering, then we would not be in a position to study the processes that occur at the time of encoding of information. We know, for example, that information is often maintained and transferred from short term memory to long term memory by various control processes like rehearsal and the use of mnemonic techniques.²⁸ Therefore, I maintain that we should reject Shoemaker's proposal for a behavioral construal of remembering, because it is not a helpful research tool for studying the complex processes involved in remembering the occurrence of certain past events. Furthermore, I maintain that it is correct to assert that memory and perception are analogous, because both are analyzable as mental processes.

Let us now turn our attention to the type of psychological theory which has been implicitly assumed throughout this discussion of mental processes, namely the cognitive approach to the psychological aspects of remembering.

Section 3: The Computational View of Mental Processes

In the preceding section I argued that a behavioral analysis of remembering is unsatisfactory because it fails to provide an adequate analysis of the mental processes which are operative in producing behavioral effects. I suggested that we should instead accept a mentalistic analysis of remembering. In this section I explain what is meant by a mentalistic analysis of remembering by providing an account of the underlying psychology which characterizes this type of analysis. That is, I consider the assumptions of a cognitive approach to questions pertaining to the psychology of remembering the occurrence of a past event.

One of the first things to be noted about cognitive psychology is that remembering is only one among many cognitive processes. According to cognitive psychologists perception, problem-solving, retention, recall, etc., are processes by which sensory information is transformed, elaborated, stored, recovered and used. Remembering, like any other cognitive phenomenon, refers to various stages of cognition. Unlike behaviorism which assumes that a human being's behavior should be explained only in terms of observable variables, the contemporary cognitive psychologist embraces mentalism. As some psychologists have noted, previously forbidden mentalistic topics like imagery, thought, and consciousness are now respectable topics of conversation.²⁹

In order to get a clearer picture of the general characteristics of cognitive psychology and its relationship to remembering, let us consider the question of the relation between a human being and a computer. An understanding of this relation proves fruitful, because -- as we shall see -- cognitive processes like remembering and perceiving are very much like the programs which control computer function.

According to Fodor mental processes are computational; that is, the mind is assumed to be a kind of computer.³⁰ There is a working memory corresponding to a tape, and there are capacities for scanning and altering the contents of the memory corresponding to the operations of reading and writing on tape. We might say that the way a program works inside a computer is analogous to the way the mind works inside the brain. But, we must be careful in our interpretation of this analogy. That is, the analogy could either be interpreted in "hardware" terms or "software" terms. Thus, when we claim that there is an analogy between human beings and computers, does this mean that the cognitive psychologist is interested in the hardware aspects of the analogy or the software aspects? According to Neisser the psychologist who wants to understand human cognition is interested in how a computer has been programmed.³¹ If the program stores and reuses information, the cognitive psychologist wants to

know by what routines or procedures this was done. Just as the computer theorist ignores questions about the "hardware" of the computer, e.g., whether his particular computer stores information in magnetic cones or in thin film, the cognitive psychologist ignores questions about how information might be physically embodied in the brain. In computer science, it is irrelevant what physical processes -- electromagnetic, electronic or whatever -- accomplish the manipulation of the program; the same program can be run on almost any computer regardless of differences in physical structure. And likewise in cognitive psychology, it would not help the psychologist to know that memory is carried by DNA rather than some other medium. It would, therefore, be more correct to interpret the analogy between human beings and computers as an analogy which holds at the program level rather than the hardware level. Thus, when we claim that the way a program works inside a computer is similar to the way the mind works inside the brain, we assume no similarity between computer and brain at the "hardware" level, only similarity in their capacities for executing and organizing information processing.

Now if we agree that cognitive processes are analogous to programs which operate computers, then it should be clear that the program is not a machine. It is a series of

instructions for dealing with symbols. Hence, the cognitive psychologist will accept a "computational view of mind".

The computational view of mind asserts that mental processes are computational.³² They are performed operations defined on mental representations. In order to explain what this means, I will describe what is meant by the notion of a mental representation. Then I will point out some important consequences which follow from the computational view.

According to Zenon W. Pylyshyn mental representations can be understood in terms of the way situations are represented in the mind.³³ That is, what human beings think, believe, want, infer and so on. For example, to think that Mary is depressed is to represent Mary in a certain way -- as being depressed rather than being happy, moody or sad. But as Fodor has argued, we cannot represent Mary as being depressed except as we are in some relation to a representation of Mary.³⁴ Not just any representation of Mary, but a representation which expresses the proposition that Mary is depressed. Thus, the typical feature of mental processes as cognitive psychology studies them is that all mental processes are operations defined on representation.

For example, thinking that Mary is depressed would be a mental process insofar as thinking is mental. And the associated representation of this process is the proposition that Mary is depressed.³⁵

I believe that it is interesting to note that when cognitive psychologists study mental processes, they do not assume that the subjects of their investigations have any understanding about the nature of the mental processes under study. The reason for this assumption, as Fodor has noted, is that "computational processes are both symbolic and formal".³⁶ That is to say, "formal operations are the ones that are specified without reference to such semantic properties of representations as...truth, reference and meaning".³⁷ According to Fodor, the notion of formality will have to remain intuitive and metaphoric. That is, we may say that formal operations apply in terms of the shapes of objects in their domains. For example, we could build a machine that answers questions concerning football in the sense that if we typed in "Which national football league team won the most football games since the Green Bay Packers?", it will type out, let us say, "the Dallas Cowboys". But we delude ourselves if we think that the machine is answering questions about football, or that the machine is referring to the Dallas Cowboys. The

programmers may, of course, interpret the machine's output as a statement about the Dallas Cowboys. But the machine has no access to any sort of interpretation. The machine's functioning is independent of how its statements are interpreted. It has no idea whether the work it is doing is useful or useless, good or bad. It has no opinions and no intuitions about the work it is doing. Therefore, the machine (i.e., computer) does not know what it is talking about; it never understands what it is doing.

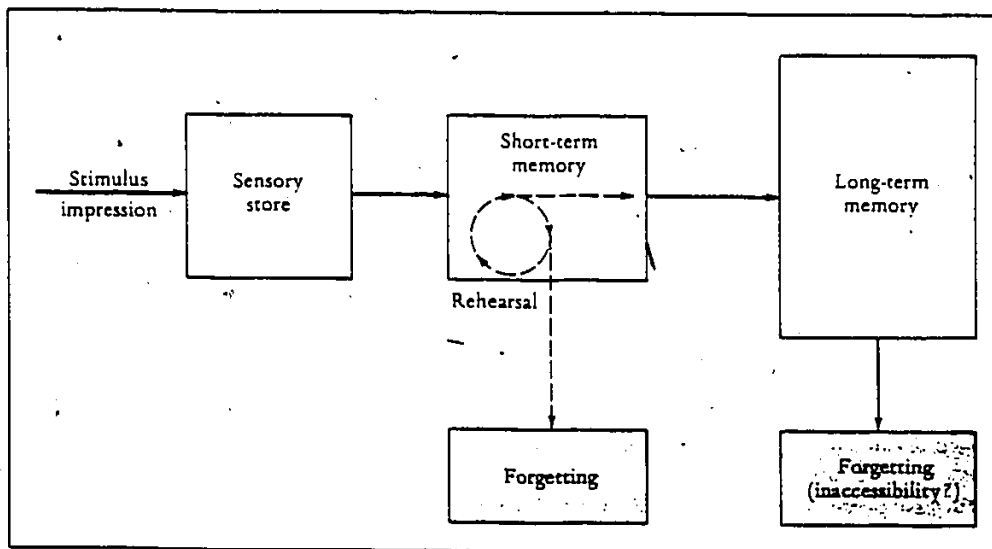
We may agree that the computer does not understand what it is doing, but would it be correct to say that human beings do not have any understanding about the things they do? Surely, Fodor would agree that he understands what he is doing when he explicates the computational view of mental processes. Thus, what is meant by the claim that cognitive psychologists do not assume that people have any understanding about what they are doing? The answer to this question is that semantic notions like truth, reference, knowledge, etc., are not regarded as psychological categories.³⁸ Why? Because the formalist view of mental processes as computational stipulates that the computer (i.e., the mind) will have no access to any interpretations. In other words, the cognitive psychologist accepts the computational view of mind as a research strategy to assist him in

studying how the human mind works. For example, if my friend who is always honest, tells me that he has just been promoted to vice-president of a certain bank, then I can claim to remember that my friend has received a promotion. But if for some reason my friend has lied to me, then my memory claim would not be correct. But this is in no way a fault of my memory. The mechanisms of memory have not been in error, even though my memory claim is not true. Thus, a psychologist could study the operations of my memory without taking into account the truth conditions which warrant my memory claims. Therefore, I contend that the computational view of mind is the most plausible description of the nature of mental processes.

We may sum up this discussion of mental processes as follows. According to cognitive psychologists, mental processes are defined as formal operations on mental representations. These processes have access only to the formal properties of these representations. They have no access to the semantic properties of such representations, e.g., the property of being true, of having referents or being representations of the environment. The evidence from cognitive psychology thus provides strong support for the view that remembering should be analyzed as a mental process.

Section 4: The Dispositional Analysis of Memory Reconsidered

The preceeding discussion of the computational view of mind provides us with a framework from which we may proceed to show the poverty of dispositional analyses of remembering. The problem with the claim of philosophers like Shoemaker that there is no justification for the view that remembering is a mental occurrence in the present, is that it ignores the fact that remembering is a complex activity. Memory processes are involved in the maintenance of information, the transfer of information and the retrieval of information. The dispositional analysis of remembering simply fails to adequately explain the complexity of the human memory process. Consider the following conceptualization of the human memory system.³⁹



One advantage of the computational view of remembering as opposed to the dispositional analysis is that it provides us with an opportunity to focus our attention upon the complex system of memory processing. We are in a position to study not only the retrieval of information from memory, but also the encoding of information into memory. Any analysis of what happens when we remember should be able to say something about how information is transformed into memory, as well as how information is retrieved from memory. But this is exactly what a dispositional analysis of memory cannot do. Consider the following ways in which information is transformed from short term to long term memory. And how it may be retrieved from memory.

First, information in short term memory is assumed to decay rapidly unless it is rehearsed.⁴⁰ Rehearsal is a control process which is used to maintain information in short term memory and to transfer it to long term memory. For example, we know that once information is in short term memory it is largely under an individual's control. We can choose whether to actively manipulate the information to some end or to discard the information. Consider the following example. Let us say a person needs to place a phone call to a certain airline to find out when the next plane leaves for Montreal. He will probably

look up the number in the telephone book, and retain it only long enough to dial the number. But suppose that he meets someone who attracts him very much at a concert. He asks her for her phone number. When he reaches into his pocket for a pen to write down the number, he discovers he doesn't have one. He will undoubtedly do everything within his power to permanently store the number in memory. This might involve saying the number over and over again to himself (rehearsal), or he might try to impose some organization on the number to include it into some pre-existing organization.

Rehearsal plays a major role in the maintenance of information in short term memory, but it may or may not result in transfer to long term memory. Sometimes we may need to use some other sorts of information elaboration techniques. The various mnemonic techniques which were discussed in Chapter Two are relevant here.

When information finally enters into long term memory, it stays there until the subject needs to retrieve it. Information may be retrieved from long term memory by appeal to certain retrieval cues, or it may involve a complex search process. For instance, it has been argued that we should conceive of retrieval as an interaction between processes operating at input and output time, so

that the recall process has the same information that was available at learning or encoding time.⁴¹ In other words, the retrieval of a memory trace is better the more cues present at input time are present at retrieval time. This is known as the principle of encoding specificity.⁴² For example, suppose that someone is presented with a list of words he knows he will later have to recall, and that at input time, the words to be recalled are presented with a semantic associate. Thus, if the word 'chair' is to be recalled it might be presented with the word 'table'. At recall time when the person sees the word 'table' he remembers the word 'chair'. In such ways the recall of stored information may be aided by retrieval cues which are presented at encoding and recall time.

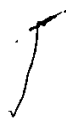
Often, however, the retrieval of information will involve the use of active, reconstructive processes which often have the earmarks of finding a solution to a problem.⁴³ Consider the following question: "Where were you at 2:00 p. m. on the first Wednesday of December, six years ago?" The person might respond as follows:

1. Well, six years ago, I was a graduate student in college.
2. This was the fall semester.
3. Was I in school? Of course, the semester didn't end until mid-December.
4. Did I have any classes at 2:00 p.m.? No. All of my classes were either in the morning or late afternoon.

5. So I might have been in the library. Wait a minute. I always went swimming on Wednesday afternoons before class.

As in this example, much of our memory for past personal events is the product of a very elaborate reconstruction process. We use stored information in an attempt to reconstruct that which we want to remember. We will have more to say about the reconstructive nature of remembering in the section below. But the point which I want to emphasize at present is that remembering is a highly complex phenomenon, which the dispositional analysis of remembering cannot capture. An analysis of what happens when we remember cannot be sufficiently explained by an appeal only to the output of what we claim to remember. The human memory system is too complex to be adequately described in purely dispositional terms.

I have argued in this chapter that we should reject Ryle's claim that it is a mistake to assume that memory is analogous to perception. I have also argued that both memory and perception should be analyzed as sources of information rather than of knowledge. But there is quite a lot of discussion which is needed before we are able to pass from an analysis of remembering to questions about the justification of memory. When we claim that we reconstruct our memories on the basis of memory traces, something needs to



be said by way of answer to the question, "What are traces?". Do traces continuously exist in our minds like a flow of electricity in wire? Do traces have a one-to-one correspondence to the event remembered? Are traces the mechanism which link past events to subsequent rememberings?

CHAPTER IV

THE RETENTION OF KNOWLEDGE

In the previous chapters I have tried to provide an analysis of what happens when we remember. I have rejected the traditional analysis of memory as well as the view which seeks to show that memory and perception are disanalogous. In this chapter I will discuss the view that memory should be analyzed as the retention of knowledge. We briefly referred to this analysis in the last chapter in the discussion of Ryle's criticism of the perceptual analogy. But our discussion of Ryle's criticism dealt primarily with the perceptual analogy rather than the notion of retained knowledge. It is now time for us to consider this view in detail to complete our analysis of what happens when we remember.

Section 1: Memory and Retention

A result of my discussion of the human memory system in the last chapter was that the processing of memory information is a complex phenomenon. There are processes involved in the maintenance of information, the transfer of information and the retrieval of information. But there are many problems about the retention of information

that need further consideration. When information is stored over time, does it decay as a function of time alone, or is the loss of information a result of interference by other material and other activities? What exactly is meant by the idea of a memory trace? Does the trace have a one-to-one relation to the original stimulus material? In other words, what are the mechanisms involved in the remembrance of some past event? However, before we can begin to answer these questions, we must prepare the way by rejecting the view which asserts that memory should be analyzed as the retention of knowledge.

We have already rejected certain aspects of this. We showed that remembering involves the operation of mental processes and that memory and perception are analogous in certain fundamental respects. In other words, since memory is analogous to perception, it follows that memory, like perception, is a source of information concerning the occurrence of past events. That is, since one of the reasons which motivate philosophers to accept the retained knowledge view of memory is based on the assumption that memory is not analogous to perception, our discussion of this issue in the preceding chapter shows that it is a mistake to deny that memory and perception are analogous. Therefore, our discussion of the perceptual analogy dealt primarily with

the reasons which motivate philosophers to accept the retained knowledge view of memory as opposed to an explication of the notion of retained knowledge itself.

What, then, is meant by the notion of the retention of knowledge? Briefly, to say that remembering involves retaining knowledge is to say that it involves learning something and not forgetting it. In other words, the proponents of the retained knowledge view of memory argue that a person remembers something if and only if he retains knowledge previously acquired. For example, Norman Malcolm claims that

A person, B, remembers that p if and only if
B knows that p because he knew that p .¹

And David Annis claims that

A person S remembers that h at t_1 if and only
if there is a prior time, t such that S knows
that h at t_1 because he knew that h at t .²

As the above examples make clear, Malcolm and Annis believe that a person remembers something only if he previously knew it. Knowledge is a necessary element in their analysis of remembering. However, there are some philosophers who object to a use of the notion of knowledge in the analysis of memory. Martin and Deutscher have argued that someone can remember something without believing that it happened, so that present knowledge is not always required.³ Moreover, previous knowledge is not required because someone can be

said to remember something without having previous knowledge of what he saw.⁴ For example, Martin and Deutscher cite the following case to support their contention:

Suppose that someone sees something, but thinks that he is suffering a hallucination. The person sees something, but since he does not accept that he is seeing it, he fails to gain the knowledge that it is there in front of him. Some time later he learns that there had been nothing at all the matter with him at the time, and that he had really seen what he thought he had hallucinated. He is able to give a detailed faithful account of what he saw. It is incorrect to insist that he cannot be remembering what he saw simply because at the time he had not believed his eyes.⁵

On Martin's and Deutscher's view if someone can give a detailed and faithful account of what he saw, then he remembers even if he did not have previous knowledge of what he saw.

However, Martin's and Deutscher's argument is sometimes criticized on the grounds that a person can know something about an incident which he believes not to be occurring or believes not to have occurred. Alan Holland provides us with an example in which someone sees the Loch Ness monster, but believes that he is suffering from an hallucination because the situation is so incredible. Holland argues that although the rememberer believes that it is false that he is seeing the monster of Loch Ness, it does not follow that he does not know what the thing he experienced was like.⁶

For example, the rememberer could describe the shape of the monster's head, that it was nobbly and he could describe the color of its skin or the shape of its feet. This shows that the rememberer can know something about an incident which he believes did not happen. Thus, Holland believes that we should reject Martin's and Deutscher's claim that previous knowledge is not a necessary condition of remembering.

But I am not convinced that Holland has proven his point. In the above example, I would argue that the rememberer cannot describe the shape of "the monster's head", simply because he did not know that the "thing" in front of him was a monster. He may be able to describe certain aspects of the "thing", but this is not the same as describing aspects of the "monster's head". Either he knows or he doesn't know that the thing in front of him is the Loch Ness monster's head. And ex hypothesis if previous knowledge is required in order to remember something, then the rememberer in Holland's example does not remember that the monster's head was nobbly. Therefore, if previous knowledge is required in order for us to say that someone remembers something, then we would have to exclude some obvious cases of remembering.

I maintain that if we analyze memory as the retention of information rather than the retention of knowledge,

we will be able to account for a greater variety of cases of remembering. For example, if a person sees a wax dummy and mistakenly believes that he sees a living man, then when he remembers seeing a man we could countenance this as a case of remembering but not knowledge. It is false that he saw a man, since what he saw was a wax dummy. But it does not follow that he is not remembering what he thought he saw.

As noted in the last section of the last chapter, if we analyze memory as a source of information rather than knowledge, then we will be able to account for cases of remembering which have often caused philosophers trouble. The information which is stored in memory may or may not be correct. But knowledge cannot be both correct and incorrect. Therefore, if previous knowledge is a necessary condition for remembering, then some very obvious cases of remembering would remain unaccounted for on a retained knowledge view of memory.

What, then, is the relationship between memory as a source of information, and memory as the retention of information? When we say that someone has retained some information in memory, we imply that he has learned something and not forgotten it. In other words, he has not relearned that which he claims to remember. And if we ask what is the

source of his information, the obvious answer is his memory. To put the matter another way, information may be obtained from a variety of sources: newspapers, books, acquaintances, articles, and by word of mouth. And it may also be obtained from memory -- especially information pertaining to events from our own personal history. Moreover, if we have retained some information in memory, then this implies that we have not just relearned that which we claim to remember. In a word, the information which is retained in memory has remained stored there until we recall it.

But what is the relation between the storage (i.e., retention) of information and the retrieval of information? This will be the main topic of the next section.

Section 2: Causation and Memory

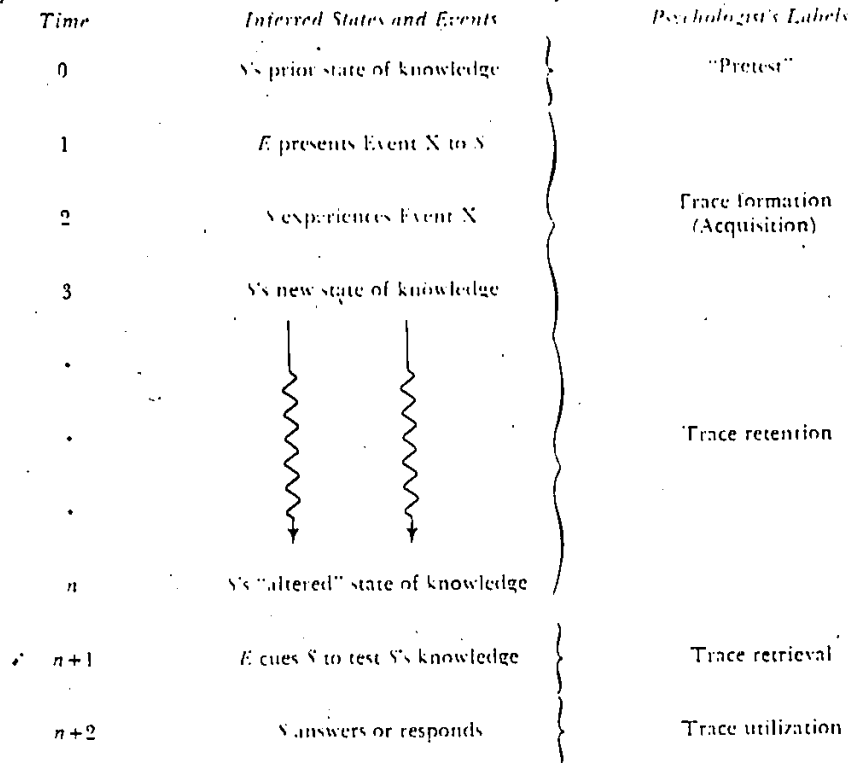
How is it possible for us to remember an event which occurred days or even years ago? Intuitively, it might seem plausible to claim that the past event is the cause of our remembrance of it. For we can remember only what has been a sensible experience in our own lifetime. But if this claim is intended as an explanation of the mechanisms by which we remember, then it would not be a plausible explanation. We may agree that past events are causal agents in the production

of subsequent rememberings, but disagree about the precise nature of the causality involved in remembering. Some of us may believe that past events cause subsequent rememberings because there is a continuous causal connection between the event remembered and the memory of it. Others may believe that there need be no continuous causal connection between the past event and the memory of it on the grounds that past events can cause subsequent rememberings without the intervention of a continuous causal mediator.

In this section I argue that traces are the causal agents by which past events are linked to the subsequent rememberings. I also argue that the prevailing arguments against the postulation of traces arise from certain conceptual blunders about the type of entities which may be accepted as explanatory concepts.

According to the trace theory of memory we are able to remember the occurrence of a past event because our experience of the event produces a trace of it in our brains. The trace is a structural analogue of the perceived event, and it persists in us for some time after the termination of the experience. Upon the occurrence of the right sort of stimulation the trace is activated, and thereby produces a memory response (see the illustration below).⁷

Flow chart of the important events within a trial and inferred states of the subject's knowledge. The terms at the right are the labels psychologists use to refer to the theoretical processes going on at particular times during this sequence. S and E refer to the subject and the environment (or experimenter), respectively.



The conception of traces as structural analogues of the event remembered has a long history in philosophical writings about memory. According to Deborah Rosen, "the structural concept of the trace originated with Plato",⁸ who likened memory to a print of a coin in wax. It continues in the British empiricist tradition of Locke and Hume who variously describe the trace as a copy, an imprint or impression of a sensory experience. And it finds one contemporary manifestation in Martin and Deutscher's reference to memory as

analogous to the grooves in a phonograph record. However, in recent psychological theories, the memory process is conceived as analogous to information processing machines like computers, rather than to wax tablets. But in spite of the differences between these two models of memory traces, all trace theories assume the notion of an internal representation of the event.

The contemporary debate about the adequacy of postulating traces takes place on two main fronts. On the first front there are some philosophers who argue that the postulation of traces is "purely gratuitous"⁹ because they have not been shown to exist. For them, a continuous causal link between the initial experience and the memory of it is not required to explain how past events can cause subsequent rememberings. On the second front, there are those who believe that the notion of traces as structural analogues is dispensable.¹⁰ For them, the postulation of traces can be vindicated without having to explain why traces are structural analogues of past events. Let us, therefore, direct our attention to the question of the adequacy of postulating traces as the continuous causal link between the event remembered and our memory of it.

According to contemporary trace theorists like Martin and Deutscher and Deborah Rosen, traces are an indispensable

element of memory. It is required by the "principle of spatio-temporal continuity",¹¹ which holds that there can be no direct causes remote in space or time. The assumption which underlies this hypothesis is that the postulation of memory traces is the only way that we can explain how a past experience can cause us to have a memory of it. How, it is asked, can a past experience of something cause us to have a memory of it if there is no causal link between the original experience and the memory of it? If there is no continuous causal link between an experience and the memory of it, then we would be in a position of having to affirm that action at a distance is feasible. A whisper in Atlanta cannot cause the collapse of the Eiffel Tower. Nor can a fist blow to a giant redwood tree today cause it to fall a year from now. In a similar spirit, we posit a memory trace to span the gap between an experience and its subsequently being remembered. Such traces provide for the continuous causal link between an experience and the memory of it.

One objection that is raised against the postulation of traces is that since memory traces are neurophysiological phenomena, neither philosophers nor psychologists are especially qualified to discuss the idea. But Martin and Deutscher justifiably counter this objection by noting that we can understand the general requirements of a memory trace, even

though we have no specific knowledge of the neurophysiological characteristics of the trace.¹² On their view, the idea of a memory trace can be described by comparing a memory to a print of a coin in wax or the grooves in a phonograph record. But although Martin's and Deutscher's reply is reasonable, it is somewhat misleading. For, as we will see in the following passages, traces are not structural analogues. They need not be isomorphic with remembered events.

We can strengthen Martin and Deutscher's counter to the claim that an understanding of neurophysiology is required to talk about the role of traces in our remembrance of things past by noting a line of argument used by Neisser. According to Neisser,

...no one would dispute that human beings store a great deal of information about their past experiences, and it seems obvious that this information must be physically embodied somewhere in the brain.¹³

But even if it is true, as Neisser has noted, that the complex molecules of the DNA and RNA are the substrate of memory, this hypothesis is only marginally relevant to the psychological question. Neither psychologists nor philosophers are concerned about whether memory is carried by the DNA as opposed to some other medium. The philosopher and the psychologist want to "understand its utilization, not its incarnation."¹⁴ Therefore, even if it is correct to

conceive of traces as neural processes which link past events to subsequent rememberings, it does not follow that an appeal to traces as explanatory constructs in philosophy or psychology requires a specific understanding of the complex neural activity involved in remembering. Therefore, I maintain that we can understand the requirements of a memory trace (at least for our purposes) without an understanding of neurophysiology.

But even if we agree that the requirements of a memory trace can be understood without recourse to an understanding of neurophysiology, there are still other arguments which are put forth to cast doubt upon the postulation of traces. Norman Malcolm, for example, has argued that our everyday verification of whether some person does or does not remember are not bound up with any questions about what is or is not going on in his brain.¹⁵ However, although it may be true that the justification of a person's claim to remember does not involve a reference to any causal chain of events preceding the remembering, it does not follow that the postulation of traces is not required in an analysis of remembering. These are two different issues. It is possible that memory traces are causally necessary for remembering although the justification of a person's memory claim may not involve a reference to what is going on inside his brain. People

may, for example, understand that dialing a telephone makes the telephone ring at the other end because there is some process linking their action with the ringing of the phone, but they have little or no idea of what that process is. Likewise, people may be able to determine whether a person's memory claim is veridical without having any detailed knowledge about what goes on inside the person's brain. Therefore, any attempt to link the justification of memory claims to the inadequacy of postulating traces in the analysis of what happens when we remember is mistaken.

When Malcolm argues that memory has nothing to do with continuous processes of retention, he may well be right about the justification of memory, but he is surely wrong about its analysis. Psychologists like Ulric Neisser assert that the proponents of the postulation of memory traces is correct because no one can dispute the fact that information about the past is somehow stored and preserved for subsequent use. In Neisser's words, "today's experience must leave some sort of trace behind if it is to influence tomorrow's construction".¹⁶ But the opponents of the trace theory of memory have serious reservations about the validity of the claim that today's experience "must" leave some sort of trace behind. Bertrand Russell and John Heil

believe that the postulation of traces is "gratuitous",¹⁷ and Malcolm believes that the trace theory is incoherent.¹⁸ I, however, do not accept their arguments.

When Russell and Heil claim that memory traces are gratuitous entities, what they mean is that there is no empirical evidence to support their existence. Traces are not entities or processes that neural surgeons have encountered in their operations on the brain in the way that dentists encounter cavities. The trace is a "theoretical construct"; in Russell's words, "it is...invoked for theoretical uses, and not an outcome of direct observation."¹⁹ Similarly, Heil asserts that "if traces exist, they must be shown to exist and not simply postulated to shore up some philosophical theory of causality".²⁰

Russell's reluctance to accept traces is a result of his belief that the then "present state of physiology"²¹ does not warrant the postulation of traces. He believes that it is quite likely that traces of some form will be discovered once we know more about the brain. But he feels that the present state of knowledge does not support the belief in the existence of traces. However, I do not share Russell's reluctance in affirming belief in the existence of traces. The postulation of traces is no more gratuitous than the postulation of atoms, electrons and neutrons which are

postulated to account for physical phenomena. For example, the physical sciences have a long history of inventing theories which are designed to explain a system of uniformities by construing the phenomena in question as manifestations of entities and processes that lie behind or beneath them. The corpuscular and wave theories of light offer accounts of the nature of light in terms of certain underlying processes. (For instance, the corpuscular theory asserts that light consists of transverse wave propagated in an elastic medium, the ether, while the wave theory asserts that light consists of extremely small particles travelling at high velocity.) The kinetic theory of gases offers explanations for a wide variety of empirically established regularities by construing them as macroscopic manifestations of statistical regularities in the underlying molecular and atomic phenomena. These two examples show that hypothetical entities are postulated because they are powerful and fruitful for organizing empirical uniformities. We should not conclude that traces do not exist simply because they are theoretical constructs. Quarks, charm particles, etc., are theoretical constructs, but we assume they exist. In a similar vein, I believe that the postulation of traces is perfectly appropriate on scientific grounds. If the postulation of unobserved entities is legitimate

in the physical sciences, then why not in psychology or philosophy? Why deny that theories of human memory -- like information processing theories -- may employ unobserved entities (symbols) and unobserved processes -- elementary information processes in order to account for our ability to remember past events?

Equally we should reject the view that the type of causation involved in memory is mnemic causation, i.e., causation across a spatio-temporal gap. This is the view held by Malcomm, Russell and David Annis. Malcomm has asserted that "mnemic causation...is the kind of causation that is present in memory";²² Russell asserts that "mnemic causation maybe the ultimate explanation of mnemic phenomena".²³ And Annis claims that "mnemic causation allows for causation across a spatio-temporal gap".²⁴ In order for me to vindicate my contention that we should not accept the hypothesis of mnemic causation, I explain what is meant by the notion of a mnemic phenomenon, then I consider mnemic causation, and finally I show why this view of memory should be rejected.

Russell provides a good example of mnemic phenomena in his book The Analysis of Mind:²⁵

...you smell peat-smoke, and you recall some occasion when you smelt it before. The cause of your recollection, so far as hitherto observable phenomena are concerned, consists both of the peat-smoke (present stimulus)

and of the former occasion (past experience). The same stimulus will not produce the same recollection in another man who did not share your former experience although the former experience left no observable traces in the structure of the brain. According to the maxim "same cause, same effect", we cannot therefore regard the peat-smoke alone as the cause of your recollection, since it does not have the same effect in other cases. The cause of your recollection must be both the peat-smoke and the past occurrence. Accordingly your recollection is an instance of what we are calling "mnemic phenomena".²⁶

In the preceding example, a person's recollection of a past event is said to be a mnemic phenomenon. The phenomenon -- that is, the recollection -- is caused by the present stimulus and the past occurrence. Annis and Malcolm also provide similar examples. Annis asks us to suppose that a man has a fight with his wife and an hour later when he asks for the newspaper, she speaks sharply to him. The argument they had caused her to speak sharply to him. It is what explains her behavior.²⁷ Malcolm provides a similar example. He asks us to suppose that someone stoops to pick up a rock from his lawn and sees a nearby dog rush away at top speed with his tail between his legs. Undoubtedly, someone had previously thrown rocks at the dog and this is what caused him to run in fright when the person stooped to pick up a rock.²⁸ According to Annis and Malcolm, in neither of these cases are traces appealed to in order to explain a person's behavior.

I believe that the explication of mnemic phenomena as a recollection which is caused by a present stimulus and a past occurrence is *prima facie* sound. If we smell barbecue it may remind us of a prior occasion in which we tasted barbecue. The present stimulus (smelling barbecue) causes us to remember eating barbecue on some prior occasion. If we had never eaten or smelled barbecue before, then it is doubtful that the present stimulus will produce a recollection of smelling barbecue. But this cannot be the total explanation for the occurrence of the recollection. Nor does it show the trace theory to be mistaken.

There is evidence from neurophysiology which corroborates the belief in the existence of traces. The nature of this evidence is derived from certain experiments concerned with the consolidation of an experience. For example, our ability to remember past events when suitably stimulated depends not only on the present stimulus and the past event, but also upon the consolidation of an experience.²⁹ The idea of consolidation refers to a sequence of solidifying events which occur during the formation of a permanent memory. This idea is usually referred to as the consolidation hypothesis. For example, just as gelatin solidifies as a result of the chemical reactions in the solution, the memory representation is assumed to become firmer with the occurrence of certain

events within the nervous system. The relevance of the idea of consolidation to the issue of the causation of a memory response is that the memory representation is assumed to be a memory trace. The main evidence for the consolidation theory of memory comes from studies of disturbing or traumatizing the brain shortly after registration of an experience. In theory, this disruption should prevent consolidation of neural analogues of the memory, so no learning should take place. Neurophysiological experiments have corroborated this hypothesis. Neurophysiologists who trained rats in an avoidance task and administered electroconvulsive shock shortly after a learning trial found that learning was retarded in those rats that received ECS shortly after each trial.³⁰

Ironically, Russell was aware of the earlier results of research involving the consolidation hypothesis. In Russell's words, "no doubt physiology, especially the disturbances of memory through lesions in the brain, affords grounds for this hypothesis".³¹ But he felt that the current state of research did not warrant his acceptance of the consolidation hypothesis. However, it now seems reasonable to assume that the consolidation hypothesis has been verified, so there is no good reason why we should not accept it. Our memory of a past event is mediated by traces

which are the mechanisms which link past events to subsequent rememberings. In other words, if there were no traces which linked past events to present rememberings, then it would be plausible to claim that electroconvulsive shocks should not result in a loss of memory. But this is a mistake. Electroconvulsive shocks do result in a loss of memory, because they interfere with the consolidation of the memory trace. Indeed, if we do not accept the existence of traces, there seems to be no way that we can account for the retention of experience or learning. Therefore, I maintain that memory traces are the mechanisms which link past events to subsequent rememberings.

Section 3: Representation and Memory

As noted earlier, memory traces link past events to subsequent rememberings by being a structural analogue or representation of the event remembered. Since we have just dealt with the issue of traces as causal links between past events and present rememberings, we will focus our attention in this section on the issue of traces as representations of past events.

It is important when discussing this issue to note that although all trace theorists agree that traces are the mechanisms which link past events to subsequent rememberings,

they disagree over whether traces are representations. Deborah Rosen, for example, is a trace theorist who believes that "the trace theorist, while committed to certain causal notions, is not, or least need not be, committed to the notion of structural analogy or representation."³² By contrast, Martin and Deutscher believe that the trace theorist is committed to the notion of traces as representations of past events. In their words, "somebody may have observed an event, but unless he is recounting it to himself, telling others or in some way representing it, then, roughly speaking, he is not remembering that event."³³ My own view about this issue is that Martin and Deutscher are correct: Rosen is incorrect in her assessment of the representational character of memory traces.

In my view, Rosen is mistaken when she claims that a trace theorist can base his case for traces merely upon the principle of spatio-temporal contiguity which holds that there can be no direct causes remote in space and time. In the first place, it is highly unlikely that a trace theorist can make a case for the postulation of traces without being committed to the notion of traces as representations of past events. In information processing terms, we know that once information enters the organism, it is coded and stored. From this point of view, the memory trace is the

internal representation of the specific information stored in memory. If the information is stored in short term memory, it will be represented both verbally and visually, and if it is stored in long term memory, it will be represented either visually or semantically.³⁴ Rosen is aware of the fact that "in recent psychological theories, the memory process is conceived as analogous...to dynamical information-processing machines like computers".³⁵ But if she is aware of this fact, how can she argue that trace theorists can get along without the notion of representation?

The answer to this question is that she believes that the notion of representation is not a crucial one for the trace theorist. On her view, the trace theorist can make a case for the postulation of traces by considering the fact that it is required by the principle of spatio-temporal contiguity. That is, the principle of spatio-temporal contiguity is the minimal assumption necessary to argue for the validity of the trace theory.³⁶

I suggest that the reason why Rosen believes this is that she seems to accept Malcolm's criticism of the notion of representations. She asserts that Malcolm "has argued against any theory in which the trace or engram is explicated as a neural representation".³⁷ Therefore, she believes that although the notion of representation is an important one, it is not a crucial one for the trace theorist.

However, it seems to me that we cannot separate the notion of representation from the notion of traces. Nor should we accept Malcolm's arguments against traces as neural representations. My argument for these contentions is as follows.

First, suppose that I have a party and I ask my guests to leave behind a trace or "token" which will enable me to recollect who was at the party. Suppose that all of my guests leave tennis balls, behind. In this case I have no way of telling which balls were left behind by which guests.

In order to do that a "token" must not only be a deposited item, but it must be a "representational calling card", something which stands for the person who left it behind. Likewise, with respect to memory traces. A trace cannot simply be a deposited item left behind by a particular learning experience; we must know that the trace is a causal product of a particular learning experience rather than any learning experience whatsoever. The trace cannot be just a "calling card" or a "memento" of a past learning experience, but it must be a "representational calling card", a card which stands for a certain past learning experience.³⁸ Thus, a trace theorist cannot simply claim that traces are required only to establish a causal link between a past experience and our memory of it; he must also require that

traces represent a particular past experience so that we can know that the trace is a result of this rather than that past experience. Therefore, Rosen and others who follow her line of reasoning are mistaken when they claim that a trace theorist can base his case for traces merely upon the principle of spatio-temporal contiguity.

Turning now to Malcolm's argument, we need to note first that Malcolm argues against the view that traces are neural representations of past events on the grounds that we cannot explain what function neural representations have at the phenomenological level. Malcolm's argument proceeds as follows. He begins by describing the "prevailing neurological schema" of the memory process:

Information is taken in, then stored in a neural representation that remains in a latent state; and later this neural representation is activated by a suitable stimulus. The occurrence of an activated neural representation (activated trace) would be the final effect, at the neural level, in this three-stage model of the working of a memory process.³⁹

Then Malcolm seeks to determine what effect the activated trace has at the phenomenological level. He does this by considering the following type of situation.⁴⁰ He asks us to suppose that a person named Jones planted a dogwood tree in his garden, and that when he finished planting the tree, he leaned the shovel against the trunk of another tree.

Later, Jones's wife asks her three sons, who had seen their father lean the shovel against the tree, "Where did Daddy put the shovel?" One son replied, "Daddy leaned it against the tree by the dogwood"; the second son pointed at the tree, and the third son ran to the tree and fetched the shovel for his mother.

All three boys noticed what their father did with the shovel, and all three retained that information. Thus, Malcolm claims that the same (structurally the same, numerically different) neural memory trace should have been produced in all three, namely the trace that is a representation of that information. Furthermore, the trace was activated by the same stimulus namely their mother's question. But Malcolm points out that at the phenomenological level, the effect of the same stimulus as applied to the same trace was radically different. One boy uttered a sentence, one pointed, another ran and fetched the shovel. The conclusion which Malcolm adduces from this example is that "we are unable to specify the common effect of the activated trace."⁴¹

Malcolm does not believe that we can claim that the activated trace caused a mental representation of the fact that the boys' father leaned a shovel against a particular tree. That is, he holds that the common effect of the activated trace cannot be a mental representation. His

primary example for explaining why he holds this is explicated in terms of whether each of the three boys thought to himself that their father leaned the shovel against the tree. According to Malcolm we cannot say that all three boys must have thought that their father leaned the shovel against the tree because we would "depart from the ordinary criteria for the occurrence of silent thought (normally, the subject's own subsequent testimony)".⁴²

I believe, however, that we can and should say that the common effect was that the activated trace produced a mental representation of the fact that their father leaned a shovel against a tree. I believe that this is the only way that we can explain their subsequent behavior. The reason why one boy uttered a sentence, and another pointed and the third ran and fetched the shovel is because they believed that their father leaned the shovel against the tree. If they did not, then it would be plausible to claim that their mother's question could have caused one boy to say that "Daddy ate the shovel", another to point to the sky, and the other to run to the bathhouse. But they did not do any of these things. Why not? The only rational explanation seems to be that each of them have represented in their minds the fact that their father leaned the shovel against the tree. There are an infinite variety of ways of

showing that one remembers something. We can utter sentences, point to the things remembered, or do something like fetching a shovel. But what explains these different manifestations of remembering is the way situations are represented in the mind of the rememberer. As Z. W. Pylyshyn has claimed, "It seems overwhelmingly likely that explanations of cognitive phenomena will have to appeal to beliefs, intentions, and the like, because it appears that certain regularities in human behavior can only be captured in such terms and at that level of abstraction".⁴³ I maintain, therefore, that we cannot separate the notion of representation from the notion of traces because it is essential to a trace that it represent whatever it is a trace of. As a result of this fact, the trace theorist cannot ignore objections to the representational character of traces.

Section 4: Construction and Memory

Up to now I have been arguing that traces are causally mediating links between past events and subsequent rememberings. And I have also argued that traces are representations of past events. The question which we now need to consider is whether traces are exact representations of past events. This question is sometimes formulated in terms which depict traces as standing in a one-to-one relationship

to the event remembered. Just as it is assumed that a print of a coin in wax stands in a one-to-one relationship to the actual coin, it is often assumed that memory representations stand in a one-to-one relationship with the event remembered.

But this assumption is incorrect. Memory representations need not be in one-to-one correspondence with the original physical stimulus. This is neither necessary nor plausible. Why not? In the first place we know that cognition is constructive, and the processes of construction produce the traces. When we experience some event we do not simply store a copy of it but we actively integrate it into our complex memory system. Moreover, when we later recall the event, we actively reconstruct the stimulus from all the information present, including information that may have been perceived after the stimulus. The process of construction can occur without one-to-one correspondence.

For example, certain psychological experiments have clearly demonstrated how a person's memory of some event can be influenced by information perceived after the initial event. Reynolds and Flagg have reported that in one experiment subjects were shown a short film of a multi-car traffic accident.⁴⁴ Later some of the subjects were asked, "Did you see a broken headlight?", while others were asked, "Did you see the broken headlight?" which assumes that there was

a broken headlight. But in fact there was no broken headlight. However, twice as many people in the "the" group as compared to people in the "a" group felt there was a broken headlight. In another experiment, to determine if verbal labels could influence the subjects' judgements about the speed of the cars, one group was asked, "About how fast were the cars going when they smashed into each other?"; while the other group was asked, "About how fast were the cars going when they hit each other?". The group which was asked the "smashed" question gave estimates 20 percent higher than those who were asked the "hit" question.⁴⁵ This variation shows that some individuals did not have a representation with the appropriate one-to-one correspondence with the past event.

What is interesting about these experiments is that a person's memory actually undergoes a change as a result of information perceived after the initial stimulus. For example, the subjects who were asked the "smashed" and "hit" questions were later -- a week later -- asked a new set of questions, one of which concerned the presence of broken glass in the film. The subjects who were asked the "smash" questions were twice as likely to report broken glass as opposed to those who were asked the "hit" questions. The conclusion which is deduced from this is that presuppositions

of the "smash" question was integrated into the subject's memory causing an impression of a severe crash. And since broken glass is more likely to occur during a severe crash, the subjects were prone to remember the broken glass. I maintain, therefore, that the most plausible conception of traces as representations of past events is this: traces are representations of prior processes of construction. In other words, we store traces of earlier constructive acts rather than traces which are exact copies of prior events.

In order to get a better understanding of the reason why traces are not one-to-one representations of earlier events we need to consider the role of schemata in the recall of original experiences. To begin, schemata may be thought of as frames of reference in which the recall of original experiences are organized. Bartlett has described the notion of schemata as it relates to remembering as follows:

[R]emembering is not the re-excitation of innumerable fixed, lifeless and fragmentary traces. It is an imaginative reconstruction, or construction, built out of the relation of our attitude towards a whole active mass of organised past reactions or experience, and to a little outstanding detail which commonly appears in image or in language form. It is thus hardly ever really exact, even in the most rudimentary cases of rote recaptulation.⁴⁶

The phrase "a whole active mass of organised past reactions or experience"⁴⁷ is used by Bartlett to refer to the notion

of schemata. In other words, schemata are what may be called "cognitive structures",⁴⁸ i.e., "non-specific but organized representations of prior experiences".⁴⁹ Our understanding of American history, our feel for riding a bicycle, our grasp of the surrounding environment are all the result of a great number of individual experiences. But they do not reflect these experiences separately. We can easily forget the occasions on which we learned how local streets are oriented, what the Spanish-American War was fought about, how gears are shifted, but these experiences leave a residue behind. These organized representations of prior experiences are what we call cognitive structures.

When we recall some past event we do so by reference to these background structures. For example, when I try to recall my first day as a Peace Corps volunteer, I do so by means of complex frames of reference and arrays of information about that day: the geography of the country I served in, the hospitality of the natives, myself as a young man, my understanding of the Peace Corps, and so on. I used these schemata to help facilitate my recall. In other words, the vast arrays of information that are used are not simply revived; they are rather used as information in the construction of my memory.

It is now easy to see why traces are not one-to-one

representations of original experiences. Since the schemata or cognitive structures which are used in the recall of information will consist of such things as our understanding or feel for something, they will invariably result in a certain degree of attention of the original experience. In short, traces are interest-determined.⁵⁰ For example, recall Barlett's story of the War of the Ghosts, in which the Indian is dying and a "black thing" comes out of his mouth, seen as the Indian's soul by the Indians and as blood by the British. Or recall from Chapter Two Sterling Brown's poem about an old woman who recalls the activities of Nat Turner. Her version of what really happened is the result of her own schemata which have influenced her recall of Nat Turner's activities. The only plausible conclusion which we may deduce from this discussion of the role of schemata in remembering is constructive. That is, a person recreates the event remembered at test time in terms of his or her own conception of the world.

Therefore, I maintain that traces are representations of prior processes of construction which are used as sources of information in the reconstruction of past events. Our perception of events is constructive and we store these processes of construction. Moreover, the recall of these prior processes of construction is constructive also. We

use the information -- traces -- stored in memory to reconstruct our memories of things past. In short, memory should be analyzed as a constructive process.

CHAPTER V

THE GENERAL TRUSTWORTHINESS OF MEMORY

In a classical paper concerning the epistemological status of memory Richard Brandt draws a distinction between the epistemological question of the trustworthiness of memory and the psychological question of the nature of remembering. According to Brandt the epistemological question is about the justification there is for relying on memory, whereas the psychological question is about what happens in our minds or brains when we remember.¹ That there is a difference between these two questions can be easily seen by considering the fact that the truth of a memory assertion is not logically dependent upon the workings of the memory process. For example, a person may be told something false, so naturally he cannot be said to remember that it was the case. But this would not suggest a failure of memory on his part; he can be said to remember what he was told, whether it was true or false. Therefore, even though we have given a good description of the memory process, we must not hastily conclude that we have also given an account of the reasons which warrant our confidence in relying upon memory as a source of information about the occurrence of past events.

It might appear that there is really no problem about justifying our claims to remember events from our past history.. We believe that there are certain widely accepted methods of memory verification. We may choose to corroborate the veracity of a memory claim by appeal to entries in our diaries or journals, the testimony of other persons, the coherence of one memory with others, or the existence of independent evidence. If I claim to remember eating eggs for breakfast this morning, and my wife tells me that I did eat eggs because she cooked them for me, then this would be taken as verification of the veracity of my memory claim. Likewise, if someone claims to remember meeting a former student at a local philosophy association meeting, records this information in his journal, then an appeal to the entry in his journal might be accepted as evidence in support of the person's memory claim.

However, there are certain arguments in the philosophical literature which cast doubt upon the legitimacy of an appeal, to certain widely accepted methods of memory verification. It may be argued that an appeal to written documents like diaries beg the question, because one must assume that ink-marks retain a more or less constant shape for long periods of time, and this information can only come from memory.² That is, we remember that on past particular occasions that

ink-marks have always retained their shape; therefore ink-marks retain a more or less constant shape over long periods of time. Likewise, an appeal to the testimony of other persons also begs the question because justified acceptance of testimony depends upon the reliability of the memory of those whose testimony it is. Moreover, it is essential that there be some basis on which the credibility of another person's report can be assessed, and this will involve a reference to past experiences of receiving such reports and finding them reliable, information that can only come from memory. Thus, it would seem that we cannot appeal to the testimony of other persons or to written documents to corroborate our memories without assuming what we are trying to prove. That is, we can only be sure that memory is a reliable indicator of the event it purports to be a memory of if we have already assumed that memory is a reliable indicator of what happened in the past.

The skeptical conclusion which is sometimes deduced from considerations of the preceding examples is that no non-circular justification of memory is possible.³ However, whether this is true or not is a matter which must be left for discussion in the following sections. Now I shall simply observe that it is generally agreed that the problem of the validity of memory is intractably difficult to resolve.

As E. J. Furlong has noted, "the fallacy of petitio principii, like a sword of Damocles, menaces"⁴ any attempt to support our belief in memory by argument. In other words, the problem of validating our trust in the reliability of memory constitutes a Gordian knot for memory theorists.⁵

Nevertheless, I believe that a solution to the problem of the validity of memory is possible. I will argue that we can give a non-circular justification for relying upon memory about the occurrence of past events. In order to prove this contention I maintain that we should carefully ~~distinguish~~ distinguish between two different issues which pertain to the justification of memory. The first concerns the relationship between skepticism and the reliability of memory as such. Do we have any good reasons for relying upon memory as a source of information about the occurrence of past events? In other words, can we safely assume that memory is generally trustworthy? Or, as Russell has sometimes put the point, can we assume that memory is as a rule generally correlated with the occurrence of a past event?⁶ The second point concerns the justification of particular memories. Even if we agree that it is possible to validate the general trustworthiness of memory, we would still need some procedure or method for determining whether any particular memory claim is veridical. Is it, for example, the

existence of some sort of independent evidence which is the ultimate warrant for validating the veracity of a memory claim? Or, is it the coherence of memories with one another which warrants our acceptance of a memory claim as genuinely indicative of the occurrence of a past event?

I will discuss these two different issues in separate chapters. In this chapter I shall discuss the skeptical challenge, namely that no non-circular justification of memory is possible. Then, in Chapter Six I shall take up the issue of the justification of particular memories. Therefore, let us turn our attention to the skeptical challenge about our justification for relying upon memory as a trustworthy informant of the occurrence of past events.

Section 1: The General Trustworthiness of Memory

I have asserted that the skeptic is critical of any arguments which are designed to show that memory claims can be validated by an appeal to the testimony of other persons or diaries or some sort of independent evidence. According to the skeptic, we can only be sure that memory is a reliable indicator of the event it purports to be a memory of if we have already assumed that memory is a reliable indicator of what happened in the past. That is, we must assume the hypothesis of the general trustworthiness of

memory (i.e., the hypothesis which asserts that a present recollection is as a rule correlated with a past event). But if we have no way of being sure that memory is reliable, does this mean that no non-circular justification of memory is possible? John Turk Sanders and Bertrand Russell believe so,⁷ while C. I. Lewis and Richard Brandt deny that it does.⁸ My own view is that the skeptical claim that no non-circular justification of memory is possible is fallacious because it mistakenly assumes that the notion of justification requires us to answer the skeptical question, "What justifies our total system of beliefs?"⁹ I will show throughout the course of this chapter that once we accept a contextualist view of justification, then there is no punch left in the skeptical argument that we cannot justify our acceptance of the hypothesis of the general trustworthiness of memory.

However, before we attempt to evaluate the various proposals for justifying our acceptance of the hypothesis of the general trustworthiness of memory, let us take a brief detour and discuss the reasons why we should even be concerned about the hypothesis. Let us discuss why it is assumed that the hypothesis of the general trustworthiness of memory is inextricably linked to any arguments purporting to establish the trustworthiness of any particular memory. In other words, why it is assumed that there is no test of

any particular memory without the assumption of the general trustworthiness of memory. For example, let us suppose, that we want to justify our memory belief that we put some money in a box. In order to justify our memory belief we might look inside the box to see if the money is there. If it is, then our memory can be accepted as a trustworthy indicator of the event it purports to be a memory of. And if the money is not in the box, then our memory will be regarded as unreliable. But in spite of this quite practical method of corroborating our memories, the skeptic argues that the fact of the money's now being in the box does not in itself constitute good evidence for our memory belief. The skeptic argues that a boxful of money supports our memory belief only in conjunction with the proposition that if the money is now in the box then it is likely that I put it there. But how, asks the skeptic, is this proposition to be established? We must show that if money is placed in a box, then under certain conditions, it will later be found in the box. But any attempt to support this generalization would require that we rely upon memory. It would require that we recall instances of the generalization to be established, or we may appeal to certain other generalizations, as the generalization that if one thing contains some other things, then under certain conditions, it continues to contain them.

Or, we may appeal to the testimony of other persons who may have seen us put the money in the box. But we must have some evidence concerning the reliability of the person's testimony. But the evidence can only come from past instances of finding a person's testimony reliable. And these instances will depend upon our memory that such and such a person's testimony is to be trusted. Thus, the skeptic argues that "we cannot justify...our memory beliefs...without including memory beliefs among our grounds."¹⁰

There is also another reason which is sometimes put forth to show the importance of dealing with the problem of validating the hypothesis of the general trustworthiness of memory. This is that the general trustworthiness of memory is a premise of knowledge which is necessary if science is to be accepted as mainly true.¹¹ According to Russell, who argues this way, there are among the facts upon which scientific laws are based, facts which are admitted solely because they are remembered. We cannot avoid appealing to memory when we want to certify the truth of some scientific law. For example, suppose we believe that whenever salt is dissolved in a liquid, then the freezing point of the liquid is lowered. Furthermore, suppose that this law is inferred inductively from past instances in which the freezing point of a liquid was lowered when salt was dissolved in it.

Now these past instances in which the freezing point of a liquid was lowered when salt was dissolved in it are known only through memory, so that the validity of this conclusion --that whenever salt is dissolved in a liquid the freezing point of the liquid is lowered -- depends upon the actual occurrence of observing those past instances which serve as the data. But these past instances are known only through memory. Therefore, memory is essential for the acceptance of any statement of empirical science.

However, the real point which Russell wants to make with respect to the claim that memory is a premise of knowledge is that our belief in the existence of a past event is based ultimately on the assumption that memory is generally trustworthy, i.e., that the event remembered probably did take place. In Russell's words:

A recollection is a present fact: I remember now what I did yesterday. When I say that memory is a premise, I do not mean that from my present recollection I can infer the past event recollected. This may be in some sense true, but is not the important fact in this connection. The important fact is that the past occurrence is itself a premise for my knowledge. It cannot be inferred from the present fact of my recollecting it except by assuming the general trustworthiness of memory, i.e., that an event remembered probably did take place. It is this that is the memory-premise of knowledge.¹²

Here Russell's point is that a past event cannot be inferred from the present fact of a recollection except

by assuming the general trustworthiness of memory. His argument for this view is as follows. Everything constituting a memory belief is happening now, as opposed to the past time which the belief is taken to refer. It is not logically necessary for the existence of a memory belief that the event remembered should have occurred, or even that the past should have existed at all. There is no logical impossibility in the hypothesis that the world sprang into being five minutes ago, exactly as it then was, with a population that "remembered" a wholly unreal past. Since there is no logically necessary connection between events at different times, nothing that is happening now or will happen in the future can disprove the hypothesis that the world began five minutes ago. Hence the occurrences which are called knowledge of the past are logically independent of the past; they are wholly analyzable into present contents which might, theoretically be just what they are even if no past had existed.¹³ It all goes to show that, since a past event cannot be inferred from the present fact of my recollecting it, our belief in its existence and that of the past as a whole is based ultimately on the assumption that memory is generally trustworthy, i.e., that the event remembered probably did take place.

Russell goes on to say that he is not suggesting that

the non-existence of the past should be entertained as a serious hypothesis. He even admits that the hypothesis is a silly one. But he admits this only because of the psychological impossibility of doubting the past, not because a philosophical skeptic would necessarily refuse to entertain such a doubt. The point of his argument is merely that the hypothesis is logically tenable. For us, the point of interest of the argument is this: we may of course say that, although the skeptical hypothesis of the non-existence of the past cannot be logically refuted, there is no reason for believing it. But then we have to recognize that we believe in the existence of the past only because we find it psychologically impossible to doubt it. And this means that there is nothing to prove conclusively that our belief in the existence of the past is justified. Moreover, this belief is bound to remain an hypothesis. For in any attempt to validate it we must at some stage or other rely on memory and thereby accept the proposition to be proved, namely that a past event is as a rule correlated with a present memory belief.

There are various proposals in the philosophical literature for dealing with the justification of the general trustworthiness of memory. Most of these proposals acknowledge the fact that the hypothesis of the general trustworthiness

of memory is necessary to much of our knowledge, although it cannot be proved by inference from anything which does not assume that memory is generally a reliable indicator of the event of which it purports to be a memory of.¹⁴ However, since most memory theorists also acknowledge the fact that the general trustworthiness of memory is something which must be taken account of in arriving at our knowledge of events in our environment, they have felt that there must be some argument which can be given to support our reliance upon memory as a source of information about the occurrence of past events. Some of these arguments assume that a demand for the justification of the general trustworthiness of memory is illegitimate, because there can be no question of justifying memory as a whole.¹⁵ Instead, the actual subject matter of concern for the epistemologist interested in the validating of memory is the particular memories of particular persons. For example, Alexius Meinong claims the following:

[T]he practical man is not at all concerned with proving the trustworthiness of memory in general; he already believes in it. What he really wants to know is whether his memory, apart from the question of its general trustworthiness, has been deceived in this or that particular case.¹⁶

E. J. Furlong claims that although

it is usual when discussing memory...to talk of the validity of memory (in general), the trustworthiness of memory (in general), ...this, though convenient, has the disadvantage of obscuring the fact that our actual subject-matter is the particular memories of particular people...

Richard Brandt believes that the problem of the trustworthiness of memory is not about proving the general trustworthiness of memory in general, but it is about the particular memories of particular people. In Brandt's words,

Our problem about the justification for relying on memory...begins with the assumption that we have memory beliefs, dispositions to remember past events ostensibly...indeed, a vast storehouse of them - and the problem is to show how to decide which, if any, of them are properly to be accepted as accurate reports of a real past experience.¹⁸

Finally, Russell argues that although the general trustworthiness of memory cannot be proved by inference from anything which does not assume it, we must accept it as an "independent postulate". It is necessary to much of our knowledge, there being no test of any particular memory without the assumption of the general trustworthiness of memory.¹⁹

The skeptic, however, is inclined to reject the assertion that we should either accept the general trustworthiness of memory as an independent postulate, or take it for granted that an event remembered probably did take place.

According to the skeptic we could all be subject to a systematic delusion of memory, in the sense that our memory never has any reliable connection with the past. Therefore, there is no good reason why we should accept the general trustworthiness of memory as a working hypothesis in arriving at our knowledge of events in our environment.

Should we accept the skeptical claim? I maintain that we should not. To begin with, consider Lewis's claim that the skeptical supposition that we are all subject to a systematic delusion of memory "must inevitably end in nonsense".²⁰ According to Lewis if we were to doubt our sense of past experience as founded in the actual past, "we would lose any criterion by which either the doubt itself or what is doubted could be corroborated".²¹ Therefore, Lewis argues that "we have no rational alternative but to presume that anything sensed as past is just a little more probable than that which is incompatible with what is remembered, and that with respect to which memory is blank".²² For example, suppose that a certain person is subject to a systematic delusion of memory concerning his experience of music. Whenever he has heard music in the past it has always been accompanied by kaleidoscopic patterns of imagined color. Now music is promised and the person predicts the like accompaniment on this occasion. His prediction is validly

credible; it is made in the light of the best evidence open to him: his memory and the evidence it provides justifies his prediction that the music will be accompanied by kaleidoscopic patterns of imagined color. The point of this example is to show that if we believe that our memory never has any reliable connection with the past, and that we are always subject to a systematic delusion of memory, then we would lose any criteria by which the doubt or what is doubted could be corroborated.

Lewis asks us to consider the question if the person will ever discover the delusive character of his memories through the test of experience. If we say that he will, then this would mean that the delusion will not persist. And if it should persist, but not extend to his sense experience, then he will find each verifying experience as an exception to all of his past experiences as he remembers them. Of course, if he is reasonable he will take note of this exception to his past experiences, as diminishing the credibility of similar predictions in the future. But on any future occasion in which he seeks to verify his past experiences of hearing music he will always be forgetting prior exceptions to the hypothesis he is trying to validate. In other words, he will never be able to discover the delusive character of his memories. Therefore, whenever he seeks to verify his

past experiences of hearing a certain kind of music, he will always remember his past experiences erroneously, and again credit predictions on the basis of his delusive recollections.

The point which Lewis wants to make about the skeptical claim that we could all be subject to a systematic delusion of memory is this. If we were to accept this claim, then we would "erase the distinction between empirical fact and fantasy".²³ Any beliefs which we may have on the basis of our delusive recollections, will have the same logical validity as beliefs that are based on genuine recollections. If we assume that the general principle of induction is valid, then any predictions which we make on the basis of either delusive or genuine recollections would have to be certified as validly credible. Why? Because any predictions which are based on delusive recollections could never be corroborated as such. If we were trying to validate the hypothesis that whenever we hear music that it is always accompanied by kaleidoscopic patterns of imagined color, then exceptions to this hypothesis could never be used as evidence to diminish the credibility of the hypothesis. For if it were true that we are always subject to a systematic delusion of memory we would always be forgetting these exceptions. Thus, on each occasion in which these exceptions would become pertinent, we would always base our

predictions on the basis of our delusive recollections. Our predictions would be validly credible simply because they are made in light of the best evidence available to us -- our memory. We always remember that when we hear music it is always accompanied by kaleidoscopic patterns of imagined color. Therefore, Lewis argues that the suggestion of a systematic delusion of memory must inevitably end in nonsense. That is, we would erase any distinction between fact and fantasy.

Lewis's rejection of the skeptical claim has done a lot to convince many philosophers that there is no reason to distrust our confidence in the general trustworthiness of memory. However, I believe that we can expand upon Lewis's rejection of the skeptical challenge by pointing out, as Michael Williams claims, that the "notion of justification brings with it contextualization of the notion of doubt".²⁴ What this means is that we should refuse to take seriously the skeptical question, "What justifies the whole of memory?", because it is a mistake to consider questions of justification in abstraction from a concrete context of inquiry. In other words, we should refuse to be lured into any attempt to refute the skeptic.

There are two questions which need to be considered. First, what is the difference between Lewis's reply to the

skeptical question and Williams' contextualist reply to the skeptical question? Second, which of these two replies should we accept? The answer to the first question is that Lewis believes that we have no alternative but to accept the view that the vast majority of our memory beliefs are veridical. And Williams believes that we should accept this view only because there is no concrete context in which this view could be made plausible. The answer to the second question is that we should accept Williams' reply to the skeptic. My reason for believing that we should accept Williams' reply is as follows. I contend that if there is no concrete situation of inquiry which would warrant our serious consideration of the skeptical demand to justify our confidence in the general trustworthiness of memory, then we should refuse to take seriously the skeptical challenge. It is true, of course, that in some situations our memory should not be trusted. For example, suppose that a group of people known as the Wakamba are given a drug which alters their memory of events. In this situation we would have every reason to be skeptical about the veracity of their memory claims. But it would not be plausible for us to infer that all of us might be subject to a systematic delusion of memory. Why not? Because there is no empirical evidence to suggest that all of us are in a situation similar to the Wakamba.

We know that the Wakamba have been given a drug to alter their memory, therefore, it is reasonable to be skeptical about the trustworthiness of any of their memory claims. But there is no reason why our skepticism should extend to all contexts of justification. If we could cite some empirical evidence which strongly suggests that our memories are always deceiving us, then there would be some reason to doubt that memory is generally trustworthy. But in the absence of any evidence to suggest that all of our memories are generally trustworthy, there is no good reason why we should be lured into an attempt to refute the skeptic.

We have acknowledged the fact that there is no way to prove the hypothesis of the general trustworthiness of memory by inference from anything which does not assume it. But is there any reason why we should accept the skeptical claim that we may all be subject to a systematic delusion of memory, simply because we cannot justify the whole of memory in a non-circular fashion? Are there any concrete situations of inquiry which would warrant our acceptance of the skeptical claim? I doubt it. We do not find that each memory is a puzzling exception to our recollections of past events in our lives. We see that when salt is dissolved in a liquid, the freezing point of the liquid is lowered, and we remember that on past occasions that when salt was

dissolved in a liquid the freezing point of the liquid was lowered. We perceive that if we are now cross with our wives, then they do not take kindly to our behavior, and we remember that they have never taken kindly to such unagreeable behavior. We can perceive that if we prick our skin with a sharp instrument, then we feel pain, and we remember that this has been so in the past. But why should our memory beliefs have this kind of consistency if they have no reliable connection with the past? If it should be proposed that some demon has deceived us into believing that most of our memories are veridical when in fact they are not, then this suggestion is a fantasy which cannot be worked out in any detail. Nor is there any concrete epistemic situation in which this skeptical belief can be given any cogency. Therefore, if there are no concrete epistemic situations which would warrant our serious consideration of the skeptical question, "What justifies our entire system of memory beliefs?", then there is no reason why we should seriously entertain the skeptical question.²⁵

I maintain, therefore, that we should accept the view that the vast majority of our memory beliefs are veridical, because there is no context in which the skeptical challenge to our belief in the general trustworthiness of memory can be made plausible.

CHAPTER VI

THE JUSTIFICATION OF PARTICULAR MEMORIES

In the last chapter I argued that we should refuse to take seriously the skeptical question, "What justifies the entire system of memory beliefs?". I argued that the skeptical question does not warrant consideration independent of concrete epistemic situations. The result of our dismissal of skepticism is that we are now in a position to determine how we can justify our particular memory claims. We know that we can test the trustworthiness of our particular memory claims, given the assumption of the general trustworthiness of memory. Thus, since we have shown that it is possible for us to justify our confidence in the general trustworthiness of memory, we may now proceed to examine the various procedures for justifying particular memory claims.

In this chapter I examine four such procedures. The first of these is the original justification view, according to which what originally justified one's belief continues to justify it at present. On this view, then, one's justification for knowing that something happened is the very same justification which one had at the time of the original incident.¹ Second, I consider the independent evidence view, which asserts that a good reason for believing that a past

event occurred is that there is independent evidence that it was so.² Third, I consider the coherence view, which asserts that memory beliefs are justified by their coherence with other memory beliefs and any evidence there may happen to be.³ Finally, I examine the contextualist view, which asserts that the justification of memory beliefs is a matter of accommodating beliefs that are being questioned to a body of accepted beliefs.⁴ I argue that the contextualist view is the most plausible view of how we should proceed to justify our particular memory claims.

Section 1: Original Justification

According to the original justification view of memory, what originally justified one's belief continues to justify it at present: one's justification for knowing that something happened is the very same justification which one had at the time of the original incident. Thus, if Smith breaks a window at time t by throwing a ball through it, then his justification for believing that he broke a window is that he saw the ball leave his hand and shatter the window. Now if Smith claims to remember at t_1 that he broke a window at t , then according to the original justification view of memory Smith's justification for believing at t_1 that he broke a window at t is the very same justification which he had at t ,

namely that he saw the ball leave his hand and shatter the window. In short, what originally justified his belief that he broke a window at t continues to justify it at t_1 .

The proponents of the original justification view have characterized this view as follows. Norman Malcolm claims that

A person, B, remembers that p if and only if
B knows that p because he knew that p .⁵

David Annis claims that

A person S remembers that h at t_1 if and only
if there is a prior time t such that S knows
that h at t_1 because he knew that h at t .⁶

And Alan Holland claims that

A's knowledge at t_1 is the same as his
knowledge at t .⁷

In each of these quotes, the central claim is that a person's memory belief is justified if he continues to possess the very same justification which he had at the time of the original incident.

This is an attractive view of memory since it seems to provide us with a means of accounting for the fact that someone can remember something but not recall how he learned it. Suppose that Jones tells David that he is going to have an operation. David visits Jones in the hospital and the doctor tells David that Jones' operation was a success. On this basis David comes to believe that Jones has had an operation.

But suppose that several years pass and David still remembers that Jones had an operation, but he no longer remembers how he learned it. On the original justification view, a correct answer to the question "How does David know that Jones had an operation?" is that he visited him in the hospital and that the doctor told him that Jones's operation was successful. In other words, David's justification for believing that Jones had an operation is the very same justification which he had at the time he originally acquired the belief.

This conception of the justification of memory beliefs suggests that a person's justification must hold through time:⁸ the justificatory link between the original justification and the memory belief that some event occurred must not be broken. What this means is that the justificatory link between the original justification and the memory belief holds provided that the rememberer has not relearned that which he claims to remember.

To explain, suppose that someone, let us call him Emerson, is able to recount the details of an accident which he witnessed. Let us further suppose that his recounting of this accident stems from his observation of the accident. On the original justification view Emerson is justified in claiming to remember the accident because his justification

is the same as it was at the time of the original incident; namely, he witnessed it. But now suppose that Emerson received a sharp blow to the head some time after he witnessed the accident and as a result lost all memory of the event. What should we say if a hypnotist hypnotizes Emerson and tells him that he witnessed a certain accident which just by coincidence resembles in every detail the accident which Emerson witnessed before he lost his memory, and Emerson in response to someone who had asked him if he remembers seeing the accident had replied "yes" and had given an accurate and detailed description of the accident? One might suppose that Emerson is remembering the accident because it is known that he saw it happen, and his account of the accident is faithful to what actually happened. But Emerson cannot be said to remember the accident because what originally justified his belief does not justify it at present. Emerson's grounds for believing that he witnessed the accident are based upon what the hypnotist told him rather than on his actual witnessing of the accident. In other words, Emerson's original justification does not hold through time. Therefore, we would have to say that Emerson is not remembering the accident.

The above claim that the justificatory link can be broken by relearning what we claim to remember seems to be

a point in favor of the original justification view. For it shows that a person's justification for claiming to remember a past event must stem from the time of the occurrence of the original event. Likewise, the following example seems to be a point in favor of the original justification view because it shows that the link between the original justification and the memory belief may also be broken, if the justification has been defeated by further evidence.⁹ Annis provides this example of how the link between the original justification and the memory belief may be broken. Let us suppose that Mrs. Smith who is both honest and reliable informs us at time t that her husband's name is Jerry. Let us also assume that this justifies our belief that Jerry is Mrs. Smith's husband, and that there is no defeating evidence at t (e.g. Mrs. Smith has not been proven to be dishonest, or to have remarried another man with a different name). It is thus plausible for us to assume that we know that Mrs. Smith's husband's name is Jerry. But suppose that five years later at time t_2 we develop a bad memory for names. When we become aware of our memory problem, this information would defeat our justification for believing that Mrs. Smith's husband's name is Jerry. Thus, it is possible for a person to know that Mrs. Smith's husband's name is Jerry at time t , since there is no defeating evidence at that time. But this person

may lose his knowledge at a later time to defeating evidence. Therefore, he cannot be said to remember that which he claims to know.

Should we, therefore, accept the original justification view for justifying our particular memory claims? I contend that we should not. If we were to accept the original justification view, we would have to recognize some clearly unjustified memory beliefs as justified. For, as David Annis has pointed out, the important feature of the original justification view "is not the continuous possession of the knowledge at h but not having to relearn h."¹⁰ In Annis' words, "We might say that one can lose the knowledge that h (by forgetting h) and regain the knowledge (by remembering it) and not have relearned that h at all".¹¹

It seems to me that a person cannot remember what he has forgotten unless he has relearned it. If someone has forgotten his telephone number, how is it possible for him to remember it unless he has relearned it? Annis could not reply that the person looked the number up in his diary, because this would be inconsistent with the original justification view. If he looked up the number, his memory would come from the information in the diary, not from the original learning of the telephone number. Therefore, I contend that we should reject Annis's claim that someone can lose his

knowledge that something happened by forgetting it, and later regain his knowledge by remembering what he forgot without having to relearn it all over again.

It might be argued that my rejection of Annis's claim is mistaken, because it "often happens that one...is unable to remember a name and then finally does remember it".¹² According to the proponents of the original justification view, it is possible for a person to forget something, and later remember it without relearning what he claims to remember. However, I argue that this reply must be rejected. I maintain that if a person is unable to remember a name and later remembers it, then it would be a mistake to claim that the person forgot the name in question. It is questionable whether information is ever totally lost from memory (long term memory); it may still be available but currently inaccessible. From the point of view of cognitive psychology, the unlearning hypothesis (i.e., the view that memory traces literally disappear) is probably a poor label for what really happens to information which is inaccessible to recall. A better one might be the inaccessibility hypothesis which implies that information may be available in memory but not accessible to recall.¹³ According to some researchers everything ever stored in long term memory is still there. W. Penfield bases this claim in part on his work with

epileptic patients. For example, in different patients, various parts of the brain were stimulated with mild electric current. When these areas were stimulated, the patients reported their recall of very vivid memories. Some reported various childhood experiences or memories that they thought had been totally forgotten. Penfield's results suggest that information is never totally lost from long term memory. I maintain, therefore, that we must reject Annis and Malcolm's claim that it is possible for someone to forget something and later remember it without relearning it, because the cases they use to support their claim are not cases of forgetting. Rather, they are instances in which information is available but currently inaccessible to recall.

However, let us assume, for the sake of argument, that someone does actually forget something. In that case, it is extremely doubtful that he can remember it unless he relearns it. Therefore, if we were to accept the original justification view, we would have to say that it is possible for someone to forget something and later remember it. But I have argued that this is not plausible. Furthermore, if we assume that someone does in fact forget something, then how is it possible for the justificatory link between the initial event and the subsequent memory to remain unbroken? If forgetting implies that a person's memory trace literally

disappears, then surely the information which is contained in the trace must also disappear. Thus, the justificatory link does not hold through time. In short, if a person has forgotten something, then it is impossible for his justification to hold through time.

I argue that we must reject the original justification view because the proponents of this view have given us an implausible account of the way we should justify our memory claims.

Section 2: Independent Evidence View

In this section we will seek to determine if the independent evidence view of memory justification is the correct procedure for testing whether our memory claims are reliable reports about the occurrence of past events. As I noted in the opening paragraph of this chapter the proponents of the independent evidence view of memory assert that a good reason for believing that a past event occurred is that there is independent evidence that it was so. For example, suppose that a person claims to remember putting his life insurance policy in a safe deposit box. Now if we have any doubt about the correctness of the person's memory claim all we need to do is go and look in the safe deposit box to see if the life insurance policy is there. If it is, we may conclude that the memory claim is veridical; if not, we may

conclude that it was delusive. The decisive point about this example is that the person's memory was supported by something better than another memory; namely, it was supported by our observation of the life insurance policy in the safe deposit box, and therefore, we have factually corroborated that the person's memory was reliable.¹⁴

Similarly, if we suppose that there were others who saw the person put his life insurance policy in the safe deposit box, we can check for the correctness of his memory by asking those persons who saw him put the policy in the box if they did in fact see him do so. That is, we can appeal to the testimony of others in validating a person's recollection that an event took place.

In addition, the proponents of the independent evidence view believe that we may also check our recollections by either an appeal to "written evidence or the deductions we make from scientific laws".¹⁵ For instance, if someone claims to remember speaking before the historical society of a certain college, then we can check the college calendar of events of the historical society to determine whether the person's memory claim is veridical, or if we could read the diaries of those who were present at the meeting of the historical society we might be willing to allow that his recollection that he spoke before the society is correct

(given of course that this information is written in the diaries). One additional example of how we might appeal to written evidence as an independent check of memory claims can be illustrated by the case of a person who claims to remember attending a certain college. If we have any doubts about the correctness of his memory all we need to do is check with the records of the school's registrar to determine if in fact the person did attend the college he claimed to attend.

Furthermore, we can appeal to the deductions we make from scientific laws as independent evidence. That is, we can test memory claims by present perception. For example, suppose that a man claims to remember taking a walk in the country last week and that the grass turned green when it rained last week. If someone were to ask, "How do you know that the grass turned green when it rained last week?", the rememberer could not say that he remembers that the grass turned green, because this reply would be circular. But he could say that grass always turns green when it rains (a scientific law), and it did in fact rain (an antecedent condition, which can be checked independently by calling the weather bureau). Therefore, the statement "the grass turned green" can be verified by looking to see if in fact the grass turns green when it rains. In this way a person's

claim to remember is tested by inferring that one will be likely to perceive so-and-so if the event which one claimed to remember really happened.

As A. J. Ayer has asserted the independent evidence view should be accepted as the most plausible procedure for validating our memory claims for the following reason:

If the fact that one seems to remember an event is a good reason for believing that it occurred, it is only because there is independent evidence that when someone says that he remembers something the chances are that it was so. It is not simply a matter of one's memories being self-consistent, or that they remember; this counts for something, but so even more does written evidence, or the deductions that we make from scientific laws.¹⁶

Let us, therefore, ask ourselves if this view of memory justification is plausible. Should we accept it? According to John Turk Sanders and many other philosophers, we should not: an independent validation of memory is unacceptable because the citation of any present evidence concerning the past occurrence of some event depends upon memory, and hence, assumes what it purports to show.¹⁷

Now the reader may remember that we have gone over this argument when we discussed the problem of the general trustworthiness of memory. Briefly, to reiterate the precise nature of the kind of argument which a skeptic like Sanders puts forth against the independent evidence view, let us consider the following argument. Let us suppose that I

claim to remember attending an Optimist Club meeting on June 6, 1983. Let us further suppose that I recorded this meeting in my diary and let us also suppose that there were others present at the meeting who did the same. Now according to the independent evidence approach to the problem of the validity of memory, I can test the correctness of my memory by looking at my diary. Or, I can appeal to the testimony of others. If the others all agree that I attended the meeting, then my memory claim is corroborated. But it may be argued that an appeal to written documents like diaries would beg the question, because one must assume that ink-marks retain their shape for long periods of time, and this information can only come from memory. That is, we remember that on past particular occasions that ink-marks have always retained their shape; therefore, ink-marks retain a constant shape over long periods of time. Likewise, an appeal to the testimony of other persons would beg the question because the acceptance of their testimony would depend upon the reliability of their memory. Moreover, it is essential that there be some basis on which the credibility of another's report can be assessed. And this basis will involve a reference to past experiences of receiving such reports and finding them reliable. But this information can only come from memory. Thus, it seems to be the case that we cannot

appeal to the testimony of other persons or to written documents to corroborate our memories without assuming what we are trying to prove. That is, we can only be sure that memory is a reliable indicator of the event it purports to be a memory of if we have already assumed that memory is a reliable indicator of what happened in the past. Therefore, the skeptical conclusion which is deduced from considerations of the preceding example is that no non-circular justification of memory is possible.

This criticism of the independent evidence view is ineffective, however, because it fails to show that an independent validation of memory can never be achieved. What the argument amounts to is rather a rejection of the claim that we can justify our acceptance of the hypothesis of the general trustworthiness of memory. But since we have already shown that it is possible to justify our confidence in the general trustworthiness of memory, we may dismiss this criticism of the independent evidence view. In other words, the argument does not show that an independent validation of memory is impossible because it mistakenly assumes that we cannot justify the general trustworthiness of memory. But since we now know that we can justify our confidence in the general trustworthiness of memory, there is no reason why we should accept the claim that the independent evidence view of memory is circular.

For example, if I appeal to the information contained in my diary as independent evidence that I attended a certain meeting, then the skeptic cannot argue that my justification is circular. Although it is true that I must assume that ink-marks retain their shape for long periods of time, and that this information can only come from memory, it does not follow that my justification is circular. That ink-marks retain their shape for long periods of time is evidenced by the general trustworthiness of memory. But there is no reason why we should be lured into an attempt to refute the skeptic. If there is no concrete situation in which the question "What justifies the whole of memory?" is warranted, then there is no reason why we should seriously entertain it. Therefore, an appeal to independent evidence is not necessarily circular.

However, my rejection of the skeptical criticism of the independent evidence view does not mean that we should accept it as the most plausible procedure for validating our memory claims. I do not believe that an appeal to independent evidence is a sufficient condition for the validation of our memory claims. Let us consider the following example which is taken from Carl Hempel's discussion of certain aspects which may affect the credibility of a hypothesis.¹⁸ (My discussion of Hempel's example will, however, differ slightly from his construal.) Let us suppose that a certain

physician reports about an exhumation he claimed to have witnessed. According to the physician the hair and beard of a man who had been buried clean-shaven had burst the coffin and grown through the cracks. Moreover, let us assume that the grave-digger and his assistant were also present at the exhumation, and that the physician appeals to the testimony of the grave-digger and his assistant as verification of his memory claim. Now none of us would accept the physician's appeal to the testimony of the grave-digger and his assistant as verification of the physician's memory claim because their testimony "conflicts with certain well-established findings about the extent to which human hair continues to grow after death".¹⁹ What this example suggests is that an appeal to independent evidence like the testimony of others is not sufficient in itself to certify a person's memory claim as reliable. In other words, the physician's report conflicts with certain other beliefs that are accepted at the time as well confirmed.

Now Ayer might agree with us that the physician's report should not be accepted as a reliable indicator of the occurrence of a past event. For he asserts that a good reason for believing that something occurred is not simply a matter of one's memories agreeing with what other people say that they remember. This counts for something, he says. But so does written evidence and deductions made from scientific laws.

I do not believe, however, that an appeal to written evidence or the deductions we make from scientific laws is sufficient in itself to certify a person's memory claims. For example, let us suppose that there is a group of people known as Kikuli, and that these people walk in a vertical and upright position. Let us suppose that one day some of them are walking through the forest and they come across a group of people, the Wakuma, who walk in stooped position.

If the Kikuli have never observed people walking in a stooped position nor seen or used chairs, they might return to their camp and report that they had seen people walking in a stooped position. In this event, some of the Kikuli might be skeptical about their fellow tribesmen's memory claims and as a result, seek to determine if these claims are accurate. They appeal to all of the learned scientific men in their community and they become convinced that their fellow tribesmen's memory claims are correct. Since scientists have told them that people develop a stooped posture in the absence of chairs and they know that the position of rest for the Wakuma is that of squatting on the heels or sitting on the haunches with knees flexed, the Kikuli accept the memory claims of their tribesmen that the Wakuma walk in a stooping posture.

Now if the stooped position of the Wakuma can be inferred from the law that people develop a stooped posture in the

absence of chairs, then on the independent evidence view, we would have to say that the tribesmen's memory claim is veridical. But this is implausible. The tribesmen's memory claim is supported not only by the deductions we make from the law that people develop a stooping posture in the absence of chairs, but their memory claim is also supported by its coherence with many other beliefs which we may hold. For example, the belief that a person's diet does not affect his posture, or the belief that a person's genetic make-up does not affect his posture, or the belief that the surrounding geography does not affect a person's posture. In other words, an appeal to independent evidence like the deductions we make from scientific laws is not sufficient in itself to certify the trustworthiness of any memory claim.

But if we grant that an appeal to independent evidence is not sufficient, we must grant even more readily that an appeal to independent evidence need not be necessary in order to validate a memory claim. Someone may remember something in the absence of any independent evidence to support his memory claim. In other words, it is possible that we can have good reason for believing that a past event occurred even though there is no independent confirmation of what we claim to remember. For example, one can remember seeing a certain species of bird which no one else has seen, but

from the fact that no one else has seen the bird, it does not follow that the rememberer is not justified in claiming to remember seeing the bird. What this means is that we can have reasonable beliefs about events we think we remember. Thus, an appeal to independent evidence is not a necessary condition for remembering the past occurrence of some event.

Ayer is not unaware of this objection of course. To take care of the difficulty he assumes that the independent evidence view allows an appeal to habit memory. According to Ayer, the arguments which can be put forth against the independent evidence view assume that it is our memory of events which is the primary object of our inquiries into the trustworthiness of memory.²⁰ If the possession of independent evidence is not necessary in order to have a good reason for believing something, then this is a result of the fact that we are dealing with our memory of events. For example, one can claim to remember seeing a three-legged man, and in the absence of any independent evidence to corroborate his claim, who is to say that his memory claim is not trustworthy? Now Ayer believes that if our memory of events is self-consistent and our memories agree with the recollections of others, then this will count for something in their favor. But he also believes that our memory of events is "important but not decisive".²¹ That is, Ayer believes that if we

assume that memory of events is primary, then we would have to allow for some questionable cases of justified rememberings. Thus, he believes that we can get along with habit memory as opposed to memory of events. He seems to believe that our ability to perform, let us say, certain scientific experiments, without remembering the occasion on which we learned how to perform these experiments, or our ability to check our written records of certain events will suffice. That is, we can "reconstitute the past"²² without any appeal to our memory of events. As a matter of habit we can show that our memory claims are reliable.

But I disagree with Ayer's claim that habit memory alone could support our endeavors to reconstitute the past. Let us suppose that we want to determine whether certain experimental arrangements were made, or certain people observed a certain event. Let us also suppose that at the time of the occurrence of these past events that no written records were kept. Let us imagine that we live at a time when there were no records or that the relevant records were destroyed. In such a case, how are we to determine if these events did in fact occur if we do not appeal to our memory of events? I do not believe that it would be fruitful to reply that we can appeal to our scientific theories. For the theories we appeal to may not be able to account for the event in

question.. For example, the phlogiston theory could not account for Priestley's discovery of oxygen, and therefore, Priestley's discovery could not receive support from any known scientific theory. Therefore, I argue that we should reject Ayer's claim that habit memory will suffice to reconstitute the past.

I maintain, therefore, that the independent evidence view of memory should be rejected as the most plausible procedure for testing whether our memory claims are reliable indicators of the occurrence of past events. Instead, I believe the correct theory of memory justification will assume that justification is a matter of accommodating beliefs that are being questioned to a body of accepted beliefs. In order to explain what this means I proceed to discuss the coherence view of memory and the contextualist view of memory.

Section 3: Coherence and Contextualism

Our rejection of both the original justification view of memory may suggest that the only viable procedure left for testing whether our memory claims are trustworthy is the coherence view of memory. I will argue that coherence is involved in the justification of memory beliefs. However, I will argue that coherence does not tell the full story about the justification of memory. Instead, I argue that we

should accept a contextualist view of justification which involves coherence. But unlike the coherence view, contextualism does not assert that a person's memory belief is justified just because it coheres with the rest of a person's beliefs. First, however, let us consider the coherence view of memory.

The coherence view of memory asserts that memory beliefs are justified by their coherence with other memory beliefs and any independent evidence there may happen to be. The basic idea of this view is formulated by Lewis as follows: "If a sufficient number of such seeming recollections hang together sufficiently well and are not incongruent with any other evidence, then it may become highly probable that what [one] recollects is fact."²³

We must take great pains in explicating the rationale for this view because there are many issues associated with it. We therefore should begin our explication by explaining why the proponents of this view maintain that the answer to the problem of the trustworthiness of memory consists of two parts. The reason for this procedural tactic is simply that it affords us the most efficacious means of explaining why it is argued that memory beliefs are validated by their coherence with other memory beliefs and any independent evidence. For example, the proponents of the coherence view

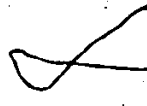
recognize the fact that the justification of our memory claims involves both the general trustworthiness of memory as well as the justification of our particular memory claims. Thus, they believe that we must give some argument to support our confidence in appealing to the general trustworthiness of memory. And we must give some argument for justifying our particular memory claims.

Thus proponents like C. I. Lewis and Richard Brandt will give the following sort of proposals for justifying our trust in memory. Lewis asserts that the answer to the problem of the validity of memory is as follows:

First, whatever is remembered, whether as explicit recollection or merely in the form of our sense of the past, is prima facie credible because so remembered. And second, when the whole range of empirical beliefs is taken into account, all of them more or less dependent upon memorial knowledge, we find that those which are most credible can be assured by their mutual support, or as we shall put it, by their congruence.²⁴

And Brandt formulates a similar two part rule for establishing the validity of memory:

Rule: (a) Accept as a basis for action and for accepting other beliefs all your clear recollections except those (but not more than a few) of which the system (laws, theories, etc.) of beliefs supported by the vast majority of your recollections requires rejection or makes rejection convenient. (b) Believe (disbelieve) any particular particular recollection more firmly and



confidently corresponding to the degree of support by (seriousness of conflict with) the system which can be erected on the base consisting of the vast majority of your recollections.²⁵

In the view of both philosophers there are two primary features of their conceptions of memory justification. First, when Lewis asserts that whatever is remembered, whether as explicit recollection or merely in the form of our sense of the past is *prima facie* credible because so remembered, he means that memory is, in the main, a reliable indicator of the event of which it purports to be a memory of. In other words, an event remembered probably did take place. Similarly, when Brandt claims that we should accept all our clear recollections, he means that almost all our recollections are veridical. Second, they both believe that the second aspect of the problem of validating our trust in the reliability of memory involves coherence. This is evidenced by Lewis's assertion that the most credible memory beliefs can be assumed by their mutual support; and Brandt's assertion that we should believe any particular recollection by the degree of support it receives by our total system of beliefs. In brief, both Lewis and Brandt contend that the answer to the problem of the validity of memory depends upon our acceptance of the general trustworthiness of memory. They understand that there is no way of knowing things

through memory by arguments which do not assume that some memories are trustworthy.

We have already discussed this argument in the last chapter. So in this chapter we may proceed to discuss the reason why Lewis and Brandt assert that we can test the validity of our memory judgements by their coherence with other memory beliefs and other evidence. First I will explain why they accept the coherence view. Then I will explain why I do not agree with Lewis's rationale for accepting this view. Although I agree that the coherence view of memory should be accepted, I shall argue that the argument that Lewis puts forth in support of the coherence view is mistaken. I also contend that Brandt's rationale for accepting the coherence view is correct because it provides the best explanation of why we can have reasonable belief about events we think we remember in the absence of any corroborating independent evidence. But I disagree with Lewis's explanation of the reasons which warrant our acceptance of the coherence view of memory. Finally, I will provide a defense of the coherence view of memory with a view toward showing that certain objections to this are ineffective.

Turning first to Lewis's view, we should note that he accepts a coherence theory for the following reasons.

Lewis contends that the coherence view of memory is the most promising way to justify our memory claims, because he rejects the idea of a class of epistemologically basic beliefs (i.e., beliefs that are intrinsically credible) which provide the ultimate terminating point for chains of justification. In his view the assumption of certainty for any class of memory statements is mistaken.²⁶ According to Lewis certainty is not characteristic of memory since nothing is more common than for one to mistrust his memory, or for one to remember things and later find them false.

Lewis is correct when he claims that certainty is not a characteristic of memory and therefore, that it would be a mistake to assume that the justification of a memory statement requires that there be a class of epistemologically basic beliefs which provide the ultimate terminating point for chains of justification. But he is mistaken when he assumes that perceptual beliefs are justified by looking to their foundation in given data of sense. There is no class of beliefs which are intrinsically credible or wholly certain. I would like to make a brief digression to explain why I disagree with Lewis's claim that perceptual beliefs are justified by looking to their foundation in given data of sense. I do this to counter any suggestion that our motivation for accepting coherence is linked to Lewis's general

conception about the justification of perceptual beliefs. Furthermore, as I shall show in the remainder of this thesis, there are certain implications which our discussion of memory justification will have on the idea of foundationalism.

Let us consider why it is argued that the justification of a perceptual judgement requires that there be a class of epistemologically basic beliefs which are wholly certain, and then consider why this conception of the nature of empirical justification should be rejected. According to Lewis, if we are concerned with the justification of an empirical statement of perception, then we must discover the foundation of that statement (as characterized by traditional epistemology) by looking to statements which report direct findings of sense. The statements which report direct findings of sense are supposed to be statements of empirical certainties, since "there could be no doubt about the presented content of experience".²⁷ Statements of empirical certainties are statements like "I see what looks like a blue pen", or "I seem to feel a headache", or "this seems to look bigger than that", or "it seems to taste like wine". The reason why these sorts of statements are held to be certain is that they concern only what appears to one at the moment that one is having the experience in question. They are confined to description of the content of experience

at the moment it is given. Of course it is possible to tell lies about that which one is experiencing so that one may deceive others, but on the present view it is never possible for oneself to be in any doubt about the presented content of experience.²⁸

But why believe that in order to justify an empirical statement of perception we must discover the grounds of that statement in direct findings of sense? For Lewis and others, the answer to this is that unless we do, we can never bring the justification of a statement of perception to a halt. In other words, if there were no statements of empirical certainties, we can never have good reasons for accepting an empirical statement of perception. The argument for this claim runs as follows: If it is the case that we justify perceptual beliefs by others already accepted or believed, then those other beliefs which are used to justify some other belief must themselves be established or well confirmed. However, in the words of Anthony Quinton, "if every belief was dependent on others for its justification, no belief would be justified at all, for in this case to justify any belief would require the justification of an infinite series of beliefs. So, if any belief is to be justified, there must be a class of basic, non-inferential beliefs to bring the regress of justification to a halt."²⁹ In other words,

not all beliefs can have other beliefs as their sufficient reasons, but some must be justified by the occurrence of an experience or sense-impression. Thus, the natural terminus to any process of empirical verification are statements of empirical certainties which are descriptive of the present content of experience. And these statements are held to be certain because it is believed that there could be no doubt about the presented content of experience as such at the time when it is given. We can, in short, bring the regress of justification of an empirical statement of perception to a halt only if statements of empirical certainties do not require any other beliefs to justify them.

Now this procedure of traditional epistemology is no longer regarded as a plausible conception of justification. The assumption that there is a given element in our observations, that there are given facts of experience which are absolutely stable and invariant is a non-starter among most contemporary empiricists. It is no longer believed that a person's perceptions are unaffected by the beliefs he has or the assumptions he makes about the object he is perceiving. Certain results of empirical psychology, such as the duck-rabbit example, moreover, have shown that the idea of unambiguous objects of perception is a myth. What appears to one man as a duck may appear to another as a

rabbit. Our observations are always interpretations in the light of our background assumptions, so it is highly doubtful that there are given facts of experience such that our perceptions are unaffected by the beliefs we have. Therefore, we must reject Lewis's assumption that there is a given element in experience which is unaffected by our beliefs, desires, or any sort of conceptual mediation.

My rejection of Lewis's assumption concerning the existence of so-called given facts of experience is, however, only one aspect of my objective in this section. What remains to be explained is whether the coherence view of memory is the most plausible procedure for validating our trust in the reliability of memory. As I have noted elsewhere in this section, Lewis and Brandt believe that the coherence view is the most plausible view of memory justification. However, it should be pointed out that Brandt's reasons for accepting a coherence theory of memory justification do not seem to be similar to Lewis's reasons. Although he does believe that Lewis's discussion of memory "is the most helpful and important [discussion] that has been written" on the subject.³⁰ That is, Brandt does not assert that the reason for accepting a coherence theory of memory is based on our inability to justify memory beliefs by looking to their foundations in given data of sense.

Rather, he believes that the coherence theory provides the best explanation of how we should proceed to justify our particular memory claims. In Brandt's words, "the credibility of our recollections is enhanced by the support they receive from our system of beliefs, and reduced by conflict with this system".³¹ Thus, the question with us at present is whether a coherence theory of memory justification is epistemologically acceptable. I will argue that Lewis and Brandt are essentially correct in their defense of coherence. However, I will argue that there are certain issues pertaining to the notion of a "theory of justification" which will warrant a certain reformulation of the role of coherence in the justification of memory beliefs. Therefore, let us proceed to consider the question of whether a coherence theory of memory justification is epistemologically unacceptable.

In order to do this, let us ask ourselves whether the coherence theory of memory is defensible. That is, can we defend the claim that if a sufficient number of our memories hang together sufficiently well and are not inconsistent with any other evidence, then we may say that one is justified in believing that what he remembers is veridical? For example, if Jones claims to remember meeting Smith for dinner at 7:00 p.m. last Friday, then Jones' memory claim would not be coherent with the rest of his beliefs if

Jones also remembers that he was in the hospital at the same time and on the same day that he claims to remember meeting Smith. Furthermore, if Mary claims that John was present at the first annual of the Alabama Historical Society, then Mary's memory claim would not be coherent with her other beliefs if twelve witnesses were to testify that John was in New York at the same time and on the same day that Mary claims to remember seeing him. Finally, if Max claims to remember that the Washington Monument was destroyed by fire last week, then Max's memory claim would not be coherent with his other memory beliefs if the Washington Monument is still standing this week.

The standard reply to the above illustrations of how memory beliefs cohere with one another and other beliefs is that it presupposes that coherence amounts to nothing more than logical consistency. What this means is that if justification depends on relations of coherence, then this can only mean that there is no contradiction which exists between the object of justification and the system of beliefs into which the object is to be incorporated. But if coherence amounts to nothing more than mere logical consistency, then it is argued that there can be a plurality of internally coherent systems of statements, and the mere relation of consistency among statements provides no grounds

whatever for believing any one of them. Thus, philosophers like Moritz Schlick and A. J. Ayer assert that if a coherence theory of memory justification is taken seriously, then one must consider arbitrary fairy stories to be as true as historical reports.

For example, Schlick has argued that if coherence is taken seriously,

...then one must consider arbitrary fairy stories to be as true as a historical report, or as statements in a textbook of chemistry, provided the story is constructed in such³² a way that no contradiction ever arises.

And Ayer has argued that a coherence theorist must

...admit the possibility of inventing fictitious sciences and histories which would be just as comprehensive, elegant and free from contradiction³³ as those in which we actually believe.

Therefore, Schlick and Ayer maintain that if we accept a coherence view of justification, we will not be able to distinguish between true and false systems of beliefs.

However, I will argue that Schlick's and Ayer's objections to the coherence theory are unacceptable, because there is no reason why the philosopher who subscribes to the coherence theory must believe in a grotesque world full of bizarre adventure simply because of the possibility of inventing fictitious sciences and histories which are as free from contradiction as those in which we actually believe.

This could be correct only if it were true to say that coherence can only be explained in terms of consistency. But this is a mistake because this objection is quite unfair to coherence theorists.

In the first place, as Michael Williams has claimed, we must acknowledge the fact that "the set of accepted beliefs constituting the context of justification cannot be thought to contain only 'first-order' beliefs, but must contain epistemic beliefs as well".³⁴ Such beliefs are beliefs about beliefs, including beliefs about techniques for acquiring and rejecting beliefs, and beliefs about the conditions under which beliefs of certain kinds are likely to be true. Thus, once we admit the need for epistemic beliefs the claim that a coherence theory of justification would make it plausible to believe fairy stories as well as reports about events from our own history becomes less plausible. For example, it would be a mistake to claim that we can consistently believe any internally consistent fairy story with as much justification as we do with respect to our memory claims, because the context of beliefs in which the test of coherence is applied contains beliefs about techniques for the acquisition of beliefs. What this means is that the context of beliefs in which the test of coherence is applied contains beliefs about fairy stories as well as beliefs

about actual past experiences. In other words, there is no plausibility to the claim that the coherence theory makes it possible to believe with justification any consistent fairy story. If we are reading a fairy story the question, "How could this happen?" is quite inappropriate because fairy stories are not meant to be coherent in the required sense. They are not meant to be reports about anyone's real past experiences.

I believe that enough has been said about Schlick's and Ayer's rejection of coherence, to warrant the claim that coherence per se does not make it possible to believe with justification any consistent fairy story whatever. However, I believe that there are certain issues about the nature of memory justification which need to be addressed before we can complete our discussion of how to justify our particular memory claims. That is, we have thusfar spoken about a coherence theory of memory justification. But Michael Williams has argued that it might be more appropriate to describe the approach to justification which we have discussed so far as a "contextualist view of justification".³⁵ That is, we may agree that coherence plays a major role with respect to the justification of memory claims, but we may not agree that a memory belief is justified just in virtue of its cohering with all of our other beliefs. Justification

is context dependent; what is required for the justification of a memory belief will depend on the circumstances surrounding it. The crucial point is that we can deny that there is a general theory of justification: the contextualist view of justification does not require that justification conform to one pattern in all contexts of inquiry.

To appreciate the rationale behind a contextualist view of justification, let us consider what is usually meant by a "theory of justification". According to Williams when philosophers talk about a theory of justification they usually have in mind a theory which will answer the skeptical question, "What reason have we for thinking that any of the beliefs we hold are justified?".³⁶ In other words, they are concerned with the question of how we are to avoid being caught in an infinite regress of justification. Foundationalist philosophers will argue that we must admit the existence of epistemologically basic beliefs which are intrinsically credible. That is, beliefs which are justified without requiring independent justification. But an anti-foundationalist will argue that we can deal with the threat of an infinite regress of justification without resorting to the postulation of a privileged class of intrinsically credible beliefs. For, according to the anti-foundationalist, it is a fallacy to infer from the fact that justification must come

to an end somewhere that there must be some special kinds of belief with which all justification must necessarily terminate. All that follows from the need to escape the regress of justification is that at any time, or in any context of inquiry, we must have some beliefs not open to doubt. What this means is that if we reject the idea of knowledge having an intrinsically credible foundation, then the impossibility of there being an infinite regress of justification will show that we cannot go about justifying or doubting everything we believe at once. Although the possibility of coming to doubt anything we believe will be left open.

Williams claims that a coherence theory need not be a "theory of justification" in the same sense as a theory which depends on our taking seriously the idea of foundations for knowledge or the problem of radical skepticism. But he also believes that "defenders of coherence theories have generally...tried to produce theories which are theories of justification in the traditional sense".³⁷ That is, theories which require that justification have an essence, that it conforms to one pattern in all contexts of inquiry. Thus, he argues that it would be more appropriate for us to accept a contextualist view of justification rather than a coherence theory of justification (as it is usually understood in the traditional sense).

I believe that if we replace the notion of a coherence theory of justification with a contextualist view of justification, then this may be more appropriate. It is true that coherence plays a major role in the justification of memory beliefs, but we must also consider the context of justification. For example, if we believe that our memory of some event is trustworthy because it is not incoherent with other memory beliefs, then we must also take into account the context in which the belief is being justified. For example, if Smith remembers meeting Mary for dinner at 7:00 p.m. last Friday night, then if Smith's memory claim is not incoherent with the rest of his beliefs or any other evidence, then Smith's memory claim may be regarded as veridical. But if it were known that Smith's memory claim was being justified in a context in which, let us say, he had been given some drug to alter his memory, then we would not regard his memory claim as being justified. Thus, coherence plays a major role in the justification of our memory claims. But so does the context of justification. Therefore, I maintain that it would be more appropriate for us to say that memory beliefs are justified by their coherence with other beliefs and any other evidence within a particular context of justification.

CHAPTER VII
MEMORY BELIEFS AND FOUNDATIONALISM

There is an interesting consequence which follows from the above contention that traditional epistemological theories cannot be regarded as giving a plausible conception of the nature of justification. When Lewis claims that the traditional epistemological conception of justification cannot be extended to cover the justification of memory claims, since the assumption of certainty for memory is contradicted by the fact that we remember remembering events and later finding them false,¹ then he should have carried this argument to its logical conclusion by asserting that from considerations which bear upon the problem of validating our trust in the reliability of memory, it follows that foundationalism must be rejected. In other words, he should have seen that it is implausible to claim that empirical knowledge rests on a foundation of perceptual knowledge. Knowledge does not rest on a foundation of perceptual knowledge. Considerations which bear upon the problem of validating our trust in the reliability of memory show that foundationalism must be rejected as offering a coherent view of the nature of justification.

On the foundationalist view, the regress argument forces

us to recognize that not all knowledge can be inferential in the sense that it is based on further justified beliefs. Therefore, there must be some epistemologically basic beliefs which do not themselves require justification, since they are the basis upon which other beliefs are justified. Epistemologically basic beliefs can be regarded as being intrinsically credible because their justification must not accrue to them through knowledge of any general facts about the world, or any further background knowledge. They are ultimate terminating points for chains of justification.²

But the foundationalist view of knowledge must be rejected. Any actual process of justification must terminate after a finite number of steps, but this only shows that at any given time we must have some stock of beliefs which are not thought to be open to challenge. Although anyone of them may subsequently come under fire. According to the anti-foundationalist, it is fallacious to argue that since justification must come to an end somewhere, there must be some special kind of belief with which justification always terminates. We need to have a stock of well-entrenched beliefs which set the bounds within which correct inquiry proceeds, and which provide the touchstones for empirical justification. But there is nothing in this view to suggest

that such beliefs must be intrinsically credible, or that they must be of some special kind; say, first person memory statements.³

Traditional epistemological theories have also assumed that the touchstones of empirical justification are perceptual beliefs, since perception is supposed to provide the link between the knowing mind and the external world.⁴ Thus, beliefs having to do with perception have found a special place in the epistemological scheme of things as it pertains to the explication of the structure of justification. But this is a smitake. There is no good reason why perceptual beliefs should find a special place in the scheme of things, since many, if not most, of the touchstones of empirical justification consist of memory beliefs rather than perceptual beliefs. Furthermore, since memory beliefs do at times provide the touchstones of empirical justification, there is nothing in this view which should incline us to say that these beliefs are intrinsically credible. It would be a mistake to claim that they are the ultimate terminating points of chains of justification. I maintain, therefore, that foundationalism should be rejected because neither certainty nor incorrigibility can be claimed on behalf of memory beliefs.

To explain further, there is no good reason why

perceptual beliefs should find a special place in epistemology for the reason that both memory and perception are touchstones of empirical justification in certain contexts. Some of the facts upon which scientific laws are based are admitted solely because they are remembered. Therefore, I reject the claim that memory should play second fiddle to perception since perception is more fundamental to epistemology.⁵ This claim is based on the mistaken view that there is a given datum of sense experience which it is possible for us to directly apprehend without the mind having any influence upon that which we perceive. But we must reject this claim because evidence from the psychology of perception all points to there being no such thing as a state of sensuous apprehension utterly unaffected by beliefs, desires, and expectations and consequently no experience of the given.⁶

I contend that the proponents of a foundational view of knowledge are guilty of what could be called "foundational double-talk". Although they have postulated the view that empirical knowledge rests on a foundation of perceptual knowledge, they understand that memory also functions as a touchstone of empirical justification. But since the assumption of certainty cannot plausibly be claimed on behalf of memory, they ignore memory and thereby, focus

their epistemological discussions on perception. Consider by way of an illustration of this kind of foundational double-talk, Lewis's discussion of the problem of the trustworthiness of memory. For Lewis the foundation which supports the whole edifice of knowledge are those items of truth which are disclosed in given experience. But he also asserts that "the eventual foundation of our pyramidal structure of empirical beliefs, is mainly no given sense experience, available to us only as remembered".⁷ Here Lewis is arguing, on the one hand, that the foundationalist claims that the foundation stones of knowledge are items of sense which are disclosed in given experience. On the other hand, he is arguing that the eventual foundation of empirical beliefs is given not by sense experience, but by past experience (which is available to us only as remembered). But if the eventual foundation stones of empirical knowledge are not sense experience, then why should perception find a special place in epistemology? I contend that the foundationalist's neglect of memory has led him to overlook certain important epistemological considerations which should have shown him the implausibility of claiming that there are epistemologically basic beliefs which are the ultimate terminating points of chains of justification.

Footnotes

Chapter I: Introduction

¹ Thomas Reid, Essays On The Intellectual Powers Of Man (The M.I.T. Press, 1969), p. 376.

² Alexius Meinong, "Toward an Epistemological Assessment of Memory", trans. Linda L. McAlister and Margarete Schattle; reprinted in Roderick M. Chisholm and Robert J. Swartz (eds), Empirical Knowledge (Englewood Cliffs, New Jersey, 1973), p. 254.

³ C. I. Lewis, An Analysis of Knowledge and Valuation (La Salle, Illinois, 1946), p. 332.

⁴ Joseph Margolis, "Remembering", Mind, 86 (April, 1977), p. 186.

⁵ David Hume, A Treatise of Human Nature, L. A. Selby-Bigge, ed. (London: Oxford, 1888), pp. 8-10.

⁶ John Locke, An Essay Concerning Human Understanding, Peter H. Nidditch, ed. (London: Oxford, 1975), pp. 149-155.

⁷ Plato, Theaetetus, trans. F. M. Cornford, Plato's Theory of Knowledge (London: Kegan Paul, 1935).

⁸ Aristotle, "On Memory And Reminiscence", in R. McKeon, ed., The Basic Works of Aristotle (New York, 1941), pp. 607-617.

⁹ Bertrand Russell, Human Knowledge (New York, 1948), p. 188.

¹⁰ Richard Brandt, "The Epistemological Status of Memory Beliefs", in Chisholm and Swartz's Empirical Knowledge, p. 271.

¹¹ Lewis, p. 333.

¹² Russell, p. 189.

¹³ Lewis, p. 333.

¹⁴ Ibid., p. 337.

- 15 Ibid.
- 16 Russell, p. 188.
- 17 A. D. Woozley, Theory of Knowledge, (London, 1947), p. 55.
- 18 Locke, p. 153.
- 19 Ibid., p. 152.
- 20 Ibid.
- 21 See for example the following works: Russell's Human Knowledge, pp. 188-195, and Humes A Treatise of Human Nature, pp. 8-10.
- 22 See for example the following: Samuel Alexander, Space, Time and Deity (New York: Dover Publications, 1961), pp. 113-114; Woozley, Theory of Knowledge, pp. 54-67.
- 23 See for example the following: Gilbert Ryle, The Concept of Mind, pp. 272-279; Norman Malcolm, "A Definition of Factual Memory", in Chisholm and Swartz's Empirical Knowledge, p. 287; David E. Annis, "Memory and Justification", Philosophy and Phenomenological Research, vol. XL (March, 1980), p. 324; and Alan Holland, "Retained Knowledge", Mind, LXXXIII (July, 1974), p. 359.
- 24 Ulric Neisser, Cognitive Psychology (New Jersey: Prentice-Hall, Inc., 1967), pp. 279-305.
- 25 Sydney Shoemaker, "Memory", The Encyclopedia of Philosophy, vol. 5 (New York, 1967), p. 270.
- 26 Woozley, p. 36.
- 27 Alexander, p. 54.
- 28 Ibid.
- 29 This view is maintained by Hume in his book A Treatise of Human Nature and Russell in his book Human Knowledge.
- 30 Locke, p. 149.
- 31 Hume, p. 9.

- 32 Russell, p. 159.
- 33 C. D. Broad, Mind And Its Place In Nature (London, 1925), p. 268; Woozley, p. 57.
- 34 Russell, p. 173; Reid, p. 370.
- 35 Ryle, p. 275.
- 36 Neisser, p. 280.
- 37 Zenon Pylyshyn, "Computation and Cognition: Issues In The Foundations of Cognitive Science", The Behavioral and Brain Sciences (1980), 3, p. 112.
- 38 See for example, Ginet's Knowledge, Perception and Memory (Boston, 1975), pp. 166-172; and Malcolm's Memory And Mind (Ithaca, 1977), pp. 167-271.
- 39 Neisser, p. 280.
- 40 Broad, p. 268.
- 41 John Turk Sanders, "Skepticism and Memory", Philosophical Review, vol. 72 (1963), pp. 477-486; also compare Russell's discussion of this problem in his book Human Knowledge, pp. 188-195.
- 42 Michael Williams, "Coherence, Justification and Truth", Review of Metaphysics 34 (December, 1980), p. 255.
- 43 Ibid., p. 253.
- 44 Annis, p. 324.
- 45 See for example the following works: A. J. Ayer, The Problem of Knowledge (New York: Penguin Books, 1956), p. 165; and R. F. Holland, "The Empiricist Theory of Memory", Mind, vol. 63 (1954), p. 476.
- 46 Ayer, p. 165.
- 47 Lewis, p. 352.
- 48 Williams, p. 253.

Footnotes

Chapter 2: The Traditional Analysis of Memory

- ¹ Ayer, p. 150.
- ² See for example, Shoemaker's discussion of this view in "Memory", pp. 268-269; and Woozley's discussion, pp. 40-53.
- ³ Neisser, p. 281.
- ⁴ Alexander, pp. 113-114.
- ⁵ Richard Taylor, "The Justification of Memory and the Analogy of Vision", Philosophical Review, vol. 65 (1956), p. 196.
- ⁶ Woozley, p. 55.
- ⁷ Hume, pp. 8-9.
- ⁸ Russell, The Analysis of Mind (London, 1921), p. 159.
- ⁹ Ibid.
- ¹⁰ Woozley, p. 54.
- ¹¹ Russell, p. 167.
- ¹² Ayer, p. 143.
- ¹³ Shoemaker, pp. 265-266.
- ¹⁴ Ibid., p. 266.
- ¹⁵ For an excellent general discussion of the differences between semantic and episodic memory see the following: Ernest R. Hilgard and Gordon H. Bower, Theories Of Learning (New Jersey, 1975), pp. 589-591; and Allan G. Reynolds and Paul W. Flagg, Cognitive Psychology (Cambridge, Massachusetts, 1977), pp. 222-227.
- ¹⁶ Reynolds and Flagg, pp. 223-226.

17 According to a unitary view of memory the evidence supporting a duplex storage model of memory (e.g. short term memory and long term memory) is not as convincing as it may appear. Traditionally, the distinction between STM and LTM was explicated in terms of capacity. However, it is not clear if we should interpret the capacity limitation in terms of a limitation on processing capacity or storage capacity. Many researchers believe that the problem of capacity limitation should be understood in terms of a limitation on processing. For example, when attention is shifted from information in short term memory this information will be lost. But this does not mean that there are two kinds of memory (i.e., STM and LTM). Rather, the loss of information from memory will be a function of the depth of processing. See Reynolds and Flagg's discussion of this issue, in Cognitive Psychology, pp. 196-226.

18 Broad, pp. 251-252.

19 Ibid., 252.

20 Ayer, pp. 156-158.

21 Woosley, pp. 56-58.

22 Ibid., p. 57.

23 Ibid.

24 Broad, pp. 253-262.

25 Ibid., p. 254-256.

26 Brandt, p. 274.

27 Woosley, p. 63.

28 Broad, p. 261.

29 Shoemaker, p. 266.

30 Hume, pp. 8-9.

31 Sterling A. Brown, "Remembering Nat Turner", in Black Voices, ed. Abraham Chapman (New York, 1968), pp. 410-412.

- 32 Reid, p. 373.
- 33 Neisser, pp. 286-288.
- 34 Neisser, p. 155.
- 35 Ibid., p. 288.
- 36 Neisser, p. 156.
- 37 Ibid.
- 38 Russell, Human Knowledge, p. 422.
- 39 Russell, An Analysis of Mind, p. 160.
- 40 Ibid.
- 41 Ibid., p. 179.
- 42 Ibid., p. 176.
- 43 Martin and Deutscher, p. 308.
- 44 Ibid.
- 45 Reynolds and Flagg, pp. 180-182.
- 46 Ibid., p. 181.
- 47 Neisser, p. 157.
- 48 Locke, p. 148.
- 49 Hume, p. 9.
- 50 F. C. Bartlett, Remembering (Cambridge, 1932),
pp. 65-76.
- 51 Ibid., p. 66.
- 52 Neisser, p. 282.

Footnotes

Chapter III: Memory and Perception

¹ For a positive account of the analogy between memory and perception see Meinong's "Toward An Epistemological Assessment of Memory", p. 67; Russell's Human Knowledge, pp. 422-433; also see Reid's account of the analogy in his Essays on the Intellectual Powers of Man and Shoemaker's "Memory", pp. 271-272.

² Some of the better known criticisms of the analogy between memory and perception are found in Ryle's The Concept Of Mind, pp. 272-279; Shoemaker's "Memory", pp. 272-277; Ayer's The Problem of Knowledge, pp. 134-175; and Norman Malcolm's discussion of memory in his book Memory and Mind, and his article, "A Definition of Factual Memory", in Empirical Knowledge, eds., Chisholm and Swartz, pp. 286-301.

³ Shoemaker, p. 271.

⁴ For an excellent discussion of the constructive nature of both memory and perception see Neisser's Cognitive Psychology, especially chapters one, four, six and eleven; also F. C. Bartlett's Remembering, chapter ten.

⁵ Ryle, p. 274.

⁶ Shoemaker, p. 271.

⁷ Ayer, pp. 134-135.

⁸ Ryle, p. 274.

⁹ Charles Landesman, "Philosophical Problems of Memory", Journal of Philosophy, vol, 49 (1962), p. 59.

¹⁰ Shoemaker, p. 271.

¹¹ Ryle, p. 272.

¹² Ibid., p. 275.

¹³ Ibid., p. 276.

¹⁴ See for example, Neisser's discussion of this process in his book Cognitive Psychology, chapters two and four; also Reynolds and Flagg's discussion in their book Cognitive Psychology, pp. 17-58.

¹⁵ Reynolds and Flagg, pp. 17 ff; Neisser, pp. 86-104.

¹⁶ Neisser, p. 89.

¹⁷ Ibid., p. 90.

¹⁸ Ibid., p. 94.

¹⁹ Shoemaker, p. 272.

²⁰ Bartlett, pp. 65-76.

²¹ Woosley, p. 37.

²² Russell, An Analysis of Mind, p. 163.

²³ Shoemaker, p. 271.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Gilbert Harmon, Thought (Princeton, New Jersey, 1973), p. 41.

²⁷ Jerry Fodor, Representations (Cambridge, Massachusetts, 1981), pp. 5-6.

²⁸ Reynolds and Flagg, pp. 174-182.

²⁹ Ibid., p. 11.

³⁰ Fodor, pp. 230-231.

³¹ Neisser, pp. 6-9.

³² See for example, Fodor's Representations, pp. 225-253, and Zenon W. Pylyshyn's "Computation and Cognition: Issues in the Foundations of Cognitive Science", The Behavioral and Brain Sciences (1980) vol. 3, pp. 111-169.

³³ Pylyshyn, p. 112.

- 34 Fodor, p. 225.
- 35 Ibid., pp. 225-226.
- 36 Ibid., pp. 226-233.
- 37 Ibid., p. 227.
- 38 Ibid., p. 253.
- 39 Reynolds and Flagg, p. 148.
- 40 Ibid., pp. 148-151; pp. 175-178.
- 41 Ibid., p. 214.
- 42 Ibid.
- 43 Ibid., pp. 217-221.

Chapter IV: The Retention of Knowledge

- 1 Malcolm. "A Definition of Factual Memory", p. 287.
- 2 Annis, "Memory and Justification", p. 324.
- 3 Martin and Deutscher, "Remembering", pp. 307-311.
- 4 Ibid., pp. 327-328.
- 5 Ibid., p. 307.
- 6 Alan Holland, "Retained Knowledge", Mind, LXXXIII (July, 1974), pp. 358-359.
- 7 Ernest R. Hilgard and Gordon H. Bower, Theories Of Learning (New Jersey, 1975), p. 15.
- 8 Deborah A. Rosen, "An Argument For The Logical Notion Of A Memory Trace", Philosophy of Science, 42 (March, 1975), p. 1.
- 9 John Heil, "Traces of Things Past", Philosophy of Science, 45 (March, 1978), p. 68.

- 10 Rosen, p. 2.
- 11 Rosen, p. 7; Martin and Deutscher, p. 326.
- 12 Martin and Deutscher, p. 327.
- 13 Neisser, p. 6.
- 14 Ibid.
- 15 Malcolm, p. 298.
- 16 Neisser, p. 280.
- 17 Russell, An Analysis of Mind, p. 85; Heil, p. 68.
- 18 Malcolm, Memory and Mind, pp. 180-229.
- 19 Russell, p. 85.
- 20 Heil, p. 69.
- 21 Russell, p. 85.
- 22 Malcolm, p. 187.
- 23 Russell, p. 92.
- 24 Annis, p. 331.
- 25 In addition to Russell's discussion see Malcolm's Memory and Mind, pp. 180-194.
- 26 Russell, pp. 78-79.
- 27 Annis, p. 331.
- 28 Malcolm, pp. 187-188.
- 29 Reynolds and Flagg, pp. 146-147.
- 30 Ibid., p. 147.
- 31 Russell, p. 85.
- 32 Rosen, p. 2.
- 33 Martin and Deutscher, pp. 311-312.

- 34 Reynolds and Flagg, pp. 156-158.
- 35 Rosen, p. 2.
- 36 Ibid., pp. 7-10.
- 37 Ibid., p. 3.
- 38 This type of argument is used by John Heil who opposed Rosen's view; see Heil's "Traces of Things Past", pp. 70-71.
- 39 Malcolm, Memory And Mind, p. 224.
- 40 Ibid., pp. 224-227.
- 41 Ibid., p. 227.
- 42 Ibid., p. 226.
- 43 Pylyshyn, p. 112.
- 44 Reynolds and Flagg, pp. 282-284.
- 45 Ibid., p. 283.
- 46 Bartlett, p. 213.
- 47 Ibid.
- 48 Neisser, p. 287.
- 49 Ibid.
- 50 Bartlett, p. 212.

Chapter IV: The General Trustworthiness of Memory

¹ Brandt, "The Epistemological Status of Memory Beliefs", Empirical Knowledge, eds. Chisholm and Swartz, p. 273.

² H. H. Price, "Memory Knowledge", Proceedings of the Aristotlian Society, 15 (1936), p. 18.

³ John Turk Sanders, "Skepticism and Memory", Philosophical Review, vol. 72 (1963), p. 485.

⁴ E. J. Furlong, "Memory", Mind, vol. 581 (1948), p. 16.

⁵ Lewis, p. 337.

⁶ Russell, Human Knowledge, p. 212.

⁷ Sanders, p. 485; Russell, p. 188.

⁸ Lewis, pp. 358-361; Brandt, pp. 281-283.

⁹ Michael Williams, "Coherence, Justification, and Truth", Review of Metaphysics, 341 (December, 1980), p. 255.

¹⁰ Sanders, pp. 478-479.

¹¹ Russell, p. 188-189.

¹² Ibid., p. 189.

¹³ Russell, An Analysis of Mind, pp. 159-160.

¹⁴ See Lewis, p. 333; Brandt, p. 211; and Russell, p. 188-189.

¹⁵ A. J. Ayer, The Problem of Knowledge, p. 135.

¹⁶ Meinong, "Toward An Epistemological Assessment of Memory", p. 262.

¹⁷ Furlong, p. 29.

¹⁸ Brandt, p. 273.

¹⁹ Russell, Human Knowledge, p. 195.

²⁰ Lewis, p. 360.

²¹ Ibid.

²² Ibid., p. 358.

²³ Ibid.

²⁴ Williams, p. 253.

25 Ibid., p. 254.

Chapter VI: The Justification of Particular Memories

- 1 David Annis, "Memory and Justification", p. 333.
- 2 A.J. Ayer, The Problem of Knowledge, p. 165.
- 3 C.I. Lewis, An Analysis of Knowledge and Valuation,
p. 352.
- 4 Michael Williams, "Coherence, Justification and Truth", p. 256.
- 5 Malcolm, "A Definition of Factual Memory", p. 287.
- 6 Annis, p. 324.
- 7 Alan Holland, "Retained Knowledge", Mind, vol. LXXXIII
(July, 1974), p. 359.
- 8 Annis, p. 329.
- 9 Annis, pp. 329-330.
- 10 Ibid., p. 330.
- 11 Ibid.
- 12 Malcolm, p. 296.
- 13 Reynolds and Flagg, pp. 144-146.
- 14 R. F. Holland, "The Empiricist Theory of Memory",
Mind, vol. 63 (1954), p. 476.
- 15 Ayer, p. 165.
- 16 Ibid.
- 17 Sanders, "Skepticism and Memory", pp. 478-485.
- 18 Carl Hempel, Philosophy of Natural Science (New
Jersey, 1966), p. 39-40.
- 19 Ibid., p. 40.

- 20 Ayer, p. 165.
- 21 Ibid.,
- 22 Ibid.
- 23 Lewis, p. 352.
- 24 Ibid., p. 334.
- 25 Brandt, "The Epistemological Status of Memory Beliefs", pp. 279-280.
- 26 Lewis, p. 334.
- 27 Ibid., 183.
- 28 Ibid.
- 29 Anthony Quinton, "The Foundations of Knowledge", Empirical Knowledge, eds. Roderick Chisholm and Robert J. Swartz, p. 545.
- 30 Brandt, p. 275, footnote.
- 31 Ibid., p. 279.
- 32 Moritz Schlick, "The Foundation of Knowledge", in Logical Positivism, ed. A. J. Ayer (Illinois: Free Press, 1959), pp. 215-216.
- 33 Ayer, "Verification and Experience", in Logical Positivism, p. 253.
- 34 Williams, "Coherence, Justification and Truth", p. 248.
- 35 Ibid., p. 257.
- 36 Ibid., p. 252.
- 37 Ibid., p. 257.

Chapter VII: Memory Beliefs and Foundationalism

- ¹ Lewis, p. 334.
- ² Williams, Groundless Belief (New Haven, 1977), p. 62.

³ Ibid., pp. 83-85.

⁴ Ibid., p. 61.

⁵ Woozley, The Theory of Knowledge, p. 55.

⁶ Williams, pp. 45-46.

Lewis, p. 338.

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ABSTRACT

THE TRUSTWORTHINESS OF MEMORY
BY
STANLEY MYERS BROWNE

This thesis investigates the important problem of the nature and justification of memory claims. I argue for the following contentions: (1) that memory should be analyzed as a constructive process, the recall of stored information occurring only after an elaborate process of reconstruction; (2) that we should refuse to entertain the skeptical claim that our confidence in the trustworthiness of memory in general is invalid; and (3) that a contextualist view of justification is the most promising approach to justifying our particular memory claims. Finally, as a corollary of the preceding contentions, I argue that certain considerations which bear upon the problem of validating our trust in the reliability of memory show that foundationalism must be rejected as offering a coherent view of the nature of justification.

The particular design of my thesis is as follows. In chapter one I briefly outline the general topics of discussion in this thesis. In chapter two I consider the traditional analyses of memory: realism and representationalism. According to realism, the immediate object of a memory experience

is the actual event remembered. According to representationalism the immediate object of a memory experience is an image which represents the event remembered. I argue that the traditional analyses of memory must be rejected as correct descriptions of what happens when we remember. Briefly, I contend that both realism and representation mistakenly assume that the same memory can disappear and reappear over and over again.

In chapter three I consider the analogy between memory and perception. I argue that memory is analogous to perception in certain fundamental respects. I contend that memory and perception are constructive processes. On this view the role which stored information plays in recall is like the role which stimulus information plays in perception. That is, perception is constructive because we do not see objects simply because they are there; rather we see them after an elaborate process of construction which makes use of relevant stimulus information. Likewise, we do not recall objects simply because traces of them exist in our brain; rather we recall them after an elaborate process of reconstruction which usually makes use of relevant stored information.

In chapter four I consider the retained knowledge view of memory. According to this view, memory should be analyzed as the retention of knowledge rather than the

acquisition of knowledge. I argue that this view should be rejected because it mistakenly assumes that memory is not analogous to perception. Furthermore, I argue that this view should be rejected because it, too, mistakenly assumes that the same memory can disappear and reappear over and over again.

In chapter five I consider the problem of skepticism and the general trustworthiness of memory. I argue that we should refuse to be lured into an attempt to refute the skeptic. I maintain that there is no good reason why we should seriously entertain the skeptical question, "What justifies the whole of memory?". I argue that the skeptical claim that memory in general may be unreliable makes no sense independent of any concrete epistemic situation.

In chapter six I consider various procedures for justifying our particular memory claims. First, I examine the original justification view which claims that what originally justified one's belief continues to justify it at present. Second, I examine the independent evidence view which claims that a good reason for believing that a past event occurred is that there is independent evidence that it was so. Third, I examine the coherence view, which claims that a person's memory beliefs are justified by their coherence with other memory beliefs and any evidence there may happen to be. Finally, I examine the contextualist

view of justification which claims that the justification of a person's memory claim is context-dependent. I argue that the contextualist view of memory justification should be accepted, and that the original justification view and the independent evidence view should be rejected.

Finally, in chapter seven I consider the relationship between foundationalism and the justification of memory beliefs. I argue that there are certain considerations which bear upon the problem of justifying memory which ~~suggests~~ that foundationalism should be rejected as giving a plausible account of the nature of justification.