

1 Representation: The Word and the Deed

1 The Word

This book is about the *problem of representation*: how is it possible for one item to represent another? We might equally call it the problem of *content*: how is it possible for an item to possess another as its content? Or the problem of *meaning*: how is it possible for one item to mean another? Or the problem of *intentionality*: how is it possible for one item to take another as its intentional object? Or the problem of *aboutness*: how is it possible for one item to be about another? The central contention of the book is that the problem has been exacerbated, perhaps to the point of insolubility, by a critical, yet largely unnoticed, assimilation: the assimilation of representation to the category of the *word*. Because of this the problem has almost always been understood as one of relating inner to outer—of relating an inner representing item to an item that is *extrinsic* or *exterior* to it in such a way that the former can be about the latter, or have the latter as its content. Understood in this way, representation has seemed deeply problematic, even mysterious. However, I shall argue that it is not this sort of problem at all. Representation has nothing, *essentially*, to do with the relation between a representing item and something extrinsic to it. Accordingly, it has nothing essentially to do with the connection between the inner and the outer. The hope is that divesting the problem of representation of this connection to the inner–outer divide robs it of at least some of its mystery. What was a latent problem becomes a patent problem, and, therefore—maybe, just maybe—not so much of a problem at all.

Words sit on a page. The words that comprise this book are *internal* to the book in the sense of located spatially inside it. Their presence in the book is something that has *genuine duration*: they begin at a reasonably determinate time—when first inscribed—and end at a reasonably determinate time—when they finally fade from the page, or the book is destroyed

through misadventure; and, in the meantime, their presence in the book has no intervening lacunas. These words are the bearers of content or meaning, and they are so in virtue of standing in appropriate relations to things *outside* of, or *extrinsic* to, them. Of course, in themselves, they mean nothing at all. To have meaning, they must first be *interpreted*. This interpretation is something in which they have no say—they are *passive* in this regard. Let's look at each of these ideas in a little more detail.

1 Internality The claim that words are *internal* to a book or other document is, of course, a claim about word-tokens, not word-types. It is unclear, to say the least, where word-types are located, and, indeed, they may be located nowhere at all. But word-tokens exist in clearly identifiable regions of space. If in doubt, just look at the previous instantiation of the word "space."

2 Genuine duration Not only do word-tokens occupy identifiable regions of space, they also occupy similarly identifiable regions of *time*. A word token, internally instantiated in a book or on a page, possesses *genuine duration*. That is, the tokening of the word begins at a reasonably precise time, ends at a reasonably precise time, and has no intervening lacunas. To say that the tokening of a word begins at a reasonably precise time is not, necessarily, to say that it begins *at* a time as opposed to *through* time. The inscribing or printing of a word on a page is, of course, something that takes time. So, the beginning of a word-token on a page may be something that occurs through an interval of time rather than at an instant. Of course, one does not have to see things this way. One might claim that the beginning of the word-token does not occur until the inscribing of that token is complete. This issue is, of course, merely stipulative, and we can finesse matters as follows: the claim that the tokening of a word on a page begins at a reasonably precise time is simply the claim that the word-token begins at a time *or* through a period of time, where both of these can be identified with at least reasonable precision. That is not, of course, to say that anyone is in a position to identify this time or this interval. Rather, it is the claim that the time or interval is identifiable in principle, by someone standing in the appropriate epistemic circumstances.

The same is true of the end of the word-token on a page or in a book. If the book is, in Humean fashion, consigned to the flames because it contains neither abstract reasoning concerning quantity or number nor experimental reasoning concerning matters of fact and existence, or, in Hitlerian fashion, because it contains too much of these things, the tokening of a

word in a book ends during the period of time in which the flames consume the relevant page. If the book suffers no such misadventure, then the words may slowly fade from the page, and identifying the time during which the existence of the word-token ends is, accordingly, more difficult. But, we can, nevertheless, be certain that there is such a time and we may even be in a position to identify it with reasonable precision.

The issue of intervening lacunas is just as straightforward. If I erase a word from the page, and replace it with a type-identical replica, then what I have done is precisely to replace one word-token with another. Word-tokens, like tokens in general, do not recur. So, the presence of a word-token in a book can have no intervening lacunas. Any such purported lacuna would, in fact, herald the instantiation of a new, distinct, word-token.

The claim that the tokening of a word on a page has a reasonably determinate beginning and end, and no intermittent lacunas, is, as I shall put it, the claim that this word-token has *genuine duration*.

3 Exteriority of content Word-tokens are the bearers of content, or components of the bearers of content. On some views, it is words themselves that bear content. On others, the proper unit of meaning is the sentence, which is, of course, simply a collection of words organized according to appropriate syntactic rules. On either view, this content is extrinsic to the word or collection of words. Words, or collections of words, are about things that are extrinsic to them. This does not mean, necessarily, that what they are about is outside the book or page in or on which the word-tokens are inscribed. Various devices can, of course, direct you to items located in that book or on that page. For example, the imperative, "look at the title of this section," refers you back to page one and the phrase: "the word." It is possible to argue that this phrase-token provides part of the content of the expression. One does not, of course, have to see things this way. One could argue that the content of the expression is provided by whatever it is to which the phrase-token on page one refers. Under very unusual circumstances, we might employ self-referential sentences of the form, "The sentence that you are now reading," which seem to have themselves as their own content. But such sentences are exceptional. Moreover, such cases have no echo in the case of words. Certain unusual sentences may have themselves as their own content, but this is never true of words: when words are *used* to refer it is always to something outside of themselves. And, in the vast majority of cases, the same is true of sentences also. The conjunction of these claims is what I mean by the *exteriority of content*.

4 Interpretation Words (and sentences), in themselves, mean nothing at all. In some circles this fact is known as the “arbitrariness of the sign” and much is made of it. But the claim is, as far as I can see, truistic rather than profound. Words are symbols, and any symbol can, in itself, mean anything at all. Therefore, in itself, it means nothing at all. To have meaning, it needs to be *interpreted*. It is in virtue of such interpretation that word-tokens (or collections of word-tokens) come to stand in appropriate relations to items that are extrinsic to them; and it is these relations that allow word-tokens to be *about* such extrinsic items. In other words, interpretation fixes the semantic relations that a word can bear to what is outside it such that it can possess this extrinsic item as its content.

5 Passivity The role of interpretation in determining the semantic properties of words entails that words are, in a clear sense, *passive* items. Interpretation might, conceivably, take a variety of forms; but in any form, it is a matter of doing things *with* words. On one view, for example, interpretation takes the form of a distinctive mental act. Such a view may or may not be correct, but, either way, it cannot, of course, help us explain the nature of content—such an act will itself possess a content in terms of which it is individuated. Therefore it presupposes content rather than explains how content is possible. A more common option is to suppose that interpretation is a matter of words being *used* in a particular way. It is our use, or *practice*, that provides words with the interpretation they require in order to have content. This idea will be discussed at length in chapter 4. For present purposes, two points are worthy of note. First, as we shall see, it would be a mistake to suppose that this view is immune to the difficulties surrounding the idea of interpretation as a mental act. Doing, at least *prima facie*, seems to be a form of action, and both the status of something as an action and its identity as the particular action it is, are bound up with its connection to intentional states. So, like the corresponding appeal to a distinctive mental act, the appeal to action seems to presuppose, rather than explain, content.

Second, to claim that the interpretation that supplies words with their semantic content is a matter of the way in which those words are used is not to advance a theory of meaning. The claim is, in fact, sufficiently abstract to cover just about any concrete theory of meaning. If, for example, influenced by Kripke (1980), you would like to think of the content of at least some words as determined by causal relations extending back to facts concerning their *baptism* or *deixis*, then you can translate this idea into the claim that some words are used in such a way as to track such causal relations and the deictic facts in which they terminate. If, influenced

by Davidson (1984), you would like to think of the meaning of a sentence as consisting in, or perhaps supervenient upon, its truth-conditions, then you can translate this idea into the claim that words are used in such a way as to track the contribution they make to the truth-conditions of the sentences in which they occur. To claim that the meanings of words are determined by the way they are used is not to advance a theory of meaning, for the claim is compatible with any theory of meaning. Instead, it is to deploy a certain pretheoretical picture of the ontological status of words. According to this picture, words don't have meaning because of what they are in themselves but, rather, because of what is done to or with them. Words are entirely passive in the constitution of their content.

2 Representation as Word

To assimilate representations to the category of the *word*, at least as I shall employ this idea, is to assert that they satisfy constraints at least roughly analogous to those identified above. That is:

1 Representations are internal A mental representation consists in an internal configuration of a subject. This is a claim about representation-tokens, not representation-types. It is unclear, to say the least, where, if anywhere, a representation-type is located; such items inherit the fugitive character of all types. But mental representation-tokens possess an identifiable spatial location inside the subject. Representation-tokens might take one of several forms—they might be images, prototypes, proxytypes, syntactically structured symbols, and so on—but in all cases, these representation-tokens are identical with some form of neural configuration in a subject, where this configuration is typically thought of as individuated by way of a subset of its higher-order physical or functional properties. On some models, these higher-order physical or functional properties may be individuation dependent on factors external to that subject: that is, they may be *externally individuated*. However, as Davidson has taught us, external *individuation* of properties does not entail external *location* of items that possess those properties.¹ And the representation-token is located inside its subject even if certain of its properties are individuation dependent on things outside that subject. Representation-tokens, therefore, possess identifiable spatial boundaries, and these are located inside the representing subject.

2 Representation has genuine duration Representation also possesses identifiable temporal boundaries. Indeed, representation, it is typically

thought, possesses genuine duration. This is a claim that concerns the process of representation, but it derives from the nature of representation-tokens. A subject represents the world in a given way when the appropriate representation is tokened in it. That is, representation of some state of affairs, *F*, occurs at whatever time the representation of *F* is internally tokened in a subject. This claim may seem to be obviously false with regard to some forms of representation; in particular, those associated with beliefs and other propositional attitudes. After all, I can believe, and bear other propositional attitudes toward, a given state of affairs for many years, and it is no condition of this that the belief continually hovers, occurrently, in the forefront of my consciousness. My belief that Ouagadougou is the capital of Burkina Faso is one that I acquired, via Stephen Stich, in the early 1980s (although it has been updated to keep track of more recent political developments). But to have this belief is not to be the subject of any occurrent state. A belief such as this seems to be a *dispositional* rather than occurrent, state. And dispositional states do not, of course, possess genuine duration.

In the face of this obvious point, the genuine duration of representation is typically safeguarded by appeal to the distinction between the *possession* and the *activation* of a representation. Although a representation might be possessed by a subject for an indefinite period of time, *representation* of this fact (in that subject) occurs only when the representation is activated—brought on-line in some or other capacity.² My belief that Ouagadougou is the capital of Burkina Faso is, for example, typically brought on-line in classroom situations when I am explaining the difference between occurrent and dispositional states. In such situations, my representation is activated and then, and only then, do I *represent* that Ouagadougou is the capital of Burkina Faso. And, it is argued, the activation of a representation-token is something that has genuine duration. It begins and ends at a definite (although perhaps difficult to determine) time, and has no intermittent lacunas. Representation in a subject occurs, then, during this time.

The tokening of words in a book, of course, tends to last longer than that of mental representations in a brain. But this is not a serious disanalogy between the two cases. We might, for example, imagine a book written with vanishing ink. The initiation and rapid fading of activity in a brain is something that begins and ends at definite times, although these may, in practice, be difficult to discern. The activity also has no intervening lacunas. Occurrent state-tokens are, by definition, nonrepeatable. Their temporary cessation is, in fact, their demise and replacement by a distinct occurrent state-token of the same type. If the assimilation of representation to the

category of the word is correct, it entails that representation of a state of affairs in a subject has genuine duration in this sense.

3 Exteriority of content Like words, representation-tokens are the bearers of content, and this content is, typically, extrinsic to them. The content is not, of course, necessarily extrinsic to the *subject* of the representation, since one can have representations about one's internal states. But, in almost all circumstances, this content is exterior to the representation-token itself. This exteriority of representational content has led to a familiar way of understanding the problem of representation. This is the problem of explaining the nature of the relation that one, internal, item bears to another item that is extrinsic to it in virtue of which the former can be about the latter or possess the latter as its content. Once we understand this relation, we will, consequently, understand representation; for the former is in what the latter consists. There are several well-known candidates for this relation, and several well-known problems with each candidate.

4 Representation requires interpretation Taken in themselves representation-tokens can mean anything at all. This claim is familiar in one context, but less so in another. The claim is a familiar one when we think of representations as the sort of thing revealed by introspection. Suppose, to use the standard example, introspection reveals to us a mental image, and we take this to be a representation of some extrinsic state of affairs. Then, as Wittgenstein has taught us, images can, in themselves mean anything at all. Therefore, in themselves, they can mean nothing at all. To have their meaning constituted, they must have their meaning fixed; and it is interpretation that achieves this.

What is, perhaps, less familiar is that we find a clear analogue of this idea when we think of representations as the sort of thing revealed not by introspection but by empirical investigation of the brain; that is, when we think of representations as neural configurations individuated by way of their higher-order physical or functional properties. Such items can, in themselves mean anything at all. To have meaning, they must be *interpreted*. What supplies the interpretation, in this case, is the way the representation is *used* or deployed: it is interpreted by way of its occupation of a certain functional position in a subject's representational economy. That this is so is obvious for *inferentialist* accounts of representation, according to which the content possessed by a representation-token is determined by the functional or conceptual role of that token, a role that is instantiated in certain systematic networks of causal relations. But it is also, if less obviously, true

for many of those theories that understand representational content in terms of informational or teleological relations that stretch from the representation-token to environmental states of affairs.

To see this, consider probably the most influential example of such a view: Millikan's teleosemantic theory of content. We shall discuss Millikan's view in detail later on; here I want to focus on just one aspect of that view. Millikan claims that any mechanism that is to count as representational *must* have the function of controlling some second mechanism in such a way as to ensure that the activity of the second mechanism coincides with a certain condition of the environment (1984: 97–100). That is, any mechanism that is to count as representational must have the function of controlling a second *cooperating* mechanism—either another representational mechanism or an *executive* mechanism that controls behavior directly.

To use a well-worn example (and one that will be even more well worn by the end of this book) consider the prey-detection mechanism of the frog. Millikan's suggestion, in effect, is that we regard this as divisible into a sight mechanism and a strike mechanism. So, when the environment contains small, black, moving things, the sight mechanism fires, and this causes the strike mechanism to fire. Indeed, not only does it in fact cause the strike mechanism to deploy, it has the *function* of causing it to deploy when the environment instantiates a given condition or set of conditions. In doing so, the representational, sight, mechanism serves to *interpret* the behavior of the executive, strike, mechanism. That is, the representational mechanism maps the behavior of the executive on to some condition, or conditions, of the environment. The idea that all content requires an interpreter is, then, reflected in the idea that any vehicle of content or representation-token, requires a co-operator. And, at the root of this idea is the interpretative conception of meaning.

My purpose here is not, of course, to show that the interpretational conception infects all extant accounts of meaning—although I suspect it infects many of them in one way or another. Rather, I have simply tried to show the pull of the idea that representation requires interpretation. It crops up in a variety of theories in a variety of ways; even where, ostensibly, we might least expect it. There is, of course, a certain irony to this. If we think of representations as items revealed by introspection, then the problems with an interpretational conception of representation have been clearly identified for some time. But the conception still exerts a powerful influence over our theorizing about the nature of representation when we think of these as items revealed by empirical investigation of the brain. These issues will be discussed in detail later.

5 Representations are passive Care must be taken unpacking this idea. A word, as we have seen, acquires its meaning because of what is done *to* or *with* it. This idea is not a theory of meaning as such, since it is sufficiently abstract—or vague—to encompass any theory of meaning. Rather, it is a pretheoretical statement of the passivity of words. Words have meaning only because of what is done to or with them, where this provides an interpretation of them. The idea that words are passive, then, is a claim about what makes an interpretation of words possible: interpretation consists in what we do to or with words.

Similarly, both the status of a representation as a representation and the specific semantic properties it bears as a representation are determined by what is done to or with it. Within this general framework, some accounts emphasize the way in which a representation is *produced* (Dretske 1986). In effect, they are based on what, broadly speaking, is done *to* representations—that is, the way in which they are brought about. On such accounts, a mental representation is the terminal point in a neosemantic—causal or informational or informational-cum-teleological—chain originating with the item the representation is a representation of. Representation occurs when, as a result of such a chain being instantiated, a representation is tokened in a subject. To say that a representation is the end point in this sort of chain is not, of course, to say that this representation cannot go on to occur in further chains—ones, for example, involving rational inference or action—but simply to say that it is the fact that it is the culmination of whatever neosemantic chain it is that determines (i) *that* it is a representation, and (ii) *what* it is a representation of. To say that a representation is passive is, therefore, not to say that a subject cannot influence what representations it undergoes by way of its actions, nor is it to deny that representations might play a role in ordering sensations that, following Kant, we might describe in terms of the notion of *spontaneity*—activity, broadly construed. Rather, it is simply to acknowledge that the representational status of item *R* is the result of an appropriate chain originating from some item *X* to the subject who tokens the relevant representation. That is, that *R* is a representation is determined by something that is done *to* it, by its being produced in a certain manner.

Other accounts focus on what is done *with* representations rather than *to* them (in the sense identified above). That is, they emphasize the way in which representations are *consumed* rather than *produced*. Millikan (1984, 1993) has developed a consumerist account, and the basis of this account is that both the status of an item as a representation, and its specific content, are determined by the way in which the representation is employed

or *consumed* by representational consumers. The claim that a representation is passive is neutral between producer- and consumer-based accounts. The passivity claim is simply that the status and identity of a representation are determined by what is done to or with it—and whether what is done to or with it consists in its being produced in a certain way or consumed in a certain way is irrelevant.

In the sense deployed in this book, to assimilate mental representation to the category of the word is to think of such representations as satisfying the five conditions identified above. I shall not attempt to argue that this assimilation is incorrect for all cases of representation. The conditions may, indeed, provide an appropriate way of thinking about *some* representations. However, what this book will argue is that they cannot provide an appropriate way of thinking about representation in general. In some cases, representation needs to be understood not in terms of the word but the *deed*.

3 Representation as Deed

To assimilate representation to the category of word is to think of representations as items located in the mind–brain of a subject. To assimilate representation to the category of *deed*, on the other hand, is to think of representations as something that a subject does or achieves.

We can render part of the content—the negative part—of the idea of representation as deed in terms of five counterposed theses to those that constituted the idea of representation as word.

1 Not all representation is internal Some representations may, indeed, consist in internal configurations of a subject. But representation is not restricted to the formation of these configurations.

2 Not all representation has genuine duration At least in some cases, representation of a given environmental contingency is not the sort of thing that can occur at a time, nor even through a precisely identifiable period of time. It is not the sort of activity that need always have genuine duration. Representation often has the character of a process rather than a state; and this process need not have temporal boundaries of the reasonably respectable sort implicated in the assimilation of representation to the word.

3 Content is not necessarily exterior to representation Given the assimilation of representation to the word, the content of a representation is extrinsic

to it, in much the same way that the content of a word is extrinsic to it. The problem of representation is, then one of understanding how a representation—or vehicle of content—can reach out to an extrinsic state of affairs in such a way as to possess this state of affairs as its content. The assimilation of representation to the deed, on the other hand, entails that the relation between representational vehicle and content is not always like this. In some cases, representation, does not stop short of that content itself. Content is not, necessarily, exterior to representation. In some cases, representation incorporates the content.

4 Representation does not always require interpretation Some instances of representation involve interpretation, and some instances undoubtedly require it. However, not all representation is like this. Indeed, not all representation *can* be like this. Some cases of representation qualify as such quite independently of the activities of a distinct interpreting agent or mechanism.

5 Not all representation is passive In many cases, representation does not consist in the production or consumption of a representation that sits in the mind of a mental subject. Some forms of representation are essentially active.

Of course, (1*) through (5*) do not take us very far. They simply consist in a denial of the five principal tenets of the assimilation of representation to the word. As such, they merely provide the negative content of the assimilation of representation to the deed, coupled with a few vague gestures toward what form the positive content might take. The remainder of the book, in effect, will be concerned with providing the positive content of this assimilation. It remains in this chapter to provide a few indicators of the shape of things to come.

Consider an activity—the activity of *exploring* the environment, for instance, provides a useful template:

1. It makes no sense, of course, to think of exploration as an *internal* item. Exploring is something we do in the world, and is as external, or as internal, as the world itself (and the world is, of course, both internal and external).
2. Exploring takes time, but it is not the sort of thing that need possess *genuine duration*. In general, there need be no determinate beginning or end point for a process of exploration. When, for example, did Burton and Speke's exploration of the source of the River Nile begin? When they first discussed the project together? When they boarded the train at London?

When they took their first footstep outside Nairobi? Or when they first encountered country that no white person had seen before? It is not that the answers to these questions are difficult to discern; there is no fact of the matter that could be used to decide them. Nor is there any fact of the matter that could be used to identify the termination of this process of exploration. And, clearly, it is not as if their exploration ceased when they sat down to take a rest, or set up camp for the night.

3. In any exploration, what is explored is not *extrinsic* or *exterior* to the process of exploration. On the contrary, the process of exploration and the object of exploration, in an important sense, coincide. If they did not, the process of exploration would necessarily fail, or would not even count as a process of exploration.

4. A process of exploration need not be constituted as such by an act of *interpretation*. Under certain—unusual—circumstances, an act of interpretation might be necessary or sufficient to constitute one's activity as exploring; but this is not generally the case. Many things can explore their environment, most of which are incapable of interpreting their behavior at all, let alone as a process of exploration. Of course, *if* there is a fact of the matter here, that it is a process of exploration, as opposed to something else (foraging, wandering aimlessly, etc.), it must be due to *something*.³ But this *something* need not be an interpretative act on the part of the explorer.

5. Exploring belongs to the category of *activity*, not passivity; it is something we do, rather than something that happens to us.

To assimilate representation to the category of the deed, then, is to think that *activity*, broadly construed, provides a useful template for thinking about representation. I am going to argue that representing the world consists, partly, in certain sorts of activity in which we engage. Our representing of the world consists, in part, in certain sorts of *deeds* that we perform in that world. The shift from the noun form “representation” to the verb form “representing” is not insignificant. Representations are things. Representing is a process. The assimilation of representation to the category of the deed entails, first and foremost, that representing is primary. Accordingly, it is no part of this book to argue that deeds can be *representations*. Such a claim would not, I think, be inaccurate; but it would be disingenuous. The idea of a representation is, I think, too closely tied to the model of the *word*. Rather, the central claim of this book is that certain sorts of deeds form part of the activity—the *deed*—of representing the world. And, crucially, the part they form of this process *is as genuinely representational as any other part*—the formation of internal configurations

included. Deeds can represent the world to no lesser (and no greater) extent than internal representations traditionally construed.

4 Representation All the Way Out!

This, I freely admit, is a strange idea. The central claim of this book is not simply that certain ways of acting on the world can *facilitate* our ability to represent it. Everyone knows that! Or, more accurately, the idea that our ability to represent the world is bound up with our ability to act in it is, by now, a fairly popular idea. The idea underlies a loose coalition of views on the nature of mental processes that, to the extent that they are not hostile to representation *tout court*, allow it an attenuated role in which it fulfills its function only in conjunction with the manipulation, exploitation, and exploration of environmental structures. We shall look at such views in the next chapter. However, I am not simply arguing that the role of representation can be facilitated, supplemented, displaced, or supplanted by abilities to act on—perform deeds in—the world. Rather, I am going to argue that certain ways of acting in the world can *literally* be representational. The vehicles of representation do not stop at the skins of representing organisms. Representing is representational *all the way out!* Representing the world extends out into that world in the form of deeds performed in it. It is not as if these deeds are nonrepresentational facilitators of a genuinely representational core, which consists in relations obtaining between internal items and extrinsic states of affairs. Rather, the deeds are *themselves* representational. And this, I think, *is* a strange idea.

Of course, in one sense the idea is not strange at all. We commonly use stylized behaviors to re-present certain of our emotional states. I might, for example, in a classroom situation employ an extravagant slap of the brow as a mock expression of exasperation. Thus, an action that was originally an *expression* of exasperation can be used, in contexts where the exasperation is not present, as, in effect, a *re-presentation* of exasperation. We all do this sort of thing (and mimes do it for a living). So, the idea that actions can be used as something akin to representations is, in this sense, an entirely quotidian one. However, this is not the sense defended in this book. In the above sort of case, any representational character possessed by the action is inherited from prior representational states of both performer and observer. Thus, in good old Gricean fashion, I intend that my students take this as a playful mock indication of exasperation; they understand that I intend it in this way, and so on. However, what I shall argue is that

certain sorts of actions—*deeds*, as I shall call them—can have a representational status quite independently of their connection to prior intentional states. They have this status because of what they are and their relations to the world, but not because of any relations they bear to other intentional states. And *this*, I think, is a strange idea.

Indeed, so strange is it that when I first started flirting with it, I had in mind a sort of *explanatory gap* argument for representation. The idea was that it is possible to identify certain items—deeds—that satisfied all the traditional criteria of representation but could not, themselves, be regarded as representations. So, we could not explain representation in terms of its traditional associated criteria. In other words, I was trying to develop a sort of *reductio* of the criteria. And if, after reading the book, you decide that is the best way of construing these arguments, then—believe me—I know where you’re coming from.

However, after prolonged wrestling with the problem, I came to appreciate the advantages of allowing that deeds were, in fact, representational items. And these advantages are so crucial to understanding why we should not regard the arguments to follow as a *reductio* that I am going to spend a good proportion of the book developing them. This theme is developed in the chapters 4 and 5, where I develop a certain paradox concerning the role played by action in representation. I shall argue that if we want to introduce action to help us explain the nature of representation, then we must satisfy two competing pressures that pull us in opposite, and apparently irreconcilable, directions. On the one hand, we cannot appeal to a concept of action that presupposes representation; for example, a concept of action that sees actions as individuated by way of their connections to intentional states. This would be to presuppose representation, not explain it. On the other hand, I shall argue, we cannot appeal to a concept of action that does *not* presuppose representation. To do so is to reiterate a certain conception both of the *boundary* between representation and action, and the *role* played by action with respect to representation. The boundary is one that is straddled by merely causal impingements. Across such a boundary, causal pressure can be exerted, but epistemic pressure cannot. And the role played by action consists in merely providing us with new ways of causally impinging on the world. Such a boundary between action and representation, and such a role for action with respect to representation, I shall argue, makes it impossible to use action in an explanation of representation.

Therefore, if we are to employ the concept of action in our attempt to understand representation, this concept must, it seems, both presuppose representation, and not presuppose representation. This paradox is not an

opportune eruption designed specifically to fit the purposes of this book. On the contrary, it has a long and respectable history, and to convince you of the scope and importance of the paradox, I shall spend much of chapter 4 looking at this history. Chapter 5 looks at a more recent incarnation of the paradox. The development of what is, in essence, a simple paradox may be overly long for some tastes. I dwell on it because it is precisely the benefits that the view of representation developed in this book yields, vis-à-vis the paradox, that motivates an understanding of the arguments to follow as a *reinterpretation* of the concept of representation, rather than as a *reductio* of the currently accepted criteria of representation.

I shall argue that there is one, and only one, escape from this paradox. This is to employ a concept of action as representational, but where this representational status is not acquired from anything else—for example, from a prior representational state. The concept of action employed must be one according to which such actions are representational but have this status directly; in virtue of what they are in themselves and their relation to the world, and not in virtue of their connection to something that is *already* representational. I shall argue that such a concept exists, and extends over an identifiable category of behaviors that I shall refer to as *deeds*.

The arguments for these claims are developed in chapters 4 and 5. These chapters, then, provide, in a sense to be rendered precise, one motivation for thinking of representation in the way defended in this book. However, the view of representation can be defended independently of this motivation. This will be attempted in chapters 6 through 12. Chapter 6 introduces the notion of a deed. Deeds are conceived of as what I shall call *preintentional* acts. They stand somewhere in between *actions*, traditionally understood, and *subintentional* acts in O'Shaughnessy's (1980) sense. Unlike deeds, they are performed for a reason that the agent does or would endorse. Unlike actions, this reason is not sufficient to individuate them. One consequence of this is that if deeds were to possess representational status, this cannot have been acquired from other representational states. Chapters 7 through 11 then defend the claim that deeds do, in fact, possess representational status.

Chapter 7 argues that deeds can satisfy the first major constraint on representations: the *informational* constraint. That is, deeds can carry information about their environment, or, at least can do so to no lesser extent than internal representations traditionally construed. Chapter 8 argues that deeds can satisfy a *teleological* constraint. That is, deeds not only carry information about their environment, they also have the *function* of tracking environmental features and/or of allowing organisms to achieve specified

tasks in virtue of tracking such features. Chapter 9 argues that deeds can satisfy *misrepresentation* and *decouplability* constraints. Deeds can misrepresent the world as well as represent it, and, in appropriate circumstances, can be decoupled from those environmental features it is their function to track. Chapter 10 argues that deeds satisfy a *combinatorial* constraint. Deeds can possess combinatorial structure of the sort required by a genuinely representational system. If the arguments of chapters 7 through 10 are correct, then deeds satisfy all relevant constraints on representation, and so qualify as representational if anything does.

The notion of a “relevant” constraint requires clarification. I am concerned only with those constraints pertaining to the relation between a representational device and its represented object. I am not, and I must emphasize this, concerned with constraints pertaining to the role played by representations in a subject’s psychology. The most important of these is a *causal* or *explanatory constraint*: a representation must play a causal role in guiding a subject’s behavior, and hence must play a role in explaining the subject’s behavior. This constraint, arguably, plays a role in determining what sort of things can count as representations. But I am not arguing that deeds are representations. And I am certainly not arguing that deeds function in precisely the same way in an agent’s psychology as internal configurations of a subject. Rather, my claim is that deeds are *representational*, and so I am concerned with the conditions an item must satisfy in order to be *representational*, not to be a *representation*: that is, the sorts of constraints it must satisfy in order to have representational objects. We will return to this issue later.

Chapter 11, the final chapter, puts the ideas and principles delineated in chapters 6 through 10 into practice with an examination of the deeds involved in visual perception. I shall argue that these deeds satisfy combinatorial, informational, teleological, and misrepresentation conditions. The deeds involved in visual representation of the world do not merely facilitate some genuinely representational core, one consisting in a relation between internal and external items. On the contrary, the involved deeds are as representational as any other components of representation.

There is, of course, nothing incompatible with assimilating representation to the category of the word, and assimilating it to the category of the deed—as long as we do not make this assimilation for the same representations! Accordingly, this book does *not* claim that there are no such things as internal representations, traditionally understood. Rather, the claim is that not *all* cases of representation can be explained by way of their assimilation to the category of the word. Some cases of representation take the

form of *deeds*. This will be most obviously the case for certain forms of representation rather than others. In particular, the role of deeds in representation is, perhaps, the most obvious in the case of *perceptual* representation. Accordingly, much of the focus of this book will be provided by perceptual representation, and *visual* representation in particular. This is not to say that the role of deeds is negligible in other cases of representation—quite the contrary. But I do think that the role deeds play in these other forms of representation will derive from the way perception can, in such forms, be employed, in an epistemically active way, to help accomplish the cognitive task for which the representation has been produced or activated.

Qualifications aside, if the arguments of this book are correct, the means by which we represent do not stop at the skin. There may well exist vehicles of representation inside the skin of representing subjects. But vehicles of representation do not, in general, stop at the skin. They extend out into the world in the form of deeds. Representing the world is something we do in the world as much as in the head. Representing is representational *all the way out!* This I shall refer to as the thesis of *representation in action*.