

## The Metaphysics of Malfunction

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### Abstract

Any artefact – a hammer, a telescope, an artificial hip – may malfunction. Conceptually speaking, artefacts have an inherent normative aspect. I argue that the normativity of artefacts should be understood as part of reality, and not just “in our concepts.” I first set out Deflationary Views of artefacts, according to which there are no artefactual properties, just artefactual concepts. According to my contrasting view – the Constitution View – there are artefactual *properties* that things in the world really have. For example, there is a property of being a telephone per se; we apply our concept *telephone* to things that have that property. Things that have the property of being a *telephone* are constituted by, but not identical to, aggregates of particles. To be an artefact, an object must have an intended function, among other things. Telephones – in virtue of being the *kind* of objects that they are – are always subject to malfunction. And malfunctions, when they occur, are just as much part of the world as telephones are. The example of artefacts shows that what is in the world – what really exists – need not be “mind-independent” nor independent of our concepts.

**Keywords:** malfunction, artefacts, function, normativity, intention-dependent items, reductionism, eliminativism, ontological significance, constitution view, practical realism, mind-dependence

Artefacts are ubiquitous in the world that we encounter. Most broadly, artefacts include everything that is produced intentionally – paintings and sculptures as well as scissors and microscopes. Our concern here is with an important subclass of artefacts – technical artefacts, characterized by the organizers of this conference as “the material products of our endeavour to attain our practical goals.” Since goals are the sorts of things that we attain or fail to attain, a distinction between proper performance and malfunction is built into the very idea of a technical artefact. From now on, when I say ‘artefact,’ I mean ‘technical artefact.’ Any such artefact – a hammer, a telescope, an artificial hip – may malfunction.

The concepts of function and malfunction, as they apply to artefacts, are normative.<sup>1</sup> Artefacts have *intended* functions, which are obviously normative. To carry out an intended function is what an artefact *is supposed to* do; to fail to carry out the function in certain circumstances is a kind of error, a malfunction. Where there is room for error or mistake, there is normativity. Normativity pervades the *Lebenswelt*: There is no intention without the possibility of its being thwarted, no desire without the possibility of its being frustrated, no function without the possibility of malfunction. We simply cannot understand the world we live in without presupposing normativity. Unfortunately, like most other philosophers, I have no theory of normativity. But if we take the world as we encounter it as our starting point (as I do), then normativity is part of the price of admission. Nowhere is normativity more glaring than in the behavior of artefacts – from the trivial (people get wet when umbrellas blow inside-out) to the significant (combatants get killed when guns jam).

Elsewhere, I have argued that artefacts have ontological status: they are genuine objects in the world.<sup>2</sup> Here I want to consider the malfunction. After some general introductory remarks and a brief discussion of the notion of malfunction, I'll set out a kind of view of artefacts that I think many philosophers would find attractive – I'll call such views 'Deflationary Views.' I hope to supplant Deflationary Views with a view of artefacts, which I call 'the Constitution View' and show how the Constitution View can treat the phenomenon of malfunction. After contrasting Deflationary Views and the Constitution View, I want to turn to some metaphysical issues concerning the nature of reality and to challenge the view of many metaphysicians that there is a sharp and important distinction between what is really in the world and what is only a matter of our concepts – a distinction sometimes formulated as a distinction between what is mind-independent and what is mind-dependent. The example of artefacts shows that what is in the world – what really exists – need be neither mind-independent nor independent of our concepts.

### 1. The Idea of Malfunction

Artefacts, by definition, have intended functions. Anything that has an intended function is subject to malfunction. Thus, for technical artefacts, the concepts *artefact*, *function*, and *malfunction* are conceptually linked: None is intelligible without the others.

The concept of an artefact's function – along with the concept of malfunction – is one of a huge and important class of concepts that has been overlooked by philosophers. This class includes nonmental concepts that entail mental concepts – e.g., being in debt, being a driver's licence, being a delegate. Nothing can be in debt or be a driver's license in a world without beings with propositional attitudes. Being a driver's license is not itself a mental concept; it is not a concept that is applied to minds, or to things that have minds; but it is a concept that would have no application in a world without minds. I shall coin the term 'intention-dependent' or, for short, 'ID' for such concepts.

An ID concept is any concept that either is a propositional-attitude concept (like believing, desiring or intending) or entails that there are beings with beliefs, desires and/or intentions an 'ID concept,' an 'intention-dependent' concept. ID concepts are concepts whose applicability depends on intentionality. ID phenomena are phenomena that fall under ID concepts. Such phenomena include being a wedding, being a carrot peeler, being a treaty, and so on. Many, if not most, social, economic, political, and legal concepts are ID concepts. For example, the concept of writing a check is an ID concept, because there would be no such thing as writing a check in a world lacking the social and economic conventions that presuppose that people have beliefs, desires and intentions. ID concepts apply to most human activities – both individual (getting a job, going out to dinner, designing a house) and collective (manufacturing automobiles, changing the government, etc.). They could not exist or occur in a world without beliefs, desires, and intentions.

Other communities may be familiar with other kinds of ID concepts; but all communities recognize many kinds of ID concepts—as well as other ID objects like pianos and paychecks, and ID phenomena like conventions and obligations.<sup>3</sup> ID concepts stand in contrast to nonID concepts – e.g., being a promise as opposed to an audible emission, being a signature as opposed to a mark on paper, being a dance step as opposed to a bodily motion. The audible emission, the mark on paper, the bodily motion could all exist or occur in a world lacking beings with propositional attitudes, but the promise, the signature, and the dance step could not.<sup>4</sup>

Indeed, many different kinds of things are ID phenomena in the sense just stipulated: events (e.g., a baseball game), objects (e.g., a passport), actions (e.g., voting), dispositions (e.g., being honest), activities (e.g., reading your mail), institutions (e.g., a national bank), medical procedures (e.g., transplanting a heart), business dealings (manufacturing new medications and marketing them) – all these are ID phenomena.<sup>5</sup> Intentional language contains terms (e.g., ‘wants to buy milk,’ ‘was elected president,’ ‘paid her taxes’) whose application presupposes that there are beings with beliefs, desires, intentions. So, actions – like buying a car, sending an email, or washing the dishes – are ID events whose occurrence entails that there are beings with beliefs, desires and intentions. ID phenomena encompass a huge range of phenomena that characterize the world as we know it.

What is important about ID phenomena for our purposes is that all artefacts and their associated properties – in particular, properties of function and malfunction – are ID phenomena. Artefacts are defined by their intended functions: The function of the brakes in a car is to reduce its speed; if someone wants to slow down and applies pressure to the brake pedal and the car maintains its speed, then the brakes have malfunctioned.

Not all cases in which something fails to perform its intended function seem to be malfunctions. For centuries, people tried to build perpetual motion machines. Of course, they all failed. Should we say that each of the machines malfunctioned? Or: Suppose that someone had an amulet whose intended function was to protect its user and to cause harm to her enemies. (An amulet is a paradigm case of a technical artefact – “a material product of our endeavor to attain our practical goals.”) The amulet was supposed to produce a desired effect when its user uttered certain incantations. It is plausible to suppose that no such causal connections are physically possible. Did the amulet malfunction? There seems to be a difference between a flaw in a design in which the mechanism did not operate as expected (e.g., the designer had overlooked the fact that the gas would be under so much pressure that the device would explode when operated for more than a few seconds), and a flaw in which the mechanism operated as planned, but did not accomplish the intended function (e.g., a perpetual motion machine or the amulet).

The examples of the perpetual motion machine and the amulet raise questions about the concept of intended function. Can an artefact have a function that is it is physically impossible for it to perform? My suggestion is to take terms like ‘amulet’ and ‘perpetual motion machine’ to mean, respectively, ‘item intended to protect its user and to harm her enemies’ and ‘machine intended to produce perpetual motion.’ Then, we can say that there are such artefacts, and that they have functions that it is physically impossible for them to perform. But I would reserve the term ‘malfunction’ for artefacts that have functions that are physically possible to be performed. Hence, the failure of a perpetual motion machine to produce perpetual motion and the failure of the amulet to cause mishaps should not count as malfunctions.

Other cases of failure to perform the intended function that should not be considered to be malfunctions include these: A car that does not start because it is out of gas. (A car is not intended to run in conditions in which it lacks gas.) A computer that does not operate because its operator is incompetent (say a two-year-old). In general, failure to perform an intended function is not a malfunction unless there is an attempt by a competent operator to perform the intended function in conditions for which the artefact was designed. So, here is an initial stab at a pretheoretical characterization for an occurrence to be a malfunction:

- (M)  $x$  is a malfunction of an artefact  $a$  if and only if:
- (a)  $x$  is a failure to perform the intended function of  $a$ , where the intended function of  $a$  is such that it is physically possible to be performed, and
  - (b)  $x$  occurs when a competent operator tries to use  $a$  to perform its intended function under conditions for which  $a$  was designed.

There are a variety of sources of malfunction: The materials used may be poorly chosen (as when soft metal is used in the manufacture of a key); the materials may themselves be defective (as when too much sand is used in mortar holding up the bricks on the UMass library); or the design may be defective (as when gas tanks in Pintos explode on impact); or there may be damage to the structure (as when the surface of the space shuttle Columbia was punctured during take-off). Although there is much more to be said about the concept of malfunction, let us move on to the theories.

## 2. Deflationary Views of Artefacts

I made up the term ‘Deflationary Views,’ and I am not wedded to it; but I want a label for some views associated with most prominent metaphysicians today.<sup>6</sup> What the disparate philosophers that I take to be proponents of ‘Deflationary Views’ have in common is that they hold, roughly, that, ontologically, there is no more to being an artefact (as opposed to being a collection or particles) than our talk about artefacts. Such philosophers hold that there is a sharp distinction between our concepts, our language, our interests, on the one hand, and what really exists on the other. Not only do such philosophers suppose that can we study each side of the divide independently of the other, but they also suppose that the business of metaphysics is exclusively on the side of what exists independently of our concepts, our language, our interests.

Let me illustrate two versions of this view by considering an actual event. On February 1, 2003, the space shuttle, Columbia, broke up during a seemingly routine reentry into the Earth’s atmosphere. It was a spectacular disaster, leaving myriad pieces from the shuttle scattered over several U.S. states. (It was later determined that the malfunction was caused by damage to the left wing during launch; during the flight of the space shuttle, the damage had seemed slight.) How might Deflationary-Viewers interpret this event? Here are two versions of Deflationary Views:

(1) Eliminativism: Strictly speaking, no space shuttle ever existed: the words ‘space shuttle’ do not refer. All that existed were simples arranged space-shuttle-wise; there is no object that is a space shuttle. Sentences like ‘The space shuttle broke up’ are rephrased to eliminate the apparent reference to an object. When speaking in the “strict and philosophical sense,” we may mention simples-arranged-space-shuttle-wise, instead of space shuttles. When the space shuttle broke up (as we say), the only change in reality was in the arrangement of certain simples. But nothing went out of existence. I associate this view with Peter van Inwagen, according to whom the only (finite, concrete) objects that exist are simples and living organisms.<sup>7</sup> There exist no artefacts, though we can find true paraphrases of sentences putatively about artefacts: For ‘This is the house that Jack built,’ we may substitute ‘These are simples that were arranged housewise by Jack.’

(2) Reductionism: There are space shuttles; the words ‘space shuttle’ do refer, but what they refer to are aggregates of matter that occupy spacetime points arranged space-shuttle-wise. The Columbia was nothing more or less than a mereological sum of bits of matter at those spacetime points. Indeed, every aggregate of matter-filled spacetime points have mereological sums; we have names (e.g., ‘space shuttle’) for a few of the sums that exist, but no names for most of the

sums. (Indeed, we couldn't possibly name them all; there's a nondenumerable infinity of objects.) The only concrete objects that really exist are bits of matter at spacetime points and their sums arranged in various ways. I associate this view with David Lewis.<sup>8</sup>

Ontologically, the eliminativist and reductionist views are alike with respect to artefacts. On both views, strictly speaking, nothing literally went out of existence when the space shuttle broke up; there was only a change in the arrangement of particles (or simples – from now on, I'll use 'particles' as the all-purpose term). There was no change in what exists – it just became inappropriate to apply our concept of 'space shuttle' to the particles in their new arrangement. All the objects [or, in the case of van Inwagen, nonliving objects] that exist, according to both views, are particles (or simples) arranged in certain ways. On both the eliminativist and reductionist views, there is no *ontological* difference between the space shuttle and the little pieces scattered over several U.S. states. When the particles are arranged in a certain way (space-shuttle-wise), we call them a 'space shuttle,' but nothing actually went out of existence when the space shuttle broke up.

Both reductionists and (some) eliminativists take the sentence, 'The space shuttle broke up' to be true.<sup>9</sup> The eliminativist takes that sentence to have a paraphrase that does not mention space shuttles: 'There are some simples arranged space-shuttle-wise at one time, and not arranged space-shuttle-wise at a later time.'<sup>10</sup> The paraphrase (putatively) expresses what we want to say in using the original sentence, but without seeming to refer to space-shuttles. The reductionist does not need a paraphrase that avoids mention of space shuttles. Unlike the eliminativist, the reductionist holds that there are space shuttles, but what a space shuttle *is* is just an arrangement of particles.<sup>11</sup> The semantic difference is that the reductionist takes 'space shuttle' to be a referring word (that refers to a certain mereological sum of particles), but the eliminativist does not take 'space shuttle' to refer to anything (because, on the eliminativist's view, those particles have no mereological sum). But the aggregate of particles – which the reductionist says really is a space shuttle and the eliminativist says really is no thing – is the same in both cases.

That is, the reductionist and eliminativist agree that what actually exists is only the particles arranged in a certain way. The difference between them is only whether they consider such an arrangement of particles to be an entity (i.e., to have a mereological sum, as they would put it). If we take seriously Lewis's comment that mereology is "ontologically innocent,"<sup>12</sup> – i.e., that mereological sums do not introduce new objects over and above their parts – then it seems that the difference between reductionism and eliminativism is not ontological, but purely semantic.

In any case, neither eliminativism nor reductionism can take discourse about artefacts at face value. The eliminativist cannot suppose that the sentence 'the space shuttle broke up' is both true and literally expresses the proposition that the space shuttle broke up. For the eliminativist, common nouns in everyday discourse disappear under analysis. So, eliminativists cannot take discourse about artefacts at face value. The reductionist, on the other hand, does suppose that our talk about space shuttles really is about space shuttles, but takes talk about space shuttles to be just talk about aggregates of particles. However, if talk about the malfunction of Columbia were just talk about re-arrangement of particles, then certain rearrangements of particles should suffice for a malfunction. But there is nothing about any arrangement of particles independently of our concepts and interests that makes it the case that the space shuttle malfunctioned. It is only in virtue of our concepts and interests that the dispersal of particles (say) is a malfunction. So, reductionists cannot take statements like "An object went out of existence when Columbia was destroyed," at face value any more than eliminativists can. Literally, on Deflationary Views,

when Columbia was destroyed, no object went out of existence. The upshot is that neither eliminativism nor reductionism takes our discourse about artefacts at face value.

According to the Deflationary Views, there is nothing in reality that makes an ontological difference between a hammer and a pillow – or, for that matter, between a hammer and an aggregate of your left eyeball and my right shoe. All are just aggregates of particles, to some of which we apply our artefactual (and other) concepts. (Again: according to the reductionist, the aggregate itself is an entity; according to the eliminativist, the aggregate is not an entity. In both cases, there is no more to things that apparently exist than the existence of particles.) According to these views, something is a hammer in virtue of the fact that we apply our concept ‘hammer’ to certain aggregates of particles. A malfunction of a hammer – say, its head flies off its handle – is likewise just a change in arrangement of the particles. The normativity of artefacts, on the Deflationary Views, is wholly in our language or concepts, and not in the world at all. Function and malfunction are a product of our concepts; what are in the world are just aggregates of particles that could exist in worlds that lack our concepts. The laws of physics apply equally to machines that function properly and to machines that malfunction. So, on the Deflationary Views, malfunction is wholly a matter of our language; it is not to be found in the world. What happened to the space shuttle Columbia has no ontological significance whatever.

Indeed, strictly speaking, on the Deflationary Views, there is no metaphysics of artefacts, and no metaphysics of malfunction. As Peter van Inwagen remarked, if we confine our discussion to a canonical language that “refers to nothing besides simples and living organisms and abstract objects,” – the only objects that van Inwagen countenances – “we shall be able to formulate no *philosophical* questions about the identities of artifacts at all.”<sup>13</sup> The activities of engineers are of no philosophical interest. If what I’ve called ‘Deflationary Views’ are correct, then the expression ‘metaphysics of malfunction’ is simply an oxymoron.

### 3. The Constitution View of Artefacts

I want to propose an alternative, according to which the destruction of the space shuttle Columbia does have ontological significance: What happened when Columbia broke up was that something went out of existence, not just that particles changed arrangements. On my alternative – I call it the ‘Constitution View’ – all macrophysical objects are constituted, ultimately, by aggregates of particles; but macrophysical objects are not identical to their constituters.<sup>14</sup>

According to the Constitution View, reality comes in fundamentally different kinds. Each existing thing is of a primary kind. An entity’s primary kind is given by the answer to the Aristotelian question: What is x most fundamentally? There is no “mere thing” behind or underlying the instance of a primary kind. Entities are of their primary kinds essentially: an entity cannot survive loss of its primary-kind property. Entities of different primary kinds have different causal powers as well as different persistence conditions. Constitution is a relation between things of different primary kinds.

Primary kinds include not only kinds determined by structure or by material constituent, or by underlying essence; but also there are primary kinds determined by function. Underlying the Constitution View is the idea that what something is most fundamentally is often determined by what it can do – its abilities and capacities – rather than by what it is made of. This is obvious in the case of artefacts: What makes something a clock is its function of telling time, no matter what it is made of.

Consider a hammer, constituted by an aggregate consisting of two pieces of wood (one for the handle, one for the wedge) and a piece of steel for the head. When the pieces of wood and steel in the aggregate are in hammer-favorable circumstances (including the right shapes and the intention to be used for pounding), the aggregate comes to constitute a hammer. The primary kind of the constituting aggregate is *wood/steel*; the primary kind of the artefact is *hammer*. The constituting aggregate is itself constituted by more fine-grained aggregates, down all the way to aggregates of sub-atomic particles.

The hammer has all kinds of properties – some nonderivatively (because it is a hammer) and others derivatively (because it is constituted by the wood/steel aggregate. E.g., it has the property of being worth 20 Euros nonderivatively, but of weighing a half a kilogram derivatively. The aggregate weighs half a kilogram nonderivatively (because it would weigh half a kilogram whether it constituted anything or not; the weight of the particles adds up to half a kilogram), and is worth 20 Euros derivatively (because its worth is determined by the fact that it constitutes a hammer). Properties that may be had derivatively are shared by both the constituter (the pieces of wood and steel) and the constituted thing (the hammer).

What kinds of materials are suitable for various kinds of artefacts is an engineering question, not a philosophical one. But wrong choice of material may be a source of malfunction. E.g., using a soft material like rubber for the head of a hammer intended to be used on a hard material like stone will destroy the head and render the hammer unable to perform its function. The hammer does not cease to exist when the rubber head deteriorates. It just malfunctions, but there is still an ‘it’ that has an intended function – perhaps never to be carried out again.

What exactly is the line, someone may ask, between having a hammer that is broken, and having something that is not a hammer at all? There is no sharp line. In the absence of a clear boundary between a malfunctioning F and a nonF, one may either take a Deflationary View or acknowledge that there is vagueness in reality. Elsewhere, I take and defend the latter position: there is vagueness in reality. I believe that recognition of ontic vagueness is required for a realistic view of the special sciences. Indeed, every science that recognizes things that evolve – things like species in biology and solar systems in astronomy – assumes that there is vagueness in reality. I cannot argue for this position here. I just want to acknowledge this consequence of the Constitution View.

Now apply the Constitution View to the example of the space shuttle Columbia. The malfunction in the space-shuttle case put an end to the existence of Columbia. But according to the Constitution View, Columbia really existed in its own right, so to speak. It was constituted by a vast aggregate of a complex primary kind, which itself was constituted by further aggregates, until finally there is a constituting aggregate of subatomic particles.<sup>15</sup> Let *P* be an aggregate that is a subatomic constituter of Columbia at *t*. Columbia was essentially a space shuttle; *P* was only derivatively a space shuttle at *t* – while *P* constituted Columbia. Recall that an aggregate exists as long as the items in it exist, no matter where they are. We cannot say, “*P* is identical with Columbia at *t*.” We cannot say this, because we are assuming classical identity and three-dimensionality: identity is necessary identity, not relative to time; and on three-dimensionality, ‘Columbia at *t*’ does not denote an entity, but an ordered pair  $\langle \text{Columbia}, t \rangle$ . So, although *P* constituted Columbia at *t*, *P* was not identical with Columbia – at *t* or any other time.

According to the Constitution View, it is not just that we found it convenient to stop referring to *P* as ‘Columbia’ (à la Lewis). It is rather that Columbia went out of existence altogether, but *P* did not. Nor is it just that there was no such entity as Columbia at all (à la van Inwagen). By

contrast, on the Constitution View, the break-up of Columbia was a loss to reality, ontologically speaking. It is rather that there was an entity Columbia and there was an aggregate, *P*, and at the break-up, the former ceased to exist but the latter did not. The change was more than a change in the arrangement of particles. The contents of the world changed when Columbia was destroyed; complete inventories of the world would include different objects before and after the break-up.

The Constitution View, in contrast to the Deflationary Views, allows us to be realists about artefacts: Artefacts exist in their own right. Since part of what it is to be an artefact is to have an intended function, artefacts are always liable to malfunction. Proponents of Deflationary Views can allow that statements about malfunction – e.g., ‘The space shuttle malfunctioned’ – are true. But they cannot take the sentence at face value to state what it seems to state. On a Deflationary View, such a statement is either about a change in arrangement of particles, or about no thing at all. The normativity drains away. By contrast, the Constitution View easily accepts the characterization of malfunction on its face-value interpretation, without having to reinterpret it (as van Inwagen does) or to suppose that talk about malfunction is really just talk about concepts (as Lewis does).

#### 4. Practical Realism

Attention to artefacts, I think, will shed light on an old metaphysical issue – namely, realism. Many philosophers take realism to depend on a distinction between what is mind-independent and what is mind-dependent, where they think of quarks, rocks and stars as mind-independent and of after-images, raw feels and thoughts as mind-dependent. (They usually do not think of the ID phenomena that I discussed at the outset at all.) The Constitution View is a challenge to this way of understanding realism.

This distinction between what is mind-independent and what is mind-dependent is coherent, but I believe that its philosophical significance has been vastly overrated. In particular, it does not demarcate what is genuinely real.<sup>16</sup> If it did, then artefacts would be found wanting. Yet, many philosophers who consider themselves to be realists take the distinction between mind-independence and mind-dependence to be the foundation of their view. For example, Ernest Sosa has reported:

What the metaphysical realist is committed to holding is that there is an in-itself reality independent of our minds and even of our existence, and that we can talk about such reality and its constituents by virtue of correspondence relations between our language (and/or our minds), on the one hand, and things-in-themselves and their intrinsic properties (including their relations), on the other. (Sosa 1993, p. 609)

I suspect that ‘mind-independent’ is an example of what J.L. Austin called a ‘trouser word.’ It wears the pants in the family, and ‘mind-dependent’ must be defined in terms of it – as what is not mind-independent.

All ID phenomena are thus mind-dependent by definition, and as we have seen, all artefacts are ID objects: they are not mental items, but they can not exist in a world without minds. Artefacts are not part of in-itself reality independent of our minds and even of our existence. Nothing would be a carburetor in a world without intentional activity.<sup>17</sup> So restricting reality to what is mind-independent will not only eliminate from reality everything that depends on language, but also all artefacts.



A distinction between mind-independence and mind-dependence puts carburetors and dreams, statues and imaginings, and other subjective phenomena on the same side of the ontological divide. I am confident that it is basically wrong-headed to put artefacts and after-images in the same ontological category, and hence I am also confident that the mind-independence/mind-dependence distinction is itself misguided as a basis for metaphysics.

To reject the mind-independence/mind-dependence distinction as the basis of metaphysics is to reject the idea that there is a sharp division between language and “the world.”<sup>18</sup> But, of course, language is not isolatable from the world.<sup>19</sup> The world as we know it is infected with language through and through. The significance of discarding the mind-independence/mind-dependence distinction is this: What exists in reality need not be wholly independent of language. The world as encountered is full of examples. To take one example almost at random: The existence of credit cards depends on social and economic practices that require language, and *de re* features of credit cards inherit that dependence on language.

By rejecting the mind-independence/mind-dependence distinction as a constraint on theorizing, a practical realist opens the door to an integration of metaphysical and epistemological approaches to artefacts. We no longer have to seal off metaphysics from “contaminants” like what we already know from scientific, engineering, or even commonsense sources. The fact that artifacts are intention-dependent in no way counts against their being objects of metaphysical inquiry.

Metaphysical realists standardly think of reality in terms of mind-independence. As I have emphasized, I do not. Hence, I do not call myself a metaphysical realist, but a practical realist: “Realist” because I believe that there may exist objects and properties beyond our ability to recognize them; “practical” because I believe that the world as encountered – that part of reality that includes us, our language, and the things that we interact with – is ontologically significant. We shall make no headway on a philosophical understanding of the world as encountered if we frame our investigation globally in terms of mind-independence vs. mind-dependence. Instead of starting with a priori metaphysical commitments, I prefer to start with what is at hand – for example, with artefacts about which what we know a lot and whose existence we cannot seriously doubt – and try to think clearly about such things as unencumbered with antecedent metaphysics as possible. I want the metaphysics to emerge from the reflection on the world, rather than the world to be squeezed into a preconceived metaphysical strait jacket.

## Conclusion

Our concepts of artefacts are interwoven with concepts of function and malfunction. According to the Deflationary Views of artefacts, however, our artefactual concepts tell us nothing about reality. (Indeed, it is a mystery how we could have come up with such concepts that swing so free of reality in the first place.) According to the Constitution View, our artefactual concepts are a good guide to reality.

Artefacts are ubiquitous and are part of the fabric of human life. According to the Constitution View, a telephone has the property of being a telephone essentially. The property of being a telephone entails a certain intended function (communicating with people remotely situated in space), which, in turn, entails the possibility of malfunction. So, telephones – in virtue of being the *kind* of objects that they are – are always subject to malfunction. When you pick up or try to activate the telephone and do not get a dial tone, the malfunction is as much in the world as telephones are. There are no technical artefacts without functions; there are no functions without the possibility of malfunction. If artefacts are in the world, so are malfunctions.

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## Endnotes

- 1 I am putting aside here consideration of biological function.
- 2 See Baker (2004).
- 3 In other places, I've used the expression 'intentional object' to refer to ID objects. Although I characterized what I meant by 'intentional object' carefully, I am now resorting to the technical term 'ID object' in order to avoid confusion with uses of 'intentional object' associated with Brentano and Meinong.
- 4 As we shall see, I repudiate that notion that the promise is identical to the audible emission, and hence that what is a promise in this world could exist in another world – a world without minds – without being a promise. The relation between the promise and the audible emission is constitution, not identity.
- 5 Amie L. Thomasson discusses varieties of existential dependence in her (1999).
- 6 Peter van Inwagen discusses artefacts in (1990, section 13). David Lewis, as far as I know, never explicitly discusses artefacts, but he is one of the most influential metaphysicians of the day, and I have applied his views (as I understand them) to artefacts.
- 7 van Inwagen (1990).
- 8 Lewis (1991). David Lewis is a four-dimensionalist; it is more accurate to say that on his view the Columbia was a spacetime worm made up of a mereological sum of four-dimensional parts.
- 9 Some eliminativists do not even allow that statements putatively about artefacts are true at all. See, e.g., Merricks (2001).
- 10 cf. van Inwagen (1990, p. 109).
- 11 cf. Lewis (1991, p. 87). I am trying to avoid the language of mereology, because Lewis and van Inwagen differ on whether the particles arranged space-shuttle-wise have a mereological sum. Lewis says yes; van Inwagen says no. I am calling the particles arranged space-shuttle-wise 'an arrangement of particles' in order to be neutral between Lewis and van Inwagen. Neither would quantify over *arrangements* of particles. I think that, metaphysically speaking, Lewis and van Inwagen are on the same side with respect to artefacts.
- 12 See Lewis (1991, p. 81).

- 13 van Inwagen (1990, p. 130). [Emphasis his.]
- 14 For greater detail, see Baker (2000). See also the Book Symposium on Baker (2000) in *Philosophy and Phenomenological Research* 64: 592-635 (2002), and Baker (2002).
- 15 I think that it is an empirical question whether there is an ultimate constituter; but if there is not, then there are still subatomic constituters. See Schaffer (2003).
- 16 For a similar line of thought see Thomasson's (1999).
- 17 See a lengthy discussion of artefacts (specifically, carburetors) in Baker (1995).
- 18 Without such a sharp division, the thesis that all vagueness is linguistic, and hence not de re, becomes problematic. The thesis that all vagueness is linguistic, and hence not de re, requires that language be isolable from the world, from genuine reality.
- 19 I cannot resist an appeal to authority here. "Let us forget once and for all," said David Wiggins, "the very idea of some knowledge of language or meaning that is not knowledge of the world itself." (2001, p. 12).