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Locke, *Essay* III.iii.1-4,6-13,15-18
Abstract Ideas

At *Essay* II.xxi.5, Locke remarked that

> Perception, which we make the act of the Understanding, is of three sorts: 1. The Perception of *Ideas* in our Minds. 2. The Perception of the signification of Signs. 3. The Perception of the Connexion or Repugnancy, Agreement or Disagreement, that there is between any of our *Ideas*. All these are attributed to the *Understanding*, or perceptive Power, though it be the two latter only that use allows us to say we understand.

Locke's survey of our various simple and complex ideas over Book II of the *Essay* was an examination of the first of these three sorts of perception. In Book III, he turned to consider the second sort, the perception of ideas upon the occasion of hearing or reading names or other signs that we have come to associate with those ideas, and he considered some of the philosophical issues that arise in connection with the use of words and language in general. Essay III.iii and III.vi are devoted to two particularly important issues that arise in connection with naming, the problem of universals and the problem of natural kinds. In order to appreciate what Locke was up to in these two chapters, it helps to recall some of the views that have traditionally been taken on these two topics.

The problem of universals is the problem of what our general terms refer to. Since at least the time of Plato, philosophers have wondered whether general terms name general objects, or whether everything that exists is a particular. For example, they have wondered whether, in addition to all the different human beings who have ever existed, there is also such a thing as humanness, which exists distinct from any one human being. Plato famously propounded the latter view, holding that our general terms do not refer to collections of individuals, but to "forms." He held that these forms are more real than particular individuals and that individuals only get their particular characters through "participating" in them. He also supposed that these forms can only be known by the soul or the intellect, and that the particular objects in the sensible world are merely pale imitations, that at best lead our minds to recollect their past experience of these forms.

Aristotle also held that there are general things. But he held that these things do not exist separately from particular individuals. The substantial form of human being, for example, is the general form of humanity existing in each human being. (Aristotle's position gives rise to a "problem of the one and the many," classically articulated by Boethius in his commentary on Porphyry's "Isagoge" — itself a commentary on Aristotle's "De Interpretatione." How can the universal be one thing if it exists in many different instances?)

Other philosophers (troubled, in part, by the untenability of Plato's theory and the one/many problem associated with Aristotle's) held that it is just too implausible to suppose that there are general things. But taking this position meant that these philosophers had to come up with some account of what our general words refer to. Some, collectively referred to as the conceptualists, held that while there are no general things, the mind is able to form general ideas or concepts, and that our general terms name these concepts. (Locke is in this group.) Others, the nominalists, held that the only things that are general are names, and that even they are made general only by being used to refer to collections of particulars that have been observed to resemble one another in some way. (Hobbes is in this group.)

The problem of natural kinds deals with a closely related issue: it asks about the basis for collecting individuals together in one way rather than another. There have been two main positions taken in answer to this question. One position is essentialism. It is the view that there is something, variously called an essence or general nature or substantial form, that is found in certain things and not others, and that makes these things all exhibit common features, behave in a characteristic way, and grow or evolve in the same way over time. It is important to get the direction right here: According to essentialist, it is *because* certain things all have the same essence that they resemble one another, so the essence comes first and because it is present in certain things and not in others it forces them to be alike in various ways. In the case of things capable of reproduction, this essence gets transmitted from the parent to the offspring, ensuring that the offspring will be of the same kind as the parent. Kinds, on the essentialist view, are properly based on these essences, natures, or forms, and classification schemes are right or wrong depending on whether they conform to them. In things capable of reproduction, kinds are indicated by reproductive abilities. For example, the fact that a Labrador retriever and a great Dane can mate and bear fertile offspring is taken to indicate that they share the same essence and so belong to the same species, whereas the fact that a Labrador retriever and a pig cannot produce fertile offspring is taken to indicate that there is no common essence and that the two therefore belong to different species.

By way of further example, consider the following classification schemes:

Species A: Fruits
Species B: Round Red Things
Apples
Apples
Pears
Stoplights

Species A: Mammals
Species B: Things with Four Legs that You Sit on
Horse
Horse
Donkey
Chair

Species A: Female by Sex
Species B: Female by Gender
Mare
Human Female
Ewe
Human Male Transvestite

An essentialist would probably hold that at least some of these classification schemes do not capture "natural kinds," that is, that they do not group things in a way that reflects the essences or forms in them that give them the qualities that they are observed to have. An apple and a stoplight, the essentialist would claim, likely do not have any nature or essence in common. At best, they have different essences (supposing for the sake of illustration that artifacts like stoplights can properly be taken to have essences) that accidentally happen to cause them to exhibit some common features.

The last item on the table, incidentally, is an indication that the problem of natural kinds is no mere metaphysical technicality but is rather an issue that, at least where some kinds are concerned, can be taken to have sociopolitical and ethical implications. If there are true natural kinds, then things that fail to conform to them can be called deformed and monstrous, with all the implications that those terms carry. (Or, things that do conform to them can be declared to be merely one sub-species, not fully representative of the genus as a whole.)

In contrast to essentialism, conventionalism claims that there are no common essences that make certain things all exhibit resembling features. Everything is similar to everything else in some way or other, and the particular similarities we happen to pick on are governed by our own interests and customs and do not reflect any essence or nature in things — at any rate none that we can know of.

For the conventionalist, therefore, there are no "natural kinds" and all of the classification schemes listed on the table above are equally arbitrary.

Over Essay III.iii and vi Locke took a conceptualist line on the problem of universals and a conventionalist line on the problem of natural kinds. The only things that exist are particulars, Locke insisted. There are no Platonic Forms, and no universal things. There are also no essences in things. Or, at least, there are no essences of the sort Aristotle had supposed. That is, there are no natures or substantial forms that are present in certain things and not in others and make those things belong to certain kinds or sorts. Of course, there is something in each individual thing that makes that thing what it is and that makes it cause the collection of ideas in it that it does, namely, the arrangement of solid, shaped and moving parts that accounts for its macroscopic primary qualities, and its secondary and tertiary qualities. But these arrangements of shaped and moving parts are unique to each thing, not shared in common by many. The only things that could even possibly have identical arrangements of identically shaped, solid and moving parts are *perfectly* identical twins, and even in such things, were they to exist, there might be some small variations, if only arising from their being differently located in space and as a consequence interacting in different ways with their environments.

This is not something we tend to think today. Today we think that, at least at the level of materials, there are common forms and essences. We think that substances like water are commonly characterized by having two atoms of hydrogen and one of oxygen, and that elements like oxygen and hydrogen are characterized by their atomic structures. Locke simply did not share this view. Even were he alive today, he would probably have charged that our definitions of water, hydrogen, and oxygen are merely "nominal." Exactly what this means will be explained in a moment, but for now take it to mean that he would have said that these definitions are idealizations that only capture a part of what any actual sample of these materials is like. To back his point up, he would have appealed to impurities and things like isotopes or the impossibility, taught by quantum mechanics, of offering more that a statistical approximation of exactly where, in the entire expanse of the universe, the particles constituting any atom are, in order to make the point that any given sample of water is going to contain SOME impurities, and no two samples exactly the same ones, and that even any given atom of oxygen or hydrogen is going to differ in some ways from any other, often in ways (as with isotopes) that chafe at the hard boundaries we imagine to exist between the elements. Just as our definitions of water, oxygen, and hydrogen only capture a part of what any given sample of these materials is like, so they capture only a part of what makes any given sample what it is, and the part that they capture is ultimately only an arbitrarily selected part,

not something that offers a more natural or appropriate or just definition of the true or real essences of particular things.

Locke thought that the contrary belief in the existence of universal things and shared substantial forms or essences has arisen because of an uncritical attitude to the meaning of names. Though there are no general or universal things, we have, for a number of good reasons, come to use particular words to stand for whole groups of things. Thus, there are general words or terms. People have wrongly supposed that because there are general words or terms, there must be general things that these terms name, and then they have made the further error of supposing that these general things are essences or natures that make the things that possess them be a certain way.

As it turns out, our general terms only name certain general or universal ideas in the mind. These ideas are formed by abstraction. When we abstract we take an idea and separate it from the other ideas that typically surround and accompany it when it is actually perceived, particularly from any ideas that might serve to attribute it to a particular time and place. (As we have already learned, location in time and space individuates and so particularizes things for Locke.)

This abstraction can be of one or the other of two kinds. In one kind of abstraction we consider just one simple idea apart from all others. For example, upon perceiving a sugar cube I might separate the idea of sweetness from all the other ideas that accompany it in the perception and just consider that one simple idea on its own. This sort of abstraction yields what might be called an attributive universal. It is a straightforward operation and Locke was not particularly concerned with it. Another kind of abstraction occurs when I perceive a substance and I abstract a collection of different simple ideas from it. For example, upon perceiving a human being or another animal I might abstract the ideas of extension, a certain arrangement of organic parts, and a power of sensation and motion. Unlike the first kind of abstraction, which generates one simple idea, this second kind of abstraction generates a list of simple ideas (though by no means a complete list of all the simple ideas that occur in the perception of a particular object). This list serves as a formula for identifying a sort or kind of substance (in this case, an animal). It is not a straightforward operation, since we need to wonder whether there is any good reason why this particular, small collection of ideas should have been abstracted from the infinitely rich collection of ideas we can get by attending in different ways to the sensations any given object brings about in us. Locke referred to the idea that arises from this second kind of abstraction as a "sortal." It is these sortal ideas, and not universals or essences, that our general terms name.

QUESTIONS ON THE READING

1. What does the meaning of words depend on? (Note: the answer to this question is only to be found in the complete edition of the text, not in Winkler's abridgment, though it can still be gleaned from passages included here and there in Winkler. For for electronic copy of the complete text see the instructions.)
2. What is the purpose of language?
3. How do words come to have a general meaning? (Keep your answer to #1 in mind when dealing with this question.)
4. How do ideas come to be general?
5. Why is it particularly important that relations of time and place be removed when ideas are made general?
6. What do general words signify, according to Essay III.iii.12? Why do they not signify a number of things?

7. What is the real essence of an individual substance?
8. What is the nominal essence of a genus, sort, or kind of substance?
9. Are there any things whose real essences may be known by us?

NOTES ON THE READING

When we start off naming substances we naturally give each particular we encounter its own name. But it is not feasible to continue doing this forever. Rather than give names to each particular object we encounter, we come up with names that refer to whole groups of objects. In fact, most of the names we use are names of groups of things, not of individual objects. "Table," "tree," "pen," "window" are just some examples. There are surprisingly few things that have their own special names: human beings do, but not animals (just our pets), and in addition to these almost the only individuals that have their own names are the things we map: cities and their streets, geographical and cosmological features and events in human history.

There are a number of good reasons for this widespread use of general terms.

For one thing, if we had to give every dust ball and house fly we came across a different name, we would never be able to remember them all.

But even if we could keep distinct ideas of each different thing in our memories, giving everything its own name would make it almost impossible for us to communicate with one another. I could not say I had been bitten by a mosquito, but would have to use a particular name for that particular mosquito, and since it is unlikely that anyone else would have seen that mosquito or learned its name, I could not give anyone else any idea of what had bitten me.

Finally, even if we could feasibly communicate with one another without using general terms, such extreme particularization in our discourse would impose severe restrictions on our knowledge. If every different dog, rat, and mosquito had its own name, we could not talk about dog bites. We could only talk about Rover bites, Dogbert bites, Oscar bites, Culexus bites, and so on. Indeed, we could not even say that much since each different act of biting would need to be given its own name. Under such circumstances it would be impossible to formulate general rules like the rule that you can get rabies from a dog bite, but not AIDS, or that rats carry bubonic plague, but not yellow fever. Even supposing anyone could notice these general correlations without using general names, it would be impossible to convey that knowledge to anyone else.

But if all things that exist are particular, what are we talking about when we use general terms? There would seem to be three possibilities. We could suppose that our general terms are names of essences that are contained in certain things and not in others and that make those things similar to one another. Alternatively, we could suppose that they are names for certain collections of simple ideas that we have observed to be common to a number of substances and abstracted from the particular circumstances of their original perception. Finally we could suppose that they are names for the individual substances themselves — names that are applied to certain substances in common because, for whatever reason, we have grouped them together. (The difference between the second and the third alternatives is that, according to the second alternative, our name refers to an abstract idea of the respects in which the members of a group resemble one another, whereas on the third alternative our name just refers to all the members in the group. The resemblance causes us to think of all the members in the group together, on the third view, but it is not itself what the general idea is of. The general idea is just of all the members in the group.)

Locke rejected the first of these alternatives for the reasons already given in *Essay* II.viii.7-26 and II.xxiii. Any essences in things would have to be understood to be either something to do with

the primary qualities of their insensibly small parts, which give them the power to have the effects they do on us and other things, or something to do with the substance or substratum in which these primary qualities inhere. But we do not have microscopical eyes and so cannot see the corpuscular constitution of things, and we have only a relative idea of the supposed substance or substratum. In other words, we have no adequate idea of either of these things. We only have ideas of their effects: the collections of simple ideas they bring about in us.

Given this rejection of the first alternative, there are still two ways Locke could go to describe how general terms are related to ideas. He could say that our general terms refer to certain general ideas that we have or he could say that there are no such things as general ideas and that what makes a word general is just that we use it to refer to each one of a whole collection of different objects.

Neither of these alternatives is an entirely happy one. If you take the first alternative then you have to explain what a general idea is and how it is possible to have one. Locke's British successors, Berkeley and Hume, thought it is impossible to have general (or, as they called them, abstract) ideas, so they took the second route. But in III.iii.12 Locke rejected this position on the ground that it would mean that all of our general terms would have to be collective rather than distributive, that is, that they would have to refer to the group as a whole rather than to each member of the group individually. We could say that cats and dogs are on the Earth (because all of them are), but not that a dog is unable to pull a two hundred pound weight (even though just eight or ten of them hitched to a sled could manage). While we do sometimes use terms like "cat" and "dog" to refer to all the cats or dogs considered collectively, Locke believed that we also use "cat" and "dog" to refer to something common to each cat or each dog considered individually. (Perhaps some common actions, passions, abilities or manners of behaviour, rather than some common appearance or colouration.) For Locke, this meant that there must be an idea corresponding to the individual use, and that can only be an abstract idea of what is common to each cat or dog.

Having argued that our general terms refer to abstract ideas, Locke went on to consider how these ideas might be formed. He supposed that we start off with an experience of particular substances, obtained from perception. Recall that our perceptions of particular substances consist of a number of simple ideas, commonly observed to go together. Though they go together, these simple ideas are all perfectly distinct and discriminable from one another by an attentive mind. Any one of them can therefore be easily separated from all of the rest. This is what we do when we form our abstract ideas of uniform qualities, like black, white, red, and hot. This operation, whereby many of our ideas of attributes of things is formed, is unproblematic and Locke did not discuss it further. However, we also perform another kind of abstraction where we do not just separate a single simple idea from all of the rest, but a collection of simple ideas from all of the rest, forming an abstract idea of a type or sort of substance. This is the operation that Locke particularly wanted to understand. What is it that determines us to collect and abstract a certain group simple ideas from out of the entire collection we receive when we experience a particular substance, rather than some other group?

The short answer to this question is that abstraction is guided by the perception of similarity or commonality between different particulars. Having once obtained experiences of a number of different, particular substances, we compare them with one another. Each of these substances is described by a distinct collection of simple ideas. However, some simple ideas or collections of simple ideas are observed to commonly occur in more than one substance.

Once we notice that a number of different substances resemble one another by all including certain simple ideas among the other ideas in their bundles, we abstract or separate these common simple ideas and represent them by themselves. As long as the abstraction leaves out any reference to a specific time and place (which for Locke serve to individuate things from one another, as *Essay* II.xxvii taught), the idea thus formed will not refer to any one substance but will rather represent just what is common to the entire group of substances that share those resembling characteristics. It will be, in effect, a general idea. Having formed this idea we proceed to give it a name. The definition of this name is just the list of names for the simple ideas that go into the abstract idea.

Here is an example of what Locke had in mind. We start off identifying different, particular substances, say, our mothers, our aunts, our nurses. We then notice that all of these substances, however different they may be from one another in other respects, all give us certain simple ideas. We abstract the common simple ideas from the ones that vary from substance to substance and form an idea just of the union of the common simple ideas. We give this idea a name: woman. This name serves as a general term that we can use to refer to all the substances that share those same simple ideas.

Sometimes, the simple ideas that we abstract are ones that go together in the more complex ideas we form of tertiary qualities, that is, powers in things to affect other things in certain ways. The power to mate and reproduce viable offspring is one example, and one that we allow to play a significant role in our identification of animal species.

Having formed general ideas for a number of specific kinds of things, we also form yet more general ideas for their genera. For example, we notice that all the substances we call women share something in common with all the substances we call men. We abstract this more restrictive set of common simple ideas and give it the name, human being. Then we notice that all human beings share something in common with all the substances we call lions, elephants, dogs, cats, horses, and so on. We abstract this more restrictive set of common simple ideas and give it the name, mammal. And so on for the formation of more and more general concepts.

As Essay III.iii.7 indicates, Locke took this procedure to actually reflect our developmental psychology. He supposed that children first learn to name particular objects and only gradually develop the ability to abstract more and more general concepts.

Insofar as they function to pick out sorts of things, Locke called abstract ideas “sortals.” Other, equally good names for them are “genus concepts,” or “generic concepts.” You should not confuse sortals or generic concepts with attributive universals. In the tradition Locke was brought up in, people would refer to properties, qualities and attributes like “red” or “sweet” or “triangular” or “just” as universals. But for Locke, these things are not sortals. They are simple ideas or simple or complex modes. What makes an idea a sortal is that it refers to a group or sort of substances, not to a single property, quality or attribute that some substance or some number of substances may have. Sortals are like complex modes, however, in that they are made up of a number of simple ideas. But whereas complex modes are created by combining a number of simple ideas together in such a way that they make up some quality, property or attribute that is thought of as being unable to exist on its own, sortals are created by abstracting a number of simple ideas from a perception in such a way as to still refer to some collection of substances, the members of which are each able to exist on their own.

Locke observed that authors of logic textbooks have commonly held that the proper way to define sorts of thing is to list the genus to which all the things of that sort belong, and then mention the specific thing that differentiates that sort from the other sorts or “species” of things that fall

under the genus (the so-called "specific difference"). One still finds this practice recommended in logic textbooks written today. By way of illustration, the sort, human being, would be defined by giving the genus, animal, and the specific difference, rational. Locke objected to this practice because it conveys the impression that in specifying the genus, animal, we are identifying some form that all the different sorts of things that fall under the genus share in common, and that in specifying the specific difference we are identifying some kind of essence that makes all the things in the sort exhibit the features characteristic of that particular sort or species. In fact, we are doing neither of these things. The name for the genus is just the name for a collection of simple ideas observed to be shared in common by a group of substances, and we only use the name for the genus because we are too lazy to list all of the names for these simple ideas individually (or, worse, because we do not really understand the exact signification of the general term and are merely covering up our ignorance). The name for the specific difference is simply the name for a further, particularly important, simple idea or collection of simple ideas. We ought, if we are to avoid ambiguity in language and the temptation to suppose there are universal things and essences, to always define general terms by giving the list names for all the simple ideas they are intended to arouse in the mind of the hearer, and should not talk about genera and specific differences.

Locke's account of general terms has some implications that should be remarked upon:

(i) If Locke is right, then our general terms do not name general or universal things. They only name abstract ideas. These abstract ideas are collections of simple ideas observed to be common to our perceptions of a number of different substances. As such, they have some foundation in the nature of things. Different things have to resemble one another in some way or other for us to be able to abstract ideas of the ways they resemble one another. But abstract ideas are also artifacts of our understanding to the extent that we decide which of the infinitely many different sorts of resemblances between things to notice. As a cursory consideration suffices to show, everything resembles everything else in some way or other (though the way in which thing A resembles thing B may be quite different from the way in which thing A resembles thing C or thing C thing B). So abstracting ideas of certain resemblances will cause certain things to be grouped together, while abstracting other resemblances will cause those same things to be grouped together in a different way. (For instance, the people in a room may be grouped in one way by age, in another by sex, in a third by eye colour, in a fourth by weight, in a fifth by athletic ability, and so on.) Any one thing can in principle be grouped with any other thing, simply by abstracting an idea of the appropriate resemblance, though then what other third, fourth, and further things get included in this group is determined by the natures of things, that is, by which other things also have the resembling feature, and is not something that we can determine. But aside from this one limitation, the organization and classification of things on the basis of resembling ideas is something that we do. We pick what resemblances to abstract and we pick what names to give to the abstract ideas thus formed.

(ii) On Locke's account, the definition of a general term is just the list of simple ideas it refers to. But it is quite possible that different people might abstract different sets of resembling, simple ideas from the same collection of individuals. Thus, a child may look at various pieces of gold and abstract no more than the idea of a yellow, uniformly coloured, hard, solid, smooth body, whereas a metallurgist would understand gold to have a certain mass, and characteristic mechanical and chemical properties, such as malleability and fusibility. The child's definition will obviously encompass a much larger collection of things than the metallurgist's. For example, the child will consider brass to be gold. We can expect this situation to be replicated quite broadly. The same general term can be expected to be defined differently by different people and different cultures, or

by people with different occupations or interests. But as long as people are explicit about exactly what simple ideas they mean to include under and exclude from the meaning of a general term, there is no right or wrong in the matter. For instance, one person or one culture may understand the general term "human being" to include the idea of independent viability, and so to exclude fetuses and people on life-support. Another person or culture may take certain intellectual abilities to be part of the definition of a human being and so include whales, dolphins, and elephants, or even certain computing devices under the definition of human being while excluding very young children or people in a persistent vegetative state. And no one could criticize these definitions for being right or wrong. Definitions could only be criticized for being vague or ambiguous. (Of course, once people have defined their terms a certain way, it is still a serious question what rights and privileges might be due to the individuals collected together by the terms. Thus, issues of abortion, animal rights, and euthanasia are not to be decided by the meaning of words. Even if "human being" is broadly defined, it might still be a question whether all human beings deserve the same rights, and even if "human being" is narrowly defined, it might still be a question whether certain rights ought not to be extended to so-called non-human individuals. The flip side of this coin, however, is that claims about the essential nature of human beings cannot be used to decide these questions. For, if Locke is right, we have no knowledge of any real essence. This calls for further comment:)

(iii) If we understand the term "essence" to refer to something a substance has to have in order to be considered a thing of a certain kind, so that were it to lose this thing, it would be destroyed or transformed into a different kind of thing, then our abstract ideas are the only "essences" we know. But since our abstract ideas are produced by our understandings, it follows that the essences of things, likewise, are not something internal to the things themselves, but something we ourselves have created. It is only because we have decided to notice certain resemblances and have abstracted ideas of them that the simple ideas contained in those abstract ideas have been elevated to the status of ideas of essences that things have to have. As a matter of fact, *everything* is essential to an individual thing considered just as an individual thing (which is the same as to say that nothing is, or that no change deserves to be considered to be more essential than any other). Clip my fingernail, and I am no longer the same individual I was before. Knock me on the head and leave me catatonic and in a persistent vegetative state, and I am no longer the same individual I was before. If we think that the latter change is more fundamental than the former, and deprives me of my essence as a human being, whereas the former change makes no difference, this is not because there is any foundation in nature for this belief, but only because of the particular resemblances we have chosen to abstract and have given names to. We only consider me to be human (as opposed to "vegetative") insofar as I am rational, and so we think that depriving me of my rationality deprives me of something essential to my nature. But really a knock on the head, which rearranges my brain atoms, and the clipping of a fingernail, which separates some of my fingernail atoms, are both equally motions that alter the previously existing arrangement of the atoms that make me up and so both equally changes in the individual lump of material that I am. It is just that the knock on the head alters something that we think has to be present in order for this lump of material to be called by a certain name, whereas the clipping of the fingernail does nothing to change the applicability of that name.

Locke captured this point by saying that the essences we know and work with are merely "nominal." That is, they are determined by the definitions of the names we have chosen for our abstract ideas, definitions that themselves consist just of lists of those simple ideas we have found

to be common to our perceptions of a number of different things, and selected from among a large number of other commonalities.

(iv) However, if we understand the term "essence" to refer to an Aristotelian substantial form or nature that makes things of the same sort be like one another, or to refer to a definite number of archetypes or blueprints that all existing things have been copied from, then there are no such things as essences. Their existence is already called into question, in Locke's mind, by the existence of strange births or, as he puts it, monstrosities. As he saw it, were it the case that each true sort of thing had its substantial form or nature, common to all the members of that sort, and that this form or nature made all those members exhibit the same characteristics, then all things sharing the same form or nature ought to be exactly identical, except for their locations in space and time, and there ought to be no variations between individuals of the same kind, and certainly no mutations in those kinds capable of reproduction.

Admittedly, there are ways to reconcile essentialism with the occurrence of strange births. We need merely suppose that something unusual happened to damage the substantial form or nature in the process of its transmission from parent to offspring. But Locke claimed that this is to build castles in the air. Even if there were such forms or natures, we have no idea what they are, and no idea what might be responsible for their being transmitted on some occasions and not on others. Rather than imagine that we arrange individuals into sorts or kinds on the basis of their possession of some supposed form or nature that we know absolutely nothing about, we should recognize that all our classifications are based on our own abstract ideas, which have been formed simply by collecting together those simple ideas that a number of different substances share in common, apart from any knowledge of what it may be in those individuals that is responsible for making us perceive those simple ideas rather than any others.

(v) Locke went on to admit that there is undoubtedly some constitution of insensibly small parts in each thing, responsible for making that thing give us the collection of ideas it does. He referred to this as the "real constitution" or "real essence" of a thing. Whereas Aristotelian substantial forms or natures are hypothetical and most likely non-existent, Locke was sure that real constitutions exist. However, he also thought that real constitutions are not shared in common by all the members of a sort or kind. Each individual has its own real constitution, responsible for making it that individual thing with all of its particular, individuating characteristics and powers. This real constitution is different from the real constitution of any other thing, however similar the two things may be. Of course, it would not be unreasonable to suppose that the real constitutions of similar things might also be similar (though the inference is not absolutely certain — just as differently constituted clocks can still tell the same time, so different real constitutions might well be responsible for the same manifest qualities and powers in individuals). But because we lack microscopical eyes, and so cannot see the primary qualities of the insensibly small parts of bodies or determine how these parts are arranged or moving, it follows that real constitutions, together with any similarities there may be between them, are as unknowable to us as Aristotelian substantial forms or natures. Thus, classification on the basis of supposed similarities in real constitution is as impossible as classification on the basis of the supposed possession of a common substantial form or nature.

Thus, all that we can base our classifications upon are similarities in the collections of ideas that we get from things when we look at them: that is, their nominal essences.

This position on essences raises a number of troubling questions. If the real essence of each individual thing is itself individual, what accounts for the fact that offspring resemble their parents

(given that, even granting the occurrence of monstrosities, there is *some* significant degree of this similarity across generations)? More broadly, what accounts for the validity of general rules? Why is it, if there are no common essences or natures in things, that dog bites should produce rabies but not AIDS, or rat bites bubonic plague but not yellow fever? That certain diseases should be produced by certain agents and not others, or, more generally, that certain effects should follow from certain causes and not others, are simply broader versions of the same question we ask when we ask why offspring share the characteristics of their parents. If the real essence of every distinct thing is what gives the things its powers, but the real essence of every different thing is different, then how can we infer that same or similar things will have same or similar effects? If we account for this by supposing that similar things may have similar real essences (and there are indications that Locke is willing to countenance this), then are we not saying that there may be natural kinds after all, and that some classification schemes may be more correct than others depending on whether they group objects by the true commonalities in their real essences or not, even though we may not actually be able to determine what the commonalities in the real essences are?

These are questions that Locke considered in more detail in *Essay* III.vi.

24b
Locke, *Essay* III.vi.1-9,12,14-19,23,25-26,28
Essence

Locke's main project in *Essay* III.vi is to undertake a more exact investigation of the nature of the relation between the nominal and the real essences of things.

Recall that, according to the theory of the meaning of general terms presented in *Essay* III.iii, the "nominal essence" of a thing is a collection of simple ideas that are commonly perceived both in it and in a number of other things, and that consequently have been abstracted and referred to using a single name. Thus, the nominal essence of a human being is whatever collection of simple ideas we form when we look at a number of human beings, notice that they resemble one another in certain respects, form an abstract idea just of these resembling features, and give that idea the name, "human." There is nothing special about the name, nothing special about the individuals we consider together, and nothing special about the resembling features we pick out in those individuals. We may pull a collection of individuals from anywhere we please, consider them together, pull out any resembling features we please, and give the abstract idea so constructed any name we please. The only constraint on this operation is that the individuals we consider together all have to exhibit the resembling features we pick on, on pain of being ejected from the group, and any other individuals also exhibiting the features have to be admitted to the group. But we can pick what resembling features we want, give that abstract idea a name, and consider it to define a sort or kind of thing.

In contrast to the "nominal essence" of a thing, which has to do with what is contained in the abstract idea we form of its sort or kind, its "real essence," or better, "real constitution," is the arrangement of its insensibly small, solid, shaped, and moving parts. This constitution gives the thing its power both to affect other things in the ways that it does and to bring about the ideas that it does in us. It also literally constitutes the macroscopic primary qualities of solidity, shape, size, and motion of the thing. Crucially, the real constitution does not just bring about those few ideas that are included in the "nominal essence" of the thing, but *all* the ideas that we get when we perceive it.

That we only know the nominal essence and not the real constitution of things is a consequence Locke frequently remarked upon in *Essay* III.iii and that he took to be principally established by the fact that we do not have microscopical eyes. In *Essay* III.vi his main purpose was to establish a rather different and more surprising fact about the relation between nominal essences and real constitutions. This is that our view of what qualities and powers are necessary or "essential" to things can only be determined by the nominal essences of things and not by their real constitutions. Real constitutions are in principle incapable of serving as a basis for the classification of things, even apart from any reference to the fact that we know nothing about them. Indeed, far from serving to sort things in to natural kinds, the real constitutions of things are sorted into kinds by their nominal essences, and this is not merely a consequence of our ignorance of real constitutions, but the way things would be even if we knew the real constitutions. Those features of the real constitutions of things that are essential to the things (the properly denominated "real essences" of things) are dictated by their nominal essences, so that nominal essence determines real essence and not the other way around.

In drawing this conclusion Locke deepened the anti-essentialist conclusions of *Essay* III.iii. One could read *Essay* III.iii and still come away thinking that all that Locke had done was cast doubt on our ability to know the real essences that divide things in to natural kinds. But, by the end of *Essay* III.vi Locke had not just claimed that real essences are unknowable, but that they supply no ground for a "natural" division of things into kinds.

Even today, it is possible to appreciate something of the unsettling character of Locke's conclusions in *Essay* III.iii and *Essay* III.vi when we consider how appeals to natural kinds are often invoked to justify positions on the rights of homosexuals, fetuses, or animals. But in Locke's day, human beings themselves were considered to belong to different kinds. This supposition supported the stratification of British society into aristocratic and common classes, fostered views of the inferiority of other races, and helped to justify slavery. Locke's attack on natural kinds supplied the epistemological and metaphysical justification for a radical republicanism that rejected these hierarchical views, and it helped to inspire and legitimate the American and French revolutions.

QUESTIONS ON THE READING

1. Locke observed that what appears like a star to us may look like a sun to the inhabitants of distant planets. Why does this show that our classifications of things into sorts depends on what complex ideas we receive from them rather than on natures or essences in things that make them what they are?
2. How did Locke distinguish between real and nominal essence?
3. What is the nominal essence of human being? the real essence?
4. What must be the case before a particular individual can be considered to have an essence?
5. Can individual particulars, considered just in themselves and apart from reference to any group, have real essences? why or why not?
6. Distinguish between real essence and real constitution.
7. What significance did Locke attach to the fact that we cannot explain why lead and iron are malleable, but antinomy and stones not, or why lead and antimony are fusible, wood and stones not? (Note that this question is based on material that only appears in the complete text of the *Essay* and that is not found in Winkler's abridgment. For for electronic copy of the complete text see the instructions.)

8. What did Locke mean by saying that there are no "chasms" or "gaps" in the visible corporeal world? (Note that he did not mean to deny that there is empty space or vacua.)
9. What significance did Locke attach to the fact that different people understand the same kinds of things to have different nominal essences?
10. If it is up to the understanding to construct nominal essences, then why are sheep-headed oxen and other fantastic arrangements of complex ideas not considered to be nominal essences?

NOTES ON THE READING

Locke's position in *Essay* III.vi is striking. We naturally think that since it is the real constitution of things that makes them what they are, that same real constitution ought to sort them into true or natural kinds, whereas their nominal essences are merely arbitrary or conventional inventions of the understanding, which has chosen to notice and abstract certain resemblances between things and not others. But that the real constitutions should not only not determine natural kinds, but be themselves sorted into kinds by the nominal essences may appear extraordinary. How could Locke both grant that there are real constitutions and yet take the merely nominal essences to be what determines the properly essential features of these real constitutions?

Locke offered a single, but multi-layered argument for his position over the course of *Essay* III.vi.

The argument opens by first establishing a preliminary point: that there is nothing essential to individuals considered just as individuals.

To establish this point, Locke observed that if you do not consider what kinds an individual might or might not belong to, but simply consider it on its own, then it appears as a unique individual and any change whatsoever, however minuscule, is a change in that individual nature, and turns it into something different from what it was before. In other words, everything that an individual has in it — all of its qualities and powers — are equally essential to its individual nature. But to say that *all* the qualities and powers of an individual's nature are essential is tantamount to saying that *none* are. For, if everything is essential, then nothing is accidental, and if nothing is accidental, then it does not mean anything to call a quality essential, since there is no contrast implied with anything non-essential.

It is only when individuals are considered as belonging to some kind or other that some of their qualities and powers acquire the status of being essential as opposed to accidental. If an individual belongs to a kind, then we can say that loss of the qualities or powers characteristic of that kind would change the thing in kind whereas loss of any other qualities or powers would still leave it the same kind of thing. This creates the difference between "essential" and "accidental" qualities.

But this also means that an individual must be considered to belong to a kind *before* it can be considered to have an essence.

Having established these preliminary points, that nothing is essential to individuals, and that individuals must be considered to belong to a kind before any of their qualities or powers can be considered essential, Locke proceeded to his main argument. How, he asked, do individuals come to be of a sort or kind?

It cannot be, he claimed, in virtue of their real constitutions, since the real constitution of each individual is different. Each distinct thing has its own real constitution, so classifying things by their real constitutions would force us to recognize as many classes of things as there are individuals and would get us nowhere.

But if we cannot know the real constitutions of things, how can we claim to know that they are different in each different thing? Locke had some things to say by way of answer to this question, but before considering them it is worth while to digress briefly to mention a background consideration.

While Locke thought that we cannot know exactly what the real constitutions of things are, his position in *Essay* II.viii.7-26 is that we can know that they have real constitutions, and that we can know that these real constitutions consist of some sort of arrangement of insensibly small, solid, shaped and moving particles. We just cannot know exactly what arrangement. Moreover, we can know that all the manifest qualities of things (their macroscopic primary qualities and observable powers) supervene on their real essences. Otherwise put, Locke conceived of the real constitution as responsible for building up the visible or macroscopic primary qualities of a thing, and for giving it all of its powers to affect other things and bring about type (i), (ii) and (iii) ideas in us. Since the real constitution brings about the manifest qualities, we can suppose that wherever the set of manifest qualities is different, there must be some difference in the real constitution. (Otherwise, the real constitution would not account fully for why the manifest qualities are the way they are. If the same real constitution could bring about different sets of manifest qualities in different things, then there would have to be something more at work than just that real constitution to explain why the qualities are different when the real constitution is the same. But, *ex hypothesi*, the real constitution is supposed to be what alone produces the manifest qualities.)

But while we can infer that different sets of manifest qualities and powers indicate a difference in the real constitution of things, we cannot infer that identical manifest qualities and powers are produced by identical real constitutions. Just as there are many ways to build a clock that will still tell the same time, so many different real constitutions could conceivably be responsible for giving a thing the same manifest primary qualities and powers. Thus, the most that an observed similarity in manifest qualities and powers could do is establish the possibility of a similarity in underlying real constitutions, not prove that there must be such a similarity.

Whenever the members of two sets, call them S and U, are related in such a way that no two different members of S could be correlated with a single member of U, but two or more members of U could be correlated with the same element of S, then S is said to supervene on U. In the case at hand, the elements of S, the supervenient set, are the collections of manifest qualities and powers characteristic of things, and the elements of U, the subvenient set, are the real constitutions those things could possibly have. Since differences in the manifest qualities and powers of things imply differences in their underlying real constitutions, no two members of S could be correlated with (or, in this case, caused by) the same member of U. But since the same collection of manifest qualities and properties may be produced by different real constitutions, two or more members of U may be correlated with the same member of S. This is why it can be said that, for Locke, the manifest qualities and powers of things supervene on the real constitutions of things, whereas those real constitutions underlie or subvene on their manifest qualities and powers.

With these remarks on the nature of the supervenience relation between manifest qualities and powers in objects and their underlying real constitutions in mind, let us return to Locke's reasons for saying that each individual thing has its own real constitution.

As Locke noted at *Essay* III.vi.8, however similar the members of a certain sort or kind may be in some respects, they always differ significantly from one another in other, so-called "accidental" respects. Even different lumps of gold, sulfur, antimony, or vitriol, Locke thought, do not all have exactly the same qualities or powers. But the real constitution of an individual thing is that

arrangement of insensibly small, shaped, solid, and moving parts that is responsible for *all* of its qualities and powers. The real constitution does not just produce those qualities and powers in the thing that are considered essential, or that we suppose characterize it in its "pure" form, but also those that are accidental, or that we think that are only present because of the "impurities" the particular sample of the material we are studying contains. Therefore, since there are different "accidental" qualities and powers in individuals of the same species, and since differences in the supervenient qualities and powers indicate differences in the underlying real constitutions, the real constitutions of different individuals of the same species must be different from one another as well.

It might be objected that even if we grant this point, it still only follows that we could not consider the *whole* of the real constitution of an individual thing to be what determines its membership in a sort or kind. But might we not still be able to take a *part* of this constitution to do the job? After all, if the real constitution is what is responsible for the entire collection of ideas we get when we perceive a particular thing, and the collection of simple ideas we get when we perceive one particular contains some ideas in common with the collection we get when we perceive another particular, then it is at least possible that this agreement in manifest qualities is due to the individuals having some commonalities in their real essences. Admittedly, the inference from similarities in supervenient, manifest qualities and powers back to similarities in underlying, unknowable real essences is uncertain. But surely it is at least possible that an underlying similarity in real essences accounts for the manifest similarity in supervenient qualities and powers. Were there such a thing, it would certainly deserve to be considered an essential part of the real constitutions of things, or a "real essence."

Locke had two main reasons for dismissing this fall-back position. One rests with an appeal he already made at the close of III.iii to the existence of mutations or "monsters." Were all the members of a species to possess a common, fixed, "real essence" that they transmit to their offspring, then it would be a mystery why, mutations should occur. This is especially the case if the mutations are random and not caused by any apparent interference with the usual process of generation, and if they are viable, capable of reproduction, and possessed of their own special adaptations and powers, so that they cannot simply be dismissed as incomplete or defective copies that only lack some of what was in their parents due to some interference with the generative process. In this case, Locke speculated, it is much more plausible to attribute mutations to the emergent effect of subtle but important differences in the supposedly common "real essences" of the parents, rather than hold to the supposition that the real essences are identical in all the members of the species.

Locke's second reason rested with an appeal to the evidence for the existence of a through-going continuity in the species of things. Between any two species of animal, vegetable, or mineral, we have so often found there to be intermediate species (Locke mentioned flying fish, fishy-tasting birds, sea mammals, amphibians, and even mermaids) that it is a reasonable induction that somewhere in the heretofore unexplored parts of the world, or perhaps on other planets, there will be found some species that is intermediate between any two given species whatsoever. Moreover, even within species it is often obviously the case that there are individual variations that make some members of one species look so similar to some members of another that they could almost be seen to have more in common with members of the other species than with members of their own. But, if we are going to allow inferences from similar manifest qualities back to similar real essences, then by parity of argument we are going to have to allow that the continuity of

species indicates an underlying continuity in the real essences of things. But on a continuum all divisions are arbitrary. Just as a line may be cut at any point along its length, or cut into as many different segments as one pleases, so a continuum of real essences for different forms of life could be divided into arbitrarily many different species and there would be nothing in the real essences to mark where the divisions ought to go.

Let us sum up the course of this rather long chain of argument. Locke's claim is that it may well be that, if a group of individuals all bring about the same collection of simple ideas in us, then the real constitutions of those individuals will have some "real essence" in common. But given the variance of individuals within species, the occurrence of mutations, and the continuity of species, it is likely that the real constitutions of all individuals are similar to the real constitutions of all other individuals in some way or other, and that there are no sharp breaks or gaps in the continuum of varying real constitutions that might justify drawing a demarcation between species in one place rather than another.

Of course, this does not present an impediment to our ability to classify things, since our classifications could never have been based on anything we discerned in the real constitutions of things in any case, given that we cannot perceive those constitutions. Nonetheless, the fact that there is nothing in the real constitutions of things to justify classifying things in one way rather than another leads to an ironic result: that the classification of essential components of real constitutions or "real essences" depends on our identification of nominal essences. It is by attending to and abstracting certain resemblances in the collections of ideas we receive from things (certain nominal essences) and ignoring others that we privilege certain possible similarities in the underlying real constitutions as "essential" and dismiss others as "accidental." Had we chosen to focus on other similarities, abstracted a different idea of those similarities, and made that into the nominal essence of a species, then a different collection of the similarities in the real constitutions of things would have been picked out as "essential." Thus, it is the nominal essences that determine the real essences, or better, that determine those features in the real constitutions of things that we pick out as essential) rather than the other way around. And that is just Locke's point in *Essay* III.vi.

This ultimately conventionalist position on our knowledge of the sorts or kinds of things is once again one that had disturbing implications for many of Locke's contemporaries. These implications went beyond the republican ones mentioned earlier. In discussing the continuity of species, Locke remarked that there may be as many different sorts or kinds of thinking things as there are of bodies. But between the lines of this remark was the suggestion that there may also be a continuity between the species of spirits and of bodies, as well as between spirits and other spirits or bodies and other bodies. Might that mean that there is no sharp line to be drawn between mind and body? And if the way we classify things into sorts or kinds has no ultimate foundation in commonalities in the real essences of different things — or rather, if any classification system whatsoever could be found to have some foundation in some commonalities or other in the real essences of things (which is to say the same thing) — then what about the distinction between minds and bodies itself? Might that be equally merely nominal?

In *Essay* III.vi these are merely disturbing questions, and yet further indications of a systematic program, initiated in the chapter on substance, advanced in the chapter on identity, and yet further prosecuted here, to undermine the foundations of the distinction between mind and body. Locke was to declare himself yet more fully on this topic in Book IV, with a passing remark on the possibility that matter could be made to think that made his intentions fully explicit and ignited a storm of controversy.

COMMENTARY ON THE TEXT

At the close of the previous chapter, a number of troubling questions were raised about Locke's position on essences and universals. We are now in a position to see how Locke might have answered those questions. That similar causes should have similar effects, and in particular that in generation effects should also resemble their causes (as offspring resemble their parents) is something Locke could have explained by allowing that there may well be similarities in the real constitutions of causes — similarities that lead to similar effects in their interaction with other things, and that are transmitted to their progeny in generation. But this does not mean that there is an ultimate foundation for classification after all, for there is a flip side to this observation. Just as similarities in the real constitutions of things of a certain kind may be what accounts for the fact that all of those things tend to have similar effects, so dissimilarities in the real constitutions of those same things are certainly what accounts for the fact that not all of those things behave in exactly the same way. (And however similar two individuals may be in some effects and behaviours, they are always dissimilar in others.) The fact is that just as all things can be found, with a bit of ingenuity, to resemble any other thing in some way or other, so all things can be found, with a bit of ingenuity, to behave like any other thing in some way or other. And just as we have chosen to notice certain resemblances in qualities while ignoring others when forming our abstract ideas of the sorts of things, so we have chosen to notice certain resemblances in powers while ignoring others. By focusing on certain powers while ignoring others, we in effect focus on certain possible commonalities in the real constitutions of things while ignoring others. Thus, here too, it is the nominal essences (the manifest powers in things that we choose to notice) that determine the real essence (or those conjectured commonalities in the real constitutions of different things that we choose to consider essential), and not the other way around.

ESSAY QUESTIONS AND RESEARCH TOPICS

1. In the Introduction to his *Principles of human knowledge* of 1710, George Berkeley attacked Locke's account of abstract ideas. Study Berkeley's critique of Locke and write a summary of his main objections. Are the objections fair? Could Locke respond to them? What is Berkeley's alternative position on the meaning of general terms? Might equally (or more) serious objections be leveled against Berkeley's own account?
2. For Locke, the meaning of a word is the idea it is used to name. Ideas are also private mental occurrences, known only by the person who has them. This means that everyone's language is private, the words in it being used to refer to things that only that person knows. The intelligibility of a private language was famously attacked by Ludwig Wittgenstein, *Philosophical investigations* (Oxford: Blackwell, 1953), p.269ff. Recount Wittgenstein's argument and determine (i) whether Locke's account of language is ultimately a "private language" account or rather an account that recognizes that meaning is ultimately determined by factors external to the individual's mental states, and (ii) whether Locke's account can be defended against Wittgenstein's attack.
3. At the outset of the *Investigations* Wittgenstein attacked the traditional Lockeian account of classification on the basis of observed similarities and proposed an alternative account of how it is that we group things like dogs together by appeal to the notions of a language game and of family resemblance. Outline Wittgenstein's account and determine whether it is superior to Locke's. Does Locke's view that we might classify objects on the basis of

their tertiary qualities or powers provide him with a way of evading Wittgenstein's criticisms of the traditional account?

4. Has Locke's conventionalism about real essences been refuted by modern chemistry? (That is, do modern definitions of the elements in terms of the numbers of protons in their nuclei constitute definitions in terms of "real essences" that are not merely conventional, but grounded in nature?) In giving your answer, you should consult the discussion of this issue in Michael Ayers, *Locke, epistemology and ontology*, 2 vols. (London: Routledge, 1991), vol. II, ch. 7, pp. 78-90, drawing on earlier work by Saul Kripke, "Naming and Necessity," in Donald Davidson and Gilbert Harman, eds., *Semantics of natural language* (Dordrecht, 1972), and Hilary Putnam, *Philosophical papers II: mind, language and reality* (Cambridge: Cambridge University Press, 1975).