New Essays on Human Understanding

G. W. Leibniz, 1637

Preface

The *Essay Concerning Human Understanding*, produced by the illustrious John Locke, is one of the finest and most admired works of the age. Since I have thought at length about most of the topics it deals with, I have decided to comment on it. I thought this would be a good opportunity to publish something entitled *New Essays on Human Understanding* and to get a more favourable reception for my own thoughts by putting them in such good company. . . . It's true that my opinions often differ from his, but far from denying Locke's merit I testify in his favour by showing where and why I differ from him when I find that on certain significant points I have to prevent his authority from prevailing over reason. …

Our disagreements concern points of some importance. There is the question whether, as Aristotle and Locke maintain,

> the soul in itself is completely blank like a page on which nothing has yet been written; everything inscribed on it comes solely from the senses and experience; [In this work 'soul' = 'mind', with no religious implications.]

or whether, as Plato and even the Schoolmen hold,

> the soul inherently contains the sources of various notions and doctrines; none of these comes from external objects,

> whose only role is to rouse up the notions and doctrines on suitable occasions. . . . .

Julius Scaliger used to call these sources 'living fires or flashes of light' hidden inside us but made visible by the stimulation of the senses, as sparks can be struck from a steel. We have reason to think that these flashes reveal something divine and eternal: this appears especially in the case of necessary truths. That raises another question: Do all truths depend on experience, i.e. on generalizing from particular cases, or do some of them have some other basis? ·This connects with the previous question, for it is obvious that if some events can be foreseen before any test has been made of them, we must be contributing something from our side·. Although the senses are *necessary* for all our actual knowledge, they aren't *sufficient* to provide it all, because

> The senses never give us anything but *instances*, i.e. particular or singular truths. But however many instances confirm a general truth, they aren't enough to establish its universal necessity; for it needn't be the case that what *has* happened always *will*—·let alone that it must·—happen in the same way.

For instance, the Greeks and Romans and all the other nations on earth always found that within the passage of twenty-four hours day turns into night and night into day. But they would have been mistaken if they had believed that the same rule holds everywhere, since the contrary has been observed up near the North Pole. And anyone who believed that it is a necessary and eternal truth at least in our part of the world would also be mistaken, since we must recognize that neither the earth nor even •the sun exists necessarily, and that there may come a time when •this beautiful star no longer exists, at least in its present form. . . . From this it appears that necessary truths, such as we

find in pure mathematics and particularly in arithmetic and geometry, must have principles whose proof doesn't depend on instances (or, therefore, on the testimony of the senses), even though without the senses it would never occur to us to think of them. It is important to respect this distinction ·between 'prompted by the senses' and 'proved by the senses'·. Euclid understood this so well that he demonstrated by reason things that experience and sense-images make very evident. Logic also has many such truths, and so do metaphysics and ethics. . . .and so the proof of them can only come from •inner principles, which are described as •innate. It would indeed be wrong to think that we can easily read these eternal laws of reason in the soul. . . .without effort or inquiry; but it is enough that they can be discovered inside us if we give them our attention: the senses provide the *prompt*, and the results of experiments also serve to corroborate reason, rather as checking procedures in arithmetic help us to avoid errors of calculation in long chains of reasoning.

This is how man's knowledge differs from that of beasts[1]: beasts are sheer empirics[2] and are guided entirely by instances.. Men can come to know things by demonstrating[3] them, whereas beasts, so far as we can tell, never manage to form necessary propositions. Their capacity to go from one thought to another is something lower than the reason that men have. The ·thought-to-thought· sequences of beasts are just like those of simple empirics who maintain that what has happened once will happen again in a case that is similar in the respects that they have noticed, though that doesn't let them know whether the same reasons are at work. That is what makes it so easy for men to ensnare beasts,

[1] A 'beast' here means a (non-human) animal.
[2] An 'empiric' is someone who notices and relies on regularities in how things go, but isn't curious about what explains them.
[3] A 'demonstration' here is a rigorous proof, as used in mathematics.

and so easy for simple empirics to make mistakes. . . . The sequences of beasts are only a *shadow* of reasoning, i.e. a mere connection in the imagination—going from one image to another. When a new situation appears to be similar to earlier ones, the beast expects it to resemble the earlier ones in other respects too, as though things were linked in reality just because their images are linked in the memory.

Admittedly reason does advise us to expect that what we find in the future will usually fit with our experience of the past; but this isn't a necessary and infallible truth, and it can let us down when we least expect it to, if there is a change in the ·underlying· factors that have produced the past regularity. That's why the wisest men don't put total trust in it: when they can, they probe a little into the underlying reason for the regularity they are interested in, so as to know when they will have to allow for exceptions. For only reason can

- establish reliable rules,
- make up the deficiencies of rules that have proved unreliable, by allowing exceptions to them, and lastly
- construct *necessary* inferences, involving unbreakable links.

This last often lets us foresee events without having to experience links between images, as beasts must. Thus •what shows the existence of inner sources of necessary truths is also •what distinguishes man from beast.

Perhaps Locke won't entirely disagree with my view. After devoting the whole of *Essay* Book I to rejecting innate illumination, understood in a certain sense, at the start of Book II and from there on he admits that some ideas don't originate in •sensation and instead come from •reflection. But to reflect is

simply to *attend to what is within us*, and **something that we carry with us already is not something that came from the senses**! So it can't be denied that there is a great deal that is innate in our minds ·and didn't come through the senses·, because we are **innate to ourselves**, so to speak. Our intellectual ideas that we don't get through the senses include the idea

of being, which we have because we are beings,

of unity, which we have because each of us is one,

of substance, which we have because we are substances,

of duration, which we have because we last through time,

of change, which we have because we change,

of action, which we have because we act,

of perception, which we have because we perceive, and

of pleasure, which we have because we have pleasure;

and the same holds for hosts of other intellectual ideas that we have. Our distractions and needs prevent our being always •aware of our status as beings, as unified, as substances, as lasting through time etc., but these facts about us are always •present to our understanding; so it's no wonder that we say that these ideas ·of being, of unity, etc.·— are innate in us. I have also used the analogy of a •veined block of marble as opposed to an entirely •homogeneous one or to an empty page. If the soul were like an empty page, then truths would be *in* us in the way that the shape of Hercules is *in* an uncarved piece of marble that is entirely neutral as to whether it takes Hercules' shape or some other. Contrast *that* piece of marble with one that is veined in a way that marks out the shape of Hercules rather than other shapes. This

latter block would be more inclined to take that shape than the former would, and Hercules would be in a way *innate* in it, even though it would take a lot of work to expose the veins and to polish them into clarity. This is how ideas and truths are innate in us—as inclinations, dispositions, tendencies, or natural potentialities, and not as actual thinkings, though these potentialities are always *accompanied by* certain actual thinkings, often insensible ones, which correspond to them.

Locke seems to claim that in us there is nothing potential, indeed nothing of which we aren't always actually aware. But he can't hold strictly to this, for that would make his position too paradoxical. ·It is obvious to everyone, and Locke would presumably not deny it, that· we aren't always *aware* of dispositions that we do nevertheless *have*. And we aren't always aware of the contents of our memory. *They* don't even come to our aid whenever we need them!. . . . So on other occasions he limits his thesis to the statement that there is nothing that we haven't been aware of at some past time. But no-one can establish by reason alone how far our past (and now perhaps forgotten) awarenesses may have extended. . . . Anyway, *why* must we acquire everything through awareness of outer things? *Why* can't we unearth things from within ourselves? Is our soul in itself so empty that unless it borrows images from outside it is nothing? I'm sure Locke wouldn't agree to that! Anyway, there are no completely uniform pages, no perfectly homogeneous and even surfaces. So why couldn't we also provide ourselves with objects of thought from our own depths, if we take the trouble to dig there? Which leads me to believe that basically Locke's view on this question isn't different from my own, which is the common view, especially since he recognizes the senses *and reflection* as our *two* sources of knowledge.