

For my own part, I look upon it as upon the Principle of Gravitation in Bodies, which is not to be explained by any known Qualities inherent in the Bodies themselves, nor from any Laws of Mechanism, but according to the best Notions of the greatest Philosophers, is an immediate Impression from the first Mover, and the Divine Energy acting in the Creatures. L



N<sup>o</sup> 121. Thursday, July 19.

————— *Jovis omnia plena.*

Virg.

**A**S I was walking this Morning in the great Yard that belongs to my Friend's Country House, I was wonderfully pleased to see the different Workings of Instinct in a Hen followed by a Brood of Ducks. The Young, upon the sight of a Pond, immediately ran into it; while the Step-mother, with all imaginable Anxiety, hovered about the Borders of it, to call them out of an Element that appeared to her so dangerous and destructive. As the different Principle which acted in these different Animals cannot be termed Reason, so when we call it *Instinct*, we mean something we have no Knowledge of. To me, as I hinted in my last Paper, it seems the immediate Direction of Providence, and such an Operation of the supreme Being, as that which determines all the Portions of Matter to their proper Centres. A modern Philosopher, quoted by Monsieur Bayle in his learned Dissertation on the Souls of Brutes, delivers the same Opinion, tho' in a bolder Form of Words, where he says, *Deus est Anima Brutorum*, God himself is the Soul of Brutes. Who can tell what to call that seeming Sagacity in Animals, which directs them to such Food as is proper for them, and makes them naturally avoid whatever is noxious or unwholsom? Tully has observed, that a Lamb no sooner falls from its Mother, but immediately and of its own Accord applies it self to the Teat. Dampier, in his Travels, tells us, that when Seamen are

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thrown upon any of the unknown Coasts of *America*, they never venture upon the Fruit of any Tree, how tempting soever it may appear, unless they observe that it is marked with the Pecking of Birds; but fall on without any Fear or Apprehension where the Birds have been before them.

BUT notwithstanding Animals have nothing like the Use of Reason, we find in them all the lower Parts of our Nature, the Passions and Senses in their greatest Strength and Perfection. And here it is worth our Observation, that all Beasts and Birds of Prey are wonderfully subject to Anger, Malice, Revenge, and all the other violent Passions that may animate them in search of their proper Food; as those that are incapable of defending themselves, or annoying others, or whose Safety lies chiefly in their Flight, are suspicious, fearful and apprehensive of every thing they see or hear; whilst others that are of Assistance and Use to Man, have their Natures softened with something mild and tractable, and by that means are qualified for a Domestick Life. In this Case the Passions generally correspond with the Make of the Body. We do not find the Fury of a Lion in so weak and defenceless an Animal as a Lamb, nor the Meekness of a Lamb in a Creature so armed for Battle and Assault as the Lion. In the same manner, we find that particular Animals have a more or less exquisite Sharpness and Sagacity in those particular Senses which most turn to their Advantage, and in which their Safety and Welfare is the most concerned.

NOR must we here omit that great Variety of Arms with which Nature has differently fortified the Bodies of several kind of Animals, such as Claws, Hoofs and Horns, Teeth and Tusks, a Tail, a Sting, a Trunk, or a *Proboscis*. It is likewise observed by Naturalists, that it must be some hidden Principle distinct from what we call Reason, which instructs Animals in the Use of these their Arms, and teaches them to manage them to the best Advantage; because they naturally defend themselves with that Part in which their Strength lies, before the Weapon be formed in it; as is remarkable in Lambs, which though they are bred within Doors, and never saw the Actions of their own Species, push at those who approach them with  
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their Foreheads, before the first budding of a Horn appears.

I shall add to these general Observations an Instance, which Mr. Locke has given us of Providence even in the Imperfections of a Creature which seems the meanest and most despicable in the whole animal World. *We may* says he, *from the Make of an Oyster, or Cockle, conclude, that it has not so many nor so quick Senses as a Man, or several other Animals: Nor if it had would it, in that State and Incapacity of transferring it self from one Place to another, be bettered by them. What good would Sight and Hearing do to a Creature, that cannot move it self to, or from the Object, wherein at a distance it perceives Good or Evil? And would not Quickness of Sensation be an Inconvenience to an Animal that must be still where Chance has once placed it, and there receive the Afflux of colder or warmer, clean or foul Water, as it happens to come to it.*

I shall add to this Instance out of Mr. Locke another out of the learned Dr. More, who cites it from Cardan, in relation to another Animal which Providence has left Defective, but at the same time has shewn its Wisdom in the Formation of that Organ in which it seems chiefly to have failed. *What is more obvious and ordinary than a Mole? and yet what more palpable Argument of Providence than she? The Members of her Body are so exactly fitted to her Nature and Manner of Life: For her Dwelling being under Ground where nothing is to be seen, Nature has so obscurely fitted her with Eyes, that Naturalists can hardly agree whether she have any Sight at all or no. But for Amends, what she is capable of for her Defence and Warning of Danger, she has very eminently conferred upon her; for she is exceeding quick of Hearing. And then her short Tail and short Legs, but broad Fore-feet armed with sharp Claws, we see by the Event to what Purpose they are, she so swiftly working herself under Ground, and making her way so fast in the Earth as they that behold it cannot but admire it. Her Legs therefore are short, that she need dig no more than will serve the meer Thickness of her Body; and her Fore-feet are broad that she may scoop away much Earth at a Time; and little or no Tail she has, because she courses it not on the Ground, like the Rat or Mouse, of whose Kindred she is, but lives under the Earth, and is fain to dig herself a Dwelling there.*



*And she making her way thro' so thick an Element, which will not yield easily, as the Air or the Water, it had been dangerous to have drawn so long a Train behind her; for her Enemy might fall upon her Rear, and fetch her out, before she had completed or got full Possession of her Works.*

I cannot forbear mentioning Mr. Boyle's Remark upon this last Creature, who I remember somewhere in his Works observes, that tho' the Mole be not totally blind (as it is commonly thought) she has not Sight enough to distinguish particular Objects. Her Eye is said to have but one Humour in it, which is supposed to give her the Idea of Light, but of nothing else, and is so formed that this Idea is probably painful to the Animal. Whenever she comes up into broad Day she might be in Danger of being taken, unless she were thus affected by a light striking upon her Eye, and immediately warning her to bury herself in her proper Element. More Sight would be useless to her, as none at all might be fatal.

I have only instanced such Animals as seem the most imperfect Works of Nature; and if Providence shews it self even in the Blemishes of these Creatures, how much more does it discover it self in the several Endowments which it has variously bestowed upon such Creatures as are more or less finished and completed in their several Faculties, according to the Condition of Life in which they are posted?

I could wish our Royal Society would compile a Body of Natural History, the best that could be gather'd together from Books and Observations. If the several Writers among them took each his particular Species, and gave us a distinct Account of its Original, Birth and Education; its Policies, Hostilities and Alliances, with the Frame and Texture of its inward and outward Parts, and particularly those that distinguish it from all other Animals, with their peculiar Aptitudes for the State of Being in which Providence has placed them, it would be one of the best Services their Studies could do Mankind, and not a little redound to the Glory of the All-wise Contriver.

IT is true, such a Natural History, after all the Disquisitions of the Learned, would be infinitely Short and Defective. Seas and Deserts hide Millions of Animals from our Observation. Innumerable Artifices and Stratagems  
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