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the Magnet or Loadstone**

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Chap. III. The evidence of the existence of the glorious God, from the supposition of a
self-moving principle in nature.

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C H A P. III.

*The Evidence of the Existence of the
Glorious G O D, from the Supposition
of a Self-moving Principle in Nature.*

TH A T there *are* such Beings in Nature, that exert their Motions and Effects from an Internal Principle, we have sufficient Evidence, which way soever we look in the World, and I shall further instance from the Subject in hand.

Now, a Being, that hath the Principle of his Actions and Motion in himself, I suppose to be of Two Kinds.

I. That Being, which is absolutely Independent, the Original of all other Beings and Powers, Infinite in Essence and Power, the Great and Glorious G O D, in the virtue of whose Presence, Influence and Activity all other Active Powers have their Being and Operations, whose Existence is not demonstrable *à Priori*, or from his Causes, (for he is the Sovereign Primitive Cause of All Things,) but is demonstrable by his Effects, Works and Operations.

14 *Magnetismus Magnus* : Or,
Operations. And this is that which I am
endeavouring to evince, even by this little
portion of Nature, which I have in hand.

II. Again, There are other Beings, that
although they have the principal Motions
and Operations within themselves, yet,
1st. Have it not from themselves, but
either mediately or immediately from that
Great Sovereign Fountain of Being and
Power above-mention'd. *2^{dly}*. Nor have
it independently : For as in their Original
they have it from God, so they still have
it dependently upon Him. If the Sove-
raign Influence should not uncessantly be
communicated to their Beings and Ope-
rations, both would cease. And conse-
quently, although when they are once
setled, they have the Root of their Mo-
tions and Operations within themselves, so
that no other Created Cause doth Physically
contribute to them ; yet the Sove-
reign Cause, and his Influence, hath still
a most Intimate Co-efficiency with them
in all their Motions and Operations ; and
such an Efficiency, that is far greater and
more intimate to them, than those Self-
moving Principles themselves. For though
these Principles, as in relation to the Ef-
fects these Self-moving Principles produce,
habent

habent se per modum primariorum efficientium; yet, in relation to Almighty God, *habent se per modum Instrumenti vel Cause subordinatae*.

Now, these Self-moving Intrinsic Principles are not unfitly called *Essential Virtues*, or *Essential Forms*; and in respect of their Production, are of Two kinds.

First, Such as were lodged primarily in some Nature or Body, without any Transduction from any other Created Being: such were the *Virtutes Essentiales*, or Forms, of the First Animals; such is also the Magnetical Form, or Essential Virtue of the Earth, which could no otherwise be derived to it, but from *the* Efficiency, Ordination and Institution of the Sovereign Creator and Architect of the World. And this hath been the Business of the former Chapter.

Secondly, Such Forms, or Essential Virtues, as have their immediate Origination by some other Productive Cause; either by way of Ordinary Generation, as is done in the Production of Animals and Vegetables *ex Semine*; or by way of Irradiation, as Fire produceth Fire, or as
the

Magnetismus Magnus : Or,
the Magnet is produced in the Bowels of
the Earth.

Now, although these Productions of Essential Virtues, Forms, or Self-moving Principles, recognize another Natural Immediate Efficient in their first Production; yet being once produced and perfected, they act, and move, and operate immediately from themselves, and independently upon the Immediate Cause of their Production. The Egg of a Hen would be hatch'd into a Chicken, and the Form or Essential Virtue of this Chicken would exert its own Operations proper to its *Species*, though the Hen were dead. And I make as little doubt, that a Magnet once fully perfected in the Earth, would have its Magnetical Attraction, though we could suppose the Earth it self annihilated, or its Magnetism extinct.

For though there could be no Union of a *Vis*, or *Forma Magnetica*, to a Magnet, but by the Irradiation of the Earth; yet when it is once perfected into a compleat Magnetical Nature, and the Magnetical Virtue once radicated in it, it would then act many of its Motions independently, as in relation to the Earth, from which it had its first Production, though possibly
some

some of its Motions, which are relative to the Earth, would be lost.

Now the due consideration of these *Essentiales Virtutes*, or Forms that have in themselves a Principle of their Operations, are in their kind as effectual a demonstration of the Existence of Almighty God, as the series, and connexion, and dependence, and subordination of Efficient, or Efficient Causes.

And therefore in this place I shall not make use of that way of Argumentation, namely, the necessary reduction of all Powers or Essential Virtues, either mediately or immediately to their First Efficient, which was the method of the former Chapter; but shall consider them barely as active self-moving Vertues, or Forms, or Powers, and shall thereupon examine what Evidence that naked Consideration affords us of an Existence of a Sovereign and most perfect Being.

1. In the pursuit of the Effects and Appearances of Nature, when we come to a self-moving Principle, we are come to the uttermost term and limits of our bare Physical enquiry into the Cause of any such Motions and Effects. When I see the Index of a Clock point to the Hour of the Day, I can trace that motion to the next

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Wheel

Wheel that moves it, and so to the next, and then to the Rundle, that is moved by the Spring, and then to the weight of Lead, that from an inward self-moving principle moves downward, and there I am at a stand, I can carry my Series of Physical Causes no farther; for if I enquire why this Weight moves downward, I get no higher but only to the Ordination of the Sovereign of the World that had impressed that intrinsic self-moving Power into this as all other heavy Bodies. And therefore *Aristotle*, after he had established that Principle that *quicquid movet movetur ab alio*, when he comes to the Motion of heavy Bodies, wherein he could find no other impulsive Physical Cause of their Motion without them, but in their very own intrinsic Nature, hath only this solution for it, *quod movetur à generante*. But this Solution of his solves not the business, without recourse to the Sovereign Cause of all things; for although the *Generans* was that which convey'd the Principle it self into the heavy Body to move it self, yet when that Principle is once settled, namely, a heavy Body once constituted, it moves now independantly upon its generative immediate Natural Cause, which it may be is corrupted and dissolved, yet that active and self-

self-

self-moving Principle exerts its Motion from its own intrinsic Nature.

If it be said that the Spring of the Watch doth the like, and yet it is performed but mechanically; for the Spring of Steel made strait at first, and then rolled up into a spiral consistence endeavouring its own restitution, gives as effectual and regular Motion to the Wheels, and so to the Index, as the weight of Lead doth.

I Answer, It is true, it doth so; but yet it doth not avoid nor answer the Instance.

1. Even that disposition of the Spring requires an Intelligent Agent to bring it about and order it, and certainly no less is requir'd even to the impression of this Motive Power to a heavy Body.
2. Again, in that disposition of the Spring, we can and must necessarily arrive to a Natural Cause of that Motive Principle of the Spring, namely the conversion of that Body into a Consistence contrary to its Nature, whereby it endeavours its restitution to its natural state, and so Evolves it self, and by that Evolution moves the String, and that the Fusee, and that the Wheel: But the Motion of heavy Bodies to the Center hath not any assignable mechanical Cause of its Motion, but its own intrinsic Propension.
3. And this Propension is not to be

annexed unto it by any humane power, no, nor by any other assignable Cause, but from the impression and signature of the Supreme Lawgiver, whose Law and Constitution, which we call Nature, or the Law of Nature, has implanted in heavy Bodies that habitude between them and the Center of the Earth to move thither.

But this *descensus Graviorum*, is but one single Motion: if we look upon the Magnetical Body of the Earth, which is the *Primum Magneticum*, or that which is the natural issue of the Earth, namely, the Magnet, we shall see a greater variety of Motions; as that of direction, attraction, and other Magnetical Motions, and all these proceeding from a self-moving principle in these Magnetical Bodies; and higher than that we cannot go in the Assignment of Natural Causes. Let any Man living of the greatest Perspicacity, use all the diligence imaginable, he shall never be able to assign any mechanical or other Natural Cause of these Motions, but must fix only in an internal self-moving Principle lodged in the Magnet or Earth it self, and all the reason he shall give, is only this, *Ita fert vis naturalis ipsius Magnetis.*

And

And although it is true, the common Hypothesis allows an actual Motion to the Earth, yet the composing of it self in its Polar Position arising immediately from its Magnetical Nature, and the production of Magnetical Virtues in Magnets and other things, is not unfitly call'd a self-moving or at least a self-disposing or ordering Principle.

But yet this is much more evident in the Perception, Appetite and Motions of the Sentient Nature, and yet still much more in the Intellectual or Rational Nature. Whither, or to what else, than to an internal self-moving Principle can we attribute the sentient Perception of Animals, their Instincts, their Memory, their Appetites? And when we come to that admirable Creature Man, to what other immediate Cause can we attribute those more admirable Instances of Intellection, Ratiocination, Freedom of Will, than to an internal self-moving Principle, that excites and exerts these admirable Operations? And if any one shall say, that these Faculties and their Operations are moved extrinsically by their Objects. It is true, they are so; but these are not Physical Movers, but only Moral or Objective Movers; the Physical Motions are still performed

formed by that internal *Vis* or *Virtus movens*. When a Child sees an Apple, it is the Apple that he sees, and either by the beautifulness thereof, or the former experience that he hath had of the like Object, he remembers it is good and pleasant to the Taste, he thereupon desires it, and then reacheth and moveth after it, and tastes it: It is indeed the Apple that excites all these Motions of Sight, Perception, Memory, Appetite, Local Motion; but still the Apple only moves objectively and morally, not physically; but still the Perception, Memory, Appetite, Local Motion is performed by the inward Princip'e, that moves it physically and actively in and from it self.

But yet further, there are certain Motions that are exerted by Inanimate things, and much more by things Animate, that have not so much as an Objective Motion from without, but are wholly and entirely exerted from this inward Principle, without any previous Excitation, or any external Document, Custom or Instruction; such as are the Motions of heavy Bodies to the Center of the Earth, the Magnetical directions and motions of the Magnet, and especially the great Magnet of the Earth, the specifical Vertues of Vegetables, the admirable Instincts of Animals, which they
obtain,

obtain, and according to them, move and dispose themselves without any previous Instruction or objective Excitation, but barely and primitively from that implanted Inclination, Form, intrinsic Principle, the very Signature and Character implanted in their very Natures; and we can carry their Operations no higher in a Series of Physical Causes than that Internal self-moving Principle. And if we attempt to carry them further, we must at last rest and fix in that Sovereign most Perfect Being, the Glorious God, that imprinted this active Signature upon their Natures, as I shall further in the next place evidence. Therefore,

2. Upon the Consideration that there are these active self-moving Principles in many, if not all Beings, that we are acquainted with in the World, let us but now consider where we can fasten the Origination of them, and what, or who it was that imprinted these admirable active Characters at first upon things in Nature.

It is impossible they should have them from themselves, and their own activity: For, *1st*. That were to suppose them to be before they were. Again, *2^{dly}*. Since it is apparent they are determined in their Being and Operations, it is necessary

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they should have a Cause of such their Determination, as I have shewed in the former Chapter. 3dly. Again, since it is apparent there is an admirable variety of these self-moving Principles specifically differing one from another, and yet all observing and containing themselves within their several specifical Bounds and Limits of their Kinds and Natures, it must needs follow that they have their several Species, and are contained within them by a superior Disponent, and not from themselves; otherwise what should hinder but that that which disposed its specifical Power in the rank of a Vegetable, should not as well dispose of it self into the rank of an Animal, or Humane Principle? For it were as well effective of the one as of the other, if it disposed it self, and probably would take up the most perfect Form, or *Vis Essentialis*. It remains therefore that those Forms or *Essentiales Vires aut Virtutes*, were primitively and in their original are a *Disponente*, from some Superior Power, that at first imprinted this Character upon them with great Wisdom and Goodness.

Therefore it remains that this *Vis* or *Virtus* thus specify'd and determined, hath its Origination and Determination from some other Being. And if we shall suppose

pose that this *Vis* or *Virtus Essentialis & Specifica* hath its Origination from Matter it self, and its various Modifications, we are still besides the Mark; 1st. Because that *Vis* or *Virtus Essentialis* is a distinct Entity from Matter, and though it resides in it, it is a differing Entity from it. 2^{dly}, It is a Nature or Entity above the power of Matter, and therefore the *Eductio Formarum è potentia Materia* is an unconceivable Hypothesis. If it were in the Body of Matter before, how came it thither? If it were not there before, it is impossible that it should be educible out of it by the force of any bare natural Agent: Indeed the Agent may modify and dispose the Matter, so as to be a convenient Instrument for the *Vis* or *Virtus* that before resided in it, to act and exert its Activity; but it can never give it a Being, but either it must find it there, or bring it thither; for dull unactive Matter, that seems to be purely Passive, can never yield it. 3^{dly}, But suppose that the various Modification of Matter were sufficient, so as from thence that active Principle, which we call the Form or Essential Virtue, might emerge, yet still it leaves us in the dark without the Supposition of such an Agent of that admirable Wisdom, Knowledge
and

and Power, that could and did at first so dextrously modify that Matter, that it could produce those Exquisite Exertions of Motions, Propensions and Appearances, so uniformly, regularly, and unerringly, as we see in Vegetables, Animals, and this little Particle of Nature, the Magnet. Let us search within the whole compass of Nature. What Man, or Counsel of Men can, or ever could effect it? The Dove of *Architas*, and the Clock of *Strasburgh* are poor inconsiderable *Automata* in comparison of a Fly or a Flea.

But the truth is, it is neither the Modification of Matter, nor any other Natural Agent, that upon the score of its own Strength, or the single Activity of any Natural Agent, can alone produce this self-moving Principle, which I call the *Vis Essentialis*, others call *Form*. It is an Entity of another Nature from Matter: And although the Origination of Matter it self, and the moulding of it into those admirable Orders, Positions, and goodly Structures, which we daily behold in the great Integrals of the Universe, are evident Indications of the Power and Wisdom of the Great Architect of the World; yet these are not to be compared to most of those self-moving Powers, that the God of Nature

ture hath disseminated, and sent abroad into these and most other of the Particles of Nature.

And this *Vis* or *Virtus*, these *Principia Motiva*, I look upon as the most Glorious and Wonderful part of the Creation: Neither is it possible by any means to deduce their first Original but from the Divine Power and Efficiency. Let all the Men in the World put their Heads, and their Wits, and their Skill, and their Hands together, they can never originally imprint upon any Matter the Magnetical Motions of a poor inconsiderable Loadstone, much less those self-moving Principles of a higher Nature, as those of Life, Sense, or Reason, which we daily behold in the Vegetables, Sentient and Rational Province.

What a stir have the Chymists made to make Gold, though it have none of those self-moving Principles in it that we see in a Magnet, and yet how pitifully therein they delude themselves and others. But who ever could *de novo* frame a Magnet with all its Magnetical Motions, unless it were by putting together some Particles of the same Stone, that had a prior Magnetical Virtue infus'd in them by Nature, or by the Earth, the *primum magneticum*?

And

And if any Man shall tell me, that we need not go so high as Almighty God in the Production of Natural *Automata*; for Vegetables and Animals daily propagate their Kinds, which, when propagated, have within them their self-moving Principles, which yet they had à *generantibus*; and the Magnet it self hath its Production by the Earth:

I have prevented this Objection in the beginning of this Chapter, wherein I have taken notice, that some Natural *Automata* have their Origination independent upon any other Natural Cause, as the Magnetism of the Earth, and the Primogenial Productions of Animals and Vegetables. Others have their Origination by Propagation, &c. as Magnets, and things produced *ex Semine*: But in all those the illation of a Sovereign Cause of them is equally necessary in respect of the Nature of the self-moving Principles themselves, which in their primitive Constitution require no less than the Sovereign Cause of all things: And in their mediate Production still the Producents are but his Instruments, and are productive of them in the vigour of that Law and Institution that the God of Nature hath given and established for them. All the Communications of these *Vires* or
Virtutes

Virtutes Essentiales, either *ex semine*, or by propagation, as in Vegetables and Animals, or by contact or irradiation, as of Fire or Magnets, are but a continuation of the first primitive *Virtutes Essentiales*, that were at first lodged in the primitives or first Individuals of their Species by the immediate Power of Almighty God; yea, the very *Vis Productiva* of them was but a part of that primitive Essential Virtue that was lodged by the Finger of God in their primitive Natures and first Individuals. And therefore in all the successive Specific and Essential Vertues, and self-moving Principles that now are, or ever have been in the World by Seminal Propagation, Contact, or Irradiation, we must have the same recourse to the Supreme Cause no less than in the first Individuals or Subjects in which they were at first lodged.

CHAP.

C H A P. IV.

*The Evidence of the Existence of a Deity
from the Excellent Ordination of these
Powers to their several Ends and
Uses.*

HE that attentively considers all the Works of Nature, will find *Four Kinds of Adaptations* in them.

I. An Adaptation of their Organs to their several and respective Essential Powers, or Faculties, or Inclinations and Motions.

II. An Adaptation both of their Organs and Faculties to their own Good, and usefulness of their Being.

III. In many of them an Adaptation not only to the Convenience of their Individuals, but to the Preservation of their Kinds or Species.

IV. An Adaptation and Accommodation of their Organs, Powers, and Motions to
other