

De Respirationis Usu Primario Diatriba, Auth. Malachia Thruston M. D. Cui accedunt Animadversiones à Cl. Viro in eandem conscripta, una cum Responſionibus Authoris. Londini, apud Joh. Martyn, Reg. Societ. Typographum ad inſigne Campanæ, 1670.

THis Learned Author, a worthy Member of the *R. Society*, in discourſing upon this no leſs difficult than important ſubject, obſerves this Method;

Fiſt, he lays for a ground, that there is and needs muſt be Motion in the Blood. *Secondly*, he declares, what kind of Motion and how various that is, ſhewing alſo, that all thoſe motions are to be aſcribed to the *Vital Blood*, and to be preſerved therein. *Thirdly*, he maketh it his buſineſs to prove (which is his main deſign, that thoſe Motions are both continually produced, and maintained by the means of *Reſpiration*, premiffing ſomething about the Nature and Properties of the *Air*, and the *Fabrick* and Motion of the *Pneumatick* parts.

This done, he ſheweth the probability of his *Hypotheſis*, as being intelligible, and able to ſolve innumerable queſtions, and among them ſuch, as have been eſteemed almoſt inſoluble. And *fiſt*, he teaches, how *Reſpiration* maintains that *Progreſſive* Motion, which he alſo calls the Motion of *Rivers*; and then, how it preſerveth the Motions of *Fluidity*, and *Warmth*, by the *Airs* ſubduing, comminuting, and dilating the Blood. Where he digreſſeth to give an Answer to thoſe, that will not allow the *Air* to have any ingreſs into the Blood; as alſo to explain the cauſe of *Sanguification*, aſcribing it neither to the Heart nor the Liver, but principally to the *Lungs* in thoſe that are borne; but in *Fetus*'s, to the maternal Blood, and the *Vmbilical* veſſels.

Next, he proceeds to explicate the many *Problems* of *Reſpiration* by the delivered *Hypotheſis*: And chiefly why *Reſpiration* is ſo abſolutely neceſſary to Life, viz. becauſe Life principally conſiſts in the motion of the Blood; which ſoon ceaſeth, when *Reſpiration* is ſtopp'd. Upon which Queſtion thus reſolved, depends alſo the ſolution of divers others, to be found in this Book.

To all which he adds the reaſon of the Difference, there is, as to *Reſpiration*, between the Borne and Un-borne; ſolving that knotty *Heruvian Problem*, viz. Why a *Fetus*, being diveſted of the *Secundine*, and having once breathed in the open *Air*, cannot live afterwards without it, but dyes preſently? Which he imputes to the hindred Motion of the Blood, entertained by *Reſpiration*.

But why, after that *Reſpiration* hath once begun, the Blood will not, when there is need, return to its former paſſage through the *Foramen Ovale*; we refer to the Author himſelf for an Answer: as we alſo do for other conſiderable Solutions of many other difficulties occurring in this Learned Treatiſe.

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