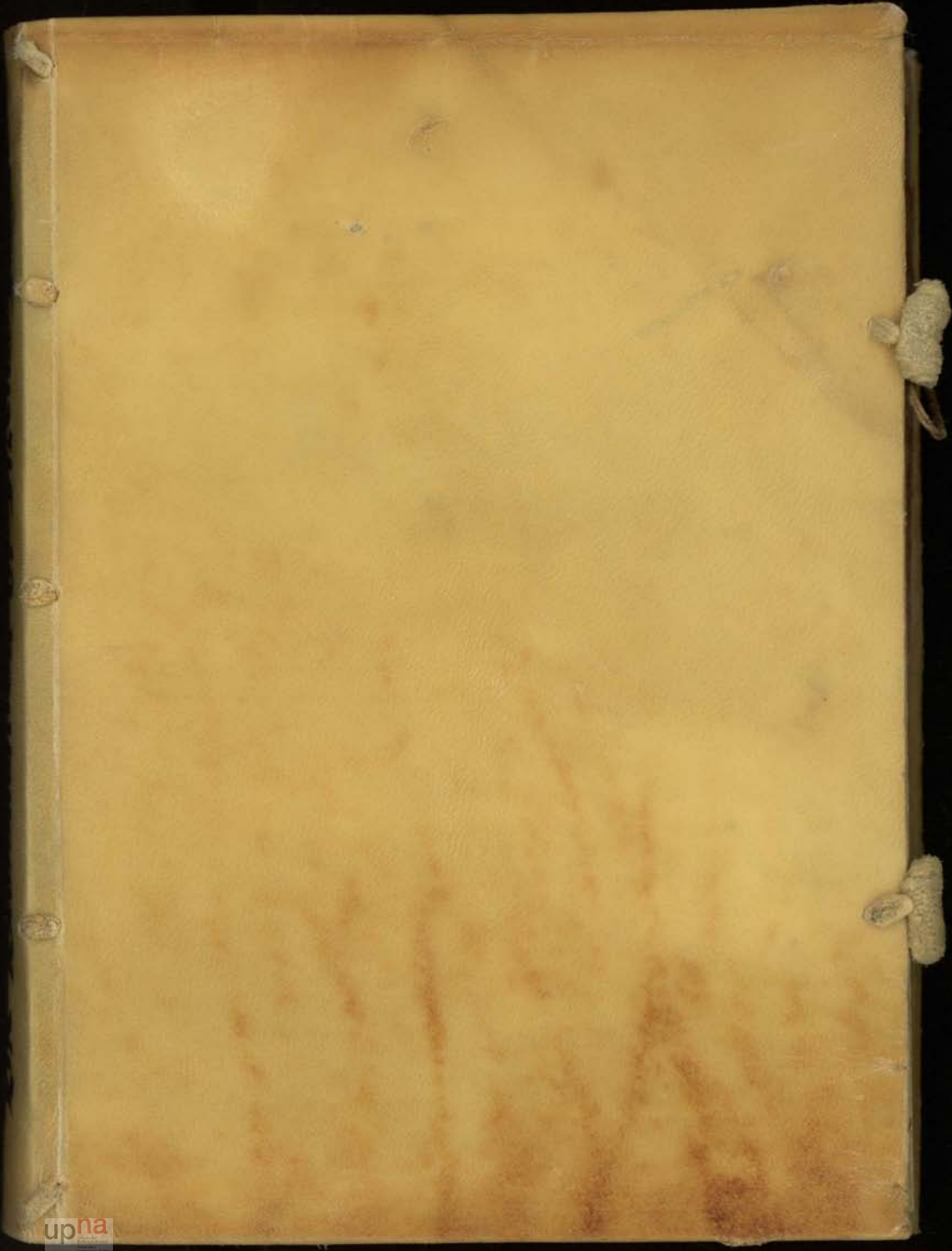


**The Examination of Men's
Suits and Waists**



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Examen de Ingenios.
THE EXAMINATION
of mens Wits.

In which, by discovering the variétie of natures,
is shewed for what profession each one is apt,
and how far he shall profit therein.

By John Huarre.

Translated out of the Spanissh tongue by
M. Camillo Cavilli.

Englisht out of his Italian, by
R. C. E/squire.



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TO THE RIGHT VVOR-
SHIPFUL SIR FRANCIS GODOL-
PHIN KNIGHT, ONE OF THE DE-
PUTIE LIEVTENANTS OF
CORNWAILE.



*Ood Sir, your Booke returneth
vnto you clad in a Cornish ga-
bardine, which if it become
him not wel, the fault is not in
the stufte, but in the botching Tailor, who
neuer bound Prentice to the occupation,
and working only for his passe-time, could
hardly obserue the precise rules of mea-
sure: but such as it is, yours it is, and yours
is the workeman, entirely addicted to reue-
rence you for your vertues, to loue you for
your kindnesse, and so more readie in de-
sire, than able in power to testifie the same,
doe with my deuest remembrance take
leauē, resting*

At your disposition,

A. C.



TO THE MAIESTIE
of *Don Philip*, our Soueraigne.

TO the end that Artificers may
attaine the perfection requi-
sit for the vse of the common-
wealth, me thinketh (Catho-
like roiall Maiestie) a law
should be enacted, that no
carpenter should exercise himselfe in any worke
which appertained to the occupation of an hus-
bandman, nor a tailor to that of an architect, and
that the Aduocat should not minister Phisicke,
nor the Phisition play the Aduocat, but ech one
exercise only that art to which he beareth a na-
turall inclination, and let passe the residue. For
considering how base and narrowly bounded
a mans wit is for one thing and no more, I haue
alwaies held it for a matter certain, That no man
can be perfectly scene in two arts, without failing
in

To the king of Spaine.

in one of them : now to the end he may not erre
in chusing that which fitteth best with his owne
nature, there should be deputed in the common-
wealth, men of great wisedome and knowledge,
who might discouer each ones wit in his tender
age, and cause him perforce to studie that science
which is agreeable for him, not permitting him to
make his own choice : whence this good would
ensue to your states and signiories ; that in them
should reside the rarest artificers of the world,
and their workes should be of the greatest per-
fection, for nought else than because they vnited
art with nature. The like would I that the vniuer-
sities of our kingdomes did put in practise, for see-
ing they allow not that a scholer should passe to
another facultie, vnlesse he perfectly vnderstand
the Latine tongue, they should haue also exami-
ners, to trie whether he who purposeth to studie
Logick, Philosophie, Diuinitie, or the Laws, haue
such a wit as is requisit for euery of these sciences,
for otherwise, besides the dammage that such a
one shall worke afterwards to the Common-
wealth, by vsing an art wherein he is not skilled,
it is a grieue to see that a man should take paines,
and beat his brains about a matter wherein he

To the king of Spaine.

cannot reape any aduantage. For that at this day such a diligence is not vsed, those vvho had not a wit fit for Diuinitie, haue destroied the Christian religion. So doe those who are vntoward for Phisicke, shorten many a mans daies : neither possesse the Legall Science that perfection which it might receiue, because it is not made knowne, to what reasonable power the vse and interpretation of the laws appertaineth. All the antient Philosophers found by experience, that where nature doth not dispose a man to knowledge, it fallett out a superfluous labour to toile in the rules of art. But none hath cleerely and distinctly deliuered vvhat that nature is vvich maketh a man able for one science, and vncapable of another, nor how many differences of vvittes there are found in mankind, nor vvhat Arts or Sciences do answer each in particular, nor by what tokens this may be known, vvich is the thing that most importeth.

These foure points (though they seem vnpossible) containe the matter vvhereof I am to entreat, besides many others appertenant to the purpose of this doctrine, with intention that curious parents may haue an art & maner to discover

To the king of Spaine.

uer the wit of their children, and may weet how to set ech of them in hand with that science wherein he shall principally profit. And this is an aduise vvhich *Galen* sayth vvas giuen his father, namely that he should set him to studie Phisicke, because for that science he had a singular vvitt. By vvhich your maiestie shall vnderstand how much it importeth the common-wealth, that there be established in the same a choice, and examination of vvits for the sciences, seeing frō the study vvhich *Galen* bestowed in Phisick, there ensued so great good to the diseased of his time, and he left so many remedies in writing for the posteritie, Euen as *Baldus* (a notable man in profelcion of the lawes) vvhē he studied and practised Phisick, if he had passed further therein, vvould haue prooued but an ordinarie Phisitian, as he was not better, for that he wanted the difference of wit requisit for this sciēce, but the lawes should haue lost one of the greatest helps that might be found amongst men for expounding them.

When I therfore purposed to reduce this new manner of Philosophie to art, and to proue the same in some wits, I remembered my selfe of your Maiestie, as the best knowne, and one, at whom

A iij.

the

To the king of Spaine.

the whole world wondereth, beholding a Prince
of so great knowledge and wisdom, of whome
here we cannot conueniently entreat, the last
chapter saue one is your conuenient place, where
your Maiestie shall see the purport of your owne
wit, and the art and learning vtherewith you
would haue benefited our common-wealth

if you had bene a priuat person, as by
nature you are our king and
souereigne.





☞ The second Proeme to
the Reader.

WHen Plato would teach any doctrine
graue, subtile. and deuided from the
vulgar opinion, he made choise a-
mongst his scholars of such as he re-
puted best witted, and to those onely
he imparted his mind, knowing by experience, that to
teach delicat matters to persons of base vnderstan-
ding, was losse of time, losse of pains, and losse of lear-
ning. The second thing which he did after this choise
made, was to preuent them with certaine presupposi-
tions, cleare and true, which should not be wide from
his conclusion: for the speeches and sentences which
vnllooked for are deliuered against that which the
vulgar beleeueth, at the beginning serue for nought
else, (such preuention not being made) than to put in a
confusion him that listeneth, and to breed such a loa-
thing in mens minds, as it causeth them to loose their
good

The Epistle

good affection, and to abhorre and detest this doctrine. This manner of proceeding would I, that I might obserue with thee, (curious Reader) if meanes could be vsed, that I might first treat with thee, and discouer betweene thee and me the disposition of thy wit. For if it be such as is requisite for this doctrine, and estranged from the ordinarie capacities, I would in secret tell thee such new and speciall conceites, as thou wouldest neuer haue thought could fall within the compasse of a mans imagination. But inas-much as this will not be, and this worke must issue in publicke for all sortes, I could not but set thy braines somewhat a worke: for if thy wit be of the common and Vulgar alloy, I know right well thou art alreadie perswaded, that the number of the sciences, and their perfection; hath been accomplished many daies agoe. And heere to thou art mooued by a vaine reason, that they hauing found out, no more what to ad, it is a token, that now there is in nothing, any more nouelties. Now if by hap thou art possessed of such an opinion, go no further, nor read thou any longer on, for thou wilt be much agreed, to see how miserable a difference of wit possesseth thee. But if thou be discreet, well compounded, and sufferent, I will
deliuer

to the Reader.

deliuer vnto thee 3 conclusions very true, albeit for their noueltie they are worthie of great maruell.

The first is, that of many differēces of wit, which are in mankind, one only with preheminence can fall to thy lot, if already, nature, as verie mighty, at such time as she framed it for thee, did not bestow all her endeauour, in vniting two onely, or three, or (in that she could not effect the same) left thee a dolt, and depriued of them all.

The second, that to euery difference of wit there answereth in preheminence, but one only science, and no more of that condition. So as if thou diuine not to chuse that which answereth thy naturall ability, thou shalt be very remisse in the rest, though thou ply them night and day.

The third, that after thou hast known which the science is, that most answereth thy wit, there resteth yet (that thou mayst not be deceiued) another greater difficultie, which is, whether thine abilitie be more appliable to the practick than the theoricke, for these 2 parts (be it what science it wil) are so opposit betwixt themselves, & require wits so different, that they may be placed one against the other, as if they were contraries. Hard are these sentēces, but yet they haue greater difficult-

to the Reader.

difficultie and hardnesse, v^z. that we cannot appeale from them, nor pretend that we haue receiued wrong. For God being the author of nature, and seeing that she gaue not to each man more than one difference of wit, (as I haue said before) through the opposition or difficultie which combreth vs in vⁿiting them, he applied himselfe to her, and of the Sciences which are distributed amongst men by grace, it is a miracle, if in an eminent degree, he giue more than one. But there are (sayth S. Paule) deuisions of graces, and the same spirit; there are deuisions of ministeries, and the same Lord; there are deuisions of operations, but the same God, who worketh all things in all persons. To euery one is giuen the ministerie of the spirit for profit: and to one is giuen by the spirit the word of wisdom, to another that of knowledge, after the same spirit, to another sayth, in the same spirit, and to another the grace of healing, in the same spirit, to another the working of vertues, to another prophecying, and the description of spirits, to others the Varietie of tongues, to another the interpretation of words: but one selfe spirit, which diuideth to euery one as him pleaseth, worketh all these things.

*This bestowing of sciences (I doubt not) God vseth,
hauing*

to the Reader

Having regard to the wit and naturall disposition of every person: For the Talents which be distributed, in S: Matthew, the same Evangelist sayth, that he gave them unto every one according to his proper vertue.

And to thinke that these supernaturall Sciences require not some dispositions in the subject, before they be infused, is an error very great: for when God formed Adam and Eve, it is certaine that before he filled them with wisdom, he instrumentalized their braine in such sort, as they might receive it with ease, and serve as a commodious instrument, therewith to be able to discourse, and to forme reasons. And therefore the divine scripture sayth; God gave them an heart to thinke, and filled them with the discipline of understanding, and that according to the difference of which every one partaketh, one science is infused, and not another, or more or lesse of each of them, is a thing which may be understood by this example of our first parents, for God filling them both with wisdom, it is a verified conclusion, that he infused the lesser portion into her. For which reasons the Divines say, what the devil took hardnesse to beguile her, and durst not tempt the man, as fearing his quick wisdom.

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in wisdom. The reason hereof (as beneſiam we will
proue) is, that the naturall composition which the wo-
man hath in her braine, is not capable of much wit,
nor much wisdom. In the Angeliſall substances, we
shall find also the like count and reason: for God, to
give an angell more degrees of glorie and higher gifts,
first giveth him a more delicate nature; and if you en-
quire of the Divines whereto this delicate nature ser-
veth, they answer, that the Angell who hath the dee-
pest understanding, and the best nature, with most fa-
cilitie converteth himselfe unto God, and receiveth his
gift with the more efficacie; and thus the like be-
cometh in men. Hence we cleerely inferre, that there be-
ing an election of wit for sciences supernaturall, and
that, not what soever difference of abilitie, is their com-
modious instrument, humane learning (with more rea-
son) requireth the same, because it is to be learned by
men, with the force of their wit.

To be able then to distinguish and discern the
naturall differences of mans wit, and to applie to each
by art, that science wherein he may profit, is the in-
tention of this my worke. If I bring the same to end
(as I have purposed) we will yeeld the glorie to God,
seeing from his hand proceedeth what soever is good
and

to the Reader.

and easie as he said if not, thou knowest well (distant Reader) that it is impossible back to deuise an art, and to reduce the same to perfection. For so long and large are humane sciences, that a mans life sufficeth not to find them out, and to giue them that perfection which is requisite.

The first inuenter performeth euery much, if he discover some notable principles, to the end that such as come after, may with this seed take an occasion to amplify the art, and to bring it into that estimation and account which is due thereunto. Aristotle alluding hereunto, sayth: that the errors of those who first began to handle matters of Philosophie, are to be held in great reuerence, for it proouing a matter so difficult, to deuise new things, and so easie to ad vnto that which hath bene already spoken and treated of; the defects of the first deserue not (by this reason) to be much reprooued, neither he who addeth ought, meriteth any great commendation. I confesse that this my worke cannot be excused from some errors, seeing the matter is so delicat, and no way fore opened to entreat thereof. But if the same be in a matter where the understanding hath place to thinke, in this case I pray thee (wittie Reader) that before thou giue sen-

tence

The Epistle

unto those which read over the whole worke; and assure thy
selfe what the difference of thine owne wisdome; and if
in the worke thou find ought which in thine opinion is
not well sayd, consider well of the reasons which sway
the most against it, and if thou canst not resolve, then
turne to read the eleventh chapter, for in that
shalt thou find the answer which
they may receive.



The Examination or Triall of mens
wits and dispositions.

CHAP. I.

He prooueth by an example, that if a Child haue not the
disposition and ability, which is requisite for that science where-
unto he wil addresse himselfe, it is a superfluous labour to be in-
structed therein by good schoolemaisters, to haue store of booke,
and continually to study.

His opinion of *Choro* was good, who,
that his sonne *Marke* might prone such
a one in that kind of learning, which
himselfe had made choice of, as he de-
sired; iudged, that it sufficed to send
him to a place of studie, so renowned
and famous in the world, as that of *A-
thens*; and to giue him *Crateppus* for his schoolemaister,
who was the greatest Philosopher of those daies, bringing
him vp in a citie so populous, where, through the great
concourse of people which thither assembled, he should
of necessity haue many examples and profitings of stran-
gers; so to teach him by experience those things which
appertained to the knowledge that himselfe was to learne.
But, notwithstanding all this diligence, and much more
ordered, methodical too, to giue him all y^e best guides, pre-
sents,

A Triall of Wits.

Besides, which (as a good father) he viced, promising him bookes, and wringing some vnto him of his own head, the Historians report, that he procured but a Gods head, with little eloquence, and lesse philosophie, (a matter vniuersall amongst men, that the sonne abies the much wisdom of the father.) Verily *Cicero* greatly beguiled himselfe, imagining that albeit his sonne were not issued out of natures hands, with that wit and habilitie which is requisit for eloquence and philosophie, yet by means of the good industrie of such a teacher, and the many bookes, and examples of *Athens*, together with the yoong mans continuall endeavour, and proesse of time, the defects of his vnderstanding would be amended: but we see, that finally he deceived himselfe, neither do I maruell thereat, for he had many examples to this purpose, which encouraged him to beleue, that the same might also befall in the person of his sonne.

For the same *Cicero* reports in his booke of *De finibus*, that *Zenocrates* had a wit very vntoward for the studie of Naturall and Morall philosophie, of whome *Plato* sayd, That he had a scholer, who stood in need of a spurre, and yet notwithstanding, through the good industrie of such a maister, and the continuall trauell of *Zenocrates* himselfe, he became a very great Philosopher. And he writes the like also of *Cleanthes*, who was so doltish and void of vnderstanding, that no teacher would receive him into his schoole, whereat the yoong man agreed, and ashamed, endured so great toyle in studying, that he came afterwards to be called a second *Heroules* for wisdom. No lesse vntoward for matters of eloquence, seemed the wit of *Demosthenes*, of whome it is sayd, that when he was now grown big, he could not yet speake plaine, but labouring and applying the art, by hearing of good teachers, he proceeded.

and the best Oratour of the world: and specially (as *Cicero* recounts) he could not pronounce the letter, R, for that he did somewhat stammer, and yet by practise he grew to articulat it so well, as if he had neuer had that way any defect. Hence took that prouerbe his originall, which saith, That mans wit in matters of science, is like a plaier at dice, for if any one prooue vnluckie in throwing his chaunce, by artificiall practise he comes to amend his euill fortune. But none of these examples produced by *Cicero*, remains without a conuenient answer in my doctrine: for (as we will hereafter proue) there is in yongmen a certaine dulnes, which argues a greater wit in another age, than if the same had bene sharpe from their childhood: nay it is a iudgement that they will prooue lowtish men, when they begin very soone to discoure and be quicke of conceipt. Wherefore, if *Cicero* had known the true tokens by which wits are in the first age to be discovered, he would haue held it a good signe, that *Demosthenes* was rude and slow of speech, and that *Zenocrates* had need of a spurre whilest he learned. I take not from a good instructor art, and industrie, their vertue and force, to manure wits, as well rude as pliant: but that which I will say, is, that if a yong man haue not of himselfe an vnderstanding capable of precepts and rules, which properly belong to the art he would learne, and to none other, that the diligence vsed by *Cicero* with his sonne, was as vaine as that which any other parent shall vse with his sonne, will be in the like. Those who haue read *Plato* shall easily know, that this doctrine is true, who reports that *Socrates* was the sonne, as he also reported himselfe of a midwife, & that as his mother (albeit she were much praised in the art) could not make a woman to be deliuered, that before her comming to her was not with child, so he performing the like office

4
 see as his mother) could not make his scholars bring
 forth any science, if of themselves they had not their vn-
 derstanding conceiued therewith. He was of opinion, that
 sciences were (as it were) natural to the learn'g only, who
 had their wit applicable therunto; and that as such it be-
 fell, as we see by experience in those who haue forgotten
 somewhat which they first knew; who if we put them in
 mind but of one word, gather from that all the residue.
 20 Masters (for doubtlesse I can gather) haue some other
 office with their scholars, than to bring learning to their
 remembrance; for if they haue a fruitfull wit, they make
 them with this only to bring forth wondrous conceits;
 otherwise they do but afflict themselves, and those whom
 they instruct, not euer obtaine their desires. And (at least if
 I were a teacher) before I receiued any scholar into my
 schoole, I would grow to many trials and experiments
 with him, ymtil I might discouer the qualitie of his wit,
 and if I found it by nature directed to that science where-
 of I made profession, I would willingly receiue him, for it
 breeds a great contentment in the teacher, to instruct one
 of good towardlinesse; and if not, I would counsaile him
 to studie that science, which were most agreeable with his
 wit. But if I saw, that he had no disposition or capacitie for
 any sort of learning, I would friendly and with gentle
 words tell him; Brother, you haue no means to prone a
 man of that profession which you haue vndertaken, take
 care not to loose your time and your labour, and prouide
 you some other trade or liuing, which requires not so
 great an habilitie as appertaineth to learning. Hereof is
 scene very plaine experience; for we behold a great num-
 ber of scholars enter the course of whatsoeuer science, and
 (be the teacher very good or very bad) finally euery day
 some prove of great skill, some of meane, and some in
 20 their

At Hall of Wits.

their whole course, haue done nought else than keepe their
eare, spend their goods, and beat their brains without any
manner of profit. ¹¹¹ I wot nere whence this effect may spring, they all hea-
ring one selfe teacher, and with equal diligence and care,
and perhaps the dull take more paine than the wittie, and
this difficultie growes the greater, by seeing that those
who are vntoward for one science, are very apt to another,
and the toward in one sort of learning, passing to another
sort, can vnderstand nothing. But my selfe am at least a
good witness in this truth, for there were three compa-
nions of vs, who entered together to studie the Latine
tongue, and one of vs learned the same with great facilitie,
the rest could neuer make any commendable composi-
tion, but all passing on to Logicke, one of those who could
not learne Grammar, proued in that art a principal Aegle,
and the other two, in the whole, neuer learned one ready
point, then all three coming to heare Astrologie, it was
a matter woorthy of consideration, that he who could no
skill of Latine or Logicke, in few daies knew more in A-
strologie than his master that taught them, and the rest
could neuer learne it. I then marcelling herat, began
soorthwith to make discourses, and play the Philosopher
hercon, and so I found that euery science required a speci-
all and particular wit, which reaued from that, was little
worth in other sorts of learning. And if this be true (as
verely it is, and we will so proue it hereafter) he that at this
day should enter into the schooles of our times, making
prooffe and assay of the scholers wits, how many would he
change from one science to another, & how many would
he send into the fields for dolts and vnable to learne?
and how many would he cal backe of those, who for want
of ability, are occupied in base exercises, and yet their wits

not by nature created only for learning, but for this
can no be brought about, nor remedied, it behooves us
stay no longer hereon, but to passe forward.

It cannot be denied, but that (as I haue sayd) there are
wits found capable of one science, which are vntoward
for another: and therefore it behooves, before the child
be set to studie, to discover the manner of his wit, and to
see what science agreeth with his capacitie, and then to
prouide that he may apply the same. But it is necessarie
also to consider, that this which hath bene sayd, sufficeth
not to make a man prooue sufficiently learned, but wee
must haue regard of other conditions no lesse requir
than is this of towardnesse. For *Hippocrates* sayeth, that
mans wit holds thelike proportion with knowledge, as
the earth doth with seed, which though of her selfe she be
fruitfull and fat, yet it behooves to manure her, and vse
aduicement to what sort of seed her naturall disposition
enclineth, for every sort of earth cannot without distin-
ction, produce euery sort of seed. Some better brings
forth Wheat than Barley, and some Barley better than
Wheat; and of Wheats some bring a plentifull increase
of good Lammas Wheat, and cannot away with the Be-
fest sort.

Neither doth the good husbandman content himselfe
to make this only distinction, but after he hath manured
the earth in due season, he looks for conuenient time to
sow it, for it cannot be done at all times of the yeare, and
after that the graine is sprung vp, he cleseth and weeded
it, that it may encrease and grow, giuing the fruit which of
the seed is expected. After this sort, it is necessarie, that the
science being knowne, which best fitteth with the person,
he begin to studie from his first age, for this (sayth *Ari-
stotle*) is the most pliant of all others to learning. Moreo-
uer.

upon this life is very short, and the art long, and wilfull to
 for which it behooves that there be time sufficient to
 know them, and space to exercise them, and therewith to
 profit the common wealth. Childrens memorie (saith *A-*
ristotle) is a table without any picture, because it was but
 a little while since they were borne, and so they receive
 any thing whatsoever with facilitie, and not as the me-
 morie of old men, which full of those many things they
 have seene in the long course of their life, is not capable of
 more: and therefore *Plato* sayth, that in the presence of
 youth, we should recount honest tales and actions, which
 may incite them to vertuous doings, for what they learne
 in that age, abides full in their minds, and not (as *Calen-*
sayth) that then it behooves to learne the arts, when our
 nature hath received all the forces that she can have, which
 point is void of reason if you admit no distinction. He
 that is to learne the Latine tongue or any other language,
 ought to do it in his childhood, for if he tarry till he be
 die be hardened, and take the perfection that it ought to
 have, he shall never reape available profit. In his second
 age, namely boyes state, it is requisite that he traile in the
 art of Syllogismes, for then the vnderstanding begins to
 display his forces, which hath the same proportion with
 Logicke, as shackles have with the feet of mules not yet
 trayned, who going some daies therewith, take afterward
 a certaine grace in their pace: so our vnderstanding shack-
 led with the rules & precepts of Logicke, takes afterward
 a graceful kind of discoursing and arguing in sciences and
 disputations. Then follows youth, in which all the sci-
 ences appertaining to the vnderstanding may be learned, for
 that hath a ripened knowledge.

True it is that *Aristotle* excepteth natural Philosophy,
 saying a young man is not of fit disposition for this kind

of doctrine, which it seemeth he hath reason; for there is substance of deeper consideration and wisdom than in any other.

Now the age thus knowne, in which sciences are to be learned, it behooves to search out a commodious place for the same; where nothing else save learning may be handled, and such are the Vniuersities: but the youth must forgo his fathers house, for the dandling of the mother, brethren, kindred, and friends which are not of his profession, do greatly hinder his profiting. This is plainly seen in the scholars who are native of the cities and places where Vniuersities are seated, none of which (saue by great miracle) ever become learned. And this may easily be remedied, by changing of Vniuersities, and the nature of one city going to studie in another. This saying, that a man takes from his owne country to make himselfe of worth and discretion, is of so great importance, that there is no master in the world who can teach him more, and especially, when a man fees himselfe (sometimes) abandoned of the fauour and delights of his countrey. Depart out of thy land (sayd God to *Abraham*) and lette thy selfe from amidst thy kindred and thy fathers house, and come to the place where I will shew thee, in which thou shalt make thy name great, & I will giue thee my blessing. The like sayes God to all men, who desire to procure of value and wisdom: for albeit he can bleesse them in their native countrey, yet he will, that men dispose themselves by this meane which he hath ordained, and that wisdom be not attained by them with idleneffe. All this is meant with a foregoing presupposall, that a man haue a good wit and be apt, for otherwise, *He that goes a beast to Rome, returns a beast againe.* Little auailles it, that a doltard go to learne in the famous places of studie, where there is no share of vnder-

At the end of Wits.

understanding, nor wisdom, nor a man to teach.
The third point of diligence is, to seek our master who hath a direction and method in teaching, whose doctrine is sound and firme, nor sophistical nor of vaine considerations: for all that the scholler doth, whilst he is a learning, is to creede all that which his master propounds vnto him, for he hath no sound iudgement or discretion to discern or separate falshood from truth, albeit this is a hauncefull case, and not placed in the choice of such as learne, that the schollers come in due time to studie, and that the Vniuersities haue good or vnsit instructors, as it befall certaine Physicians, of whom *Galen* reports, that hauing conuinced them by many reasons and experiments, and shewed them, that the practise which they vsed was false and prejudiciall to mens health; the tears fell from their eyes, and in his presence they began to curse their hard hap, in lighting on such bad masters as bare sway during the time that they were learners: True it is, that there are found some schollers of so ripe wit, as they straightwaies looke into the condition of the teachers, and the learning which he teacheth, and if it be vitiuous, they know how to confute the same, and to give allowance to such as deliuer soundly; these at the years end teach their master much more than their master taught them; for doubting & demanding wittily, they make him vnderstand and answer things so exquisit, as he himselfe neuer knew nor should haue knowne, if the scholler with the felicity of his wit, had not brought them to his mind: but those who can do this, are one or two at the most, and the dullards are infinite, through which, it would not well (seeing this choice and Examination of Wits for euerie science is not had) that the

Vniuers-

Vniuersities alwaies made prouision of good teachers, endued with sound learning, and a cleere discerning wit, to the end they may not instruct the ignorant in errors and false propositions.

The fourth diligence requisite to be used, is to studie euery science with order, beginning at his principles, and passing through the midst to the end, without hauing matter that may presuppose another thing before. For which cause, I haue alwaies held it an error, to heare many lessons of diuers matters, and to carry them all home fardled vp together. By this means there is made a masse of things in the vnderstanding, which afterwards, when they come to practise, a man knowes not how to turne to vse the precepts of his art, nor to alligne them a place conuenient: and it is much better to bestow labour in euery matter by it selfe, and with that naturall order which it holds in his composition, for in the selfe manner as it is learned, so is it also presented in the memorie. And more in particular, it is necessary that they do this, who of their owne nature haue a confused wit: and this may easily be remedied by hearing one matter by it selfe, and that being ended to enter into the next following, till the whole art be achieved. *Galen* well vnderstanding of how great importabce it was to studie matters with order and conceit, wrote a booke to teach the manner that was to be held in reading his works, to the end that the Philition might not be tangled in confusion. Others adde herevnto, that the scholler, whilest he learneth, haue but one booke which may plainly containe the points of his learning, and that he attend to studie that only and no more, lest he grow into a garbolic and confusion and herein they are warranted by great reason.

The

The

The best thing which makes a manifest of mans
 thing is to consume much time at his booke, and to ex-
 pect, that knowledge haue his due digestion, and take
 deepe root; for as the bodie is not maintained by the
 much which we eat and drinke in one day, but by that
 which the stomacke digesteth and turneth: so our vn-
 derstanding is not filled by the much which we read in
 little time, but by that which by little and little it pro-
 ceeds to conceiue and chew vpon. Our wit day by day
 disposeth it selfe better and better, and comes (by pro-
 cess of time) to light on things which before it could
 neither vnderstand nor conceiue. Vnderstanding hath
 his beginning, his increase, his standing, and his decli-
 ning, as hath a man, and other creatures and plants; it
 begins in boies age, hath his increase in youth, his stan-
 ding in middle or mans age, and in old age it begins to
 decline. Who so therefore would know at what time
 his vnderstanding enioieth all the forces which it may
 partake, let him weet, that it is from the age of thirty and
 three vntill fiftie, little more or lesse, within which com-
 passe we may best giue credit to graue authors, if in the
 discourse of their life, they haue held contrarie opini-
 ons; and he that will write bookes, let him doe it about
 this age, and not before nor after, if he meane not to vn-
 say againe, or change opinion.

But mans age hath not in all people a like measure
 and reason; for in some, childhood ends in twelue
 yeares, in some at fourteene, some haue sixteene, and
 some eighteen, such liues very long, because their youth
 arrives to little lesse than forty yeares, and their ripe or
 firme age to three-score, and they haue afterward twen-
 tie yeares of old age, wherethrough their life amounts
 to fourescore, and this is the terme of those who are ve-

ty strong. The first sort, who finish their childhood at twelve years, are very short lived, and begin speedily to discontinue, their beard soone sproweth out, and their wit lasteth but a small time, these at thirtie five years begin to decline, and at forty and eight, finish their life.

Of all the conditions aboue specified, there is not any one which is not very necessary, profitable, and helpful in practice for a young man to receiue notice of, but to haue a good and answerable nature to the science which he pretendeth to study, is the matter which most makes for the purpose: for with this, we haue seene, that others men haue begun to study, after their youth was expired, and were instructed by bad teachers, with euill order, and in their owne birth places, and yet for all that haue prooued great clearks. But if the wit faile (sayth Hippocrates) all other diligences are lost. But there is no man who hath better verified this, than the good *Marcus Cicero*, who through griefe of seeing his sonne such a doo-nought, with whom none of the means could preuaile, that he had procured to breed him wisdom, sayd in the end after this sort: *What else is it, after the manner of the Giants, to fight with the gods, than to resist against nature?* as if he should haue sayd: What thing is there, which better resembles the battaile, which the giants vndertooke against the gods, than that a man who wanteth capacitie, should set himselfe to studie? for as the giants neuer ouercame the gods, but were still vanquished by them: so whatsoeuer scholler will labour to overcome his owne vntoward nature, shall rest vanquished by her. For which cause, the same *Cicero* counsellith vs, that we should not vse force against our nature, nor endeavour to become Orators, if the assent not, for we shall vndergo labours in vaine.

That

CHAP. II.

That Nature is that which makes a man of habilitie.

To learne.

IT is an opinion very common and ordinarie amongst the ancient Philosophers, to say, That Nature is she who makes a man of habilitie to learne, and that art with her precepts and rules giues a facilitie therevnto, but then vse and experience, which he reapes of particular things, makes him mightie in working. Yet none of them euer shewed in particular, what thing this nature was, nor in what ranke of causes it ought to be placed: only they affirmed, that this, wanting in him who learned, art, experience, teachers, bookes, and traualle are of none auaile. The ignorant vulgar seeing a man of great wit and readinesse, straightwaies assigne God to be the author thereof, and looke no further, but hold euerie other imagination that goes beyond this, for vanitie: but naturall Philosophers despite this maner of talking, for put case that the same be godly, and containe therein religion and truth, yet it groweth from not knowing the order and disposition which God placed amongst naturall things, that day which they were created, and so couer their ignorance with a kind of warratise, and in fort, that none may reprehend or gainsay the same, they affirme that all befalls as God will, and that nothing succeeds, which springs not from his diuine pleasure. But though this be neuer so apparant a truth, yet are they worthis of reproofe,

prooffe: becaufe, as not euerie kind of demaund (faith *Aristotle*) is to be made after one fafhion, fo not euerie aunfwer (though true) is to be giuen.

Whileft a naturall Philofopher reasoned with a Gram-
marian, there came to them an inquisitiue Gardener,
and asked what the caufe might be, that he cherifhing
the earth fo charitie, in deluing, turning, dunging, and
watering it, yet the fame neuer well brought forth the
herbage which he fowed therein; whereas the hearbes
which fhe bred of her felfe, fhe caufed to encrease with
great facilitie. The Grammarian aunfwered, This grew
from the diuine prouidence, and was fo ordained tho-
row the good government of the world: at which an-
fwer, the naturall Philofopher laughed, feeing he redu-
ced this to God, becaufe he knew not the difcourfe of
naturall caufes, nor in what fort they proceeded to their
effects. The Grammarian perceiuing the other laugh,
asked whether he mocked him, or wher at elfe he laugh-
ed? The Philofopher answered that he laughed not at
him, but at the maifter who taught him fo ill, for the
knowledge and folution of things which fpring from
the diuine prouidence (as are the workes fupernaturall)
appertaine to the Metaphificks (whom we now bearme
Diuines :) but this queftion propounded by the Gar-
dener, is naturall, and appertaineth to the iurifdiction of
the naturall Philofophers, becaufe there are certaine or-
dered and manifeft caufes, from which this effect may
fpring. And thus the naturall Philofopher answered, fay-
ing, that the earth is conditioned like a ftepmother, who
very carefully brings up her owne children which fhe
breeds her felfe, but takes away the fufenance from
thofe which appertaine to her husband, and fo we fee
that her owne children are far and better, and her ftep-
children

children weak and ill coloured. The herbs which the earth brings forth of herselfe, are borne of her proper bowels, and those which the Gardener makes to grow by force, are the daughters of another mother, where-through she takes from them the vertue and nourishment, by which they ought to increas, that she may giue it to the herbs which are borne of herselfe.

Hippocrates likewise reports, that he going to visit the great Philosopher *Democritus*, he told him the follies which the vulgar speake of Phisicke, namely, that seeing themselves recovered from sicknesse, they would say, it was God who healed them, and that if his wil were not, little had the good diligence of the Phisition auailed. This is so antient a manner of talke, and the naturall Philosophers haue so often refuted it, that the seeking to take the same away, were superfluous, neither is it conuenient: for the vulgar, who know not the particular causes of any effect, answereth better and with more truth, as touching the vniuersall cause, which is God, than to say some other vnfitting thing. But I haue often gone about to consider the reason & the cause whence it may grow, that the vulgar sort is so great a friend to impute all things to God, and to reauce them from nature, & do so abhor the naturall means: and I know not whether I haue bene able to find it out. The vulgar (at least) giues hereby to vnderstand, that forasmuch as they know not what effects they ought to attribute to God immediately, and what to Nature, they speake after this manner. Besides that, men are for the most part impatient, and desirous to accomplish speedily what they couer. But because the naturall means are of such prolixitie, and work with length of time, they possesse not the patience to stand marking thereof, and knowing that God is

omnipot.

omnipotent; and in a moment of time performeth what heuer him please (whereof they find many examples) they would that he should giue the health, as he did to the sick of the palse; and wisdom, as to *Salemon*; riches, as to *Job*; and that he should deliuer them from their enimie, as he did *Dauid*.

The second cause is, for that men are arrogant, and vaine conceited, many of whom, desire secretly in their hearts; that God would bestow vpon them some particular graces, which should not befall after the common use (as is, that the sunne shineth vpon the good and bad, and that the raine falls vpon all in generall) for benefices are so much the more highly prized, as they are the more rare. And for this cause we haue seene many with so feigne miracles in houses and places of deuotion, for straightwaies, the people flockes vnto them, and holds them in great reverence, as persons of whome God makes a speciall account: and if they be poore, they fauour them with large almes, and so some haue vpon interest.

The third reason is, that men haue a liking to be well at their ease, whereas naturall causes are disposed with such order and conceit, that to obtaine their effects, it behoues to bestow labour. Wherefore they would haue God demean himselfe towards them, after his omnipotence, and that (without sweating) they might come to the well-head of their desires. I leaue aside the malice of those, who require miracles at Gods hand, thereby to tempt his almightinesse, and to reprooue whether he be able to do so: and other some, who to be encouraged after their hearts desire, are far from heauen, and such other cruell chaffinments.

The last cause is, for that many of the vulgar are religiously

ligiously giuen, and held decre, that God may be honored and magnified, which is much sooner brought about by way of miracles than by naturall effects, but the common sort of men know not, that workes about nature and woonderfull, are done by God, to shew those who know it not, that he is omnipotent, and that hee serues himselfe of them, as an argument to prooue his doctrine, and that this necessitie once ceasing, he neuer doth it more. This may well be perceiued, considering that God dooth no longer those vnwoonted things of the new testament: and the reason is, for that on his behalfe, he hath performed all necessarie diligence, that men might not pretend ignorance. And to thinke that he will begin anew to do the like miracles, and by them once againe to prooue his doctrine, in raising the dead, restoring sight to the blind, and healing the lame and sicke of the palsie, is an error very great; for once God taught men what is behooffull, and prooued the same by miracles, but returns not to do it any more. God speakes once (sayth *Iob*) and turnes not to a second repliall.

The token whereon I ground my iudgement, when I would discouer whether a man haue a wit appropriat to Naturall Philosophie, is, to see whether he bee addicted to reduce all matters to miracle, without distinction; and contrariwise, such as hold not themselues contented, vntill they know the particular cause of euerie effect, leaue no occasion to mistrust the goodnesse of their wit. These doe well know, that there are effects which must be reduced to God immediatly, (as miracles) and others to nature, (and such are those, which haue their ordinarie causes, fro whence they accustome to spring) but speaking both of the one manner and the

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other,

other, we alwaies place God for author: for when *Aristotle* said, that God and nature did nothing in vaine, hee meant not, that nature was an vniuersall cause, endowed with a iurisdiction seuered from God, but that shee was a name of the order and concent, which God hath bestowed in the frame of the world, to the end that the necessarie effects might follow, for the preservation thereof. For in the same manner, it is vsually said that the King, and Ciuill Reason, doe no man wrong. In which kind of speech, no man conceiueth that this name Reason, signifieth a Prince which possesseth a seuerall iurisdiction from that of the king; but a terme, which by his signification, embraceth all the roial laws, and constitutions ordained by the same king; for the preservation of his common wealth in peace. And as the king hath his speciall cases reserved to himselfe, which cannot bee decided by the law, for that they are vnusual and waighie: in like manner God left miraculous effects reserved for himselfe; neither gaue allowance vnto naturall causes, that they might produce them. But here we must note, that he who should know them for such, and difference them from naturall works, be-hooves to bee a great naturall Philosopher, and to vnderstand the ordinary causes that euery effect may hold, & yet all this sufficeth not, vnlesse the Catholike church ratifie them to bee such. And as the Doctors labour and studie in reading this ciuill Reason, preserving the whole in their memorie, that they may know and vnderstand what the kings will was, in the determination of such a case: so wee naturall Philosophers (as doctors in this facultie) bestow all our studie in knowing the discourse and order, which God placed that day when he created the world, so to contemplat and vnderstand
in

A Triall of Wits.

25

in what sort, and vpon what cause, he would that things should succeed. And as it were a matter worthy laughter, that a doctor should alleage in his writings (though approoued) that the king commaunds a case should bee thus determined, without shewing the Law and Reason, through which it was so decided: so natural Philosophers laugh at such as say, This is Gods doing, without assigning the order and discourse of the particular causes whence they may spring. And as the king wil giue them no care, when they require him to breake some iust law, or to rule some case besides the order of iustice, which hee hath commanded to bee obserued: so God will not hearken when any man demaunds of him miracles and workes besides naturall order, without cause why. For albeit the king every day abrogates and establisheth new lawes, and changeth iudiciall order (as well through the variation of times, as for that it is the iudgement of a fraile man, and cannot at one only time, attain to perfect right and iustice) notwithstanding the naturall order of the vniuerse, which we cal nature, from that day wherein God created the world, vnto this, hath had no need of adioining or reauing any one ior, because he framed the same with such prouidence and wisdom, that to require this order might not bee obserued, were to say, that his workes were vnperfect.

To returne then to that sentence so often vsed by natural Philosophers, that *Nature makes able*, we must vnderstand that there are Wits, and there are Abilitie, which God bestoweth vpon men besides naturall order, as was the wisdom of the Apostles, who being simple and of base account, were miraculously enlightened and replenished with knowledge and learning. Of this sort of abilitie & wisdom, it cannot be verified,

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that

that nature makes able; for this is a worke, which is to be imputed immediately vnto God, & not vnto nature: The like is to bee vnderstood of the wisdom of the Prophets, and of all those to whome God graunted some grace infused. Another sort of abilitie is found in men, which springs of their being begotten, with that order and consent of causes which are established by God to this end: and of this sort it may bee said with truth; *Nature makes able*. For (as we will prooue in the last chapter of this worke) there is to be found such an order and consent in naturall things, that if the fathers in time of procreation, haue regard to obserue the same, all their children shall prooue wise, and none otherwise. But the whilest, this significatiō of nature is very vniuersall and confused, and the vnderstanding contents not it selfe, nor staieth, vntill it conceiue the particular discourse, and the latest cause, and so it behooues to search out another signification of this name Nature, which may be more agreeable to our purpose.

Aristotle and other naturall Philosophers, descend into more particularities, and call Nature, whatsoever substantiall forme, which giues the being to any thing, and is the originall of all the working thereof; in which signification, our reasonable soule may reasonably be termed nature, for from her we receiue our formall being, which we haue of being men, and the selfe same is the beginning of whatsoever we doe and worke. But all soules being of equall perfection (as well that of the wisest, as that of the foolish) it cannot be affirmed, that nature in this signification, is that which makes a man able, for if this were true, all men should haue a like measure of wit and wisdom: and therefore the same *Aristotle* found out another signification of nature, which is the cause

cause, that a man is able or vnable; saying, that the temperature of the foure first qualities, (hot, cold, moist, and drie) is to be called nature, for from this issue at the habilities of man, all his vertues and vices, and this great varietie of wits which we behold. And this is clearly proved by considering the age of a man when he is wisest, who in his childhood is no more then a bruite beast, and vseth none other powers than those of anger and concupiscence; but comming to youth, there begins to shoot out in him a maruellous wit, and we see that it lasteth til a time certaine, and no longer, for old age growing on, he goes every day loosing his wit, vntill it come to be quite decayed.

This varietie of wits, it is a matter certaine that it springs not from the reasonable soule, for that is one selfe in all ages, without hauing receiued in his forces and substance any alteration: but man hath in euery age a diuers temperature, and a contrarie disposition, by meanes whereof, the soule doth other workes in childhood, other in youth, and other in old age. Whence we draw an euident argument, that one selfe soule, doing contrarie workes in one selfe bodie, for that it partakes in euery age a contrarie temperature, when of young men, the one is able, and the other vnapt, this growes for that the one of them enioies a diuers temperature from the other: And this (for that it is the beginning of all the workes of the reasonable soule) was by the Phisitions and the Philosophers, termed Nature; of which signification, this sentence is properly verified, that *Nature makes able.*

For confirmation of this doctrine, *Galen* writ a booke, wherein he proueth, That the manners of the soule, follow the temperature of the bodie, in which it keeps residence,

silence, and that by reason of the heat, the coldest, the
 moisture, and the drouth, of the territorie where men
 inhabit; of the meats which they feed on, of the waters
 which they drinke, and of the aire which they breath:
 some are blockish, and some wise: some of woorth, and
 some base: some cruel, and some merciful: many straight
 breasted, and many large: part liers, and part true spea-
 kers: sundrie traitors, and sundrie faithfull: somewhere
 vnquiet, and somewhere staid: there double, here sin-
 gle: one pinching, another liberall: this man shamefast,
 that shamelesse: such hard, and such light of beleefe.
 And to proue this, hee cites many places of *Hippocra-
 tes*, *Plato*, and *Aristotle*, who affirme, that the difference of
 nations, as well in composition of the bodie, as in con-
 ditions of the soule, springeth from the varietie of this
 temperature: and experience it selfe evidently sheweth
 this, how far are different *Greeks* from *Tartarians*: *French-
 men* from *Spaniards*: *Indians* from *Dutch*, and *Aethiopians*
 from *English*. And this may bee seene, not only in coun-
 tries so far distant, but if we consider the prouinces that
 enuiron all *Spaine*, wee may depart the vertues and vices
 which wee haue recounted, amongst the inhabitants, gi-
 uing ech one his particular vice and vertue; and if wee
 consider the wit and manners of the *Catalonians*, *Valenti-
 ans*, *Mercians*, *Granatines*, *Andaluizians*, *Estremenians*, *Portu-
 gals*, *Gallezians*, *Asturians*, *Montagnes*, *Biscanes*, *Nauarrists*,
Aragonois, and of the kingdome of *Castile*, who sees not
 and knowes not, how farre these are different amongst
 themselves, not only in shape of countenance, and in
 feature of body, but even in the vertues and vices of the
 soule? Which all growes, for that euery of these pro-
 uinces hath his particular and different temperature.
 And this varietie of manners is knowne, not onely in
 coun-

countries so far off, but in places also that are not more than a litle league in distance, it cannot be credited what ods there is found in the wits of the inhabitants. Finally, all that which *Galen* writeth in this his booke, is the groundplot of this my Treaise, albeit hee declares not in particular, the differences of the habilities which are in men, neither as touching the sciences which euerie one requires in particular. Notwithstanding, hee vnderstood that it was necessarie to depart the sciences amongst yoong men, and to giue ech one that which to his naturall habilitie was requisite, in as much as he said, That well ordered common wealths, ought to haue men of great wisdom and knowledge, who might in their tender age, discover ech ones wit and naturall sharpnesse, to the end they might bee set to learne that art which was agreeable, and not leaue it to their owne election.

CHAP. III.

What part of the bodie ought to be well tempered, that a young man may haue habilitie.



Man's body hath so many varieties of parts and powers (applied ech to his end) that it shall not stray from our purpose, but rather growes a matter of necessity, to know first, what member was ordained by nature for the principall instrument, to the end man might become wise and aduised. For it is a thing apparant, that we discourse not with our foot, nor walke on our head,

nor see with our nostrils, nor heare with our eies, but that every of these parts hath his vse and particular disposition, for the worke which it is to accomplish.

Before *Hippocrates* and *Plato* came into the world, it held for a generall conceit amongst the naturall Philosophers, that the heart was the principall part where the reasonable facultie made his residence, and the instrument wherewith the soule wrought the workes of wisdom, of diligence, of memorie, and of vnderstanding. For which cause, the diuine scripture (applying it selfe to the ordinarie speech of thole times) in many places, calls the heart the soueraigne part of a man. But these two graue Philosophers comming into the world, gaue euidence that this opinion was false, and prooued by many reasons and experiments, that the braine is the principall seat of the reasonable soule, and so they all gaue hands to this opinion, saue only *Aristotle*, who (with a purpose of crossing *Plato* in all points) turned to reuiue the former opinion, and with topical places to make it probable: with which of these opinions the truth swaith, time scruth not now to discusse. For there is none of these Philosophers that doubteth, but that the braine is the instrument ordained by nature, to the end that man might become wise and skilfull, it sufficeth only to declare with what conditions this part ought to be endued, to as wee may affirme, that it is dulic instrumentalized, and that a yong man in this behalfe may possesse a good wit and habilitie.

Four conditions the braine ought to enioy, to the end the reasonable soule may therewith commodiously performe the workes which appertaine to vnderstanding and wisdom. The first, good composition; the second, that his parts bee well vnised; the third, that the heart

he exceed not the cold, nor the moist the dry, and fourth, that his substance be made of parts subtile and very delicate.

In the good composition, are contained other foure things: the first is, good figure: the second, quantitie sufficient: the third, that in the braine the foure ventricles be distinct and seuered, each duly bestowed in his seat and place: the fourth, that the capableness of these be neither greater nor lesse than is conuenient for their workings.

Galen collects the good figure of the braine, by an outward consideration, namely the forme and disposition of the head, which he saith, ought to be such, as it should be, if taking a perfect round ball of wax, and pressing it together somewhat on the sides, there will remaine (after that manner) the forehead and the nape with a little bunchiness. Hence it followes that the man who hath his forehead very plaine, and his nadocke flat, hath not his braine so figured, as is requisite for wit and habilitie. The quantitie of the braine, which the soule needeth to discourse & consider, is a matter that breeds feare, for amongst all the bruite beasts, there is none found to haue so much braine as a man, in sort, as if we ioine those of two the greatest oxen together, they will not equall that of one onely man, be he neuer so little. And that whereto behooues more consideration, is, that amongst bruite beasts, those who approach neere to mans wise dome and discretion (as the ape, the fox, and the dog,) haue a greater quantitie of braine than the other, though bigger bodied than they. For which cause, *Galen* saith, that a little head in any man is euer faultie, because it wanteth braine; notwithstanding, I auouch that if his hauing a great head, proceedeth from abundance.

A Treatise of Wits.

dance of matter, and ill tempered, at such time as the same was shaped by nature, it is an euill token, for the same consists all of bones and flesh, and contains a small quantitie of braine, as it befalls in very big oranges, which opened, are found scarce of iuice, and hard of rinde. Nothing offends the reasonable soule so much, as to make his abode in a body surcharged with bones, fat, and flesh. For which cause *Plato* said, that wise mens heads are ordinarily weake, and vpon any occasion are easily annoied, and the reason is, for that nature made them of an emptie skull, with intention not to offend the wit, by compassing it with much matter. And this doctrine of *Plato* is so true, that albeit the stomacke abides so far distant from the braine, yet the same workes it offence, when it is replenished with fat and flesh. For confirmation hereof, *Galen* alleageth a prouerbe which saith, *A grosse bellie makes a grosse vnderstanding*, and that this proceeds from nothing else, than that the brain and the stomacke are vnited and chained together with certaine sinewes, by way of which they interchangeably communicat their dammages. And contrariwise, when the stomacke is drie and shrunke, it affoordes great aid to the wit, as wee see in the hungerstarued, and such as are driuen to their shifts, on which doctrine (it may be) *Pergamus* founded himself, when he said, That the belly is that which quickens vp the wit. But the thing most pertinent to be noted for this purpose, is, that if the other parts of the body bee fat and fleshie, and therethrough a man growes ouer grosse, *Aristotle* sayes, It makes him to leese his wit. For which cause, I am of opinion, that if a man haue a great head, albeit the same proceed for that he is endued with a very able nature, and that he is furnished with a quantitie of well tempered matter, yet hee shall

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not be owner of so good a wit, as if the brain held a much
 greater size.

Aristotle is of a contrary opinion, whilst he enquires
 for what cause a man is the wisest of all living creatures;
 to which doubt he answers, That you shall find no crea-
 ture which hath so little a head as man, respecting with-
 all the greatnesse of his bodie: but herein hee swarued
 from reason, for if he had opened some mans head, and
 viewed the quantitie of his braine, hee should haue
 found, that two horses together had not so much braine
 as that one man. That which I haue gathered by expe-
 rience is, that in little men it is best that the head incline
 somewhat to greatnesse, and in those who are big bo-
 died, it proues best that they bee little: and the reason
 is, for that after this sort, there is found a measurable
 quantity, with which the reasonable soule may well per-
 forme his working.

Besides this, there are needfull the foure ventricles in
 the brain, to the end the reasonable soule may discourse
 and Philosophize: one must be placed on the right side
 of the braine, the second on the left, the third in the
 middle of these, and the fourth in the part behind the
 braine. Whervnto these ventricles serue, and their large
 or narrow capablenesse for the reasonable soule, all shall
 bee told by vs a little hereafter, when we shall intreat of
 the diuersities of mens wits.

But it sufficeth not, that the braine possesse good fi-
 gure, sufficient quantitie, and the number of ventricles,
 by vs forementioned, with their capablenesse, great or
 little, but it behooues also that his parts holds a certaine
 kind of continuednesse, and that they bee not divided.
 For which cause, we haue seen in hurts of the head, that
 some men haue lost their memorie; some their vnder-
 standing,

standing, and others their imagination; and put case, that after they haue recovered their health, the braine re-uinted it selfe againe, yet this notwithstanding, the naturall vnion was not made, which the braine before possessed.

The third condition of the fourth principall, was, that the braine should bee tempered with measurable heat, and without excesse of the other qualities, which disposition, wee said heretofore that it is called *good nature*; for it is that which principally makes a man able, and the contrarie vnable.

But the fourth, (namely that the braine haue his substance or composition of subtile and delicate parts) *Galen* sayth, is the most important of all the rest. For when he would giue a token of the good disposition of the brain, he affirmeth, that a subtile wit, sheweth that the braine is framed of subtile and very delicat parts, and if the vnderstanding be dull, it giues euidence of a grosse substance, but he makes no mention of the temperature. These conditions the braine ought to bee endued withall, to the end the reasonable soule may therethrough shape his reasons and sillogismes. But here encounters vs a difficultie very great, and this is, that if we open the head of any beast, we shall find his braine composed with the same forme and manner, as a mans, without that anie of the fore-reported conditions will bee failing. Whence we gather that the bruite beasts haue also the vse of Prudence and reason, by means of the composition of their braine, or else that our reasonable soule serues not it selfe of this member, for the vse of his operations, which may not be auouched. To this doubt, *Galen* answereth in this manner: Amongst the kinds of beasts, it is doubted, whether that which is termed vnreasonable, be altogether

gether void of reason, or not, For albeit the same want that which consists in voice (which is named speech) yet that which is conceived in the soule, and termed discourse, of this it may be, that all sortes of beasts are partakers, albeit the same is bestowed more sparingly vpon some, and more largely on other some. But verely, how far man in the way of reason outgoeth all the rest, there is none who maketh question. By these words, *Galen* giues vs to vnderstand (albeit with some fearfullnesse) that bruite beasts, doe partake reason, one more, and another lesse, and in their mind doe frame some silllogismes and discourses, though they cannot vtter them by way of speech. And then the difference betweene them and man, consisteth in being more reasonable, and in vsing Prudence with greater perfection.

The same *Galen* prooues also by manie reasons and experiments, that Asses (being of all bruite beasts the bluntest) doe ariue with their wit to the most curious and nice points, which were deuised by *Plato* and *Aristotle*, and thereon he collectes saying: I am therefore so far from praising the ancient Philosophers, in that they haue found out some ample matter and of rare inuention, (as when they say, We must hold that there is fesse, and diuers: one, and not one: not only in number, but also in kind:) as I dare boldly affirme, that euen the very Asses (who notwithstanding seeme most blockish of all beasts) haue this from nature.

This selfe same meant *Aristotle*, when he enquired the cause, Why man amongst all liuing creatures is wisest: and in another place he turnes to doubt, For what cause man is the most vniust of all liuing creatures: in which hee giues vs to vnderstand the selfe same which *Galen* said, That the difference which is found betweene

man:

man and bruite beast, is the selfe same which is found betwene a foole and a wise man; which is nought else than in respect of the more and the lesse. This (truly) is not to be doubted, that bruite beasts enjoy memorie and imagination, and another power which resembles vnderstanding; as the Ape is verie like a man, and that his soule takes vie of the composition of the braine, it is a matter apparant: which being good, and such as is be-
hooffull, performes his works very well, and with much prudence, and if the braine be ill instrumentalized, it executes the same yntowardly. For which cause wee see that there be asses, which in their knowledge are properly such: and others againe are found so quicke conceived and malicious, that they passe the propertie of their kind. And amongst horses are found many isidish nesses, and good qualities, and some there are more trainable than the rest: all which growes from hauing their braine well or ill instrumentalized. The reason and solution of this doubt, shall be placed in the chapter which followeth, for there we returne to reason anew of this matter.

There are in the body some other parts, from whose temperature, as well the wit as the braine depend; of which, wee will reason in the last chapter of this worke. But besides these and the braine, there is found in the bodie another substance, whose seruice the reasonable soule vseth in his operations, and so requireth the three last qualities which we haue assigned to the braine, that is, quantitie sufficient, delicat substance, and good temperature. These are the vitall spirits, and arteriall blood, which goe wandring through the whole body, and remaine euermore vnited to the imagination, following his contemplation. The office of this spirittuall substance
is,

is to stir vp the powers of man, and to giue them force and vigour that they may bee able to worke. This shall evidently be knowne to be their manner, if we take consideration of the motions, of the imaginations, and of that which after succeeds in working. For if a man begin to imagine vpon any iniurie that hath beene proffered him, the blood of the arteries runs sodainly to the heart, and stirs vp the wrathfull part, and giues the same heat and forces for reuenge.

If a man stand contemplating any faire woman; or stay in giuing & receiuing by that imaginatiō touching the venerious act, these vitall spirits run foorthwith to the genitall members, and raise them to she performance. The like befalls when we remember any delicate and fauourie meat, which once called to mind, they straight abandon the rest of the body, and flie to the stomacke and replenish the mouth with water. And this their motion is so swift, that if a woman with child long for any meat whatsoeuer, and still retaine the same in her imagination, we see by experience, that she loofeth her burthen if speedily it be not yeelded vnto her. The naturall reason of this is, because these vitall spirits, before the woman conceiued this longing, made abode in the bellic, helping her there to retaine the creature, and through this new imagination of eating, they hie to the stomacke to raise the appetite, and in this space, if the belly haue no strong retentive, it cannot sustaine the same, and so by this means she leese her burthen.

Galen vnderstanding this condition of the vitall spirits, counsaileth Phisitions that they giue not sicke folke to eat, when their humors are raw and vpon digestion, for when they first feele the meat in the stomacke, they straightwaies abandon the worke about which before they

they were occupied, and come thervnto to helpe it. The like benefite and aid, the braine receiues of these vitall spirits, when the reasonable soule is about to contemplate, understand, imagine, or performe actions of memorie, without which it cannot worke. And like as the grosse substance of the braine, and his euill temperature brings the wit to confusion: so the vitall spirits, and the arteriall blood (not being delicat and of good temperature) hinder in a man his discourse and vse of reason. Wherefore *Plato* said, That the suppleness and good temperature of the heart, makes the wit sharpe and quick sighted. Having prooued before that the braine and not the heart, is the principall seat of the reasonable soule. And the reason is, because these vitall spirits are engendred in the heart, and partake of that substance and that temperature, which rested in that which formed them. Of this arteriall blood, *Aristotle* meant when he said, That those men are well compounded who haue their blood hote, delicate, and pure; for they are also of good bodily forces, and of a wit well disposed. These vitall spirits are by the Phisitions termed Nature, for they are the principall instrument with which the reasonable soule performeth his works, and of these also may that sentence be verified, *Nature makes able.*

CHAP. III.

It is prooued, that the soule vegetatiue, sensitiue, and reasonable, haue knowledge without that any thing be taught them, if so be that they possesse that conuenient temperature, which is requisite for their operation.

THe temperature of the four first qualities) which we heretofore termed Nature) hath so great force, to cause that (of plants, brute beasts, and man) each one set himselfe to performe those workes which are proper to his kind, that they ariue to that vtmost bound of perfection which may bee attained, so dainely & without any others teaching them; the plants know how to forme roots vnder ground, and by way of them to draw nourishment to retaine it, to digest it, and to driue forth the excrements: and the brute beasts likewise so soone as they are borne, know that which is agreeable to their nature, and flie the things which are naughtie and noisome. And that which makes them most to maruell who are not seene in naturall Philosophie, is, that a man hauing his braine well tempered, and of that disposition which is requisit for this or that science, so dainely and without hauing euer learned it of any, hee speaketh and vttereth such exquisit matters, as could hardly win credit. Vulgar Philosophers, seeing the maruellous workes which brute beasts performe, affirme it holds no cause of maruell, because they do it by naturall instinct, in as much as nature sheweth and teacheth each in his kind what hee is to doe. And in this they say vry well, for wee haue already alleaged and prooued, that nature is nothing else than this temperature of the foure first qualities, and that this is the schoolemaister who teacheth the soules in what sort they are to worke: but they tearme instinct of nature a certaine masse of things, which rise from the noddocke vpward, neither could they euer expound or giue vs to vnderstand, what

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ists. The graue Philosophers (as *Hippocrates*, *Plato*, and *Aristotle*) attribute all these maruellous workes to heat, cold, moisture, and drouth, and this they affirme of the first principle, and passe no farther. And if you aske who hath taught the brute beasts to doe these works, (which breed vs such maruell) and men to discourse with reason; *Hippocrates* answereth, It is the natures of them all without any teacher: as if he should say, The faculties or the temperature of which they consist, are al giuen them without being taught by any other. Which is cleerely discerned, if they passe on to consider the works of the soule vegetatiue, and of all the rest which gouerne man, who if it haue a quantitie of mans seed, wel digested and seasoned with good temperature, makes a body so seemly and duly instrumentalized, that all the caruers in the world cannot shape the like.

For which cause *Galen* woondring to see a frame so maruellous, the number of his seuerall parts, the seating, the figure, and the vse of each one by it selfe, grew to conclude, it was not possible that the vegetatiue soule, nor the temperature, could fashion a workmanship so singular, but that the author thereof was God, or some other most wise vnderstanding. But this maner of speech is alreadie by vs heretofore refuted: for it befeemes not naturall Philosophers to reduce the effects immediately to God, and so to slip ouer the assigning of the second reasons, and especially in this case, where we see by experience, that if mans seed consist of an euill substance, and enioy not a temperature conuenient, the vegetatiue soule runs into a thousand disorders: for if the same be cold and moist more than is requisit, *Hippocrates* sayth, that the men prooue Eunuches, or Hermofrodites; and if it be very hote and drie, *Aristotle* saith, that
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it makes them curle-pated, crooke-legged, and flat nosed as are the *Æthiopians*, and if it be moist, the same *Galen* saith, that they grow long and lithie: and if it be drie, low of stature. All this is a great defect in mankind, and for such works we find little cause to giue nature any commendation, or to hold her for aduised; and if God were the author hereof, none of these qualities could diuert him, Only the first men which the world possessed, *Plato* affirms were made by God, but the rest were born answerable to the discourse of the second causes, which if they be well ordered, the vegetatiue soule dooth well performe his operations: and if they concur not in sort conuenient, it produceth a thousand dammageable effects.

What the good order of nature for this effect must be, is, that the vegetatiue soule haue an endowment of a good temperature, or else, let *Galen* and all the Philosophers in the world answer me, what the cause is that the vegetatiue soule possesseth such skill and power in the first age of man to shape his body, and to increase and nourish the same, and when old age groweth on, can yeeld the same no longer. For if an old man leese but a tooth, he is past remedie of recouering another, but if a child cast them all, we see that nature returns to renew them againe. Is it then possible that a soule which hath done nought else in all the course of life, than to receiue food, retaine the same, digest it, and expell the excrements, new begetting the parts which faile, should towards the end of life forget this, and want abilitie to do the same any longer? *Galen* (for certaine) will answer, that this skill and habilitie of the vegetatiue soule in youth, springs from his possessing much naturall heat and moisture, and that in age the same wants skill and

power to performe it, by meanes of the coldnesse and drinesse, to which a bodie of those yeares is subiect. The knowledge of the sensitiue soule, takes his dependance also from the temperature of the braine, for if the same be such as his operations require that it should be, it can perform with due perfection; otherwise, the same must also erre no lesse than the soule vegetatiue. The manner which *Galen* held to behold and discern by eysight the wisdom of the sensitiue soule, was to take a yoong kid, but newly kidded, which set on the ground, begins to goe (as if it had bene told and taught that his legs were made to that purpose) and after that, he shakes from his backe the superfluous moisture which he brought with him from his mothers belly, and lifting vp the one foot, scrapes behind his eare; and setting before him sundrie platters with wine, water, vineger, oile, and milke, after hee hath smelt them all, hee fed only on that of milke. Which being beheld by diuers Philosophers there present, they all with one voice cried out, That *Hippocrates* had great reason to say, that soules were skilfull without the instruction of any teacher. But *Galen* held not himselfe contented with this one prooffe, for two months after hee caused the same kid, being very hungrie, to bee brought into the field, where smelling at many hearbs, hee did eat onely those, whereon goats accustomedly feed.

But if *Galen*, as hee set himselfe to contemplat the demaure of this kid, had done the like with three or foure together, hee should haue seene some gone better than other some, shrug themselves better, scratch better, and performe better at the other actions which we haue recounted. And if *Galen* had reared two colts, bred of one horse and mare, hee should haue seene the one to
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pace with more grace than the other, and to gallop and stop better, and shew more fidelitie. And if he had taken an ayrie of Faulcons, and manned them, he should have found the first good of wing, the second good of prey, and the third rauening and ill conditioned. The like shall we find in hounds, who being whelpes of the same litter, the one for perfection of hunting, will seeme to want but speech, and the other have no more inclination on therevnto, than if hee had bene engendered by a heardmans bandog.

All this cannot be reduced to those vaine instincts of nature; which the Philosophers saime. For if you aske for what cause one dog hath more instinct than another, both comming of one kind, and whelpes of one sire, I cannot coniecture what they may answer, saue to shid backe to their old leaning post, saying, That God hath taught the one better than the other, and giuen him a more naturall instinct. And if wee demaund the reason, why this good hound, being yet but a whelp, is a perfect hunter, and growing in age, hath no such sufficiency; and contrariwise, another being yoong cannot hunt at all, and waxing old, is wilie and readie; I know not what they can yeeld in replie. My self at least would say, that the towardly hunting of one dog more than another, growes from the better temperature of his brain; and againe, that his well hunting whilest hee is yoong, and his decay in age, is occasioned by means that in one age he partakes the temperature which is requisite to the qualities of hunting, and in the other not. Whence wee infer, that sithens the temperature of the foure first qualities is the reason and cause, for which one brute beaſt better performs the works of his kind than another, that this temperature is the schoolemaister which teacheth

the sensitive soule what it is to do.

And if *Galen* had considered the demeanure and voyages of the Ant, and noted his prudence, his mercie, his iustice, and his gouernment, he would haue taken astonishment to see a beast so little, endewed with so great sagessesse, without the helpe of any maister or teacher to instruct him. But the temperature which the Ant hath in his braine, being knowne, and how aptly it is appropriated to wisdom, (as hereafter shall be shown) this woonderment will cease, and we shall conceiue, that brute beasts with the temperature of their braine, and the fantasmes which enter thereinto by the five senses, make such discourses, and partake those abilities, which we do so much in them. And amongst beasts of one kind, he which is most schooleable and skillfull, is such, because he hath his braine better tempered, and if through any occasion or infirmitie, the temperature of his brain in our alteration, he will suddenly loose his skill and abilities, as men also do, and by good reason.

But now we are to treat of a difficulty touching the reasonable soule, which is, in what sort he hath this naturall instinct for the operations of his kind, (namely Sapience, and Prudence), and how on the sodaine, by means of his good temperature, a man can be skilled in the sciences, without the instruction of any other: seeing experience telleth vs, that if they be not gotten by learning, no man is at his birth endewed with them. Betweene *Plato* and *Aristotle*, there is a waighty question, as touching the verifieng the reason or cause from whence the wisdom of man may spring. One saith, that the reasonable soule is more ancient than the body, so that before such time as Nature endowd the same with these instruments, it made abode in heauen,

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in the company of God, whence it issued full of science and sapience : but when it entered to forme this matter, through the euill temperature which it found therein, it forewent the whole, vntill by processe of time, this ill temperature grew to amendment, and there succeeded another in steed thereof, with which (as more applicable to the sciences it had lost) it grew by little and little to call that to remembrance which before it had forgotten. This opinion is false, and I much marvel that *Plato* being so great a Philosopher, could not render the reason of mans wisdom, considering that brute beasts haue their prudences and naturall habilities, without that their soule departs from their bodie, or stirs vp to heauen to learne them. In which regard he cannot go blamelesse, especially hauing red in *Genesis* (whereto he gaue so great credit) that God instrumentalized the body of *Adam*, before he created his soule. The selfe-same befalls also now, saue that it is nature who begets the body, and in the last disposing thereof, God createth the soule in the same body, without that it be sundred therefrom any time or moment.

Plato tooke out of the holy scripture the best sentences which are to be found in his works, in respect whereof, he was called Diuine.

Aristotle tooke another course, affirming that euery doctrine, and euery discipline, comes from a foregoing knowledge, as if he would say, all that which men know and learne, springs from that they haue heard the same, seene it, smelt it, tasted it, or felt it. For there can grow no notice in the vnderstanding, which hath not first taken passage by some of the five senses. For which cause he sayd, that these powers issue out of the hands of nature, as a plain table in which is no maner of painting, which opinion is also false as well as that of *Plato*. But that we may the better prooue and make the same apparant, it behooues first to agree with the vulgar Philosophers,

Plato attributes
three soules vnto
man.

that in mans body there rests but one soule; and that the same is reasonable, which is the originall of whatsoever we doe or effect: albeit there are opinions, and there want not, who against this defend, that in companie of the reasonable soule, there are associated some two or three more.

This then standing thus in the workes which the reasonable soule performes, as it is vegetatiue, wee haue already proued that the same knowes how to shape man, and to giue him the figure which hee is to keepe, and knowes likewise how to receiue nourishment, to retaine it, to digest it, and to expell the excrements, and if any part of the bodie doe faile, she knowes how to supplie the same anew, and yeeld it that composition agreeable to the vse which it is to hold. And in the workes of the sensitiue and motiue, the child so soone as it is borne, knowes to suck, and fashion his lips to draw forth the milke, and this so redily, as not the wisest man can doe the like. And herewithall, it assures the qualities which are incident to the preservation of his nature, shuns that which is noisome and dammageable therevnto, knowes to weepe and laugh, without being taught by any. And if this be not so, let the vulgar Philosophers tell me awhile, who hath taught the children to do these things, or by what fence they haue learned it. Well I know they will answer, That God hath giuen them this naturall instinct as to the brute beasts, wherein they say not ill, if the naturall instinct bee the selfe same with the temperature.

The proper operations of the reasonable soule, namely, to vnderstand, to imagine and to performe actions of memorie, a man cannot do them forthwith so soone as he is borne, for the temperature of infancie serueth very

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vnfitly therefore, and is meerey appropriat to the vegetatiue and sensitiue, as that of old age is appropriat to the reasonable soule, and contrary to the vegetatiue and sensitiue. And if as the temperature which serues for prudence, is gotten in the brain by little and little, so the same could all bee ioined together at one instant, man should on the sodaine haue better skill to discourse and play the Philosopher, than if he had attained the same in the schooles.

But because nature cannot performe this saue by proesse of time, a man growes to gather wisdom by little and little, and that this is the reason and cause thereof, is manifestly prooued, if wee consider, that a man after he hath bene very wise, growes by little and little into folly, for that he daily goes (till his decrepit age) accreuing a contrarie temperature. I for mine owne part am of opinion, that if nature, as she hath made man of seed hot and moist (and this is the temperature which directs the vegetatiue, and the sensitiue, what they are to effectuat) so she had made him of seed cold and drie, euen after his birth, hee should straight-waies haue bene able to discourse and reason, and not haue attended to sucke, in as much as this is the temperature agreeable to these operations. But for that wee find by experience, that if the braine haue the temperature requisite for naturall sciences, he hath no need of a maister to teach him, it falls out necessarie that wee marke one thing, which is, that if a man fall into any disease, by which his braine vpon a sodaine changeth his temperature (as are madnesse, melancholy, and frenzie) it happens, that at one instant hee leese, if hee were wise, all his knowledge, and vtters a thousand follies; and if he were a foole, he accrues more wit and abilitie than he had before.

The seed and menstrual blood which are two materiall principles of which we be formed, are hot & moist, through which temperature children are so vnskilled.

I can speake of a rude countrey fellow, who becoming frantike, made a very eloquent discourse in my presence, recommending his well dooing to the by-standers, and that they should take care of his wife and children (if it pleased God to call him away in that sicknesse) with so many flowers of Rhetorike, and such apt choice of words, as if *Cicero* had spoken in the presence of the Senate: whereat the beholders maruelling, asked me whence so great eloquence and wisedome might grow, in a man who in his health time could scantly speake: and I remember I made answer, That the art of Oratorie was a science, which springs from a certaine point or degree of heat, and that this country fellow, before found, had by meanes of this infirmitie attained therevnto.

I can also speake of another frantike person, who for the space of more than eight daies, neuer vttered word which I found not to carrie his iust quantitie, and mostly he made couplements of verses very well composed, whereat the by-standers wondring to here a man speake in verse, who in his health had neuer so much skill, I sayd, It sildome fell out, that he who was a poet in his health time, should be so also in his sicknesse. For the temperature of the braine, by which when a man is whole, he becommeth a Poet, in sicknesse altereth and brings forth contrary operations. I remember that the wife of this frantike fellow, and a sister of his, named *Margaret*, reprooued him, because he spake ill of the saints, whereat the patient growing impatient sayd to his wife these words: I renounce God for the loue of you; and *S. Marie* for the loue of *Margaret*; and *S. Peter* for the loue of *Iohn of Olmedo*; and so he ran thorow a beadroll of many saints, whose names had consonance with

with the other by-standers there present.

But this is nothing, and a matter of small importance in respect of the notable speeches, vttered by a Page of one of the great ones of this realme, whilst he was mad, who in his health was reputed a youth of slender capacitie, but falling into this infirmitie, he deliuered such rare conceits, resemblances, and answers, to such as asked him, and deuised so excellent maners of gouerning a kingdome (of which he imagined himselfe to be soueraigne) that for great wonder people flocked to see him and heare him, and his very maister scarcely euer departed from his beds head, prayng God that he might neuer be cured. Which afterwards plainly appeared, for being recovered, his Phisition (who had healed him) came to take leaue of his lord, with a mind to receiue some good reward, if of nothing else, yet at least in good words; but he encountred this greeting: I promise you maister doctor, that I was neuer more aggrieved at any ill successe, than to see this my page recovered, for it was not behooffull that he should change so wise folly, for an vnderstanding so simple as is this, which in his health he inioieth. Me thinks that of one, who to fore was wise and well aduised, you haue made him a foole againe, which is the greatest miserie that may light vpon any man. The poore Phisition seeing how little thankfully his cure was accepted, went to take leaue of the page, who amongst many other words that passed betweene them, told him this: Maister doctor, I kisse your hands for so great a benefit bestowed on me, in restoring mine vnderstanding, but I assure you on my faith, that in some sort, it displeaseth me to haue bene cured. For whilst I rested in my folly, I led my life in the deepest discourtes of the world, and imagined my selfe so great a lord, as
there

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not yet perfectly
cured.

there reigned no king on the earth, who was not my vassall, and were this a ieast or a lie, what imported that, whilst I conceiued thereof so great a contentment, as if it had bene true? I rest now in far woorse case, finding my selfe in troth to be but a poore page, and to morrow I must begin againe to serue one, who whilst I was in mine infirmitie, I would haue disdained for my foot-man.

It skils not much, whether the Philosophers admit all this, and beleue that it may bee so or not; but what if I should prooue by verie true stories, that ignorant men strooken with this infirmitie, haue spoken Latine, which they neuer learned in their health; and that a franticke woman told all persons who came to visite her, their vertues and vices, and sometimes reported matters with that assurance, which they vse to giue who speake by coniectures and tokens: and for this cause, none almost durst come in to visite her, fearing to heare of those true tales which she would deliuer? and (which is more to bee maruelled at) when a barber came to let her blood, Friend (quoth shee) haue regard what you doe, for you haue but few daies to liue, and your wife shall marrie such a man: and this, though spoken by chance, fell out so true, as it tooke effect before halfe a yeare came to an end.

Me thinks I heare them who flie natural Philosophy, to say that this is a foule leasing, & that (put case it were true) the diuell as hee is wise and craftie by Gods sufferance, entred into this womans bodie, and into the rest of those frantike persons, whom I haue mentioned, and caused them to vtter those strange matters, and yet euen to confesse this, they are very loath; for the diuell foreknoweth not what is to come, because hee hath no propheticall

phercall spirit. They hold it a very sufficient argument to auouch, This is false, because I cannot conceiue how it may be so: as if difficult & quaint matters were subiect to blunt wits, and came within the reach of their capacities. I pretend not hereby to take those to taske who haue defect of vnderstanding, for that were a bootlesse labour, but to make *Aristotle* himselfe confesse, that men endowed with the temperature requisit for such operations, may conceiue many things without hauing receiued thereof any particular perseuerance, or learned the same at the hands of any other. Sundry also, because this heat is a neighbour to the seat of the mind, are wrapped in the infirmitie of sottishnesse, or are heated by some furious instinct, whence grew the *Sibils* and *Bacchants*, and all those, who men thinke are egged on by some diuine inspiration, whereas this takes his originall, not from any disease, but from a naturall distemperature. *Marcus* a citizen of *Siracusa*, was excellentest poet after hee lost his vnderstanding, and those in whom this abated heat approacheth least to mediocritie, are (verely) altogether melancholike, but thereby much the wiser. In these words *Aristotle* cleerely confesseth, that when the braine is excessiue heated, many thereby attaine the knowledge of things to come, (as were the *Sibils*) which *Aristotle* saith, growes not by reason of any disease, but thorow the inequalitye of the naturall heat, and that this is the very reason and cause thereof, he prooues apparantly by an example; alleading that *Mark* a citizen of *Siracuse*, was a Poet in most excellencie at such time as through excessiue heat of the braine hee fell besides himselfe, and when he returned to a more moderat temperature, hee lost his versifying, but yet remained more wise and aduised. In so much that *Aristotle* not only ad-
mits

mits the temperature of the braine, for the principall occasion of these extrauagant successes, but also reprooues them who hold the same for a diuine reuelation, and no naturall cause.

When the diseased diuine thus it is a sign that the reasonable soule is now awerie of the bodie, and so none such recouers.

The first who tearmed these maruellous matters by the name of diuinesse, was *Hippocrates*, and that it anie such point of diuinesse bee found in the disease, that it manifesteth also a prouidence. Vpon which sentence, he chargeth Physicians that if the diseased vter any such diuine matters, they may thereby know in what case she rests, and prognosticate what will become of him. But that which in this behalfe driues me to most woonder, is, that demanding of *Plato* how it may come to passe, that of two sonnes begotten by one father, one hath the skill of versifying, without any other teaching, and the other, toiling in the art of poetrie, can neuer beget so much as one verse; hee answereth, That he who was borne a Poet, is possessed, and the other not. In which behalfe, *Aristotle* had good cause to find fault with him, for that he might haue reduced this to the temperature, as else where he did.

The frantike persons speaking of Latine, without that he euer learned the same in his health time, shewes the consonance which the Latin toong holds with the reasonable soule, and (as we will prooue hieafter) there is to be found a particular wit, appliable to the inuention of languages, and Latine words, & the phrases of speech in that toong are so fitting with the eare, that the reasonable soule possessing the necessarie temperature for the inuention of soime delicat language, sodainly encounters with this. And that two deuilers of languages may shape the like words (hauing the like wit and habilitie) it is very manifest, presupposing that when God created

PSALM

Adam

Adam, and set all things before him, to the end he might bestow on each his seuerall name, whereby it should be called, he had likewise at that instant molded another man with the same perfection and supernaturall grace; now I demaund, if God had placed the same things before this other man, that he might also set them names whereby they should be called, of what manner those names should haue bene? for mine owne part, I make no doubt, but he would haue giuen these things, those very names which *Adam* did: and the reason is very apparant, for both carried one selfe eie to the nature of each thing, which of it selfe was no more but one. After this manner might the frantike person light vpon the Latine toong, and speake the same without euer hauing learned it in his health, for the naturall temperature of his braine, conceiuing alteration, through the infirmitie it might (for a space) become like his, who first inuented the Latine toong, and faine the like words, but yet not with that concert and continued finenessse, for this would giue tokē that the diuel moued that toong, as the church teacheth hir exorcists. This selfe (saith *Aristotle*) befel some children, who at their birth-time spake some words very plainly, and afterward kept silence, and he finds fault with the vulgar Philosophers of his time, who for that they knew not the naturall cause of this effect, imputed it to the diuell.

The cause why children speake so soone as they are borne, and after forthwith turne to hold their peace, *Aristotle* could neuer find out though he went much about it, but yet it could neuer sinke into his braine, that it was a deuise of the Diuels, nor an effect aboue nature, as the vulgar Philosophers held opinion; who seeing themselves hedged in with the curious and nicc points

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of naturall Philosophie, make them beleue who know little, that God or the diuell are authors of the prodigious and strange effects, of whose naturall cause they haue no knowledge and vnderstanding.

Children which are engendred of seed cold and drie, (as are those begotten in old age) some few daies and moneths after their birth, begin to discourse and philosophie; for the temperature cold and drie, (as we will hereafter prooue) is most appropriat to the operations of the reasonable soule, and that which processe of time, and manie daies and months should bring about, is supplied by the present temperature of the brain, which for many causes anticipateth what it was to effect. Other children there are (saith *Aristotle*) who as soone as they are borne, begin to speake, and afterwards hold their peace vntill they attaine the ordinarie and conuenient age of speaking; which effect floweth from the same originall and cause that we recounted of the page, and of those furious and frantike persons, and of him who spake Latine on a sudden without hauing learned it in his health. And that children whilst they make abode in their mothers bellie, and so soone as they are borne, may vndergoe these infirmities, is a matter past deniall. But whence that diuining of the frantike woman proceeded, I can better make *Cicero* to conceiue, than these naturall Philosophers, for he describing the nature of man, said in this manner: The creature foresightfull, searchfull, apt for many matters, sharpe conceited, mindfull, replenished with reason and counsell, whome we call by the name of Man. And in particular he affirmeth that there is found a certain nature in some men, which in foreknowing things to come, exceedeth other mens, and his words are these: For there is found a certaine
force

force and nature, which foretels things to come, the force and nature of which, is not by reason to be unfolded. The error of the naturall Philosophers consisteth, in not considering (as *Plato* did) that man was made to the likenesse of God, and that he is a partaker of his diuine prouidence, and that the power of discerning all the three differences of time, (memorie for the passed, conceiuing for the present, and imagination and vnderstanding for those that are to come.) And as there are men superior to others in remembring things past, and others in knowing the present, so there are also many, who partake a more naturall habilitie for imagining of what shall come to passe. One of the greatest arguments which forced *Cicero* to thinke, that the reasonable soule is vncorruptible, was to see the certaintie with which the diseased tell things to come, and especially when they are neere their end. But the difference which rests betweene a propheticall spirit and this naturall wit, is, that that which God speaks by the mouth of his Prophets, is infallible, for it is the expresse word of God: but that which man prognosticateth by the power of his imagination holds no such certaintie.

Those who say, that the discouering of their vertues and vices by the frantike woman, to the persons who came to visit her, was a trick of the diuels playing, let them know, that God bestowes on men a certaine supernaturall grace, to attaine and conceiue which are the workes of God, and which of the diuell: the which *Saint Paule* placeth amongst the diuine gifts, and calls it, The imparting of spirits. Whereby we may discern, whether it be the diuell or some good angell that intermedleth with vs. For many times the diuell sets to beguile vs under the cloke of a good angell, and we haue

need of this grace and supernaturall gift, to know him, and difference him from the good. From this gift they are farthest Sundered, who haue not a wit capable of naturall Philosophie: for this science, and that supernaturall infused by God, fall vnder one selfe ability, to weet, the vnderstanding at least; if it be true, that God in bestowing his graces, doe applie himselfe to the naturall good of euery one, as I haue afore rehearsed.

Jacob lying at the point of death, (at which time the reasonable soule is most at libertie, to see what is to come) all his twelue children entred to visit him, and he to each of them in particular, recited their vertues and vices, and prophesied what should befall, as touching them and their posteritie. Certaine it is, that he did all this inspired by God, but if the deuine scripture, and our faith, had not ascertained vs hereof, how would these naturall Philosophers haue known this to be the worke of God: and that the vertues and vices which the frantike woman told to such as came to visit her, were discovered by the power of the diuell, whilst this case in part resembles that of *Jacob*?

They reckon that the nature of the reasonable soule, is far different from that of the diuell, and that the powers thereof (vnderstanding, imagination, and memory,) are of another very diuers kind, and herein they be deceiued. For if a reasonable soule informe a well instrumentalized body (as was that of *Adam*) his knowledge comes little behind that of the subtillest diuell, and without the body he partakes as perfect qualities as the other. And if the diuels foresee things to come, coniecturing and discourfing by certaine tokens, the same also may a reasonable man do when he is about to be freed from his body, or when he is endowed with that difference.

rener of temperature, which makes a man capable of this providence. For it is a matter as difficult for the vnderstanding to conceiue how the diuell can know these hidden things, as to impute the same to the reasonable soule. It will not fall in these mens heads, that in natural things there may be found out certaine signs, by means of which they may attaine to the knowledge of matters to come. And I affirme, there are certaine tokens to be found, which bring vs to the notife of things passed and present, and to forecast what is to follow, yea & to conjecture some secrets of the heauen, Therefore we see that his things inuisible are vnderstood by the creatures of the world, by means of the things which haue bene created. Whosoever shall haue power to accomplish this, shall attaine thereto, and the other shall be such as *Hamur* spake of, The ignorant vnderstandeth the things passed, but not the things to come. But the wise & discret is the Ape of God, for he immitates him in many matters, and albeit he cannot accomplish them with so great perfection, yet he carries some resemblance vnto him, by following him.

CHAP. V.

It is proued that from the three qualities, hot, moist, and drie, proceed all the differences of men and wits.



He reasonable soule making abode in the body, it is impossible that the same can performe contrary and different operations, if for each of them it vse not a particular instrument. This is plainly seen in the power of the soule, which performeth diuers operations in the

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outward senses, for every one hath his particular composition: the eyes haue one, the eares another, the smelling another, and the feeling another; and if it were not so, there should be no more but one sort of operations, and that should all be seeing, tasting, or feeling, for the instrument determines & rules the power for one action, and for no more.

By this so plaine and manifest a matter, which passeth through the outward senses, we may gather what that is in the inward. With this selfe power of the soule, we vnderstand, imagine, and remember. But if it be true, that every worke requires a particular instrument, it behooueth of necessity, that within the braine there be one instrument for the vnderstanding, one for the imagination, and another different from them for the memorie: for if all the brain were instrumentalized after one selfe manner, either the whole should be memorie, or the whole vnderstanding, or the whole imagination. But we see that these are very different operations, and therefore it is of force that there be also a varietie in the instruments. But if we open by skill, and make an anotomy of the braine, we shall find the whole compounded after one maner, of one kind of substance, and alike, without parts of other kinds, or a different sort; onely there appeare foure litle hollownesse, who (if we well marke them) haue all one selfe composition and figure, without any thing comming betweene which may breed a difference.

What the vse and profit of these may be, and whereto they serue in the head, is not easly decideable: for *Galen* and the Anotomists, as well new as ancient, haue laboured to find out the truth, but none of them hath precisely nor in particular, expressed whereto the right
ventricle

ventricle serueth, nor the left, nor that which is placed in the middest of these two, nor the fourth, whose seat in the braine keeps the hinder part of the head. They are, firme, only (though with some doubt) that these foure concauities, are the shops where the vitall spirits are digested, and conuerted into animals, so to giue sense and motion to all the parts of the body. In which operation, *Galen* sayd once, that the middle ventricle was the principall, and in another place he vnswayes it againe, affirming that the hindermost is of greatest efficacie and valure.

But this doctrine is not true, nor founded on good naturall Philosophie, for in all mans body, there are not two so contrary operations, nor that so much hinder one another, as are discoursing, and digestion of nourishment: and the reason is, because contemplation requireth quiet, rest, and a cleerenesse in the animall spirits; and digestion is performed with great stirring and trauaile, & from this action rise vp many vapours, which trouble and darken the animall spirits, so as by means of them, the reasonable soule cannot discern the figures. And nature was not so vnaduised, as in one selfe place to conioine two actions which are performed with so great repugnancy. But *Plato* highly commends the wisdom and knowledge of him who shaped vs, for that he seuered the liuer from the braine by so great a distance, to the end, that by the rumbling there made, whilst the nourishments are mingled, and by the obscurenesse and darkenesse occasioned through the vapours in the animall spirits, the reasonable soule might not be troubled in his discourses and considerations. But though *Plato* had not touched this point of Philosophie, we see hourly by experience, that because the liuer and the stomack

are so far from the brain, presently vpon meat, and some space thereafter, there is no man that can giue himselfe to studie.

The truth of this matter is, that the fourth ventricle hath the office of digesting and altering the vitall spirits, and to conuert them into animal, for that end which we haue before remembred. And therefore nature hath separated the same by so great a distance from the other three, and made that braine sundred apart, and so far off (as appeareth) to the end, that by his operation, he hinder not the contemplation of the rest. The three ventricles placed in the forepart, I doubt not, but that nature made them to none other end than to discourse and philosophise. Which is apparantly prooued, for that in great studyings and contemplations, alwaies that part of the head finds it self agreed, which answereth these three concavities. The force of this argument is to be knowne, by consideration, that when the other powers are wearie of performing their workes, the instruments are alwaies agreed, whose seruice they vsed; as in our much looking, the eies are pained; and with much going, the soules of the feet wax sore.

Now the difficultie consists, to know in which of these ventricles the vnderstanding is placed, in which the memory, and in which the imagination, for they are so vnited and nere neighboured, that neither by the last argument, nor by anie other notice, they can be distinguished or discerned. Then considering that the vnderstanding cannot worke without the memorie be present, representing vnto the same the figures and fantasies agreeable thereunto, it behooueth that the vnderstanding part busie it selfe in beholding the fantasmies, and that the memorie cannot do it, if the imagination do not.

not accompany the same (as we haue already heretofore declared) we shall easily vnderstand, that all the powers are vnited in euery seuerall ventricle, and that the vnderstanding is not solely in the one, nor the memory solely in the other, nor the imagination in the third, as the vulgar Philosophers haue imagined, but that this vnion of powers is accustomably made in mans body, in as much as the one cannot worke without the aid of the other, as appeareth in the foure naturall abilities, digestiue, retentive, attractiue, and expulsiue, where, becaule each one stands in need of all the residue, nature disposed to vnite them in one selfe place, and made them not diuided or Sundered.

But if this be true, then to what end made nature those three ventricles, and ioyned together the three reasonable powers in euery of them, seeing that one alone sufficed to vnderstand and to performe the actions of memorie? To this may be answered, that there riseth a like difficultie, in skanning whence it commeth that nature made two eyes, and two eares, sithens in each of them is placed the whole power of sight and hearing, and we can see, hauing but one eye? Whereto may be said, that the powers ordained for the perfection of a creature, how much the greater number they carrie, so much the better assured is that their perfection, for vpon some occasion, one or two may faile, and therefore it serues well to the purpose, that there remaine some others of the same kind, which may be applied to vse.

In an infirmities which the Physicians tearme Resolution, or Palsie of the middle side, the operation is ordinarily lost of that ventricle which is strooken on that side, & if the other two remained not sound, & without endammageance, a man should thereby become wittles,

and void of reason. And yet for all this, by wanting that onely ventricle, there is a great abatement discerned in his operations, as well in those of the vnderstanding, as of the imaginatiue, and memory, as they shal also find in the losse of one sight, who were woont to behold with two; whereby we cleerely comprize, that in euery ventricle are all the three powers, sithens by the annoiance of any one, al the three are weakened. Seeing then al the three ventricles are of one selfe composition, and that there rests not amongst them any varietie of parts, we may not leaue to take the first qualities for an instrument, and to make so many generall differences of wits, as they are in number. For to thinke that the reasonable soule being in the body, can worke without some bodily instrument to assist her, is against all naturall Philosophy. But of the foure qualities, heat, cold, moisture, and drouth: all Philistions leaue out cold, as vnprofitable to any operation of the reasonable soule, wherethrough it is seene by experience in the other habilities, that if the same mount aboue heat, all the powers of man do badly performe their operations, neither can the stomacke digest his meat, nor the cods yeeld fruitfull seed, nor the muscles moue the body; nor the braine discourse. For which cause, *Galen* said, Coldnesse is apparantly noisome to all the offices of the soule; as if he should say, Cold is the ruine of all the operations of the soule, onely it serues in the body to temper the naturall heat, and to procure that it burne not ouermuch: and yet *Aristotle* is of a contrary opinion, where he affirmeth, it is a matter certaine, that that blood carrieth most forcible efficacy, which is thickest and hottest, but the coldest & thinnest hath a more accomplished force to perceiue and vnderstand; as if he would say, the thicke and hot blood makes

makes great bodily forces, but the pure and cold is cause that man possesseth great vnderstanding. Whereby we plainly see, that from coldnesse springeth the greatest difference of wit that is in any man, namely in the vnderstanding.

Aristotle moreouer moues a doubt, and that is, why men who inhabite very hot countries (as *Ægypt*) are more wittie and aduised than those who are borne in cold regions. Which doubt he resolues in this manner: That the excessiue heat of the country fretteth and consumeth the naturall heat of the braine, and so leaues it cold, wherby man growes to be full of reasonablenesse. And that contrariwise, the much cold of the aire, fortifieth the much naturall heat of the braine, and yeelds it not place to resolue. For which cause (sayth he) such as are very hot brained, cannot discourse nor philosophise, but are giddie headed, and not settled in any one opinion. To which opinion it seemes that *Galen* leaneth, saying that the cause why a man is vnstable, and changeth opinion at euery moment, is, for that he hath a hote braine: and contrariwise, his being stable and firme, springs from the coldnesse of his brain. But the truth is, that from this heat there groweth not any difference of wit, neither did *Aristotle* mean that the cold blood, by his predominance, did better the vnderstanding, but that which is lesse hote. True it is, that mans variablenesse springs from his partaking of much heat, which lifts vp the figures that are in the brain, and makes them to boile, by which operation, there are represented to the soule many images of things, which inuite him to their contemplation, and the soule to possesse them all, leaues one and takes another. Contrariwise it befalls in coldnesse, which for that it imprints inwardly these fi-
gures.

gures, and suffers them not to rise, makes a man firme in one opinion, and it prooues so, because none other presents it selfe to call the same away. Coldnesse hath this qualitie, that it not only hindereth the motions of bodily things, but also makes that the figures and shapes which the Philosophers call spirituall, be vnmoueable in the braine. And this firmnesse seemeth rather a negligence, than a difference of habilitie. Alike true it is, that there is found another diuersity of firmnesse, which proceeds from possessing an vnderstanding well compacted together, & not from the coldnesse of the brain. So there remaine drouth, moisture, and heat for the seruice of the reasonable facultie. But no Philosopher as yet wist to giue to euery difference of wit determinatly that which was his. *Heracitus* sayd, *A drie brightnesse makes a most wise mind*: by which sentence he giues vs to vnderstand, that driness is the cause why a man becoms very wise, but he declares not in what kinde of knowledge.

The selfe same meant *Plato*, when he sayd, that the soule descended into the body endowed with great wisdom, and through the much moisture which it there found, grew to become dull & vntoward. But this wearing away in the course of age, and purchasing driness, the soule grew to discouer the knowledge which he tofore enioyed. Amongst brute beasts, saith *Aristotle*, those are wisest whose temperature is most enclined to cold and drie, as are the ants and bees, who for wisdom, concur with those men that partake most of reason. Moreover, no brute beast is found of more moisture, or lesse wit than a hog, wherethrough the Poet *Pindare*, to gibe at the people of *Beotia*, and to handle them as fooles, sayd thus:

Thvs.

Thence toward folk which now is nam'd

Beotia, were once call'd Hogs.

Moreouer, blood through his much moisture, sayth *Galen*, makes men simple. And for such, the same *Galen* recounts that the Commicks ieasted at *Hippocrates* children, saying of them, That they had much naturall heat, which is a substance moist and very vaporous. This is ordinarily incident to the children of wise men, & hereafter I will make report of the cause whence it groweth. Amongst the foure humours which we enioy, there is none so cold and drie as that of melancholy, and whatsoever notable men for learning, haue liued in the world (saith *Aristotle*) they were all melancholike. Finally, all agree in this point, that drinesse makes a man very wise, but they expresse not to which of the reasonable powers it affoordeth greatest helpe; only *Esay* the Prophet calls it by his right name, where he sayth, *That triauaile giues vnderstanding*: for sadnesse and affliction not only diminisheth & consumeth the moisture of the brain, but also drieth vp the bones, with which qualitie, the vnderstanding groweth more sharpe & sightfull. Whereof we may gather an example very manifest by taking into consideration many men, who cast into pouertie and affliction, haue therethrough vttered and written sentences woorth the maruelling at, and afterwards rising to better fortune, to eat and drinke well, would neuer once open their mouths. For a delicious life, contentment, and good successe, and to see that all things fall out after our liking, looseth and maketh the brain moist. And this is it which *Hippocrates* sayd, *Mirth looseth the heart*, as if he would haue said, That the same enlargeth and giueth it heat and grossenesse.

And the same may easily be prooued another way,
for

for if sadnesse and affliction drie vp and consume the flesh, and for that reason, man gaineth more vnderstanding, it falls out a matter certain, that his contrary, namely mirth, will make the braine moist, and diminish the vnderstanding. Such as haue purchased this manner of wit, are suddenly enclined to pastimes, to musicke, and to pleasant conuersations, and flie the contrarie, which at other times gaue them a relish and contentment. Now by this, the vulgar sort may conceiue whence it growes, that a wise and vertuous man attaining to some great dignity (whereas at first he was but poore & base) suddenly changeth his manners, and his fashion of speech: and the reason is, because he hath gotten a new temperature, moist and full of vapours, whence it follows that the figures are cancelled which tofore he had in his braine, and his vnderstanding dulled.

From moisture it is hard to know what difference of wit may spring, sithens it is so far contrary to the reasonable facultie. At least (after *Galens* opinion) all the humours of our body, which hold ouer-much moisture, make a man blockish and foolish, for which cause he sayd, The readinesse of mind and wisdom growes from the humour of choler: the humour of melancholy is author of firmnesse and constancie; blood, of simplicitie and dulnesse; the flegmaticke complexion auaieth nothing to the polishing of mannes. In so much that blood with his moistures, and the flegme, cause an impairing of the reasonable facultie.

But this is vnderstood of the faculties or reasonable wits, which are discursive and active, and not of the passive, as is the memory, which depends as well on the moist, as the vnderstanding doth on the drie. And we call memory a reasonable power, because without it, the
vnder-

A Triall of Wits.

Understanding and the imaginative are of no valur. It ministreth matter and figures to them all, wherevpon they may syllogise conformably to that which *Aristotle* sayth, It behooues that the vnderstander go beholding the fantasmes; and the office of the memorie is, to preserue these fantasmes, to the end that the vnderstanding may contemplat them, and if this be lost, it is impossible that the powers can worke; and that the office of memorie is none other, than to preserue the figures of things, without that it appertains therto to deuise them. *Galen* expresseth in these words, Membrie (verely) laies vp and preserueth in it selfe, the things knowne by the sense, and by the mind, & is therin as it were their storehouse and receiuing place, and not their inuenter. And if this be the vse thereof, it fals out apparant; that the same dependeth on moisture; for this makes the braine pliant, and the figure is imprinted by way of straying. To prooue this, we haue an euident argument in boyes age, in which any one shall better conne by hart, than in any other time of life, and then doth the braine partake greatest moisture. Whence *Aristotle* moueth this doubt, Why in old age we haue better wit, and in yoong age we learne more readily: as if he should say, What is the cause, that when we are old we haue much vnderstanding, and when we are yoong we learne with more forwardnesse? Whereto he answereth, That the memory of old men is full of so many figures of things which they haue seene and heard in the long course of their life, that when they would bestow more therin, it is not capable thereof, for it hath no void place where to receiue it. But the memory of yoong folke, when they are newly borne, is full of plaits, and for this cause they receiue readily whatsoeuer is told or taught them. And he

Wherethrough
Cicero defining
the nature of
wit, placeth me-
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by one name are
teamed wit.

makes this playner, by comparing the memorie of the morning with that of the euening, saying, That in the morning we learne best, because at that time our memorie is emptie, and at the euening illy, because then it is full of those thinges which we encountred during the day. To this Probleme *Aristotle* wist not how to answer, and the reason is very plaine, for if the spices and figures which are in the memorie, had a body and quantitie to occupie the place: it would seeme that this were a fitting answer; but being vndeuided and spiritual, they cannot fill nor emptie any place where they abide, yea we see by experience, that by how much more the memorie is exercised euery day receiuing new figures, so much the more capable it becommeth. The answer of this Probleme is very euident after my doctrine, and the same importeth, that old men partake much vnderstanding, because they haue great drinesse, and faile of memorie, for that they haue little moisture, and by this means the substance of the braine hardneth, and so cannot receiue the impression of the figures, as hard wax with difficultie admitteth the figure of the seale, and the soft with easinesse. The contrary befalls in children, who through the much moisture wherewith the braine is endowd, faile in vnderstanding, and through the great suppleness of their braine, abound in memory: wherein, by reason of the moisture, the shapes and figures that come from without, make a great easie, deepe, and well formed impression.

That the memorie is better the morning than the euening, cannot be denied, but this springeth not from the occasion alleaged by *Aristotle*, but the sleepe of the night passed hath made the braine moist, and fortified the same, and by the waking of the whole day it is dried
and

and hardened. For which cause, *Hippocrates* affirmeth those who haue great thirst at night, shall doe well to drinke, for sleepe makes the flesh moist, and fortifieth all the powers which gouern man. And that sleepe so doth, *Aristotle* himselte confesseth.

By this doctrine is perfectly seene that the vnderstanding and memorie, are powers opposit and contrary, in sort, that the man who hath a great memorie, shall find a defect in his vnderstanding, and he who hath a great vnderstanding cannot enioy a good memorie; for it is impossible that the brain should of his owne nature, be at one selte time drie and moist. On this maxime, *Aristotle* grounded himselte, to prooue, that memorie is a power different from remembrance; and he frames his argument in this manner: Those who haue much remembrance, are men of great vnderstanding, and those who possesse a great memorie, find want of vnderstanding; so then memorie and remembrance are contrary powers. The former proposition, after my doctrine is false; for those who haue much remembrance, are of little vnderstanding, and haue great imaginations, as soone hereafter I will prooue: but the second proposition is verie true, albeit *Aristotle* knew not the cause, whereon was founded the enmitie which the vnderstanding hath with the memory.

From heat, which is the third qualitie, groweth the imaginatiue, for there is no other reasonable power in the braine, nor any other qualitie to which it may be assigned besides that, the sciences which appertaine to the imaginatiue, are those, which such vter as dote in their sicknesse, and not of those which appertaine to the vnderstanding, or to the memorie. And frenzie, peeuishnesse, and melancholy, being hot passions of the braine;

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it yeelds a great argument, to prooue that imagination conſiſts in heat. One thing breeds me a difficulty herein, and that is, that the imagination carrieth a contrarietie to the vnderſtanding, as alſo to the memorie, and the reaſon hereof is not to be gotten by experience, for in the braine may very wel be vnited much heat and much drineſſe, and ſo likewiſe, much heat and much moiſture, to a large quantity: and for this cauſe, a man may haue a great vnderſtanding and a great imagination, & much memorie with much imagination: and verely, it is a miracle to find a man of great imagination, who hath a good vnderſtanding, and a ſound memorie. And the cauſe thereof beleeues to be, for that the vnderſtanding requires that the braine be made of parts very ſubtile and delicat, as we haue prooued heretofore out of *Galen*, and much heat frets and conſumes what is delicat, and leaues behind the parts groſſe and earthly. For the like reaſon, a good imagination cannot be vnited with much memorie; for exceſſiue heat reſolueth the moiſture of the braine, and leaueth it hard and drie, by means whereof it cannot eaſily receiue the figures. In ſort that in man there are no more but three generall differences of wits for there are no more but three qualities whence they may grow. But vnder theſe three vniuerſall differences, there are contained many other particulars, by means of degrees of acceſſe which heat, moiſture and drineſſe may haue.

Notwithſtanding there ſprings a difference in wits from euery degree of theſe three qualities, for the dry, the hot, and the moiſt, may exceed in ſo high a degree, that it may altogether diſturbe the animall power, conformable to that ſentence of *Galen*, Euery exceſſiue diſtemperature reſolues the forces; and ſo it is. For albeir
drineſſe

Any diſtemperature whatſoeuer, cannot any long time endure alone.

drinke glue helpe to the vnderstanding, yet it may be that the same shal consume his operations. Which *Galen* and the ancient Philosphers would not admit, but affirm, that if old mens brains grew not cold, they should neuer decay, though they became drie in the fourth degree. But they haue no reason for this, as we will prooue in the imaginatiue: for albeit his operations be performed with heat, yet if it passe the third degree, forthwith the same begins to resolue, and the like doth the memorie through ouer-much moisture.

How many differences of wits grow by means of the superabounding of each of these three qualities, cannot for this present be particularly recited, except tofore we recount all the operations and actions of the vnderstanding, the imagination, and the memory: But the whilest we are to know that the principall works of the vnderstanding are three: the first, to discourse; the second, to distinguish; and the third, to chuse. Hence comes it that they place also three differences in the vnderstanding: into three other is the memorie deuided: one receiues with ease, and suddenly forgetteth; another is slow to receiue, but a long time retaineth; and the last receiueth with ease, and is very slow to forget.

The imagination containeth many more differences, for he hath three, no lesse than the vnderstanding and memorie, and from each degree ariseth three other. Of these we will more distinctly discourse hereafter, when we shall assigne to each, the science which answereth it in particular.

But he that will consider three other differences of wit, shall find that there are habilities in those who studie, some which haue a disposition for the cleare and easie contemplations of the art which they learne, but if

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you set them about matters obscure and very difficult, it will prooue a lost labour for the teacher to shape them a figure therof by fit examples, or that they frame themselves the like by their owne imagination, for they want the capacitie.

In this degree are all the bad scholers of whatsoeuer facultie, who being demaunded touching the easie points of their art, answer to the purpose, but coming to matters of more curiousestie, they will tel you a hundred follies. Other wits aduance themselves one degree higher, for they are pliant and easie in learning things, and they can imprint in themselves all the rules and considerations of art, plaine, obscure, easie, and difficult, but as for doctrine, argument, doubting, answering, and distinguishing, they are all matters, wherewith they may in no wise be combred. These need to learne sciences at the hands of good teachers, well-skilled in knowledge, and to haue plenty of bookes, and to studie them hard, for so much the lesse shall their knowledge be, as they forbear to reade and take paines. Of these may be verified that so famous sentence of *Aristotle*, Our vnderstanding is like a plaine table, wherin nothing is pourtraied. For whatsoeuer they are to know and attaine, it behooues that first they heare the same of some other, and are barren of all inuention themselves. In the third degree, nature maketh some wits so perfect, that they stand not in need of teachers to instruct them, nor to direct in what fort they are to philosophise, for out of one consideration, endicted to them by their school-maister, they will gather a hundred, and without that ought be bestowed vnto them, they fill their wit with science and knowledge. These wits beguiled *Plato*, and made him to say, That our knowledge is a certaine spice

of

of remembrance, when he heard them speake and say that which neuer fell into consideration with other men.

To such, it is allowable that they write bookes, and to others not: for the order and concert which is to be held, to the end that sciences may dayly receiue increase and greater perfection, is to ioine the new inuention of our selues, who liue now, with that which the auntients left written in their bookes. For dealing after this manner, each in his time, shall adde an increase to the arts, and men who are yet vnborne, shal enioy the inuention and trauaile of such as liued before. As for such who want inuention, the common wealth should not consent that they make bookes, nor suffer them to be printed, because they do nought else saue heape vp matters alreadie deliuered, and sentences of graue authours, returning to repeat the selfe things, stealing one from hence, and taking another from thence; and there is no man, but after such a fashion may make a booke.

Wits full of inuention, are by the *Tuscans* called goatish, for the likenesse which they haue with a goat, in their demeanure and proceeding. These neuer take pleasure in the plains, but euer delight to walke alone thorough dangerous and high places, and to approach neere steepe down-falls, for they will not follow any beaten path, nor go in company. A propertie like this, is found in the reasonable soule when it possesseth a braine well instrumentalized and tempered, for it neuer resteth settled in any contemplation, but fareth forth with vnquiet, seeking to know and vnderstand new matters. Of such a soule is verified the saying of *Hippocrates*, The going of the soule is the thought of men. For there are some, who neuer passe out of one contemplation, and thinke

not that the whole world can discover another such. These haue the propertie of a beast, who neuer forsakes the beaten path, nor careth to walke through desert and vnhaunted places, but only in the high market way, and with a guide before him. Both these diuersities of wits, are ordinarie amongst professors of learning. Some others there are of high searching capacities, and estranged from the common course of opinions, they iudge and entreat of matters with a particular fashon, they are franke in deliuering their opinion, and tie not themselves to that of any other. Some sorts are close, moist, and very quiet, distrusting themselves, and relying vpon the iudgement of some graue man whom they follow, whose sayings and sentences, they repute as sciences and demonstrations, and al things contrarying the same they reckon vanitie and leasings.

These two differences of wits are very profitable if they be vniued; for as amongst a great droue of cattell, the heardsmen accustome to mingle some dozen of goats to lead them and make them trot apace, to enioy new pastures, that they may not suffer scarcitie; so also it behoueth, that in humane learning, there be some goat-like wits, who may discover to the cattell like vnderstanding, thorow secrets of nature, and deliuer vnto them contemplations not heard of, wherein they may exercise themselves, for after this manner, arts take increase, and men daily know more and more.

CHAP. VI.

Certaine doubts and arguments are propounded against the doctrine of the last chapter, and their answer.

One



One of the causes for which the wisdom of *Socrates* hath bene so famous till this day, is, for that after he was adiudged by the oracle of *Apollo*, to be the wisest man of the world, he sayd thus: *I know this onely, that I know nothing at all*: which sentence, al those that haue seene and read, passed it ouer as spoken by *Socrates*, for that he was a man of great humbleness, a despiser of worldly things, and one to whome, in respect of diuine matters, all else seemed of no valure. But they verely are beguiled, for none of the antient Philosophers possessed the vertue of humilitie, nor knew what thing it was, vntill God came into the world and taught the same.

The meaning of *Socrates* was, to giue to vnderstand how little certaintie is contained in humane sciences, and how vnsetled and fearfull the vnderstanding of a Philosopher is in that which he knoweth, seeing by experience, that all is full of doubts and arguments, and that we can yeeld assent to nothing, without fearing that it may be contrary. For it was said, The thoughts of men are doubtfull, and our foreseeings vncertaine. And he who will attaine the true knowledge of things, it behooues that he rest settled and quiet without feare or doubt of being deceiued, and the Philosopher who is not thus wise grounded, may with much truth affirme that he knoweth nothing.

This same consideration had *Galen*, when he sayd, Science is a conuenient and firme notice, which neuer departeth from reason? therefore thou shalt not find it amongst the Philosophers, especialy when they consider