The New Organon\_Francis Bacon

Preface

Those who have presumed to make pronouncements about nature as if

it were a closed subject, whether they were speaking from simple confidence

or from motives of ambition and academical habits, have done

very great damage to philosophy and the sciences. They have been successful

in getting themselves believed and effective in terminating and

extinguishing investigation. They have not done so much good by their

own abilities as they have done harm by spoiling and wasting the abilities

of others. Those who have gone the opposite way and claimed that

nothing at all can be known, whether they have reached this opinion from

dislike of the ancient sophists or through a habit of vacillation or from

a kind of surfeit of learning, have certainly brought good arguments

to support their position. Yet they have not drawn their view from true

starting points, but have been carried away by a kind of enthusiasm and

artificial passion, and have gone beyond all measure. The earlier Greeks

however (whose writings have perished) took a more judicious stance

between the ostentation of dogmatic pronouncements and the despair of

lack of conviction (acatalepsia); and though they frequently complained

and indignantly deplored the difficulty of investigation and the obscurity

of things, like horses champing at the bit they kept on pursuing their design

and engaging with nature; thinking it appropriate (it seems) not to argue

the point (whether anything can be known), but to try it by experience.

And yet they too, relying only on the impulse of the intellect, failed to

apply rules, and staked everything on the mind’s endless and aimless

activity.

Our method, though difficult to practise, is easy to formulate. It is to

establish degrees of certainty, to preserve sensation by putting a kind of

restraint on it, but to reject in general the work of the mind that follows

sensation; and rather to open and construct a new and certain road for the

mind from the actual perceptions of the senses. This was certainly seen

also by those who have given such an important role to logic. Clearly

they sought assistance for the understanding and distrusted natural and

spontaneous movements of the mind. But this remedy was applied too

late, when the situation was quite hopeless, after daily habits of life had let

the mind be hooked by hearsay and debased doctrine, and occupied by

thoroughly empty illusions. And so the art of logic took its precautions too

late, and altogether failed to restore the situation; and has had the effect of

fixing errors rather than of revealing truth. There remains one hope of

salvation, one way to good health: that the entire work of the mind be

started over again; and from the very start the mind should not be left to

itself, but be constantly controlled; and the business done (if I may put it

this way) by machines. If men had tackled mechanical tasks with their bare

hands and without the help and power of tools, as they have not hesitated

to handle intellectual tasks with little but the bare force of their intellects,

there would surely be very few things indeed which they could move and

overcome, no matter how strenuous and united their efforts. And if we

might pause for a moment and look at an example, as if we were looking

into a mirror, we might (if you please) ask the following: if an exceptionally

heavy obelisk had to be moved to decorate a triumph or some such

magnificent show, and men tackled it with their bare hands, would not a

sensible spectator regard it as an act of utter lunacy? And all the more so if

they increased the number of workers thinking that that would do it?

Would he not say they were still more seriously demented if they proceeded

to make a selection, and set aside the weaker men and took only the young

and the strong, and expected to achieve their ambition that way? And if

not satisfied even with this, they decided to have recourse to the art of

athletics, and gave orders that everyone should turn up with hands,

arms and muscles properly oiled and massaged according to the rules of

the art, would he not protest that what they were doing was simply a

systematic and methodical act of insanity? And yet in intellectual tasks

men are motivated by a similarly insane impulse and an equally ineffective

enterprise when they expect much from either a cooperation of many

minds or simple brilliance and high intelligence, or even when they

improve the force of their minds with logic (which may be thought of

as a kind of athletic art); and all the time, however much effort and energy

they put into it (if one looks at it from a proper perspective), they are using

nothing but the naked intellect. Yet it is utterly obvious that in any major

work that the human hand undertakes, the strength of individuals cannot

be increased nor the forces of all united without the aid of tools and

machines.

From the premises given, we conclude that there are two things which

we should like to bring to men’s attention, so that they do not escape

them or pass unnoticed. The first is this: by a happy chance (as we suppose)

that tends to deflect and extinguish conceit and the spirit of contradiction,

it is the case that we may carry out our design without touching or

diminishing the honour and reverence due to the ancients, and still

gather the fruit of our modesty. For if we maintained that we achieve

better results than the ancients while following the same road as they, we

should not by any skill with words be able to avoid setting up a comparison

or contest in intellectual capacity or excellence. This by itself might not

be wrong or unprecedented; for why might we not in our own right (which

is the same right that everyone has) criticise or condemn anything

which they have observed or assumed wrongly? And yet however justified

or legitimate, the contest itself would still have been unequal because of

the limitations of our resources. But since our concern is to open up

a completely different way to the intellect, unknown and untried by

the ancients, the situation is quite different; parties and partisanship

are out; our role is merely that of a guide, and this surely carries little

authority, and depends on fortune rather than on ability and excellence.

And this kind of remark applies to persons; the following one to things

themselves.

We have no intention of dethroning the prevailing philosophy, or any

other now or in the future that may be more correct or complete. Nor do

we want to stop this accepted philosophy and others of its kind from

fuelling disputations, adorning discourses and being successfully

employed in academic instruction and handbooks of civil life. In fact we

frankly admit and declare that the philosophy which we are introducing

will be quite useless for those purposes. It is not easy to get hold of, it

cannot be picked up in passing, it does not flatter intellectual prejudices, it

will not adapt itself to the common understanding except in its utility and

effects.

Let there be two sources of learning therefore, and two means of

dissemination (and may this be good and fortunate for both of them). Let

there likewise be two clans or families of thinkers or philosophers; and let

them not be hostile or alienated from each other, but allies bound together

by ties of mutual assistance. And above all let there be one method for

cultivating the sciences and a different method for discovering them.

Those to whom the first method is preferable and more acceptable,

whether because of their haste or for reasons of civil life, or because they

lack the intellectual capacity to grasp and master the other method, we pray

that their activities go well for them and as they desire, and that they

get what they are after. But any man whose care and concern is not merely

to be content with what has been discovered and make use of it, but to

penetrate further; and not to defeat an opponent in argument but to

conquer nature by action; and not to have nice, plausible opinions about

things but sure, demonstrable knowledge; let such men (if they please), as

true sons of the sciences, join with me, so that we may pass the antechambers

of nature which innumerable others have trod, and eventually

open up access to the inner rooms. For better understanding, and to make

what we mean more familiar by assigning names, we have chosen to call the

one way or method the Anticipation of the Mind and the other the

Interpretation of Nature.

There is also a request which it seems we must make. We have thought

hard and taken care that our proposals should not only be true but should

enter men’s minds easily and smoothly (occupied and blocked as they are

in different ways). But it is reasonable for us to request (especially in such

a renewal of learning and the sciences) that no one who wishes to judge or

reflect upon these our thoughts, whether of his own sense or with a host of

authorities or by the forms of demonstration (which have the authority at

present of judicial rules), should expect to be able to do this casually or

while he is about something else, but should get to know the subject properly;

should himself try a little the road which we are designing and building;

should get used to the subtlety of things which experience suggests;

should finally correct, within a fair and reasonable time, the bad mental

habits which are so deeply ingrained; and then and only then (if he so

please), after he has grown up and become his own master, let him use his

own judgement.

Author(s): Francis Bacon, Lisa Jardine, Michael Silverthorne

Series: Cambridge Texts in the History of Philosophy

Publisher: Cambridge University Press, Year: 2000