Whereas HN I-III offers a mechanical account of the "lower" cognitive operations

sensation, imagination, memory

HN IV-VI offers a mechanical account of the "higher" cognitive faculties:

knowledge, opinion, & belief

involving:

deliberation & thought
anticipation and supposition
generalization
naming, counting, formulating laws (propositions)
reasoning

Two kinds of knowledge

"Prudence" or "experience of fact"

"Widsom" [science] or "evidence of truth" [of propositions]

Opinion & belief vrs. prudence & wisdom

Like wisdom, opinion and belief are attitudes to propositions rather than experiences.

But the propositions are arrived at by:

- erroneous reasoning
- hypothesis (more or less confirmed)
- trust in the testimony of others

Belief is that form of opinion arising from testimony.

A mechanical account of “Prudence”

Conceptions reverberate in the mind in the order in which they were produced.

or the reverse order.

Likewise, they reverberate in the company of the conceptions they were originally produced with

Sometimes, we simply survey these sequences of past perceptions.

At other times, “appetite” or desire causes one of them to become particularly prominent among the others, thereby directing our attention to its surroundings

(appetite just is a particularly strong conception associated with good effects on the heart, aversion a strong one associated with bad effects on the heart)

When one type of conception has constantly been preceded or followed by another type in the past, attention to the one brings about attention to the other.

This is causal inference (or inference from association in past experience)

it is a capacity we share with animals

it is more reliable as experience is more complete, which is what makes the old better at it

It is the foundation of prudence, by way of its use for anticipation of the future.

(A related operation is making suppositions about the past causes of currently observed effects)

A mechanical account of science

One type of association in past experience is association with invented signs.

(while animals recognize and draw inferences from signs, they do not make them)

Numbers are a particularly useful invented sign.

They are also general signs

(many things can have the same number)

Most objects cause many conceptions.

Most conceptions are common to many different objects.

> Accordingly, names for most conceptions come to have general signification
>
> > That is, they signify classes of objects.

Privative names are another useful invention.

> They describe some conception we expect to find in an object, but don’t.

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(There are no universal conceptions or universal things)

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Answer: What makes the name universal is not that it is itself universal but that it carries a permission to conceive any of a number of resembling particulars.

e.g., when you use the name "philosopher" you cannot object if your listener forms a conception of Socrates rather than Plato

Unfortunately, names tend to become detached from the conceptions they are supposed to signify

> So many who use them recite them in circumstances without understanding their meaning
>
> And others who do have a specific meaning in mind can't trust that those they speak to will grasp that meaning

So many names must be defined.

Names of complex things are defined by listing names of the simple, universal things that go together to make them up.

> Names of simple, universal things are defined by ostension (by being pointed out).

Definitions are useful to the extent that they describe things that really exist.

Propositions are categorical assertions of relations between (useful or useless) names

> i.e., “All/some A’s are B’s/non-B’s”

When the B’s (or non-B’s) are in fact included in the A’s, the proposition is true.

When the names for A and B are well defined, it is evidently true.

So scientific knowledge arises when propositions are known to be true by way of accurate definition of the names they involve.

(All scientific knowledge is “analytic.”)

or by (syllogistic) demonstration from previously established propositions.

Empirism vrs. empiricism
in Hobbes's epistemology

Empirism:

All conceptions are obtained from experience

Rationalism:

All true knowledge (science) of the relations between objects is based on analysis of conceptions revealing simple, common natures and a subsequent "addition" or "subtraction" of these simple common natures to form complex conceptions

What is known cannot turn out to be false, so knowledge cannot be based on induction from experience. It can only be based on analysis and demonstration.

The sort of "knowledge" that is based on induction from experience amounts to nothing more than "prudence" and can never reveal necessary or universal truths.