

Higher Reason and Lower Reason

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Summary

The word 'reason' as used today is used ambiguous in its meaning. It may denote either of two mental faculties: a lower reason associated with discursive, linear thinking, and a higher reason associated with direct apprehension of first principles of mathematics and logic, and possibly also of moral and religious truths. These two faculties may be provisionally named *Reason* (higher reason) and *rationality* (lower reason). Common language and personal experience supply evidence of these being distinct faculties. So does classical philosophical literature, the *locus classicus* being Plato's Divided Line analogy.

The effect of currently using a single word to denote both faculties not only produces confusion, but has had the effect of decreasing personal and cultural awareness of the higher faculty, *Reason*. Loss of a sense of *Reason* has arguably contributed to various psychological, social, moral, and spiritual problems of the modern age. This issue was also a central concern of 19th century Transcendentalists, who reacted to the radical empiricism of Locke. It would be advantageous to adopt consistent terms that make explicit a distinction between higher and lower reason. One possibility is to re-introduce the Greek philosophical terms *nous* and *dianoia* for the higher and lower reason, respectively. This discussion has certain parallels with the recent theories of McGilchrist (2009) concerning the increasingly left-brain hemisphere orientation of human culture.

KEYWORDS: Animal intelligence; Cognitive psychology; Conscience; *dianoia*; Epistemology; Higher reason; Intellect; Moral psychology; *nous*; Reason; *ratio superior*; rationality.

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1. Introduction

A certain ambiguity of the word 'reason' is the source of considerable confusion. Inasmuch as the use of reason is among the most important things we do as human beings, this is not something we wish to be confused about. Far from being a minor definitional issue, therefore, this subject is of great concern, as it relates vitally both to the ability of individuals to achieve their full potential as thinking, moral, and spiritual beings, and, at the collective level, to the integrity of culture and of social institutions.

We can summarize the argument presented herein as follows:

1. There are two distinct faculties or powers of the human mind which are currently referred to by the word 'reason'.
2. Confusion between these two meanings – an inevitable result of having one word to designate two different things – has serious negative consequences, psychologically and socially.
3. We can and should use two different words to denote these two things; for this we may potentially adapt existing English words, borrow terms from Greek philosophy, or invent new ones.

The plan of this article is as follows. The remainder of this section will describe the two mental faculties currently lumped together under the term, 'reason' and consider their unique natures and features. The second section will consider in what ways the higher sense of 'reason' is related to our moral and spiritual nature. The third section will discuss the psychological and cultural importance of distinguishing the two faculties. Fourth, the issue of alternative terminology will be addressed. The final section contains some general conclusions and remarks.

1.1 The distinction to be made

We can establish the existence of a dual meaning of 'reason' in three ways: (1) from common language; (2) from the history of philosophy; and (3) from interior self-observation.

The two meanings of 'reason' as found in common English usage are easily demonstrated. The first meaning is implied in phrases such as "the light of Reason." As will see below, this meaning of 'reason' suggests an instantaneous state of mind, a certain clarity of thought, and specific categories of content. We will provisionally name this mental faculty or power *Reason*.

The second meaning of 'reason' is suggested by phrases like "she reasoned the problem out." This implies a more deliberative, discursive thinking process. We shall provisionally name this faculty *rationality*, though we might equally well call it reasoning, ratiocination, or reckoning.

An example will help verify that there is a genuine distinction to be made here. You may have on occasion found yourself in a heated discussion with an opponent, someone who perhaps argues very logically, but is argumentative or contentious. To give an exaggerated example, a person of this sort might argue that it would be logical to place the homeless in workhouses, in order to reduce their burden on society. The person might be very logical – presenting arguments methodically, supporting each premise and each step of reasoning with facts and figures, etc., and drawing conclusions according to the formal rules of logic. The person might be 100% rational in the sense of arguing logically – yet you might well still consider the position, and the person him- or herself, unreasonable. This example shows that there is something about being reasonable that is distinct from merely being logical or rational.

The second way to establish a difference between *Reason* and *rationality* is from the philosophical literature. From the time of Plato onward, Western philosophers have used various pairs of terms to make precisely this distinction. The primary *locus classicus* is Plato's (429–347 BC) famous Divided Line analogy (*Republic* 6.509d–513e). [1, 2] There Plato distinguishes between a higher mental faculty associated with apprehension of unchanging, eternal truths (*nous*) and a lower one associated with fallible belief and the sensory world (*dianoia*). We will return to Plato's Divided Line and these terms in Section 4. A similar distinction between *nous* as a faculty of immediate apprehension of truth and *dianoia* as a faculty of discursive thought or reckoning is found in Aristotle (384–322 BC) [3], in the *Enneads* of Plotinus (204–270 AD; founder of Neoplatonism) [4], and in the works of later Neoplatonists. [5]

The terms *ratio superior* and *ratio inferior*, that is, literally, higher reason and lower reason, were used extensively in the Middle Ages [6], and continued a distinction made by St. Augustine (354–430 AD) [7].

Beginning with Middle Platonism and continuing in some Greek Patristic literature, the Stoic term *hegemonikon*, or ruling part of the soul, acquired meanings similar to those of *nous*. Human *nous* as a faculty of higher reason and spiritual knowledge has been a continuous topic of discussion in Greek Orthodox Christian writing. [8]

More recently a similar distinction is found in the work of Immanuel Kant. Much more could be said about this, but these examples suffice as reference points in the philosophical literature and support the claim that there is a genuine distinction to be made here.

A third way to demonstrate a distinction between *Reason* and *rationality* is to observe the operation of these two faculties (for simplicity we will hereinafter use the word 'faculty' to mean faculty, power, function, capacity or whatever other word may best apply) within ones own mental life. This is left up to the reader to pursue as perhaps an ongoing experiment, and that will be potentially easier once this and the following sections are read. Once one understands the basic distinction, it is easy enough to observe the operation of *Reason* and *rationality*. Indeed we use both routinely every day.

1.2 Distinguishing Features of *Reason*

We can explain the faculty of *Reason* in more detail by considering how we understand truths of geometry, mathematics, and logic. Three examples, one drawn from each domain, will illustrate.

Example 1. If one draws a line from one vertex of a triangle to the opposite side, one knows that the result is always to produce two triangles. This result or conclusion is simply *seen* in the mind's eye. One may perform the operation drawing on a piece of paper as an example, but understanding the universality of the principle – that it is necessarily true and applies to all triangles – is a purely mental operation.

Example 2. Consider how if one knows that $X = Y$ and $X = Z$, then it automatically follows that $Y = Z$.

Example 3. In logic, if A implies B, and B implies C, then it necessarily follows that A implies C.

For convenience we will refer to all three classes of such principles – geometric, mathematical, and logical – by the generic heading of *mathematical first principles*. Despite their simplicity, these examples reveal several important and even profound aspects of *Reason*:

1. *Truth*. *Reason* involves an apprehension, grasp, or recognition of some essential truth. It recognizes irreducible first principles, sees the truth of self-evident truths.
2. *Immediacy*. The apprehension of such truths occurs instantaneously. We speak of a flash of insight; having such an experience we may suddenly exclaim, aha!
3. *Nondiscursiveness*. The manner in which *Reason* apprehends truth is more akin to immediate perception than to discursive thinking. *Reason* is thus often compared with vision. We say of some new insight, "Now I see it." We may speak of *Reason* as producing an insight.
4. *Immateriality*. The conclusions or apprehensions of *Reason* do not depend on any material objects or sensory experiences.
5. *Absolute conviction*. The conviction of truths seen by *Reason* is absolute: the truth is considered universal, incontrovertible, and beyond all doubt. It needs no support or corroboration from any outside source.
6. *Endurance*. Once seen by *Reason*, a particular truth retains its familiarity in the mind. It is as though one has mastered some new principle or skill, or arrived at an incrementally higher level of intellectual growth. The insight might be temporarily forgotten, but, if so, it is generally more easily recovered than it was first attained.
7. *Consistency*. Not only is it never the case that two universal truths seen by *Reason* contradict each other, but we cannot even imagine how such a contradiction could occur. Such a conflict of two truths seen by *Reason* is simply inconceivable to our minds. Similarly, we cannot imagine how any other sentient being could see by *Reason* anything opposite to what our own *Reason* informs us to be true.

1.3 Distinguishing features of *rationality*

We now consider an example of *rationality*. Suppose someone asks you, "in summer, does it tend to be hotter at noon or in the afternoon?" To answer this requires a sustained effort involving several mental operations. Both inductive and deductive logic may be involved. You might consult your memory for relevant scientific knowledge — for example, that the sun is highest in the sky at 12:00 pm, so that at this time solar radiation arrives more perpendicular to the earth's surface and travels the least distance through the atmosphere, losing less energy. But you might also consider how streets, buildings, and the air itself retain heat; therefore at say 2:00 pm, one might experience both direct heat from the sun and the stored heat radiating from streets and buildings, making it hotter than at noon. You might further consult memories of hot days, or times when you've followed hourly temperature reports, and from all this conclude that, indeed, the hottest times are in the afternoon.

Again, this practical example serves to illustrate several features of *rationality*.

1. *Discursiveness*. It is a discursive process, a deliberate effort to 'figure something out', arrive at a conclusion, or make a decision by a directed sequence of thoughts.
2. *Uncertainty*. This faculty reaches only tentative, conditional conclusions. That is, at best, one is only probabilistically certain of any conclusion reached. The truth of a conclusion is conditional on the truth of the assumptions. Due to uncertain premises or evidence, even with a correct use of logic, incorrect conclusions are sometimes reached.
3. *Potential inconsistency*. Discursive reasoning concerning different questions may produce answers that contradict one another; or two people considering the same problem may arrive at different conclusions. This doesn't bother us greatly, because there is no implicit expectation that discursive reasoning is perfectly reliable.
4. *Relies on sensory data*. Discursive reasoning depends on sensory data and material facts.
5. *Animal parallels*. While it seems difficult or impossible to find animal analogs to human *Reason*, animals do possess abilities comparable to discursive reasoning. For instance, to a pet dog that has been previously trained, one might say "go fetch my slippers", make appropriate hand gestures, and so on, and eventually the dog 'understands' the command and acts. In such cases we can and do meaningfully say that the dog

understands the command. Often this understanding comes gradually, as it may take the dog a few moments to 'get' what we mean.

As another example, consider giving some intelligent animal, say a crow, a complex problem where several sequential steps must be taken, say moving obstructing objects, to retrieve a piece of food. Intelligent animals can be observed to study such a situation beforehand, and then act in a way that indicates a thought-out plan. Again this implies that intelligent animals have something at least analogous to our faculty of discursive reasoning. [9]

But we could not say the same thing in regards to the truths of *Reason*. It would make no sense to say that a dog or a crow 'sees by *Reason*' that all triangles must always have three sides, or that two parallel lines can never intersect. Thus, with regard to *rationality* one might suggest that humans differ from animals *by degree* (a quantitative difference), but our difference from animals in our possession of *Reason* is a difference *in kind* (a *qualitative* difference).

It should be mentioned that often *Reason* and *rationality* interact or operate jointly. The construction of a sequential argument conforms to what we have called *rationality*. But it is *Reason* which sees the correctness of a correct argument. Thus there are two distinct processes involved – one discursive, and one being an immediate seeing of truth, entailment, or form.

2. Reason as a Moral and Spiritual Faculty

The above establishes with some plausibility the existence of a higher intellectual faculty and a lower one, *Reason* and *rationality*, respectively.

Over the centuries philosophers and theologians have often attributed to the higher faculty, *Reason*, not only the ability to recognize self-evident *mathematical* truths, but also truths of a *moral* and *spiritual* nature. In the moral realm, *Reason* is thus understood as related to human conscience, or more specifically, to that part of conscience which recognizes universal moral truths.

In the Middle Ages, this part of the mind was sometimes called *synderesis* (see Greene, 1991a,b; Crowe, 1977, pp. 123–141). There was some disagreement on the precise meaning of the term, but one common view was that *synderesis* is basically the same faculty we've called *Reason*, but applied to moral truths. Some examples of self-evident moral truths apprehended by *synderesis* or *Reason* are: that there is a basic difference between good and evil; that we ought to do what is

good; that human beings are morally accountable in ways that animals are not; and that humans have freedom of will — our choices are not mechanistically determined and utterly constrained.

The Cambridge Platonist Benjamin Whichcote (1609–1683) called such self-evident moral truths 'principles of first inscription', and summarized them as falling under the following headings:

- reverence of Deity,
- sobriety in the government of a man's own person,
- moderate use of the pleasures of life,
- righteousness and justice in transactions with others.

(Campagnac, 1901, pp. 5-6).

These self-evident moral truths seen by *Reason* are the basis of our moral life. They become, as it were, the first principles in logical syllogisms by which we deduce how we should act morally in specific cases. An example of practical moral reasoning illustrates this:

- A. I ought to be just in dealing with others. (major premise)
- B. It is just to help the poor. (minor premise)
- C. I ought to help the poor. (conclusion)

Here A, the first principle of the moral syllogism, is a self-evident moral truth seen by *Reason* and taken as certain. B, a minor premise, is a supposition, rather than a universal truth (e.g., we can imagine conditions where it might not be prudent to help a poor person — e.g., if the person is poor because of their own negligence or vice). To the extent that the minor premise is not universal, neither is the conclusion.

A little reflection will show that we form practical moral syllogisms like this all the time, and that these determine many of our actions.

In addition to self-evident *moral* truths, the religious literature, and especially that pertaining to religious mysticism, suggests that we may also be able to apprehend truths of a more strictly *spiritual* nature. William James, in his *Varieties of Religious Experience* (p. 380), noted as a common characteristic of religious mystical experiences that they are "states of insight into depths of truth unplumbed by the discursive intellect." He also observed that an experience of this kind is often *ineffable*, that is, "no adequate report of its contents can be given in words." (*Ibid.*) These characteristics would place such experiences outside the realm of our discursive intellect, *rationality*, and connect them with *Reason*.

Examples of spiritual truths reportedly 'seen' by mystics include that God is absolute Truth, that God is Love, that there are three distinct Persons of the Holy Trinity, etc.

We have thus identified three potential classes of self-evident truths apprehended by *Reason*: *mathematical*, *moral*, and *spiritual* truths. While all, potentially, are seen by a common faculty, *Reason*, certain differences among them are also evident. One salient difference is that, whereas mathematical truths can be brought to awareness more or less at will, the ability to see moral truths depends on the state of the observer; when one is, say, preoccupied with worldly affairs, it may not seem immediately self-evident that one should worship God. Certain deep spiritual truths, such as God's glory, may simply overwhelm or even frighten us — such that we may intentionally avoid seeing them. Or, if a moral truth causes us inconvenience, we may wish to avoid it. This is generally not the case with mathematical truths. Hence, while we suggest that there are important similarities among mathematical, moral, and spiritual truths, and that potentially all are apprehended by a common mental faculty, *Reason*, we also acknowledge the possibility of differences among these categories of truths, but do not here try to account for these differences. [10]

3. Why This Matters

We are today, and have been for some time, in what may be called a crisis of modernity. It reached especially intense levels in the 20th century, as evidenced by, for example, two world wars, genocides, and a nuclear arms race. In the 21st century the crisis continues, manifested by global warming, economic breakdown, perpetual war, dysfunctional governments, and other indicators too many to list.

To philosophers, psychologists, and intellectual historians, at least, it would not seem implausible to suggest that this crisis of modernism is connected to epistemology – in our views about what counts for knowledge, and by what modes genuine knowledge may be acquired. One central feature of modernism has been to radically restrict what counts for valid knowledge. Only data that come from the five external senses (or measurements that convert unobserved phenomena into sense data) are considered acceptable for true or scientific knowledge. Whatever is not amenable to investigation or falsification by experimental means is rejected.

It is not difficult to see the inadequacy of this view. If this radical positivist world-view were correct, we would have to deny the reality of everything we hold dearest as human beings. We would, for example, have to deny the reality of human love, except perhaps as a certain pattern of physiological responses.

Religion would have no meaning other than, at best, a pleasant illusion. The ultimate outcome of the positivist worldview is fatalism and nihilism. But regardless of what positivist dogmas assert, most human beings, as individuals, have a broader view of life and existence. We are, each of us, privately romantics, intuitionists, and moralists, and most are theists.

The positivist worldview places an exclusive emphasis on *rationality*. *Reason*, as a non-discursive intellectual function distinct from *rationality*, has no place in the positivist universe. As a consequence, over roughly the last 300 years, as empiricism, materialism, and positivism have come to dominate, the word 'reason' has come more and more to lose any connection with the higher faculty of *Reason*, and to mean only *rationality*.

When no common terms exist that remind us of a higher intellectual faculty, and of our spiritual and moral powers, our attention to these as existential and phenomenological realities is diminished. Lacking a precise term for *Reason*, as distinct from *rationality*, the former concept vanishes from our literature, our conversations, our institutions. And insofar as *Reason* is the gateway to our higher nature, this semantic limitation contributes to a despiritualization and dehumanization of society. This is the plight of modern culture.

A deep concern about the loss of a distinct term and concept corresponding to *Reason* is not new. This was a central concern of the 19th century Transcendentalist movement, which began, at least in part, as an attempt to counter the influential materialist-rationalist philosophy of John Locke and others. The New England Transcendentalist James Marsh, in the Preliminary Essay of his 1829 American edition of Samuel Taylor Coleridge's religious and psychological work, *Aids to Reflection*, quoted a correspondent as having written him (Marsh):

"If you can once get the attention of thinking men fixed on his [Coleridge's] distinction between the reason and the understanding, you will have done enough to reward the labour of a life. As prominent a place as it holds in the writings of Coleridge, he seems to me far enough from making too much of it." (Marsh, Preliminary Essay, *Aids to Reflection*, 1829, p. xliii)

Here the words "reason" and "understanding" are meant in essentially the same way that we have used *Reason* and *rationality*, respectively.

In his own preface to *Aids to Reflection*, Coleridge announced one of its principal aims as being:

To substantiate and set forth at large the momentous distinction between REASON and Understanding. Whatever is achievable by the

UNDERSTANDING for the purposes of worldly interest, private or public, has in the present age been pursued with an activity and a success beyond all former experience.... But likewise it is, and long has been, my conviction, that in no age since the first dawning of Science and Philosophy in this Island have the Truths, Interests, and studies that especially belong to the Reason, contemplative or practical, sunk into such utter neglect, not to say contempt, as during the last century. (Coleridge, Preface, *Aids to Reflection*, p. lix)

The deliberately chosen words "momentous distinction" were not meant as hyperbole; they show the great importance that Coleridge and Marsh attached to the distinction between *Reason* and *rationality*. The publication of the American edition of *Aids*, including Marsh's essay, is considered a watershed event in the emergence of American Transcendentalism. It made a great impact on the young Ralph Waldo Emerson and many other New England intellectuals of the time.

Why did not only Coleridge, but also Marsh, Emerson, and indeed the whole American Transcendentalist movement consider this so important? At issue was the widely perceived need to counter the dehumanizing forces set in motion by radical Enlightenment-era empiricism, including the oppressive economic, social, and environmental results of the Industrial Revolution. The writing was already on the wall at this point concerning a great confrontation between a dehumanizing materialism based on a radically rationalist-empiricist worldview, and a more encompassing view of human nature. Are we merely intelligent animals, all our thoughts and actions mechanistically determined, or does the human soul contain something more, a spark of divinity? This was the crucial issue the Transcendentalists confronted. And at the bottom of this is a question about epistemology: is what we may truly know merely the result of logical operations made on sense data, as Locke and the rationalists would have it, or are we also able to know things by extra- or supra-rational faculties?

This is why it was important to recognize the existence of *Reason* as distinct from *rationality*. From Locke onward, the term 'reason' had begun to be used indiscriminately, referring to both higher and lower reason. Consequently the two faculties were not only being confounded, but the higher faculty, Reason, was being lost sight of:

"the misfortune is, that the powers of understanding and reason have not merely been blended and confounded in the view of our philosophy, the higher and far more characteristic, as an essential constituent of our proper humanity, has been as it were obscured and hidden from our observation in the inferior power." (Marsh, Preliminary Essay, *Aids to Reflection*, pp. xxxviii–xxxix)

Marsh explains that the distinguishing attributes of our humanity are associated with "that *image of God* in which man alone was created" and include "*reason* and *free-will*." These, which are explicitly denied by Locke and the popular philosophy of the day, are "what constitutes the truly spiritual in our being." (*Ibid.*, p. xliii) If we have no higher Reason and free will, there is no qualitative difference between us and animals that speaks to our peculiar dignity and rights as human beings.

Neither is there, Marsh continues, any point to philosophy. The very essence of philosophy is a search for "truths of vast concernment" that are "living at a great depth, which yet no man can draw for another." (*Ibid.*, p. 1) To deny the existence of valid knowledge that does not depend on external sense data would render us unable to notice, consult or reflect on "the movements of our inward being" or pursue that ancient and deep philosophy which is implied by "the heaven descended *gnothi seauton*" [know thyself]. (*Ibid.*, p. li) A narrow emphasis on rationality diminishes our ability and motivation to attend to and "unfold those deeper and more solemn mysteries of our being." (*Ibid.*, p. lii)

4. The Desirability of Having Two Separate Terms

If indeed what we have been discussing are two different faculties, clearly it would be advantageous to denote them with two distinct terms. To appreciate this, suppose we had only one term 'hand-arm' to refer to both the hand and the arm. This would pose a significant obstacle to effective communication about activities that involve use of the hand or arm individually, say, sports or manual labor. If one said, "open the door with your hand-arm", the meaning would be unclear. This is the difficulty we face by using one word, 'reason', to mean two different faculties.

Should we propose to make the tentative terms used here, *Reason* and *rationality*, permanent? This is a possibility, but has potential problems. Both words derive from a common Latin stem, *ratio*, making them not only cognates themselves, but also related to a host of other terms derived from *ratio*. This would invite continued confusion. Further, both words have such a long history of use and so many different senses that to try to arbitrarily impose a specific canonical meaning on them seems futile.

There is precedent for using terms like 'Intellect,' 'Intellection', or 'Intelligence' (as in '*the Intelligence*') to denote what we have called *Reason*. But again these words – which all derive from the Latin word *intelligere* – are, as used today, ambiguous

and have various senses quite different from *Reason*. For example, we speak of such things as animal, machine, or military intelligence.

An alternative is to return to two Greek words traditionally used to make more or less the same distinction as we are aiming at. Specifically, for what we've called *Reason* some Greek philosophers used the word *nous*, and, for rationality, the word *dianoia*. A standard source for this distinction, as already noted, is Plato's Divided Line analogy. Plato's terminology there, as is well known, is none too clear, and he actually uses a variety of terms. But while there is some disagreement as to their precise meaning (see e.g., Peters, 1967; pp. 122–128), over the centuries these two terms, *nous* and *dianoia*, have tended to acquire meanings that correspond to *Reason* and *rationality*. [11, 12]

Given the term *nous* as the faculty of *Reason*, we would also get the verb *noesis* to denote the activity of *nous*, or the actual apprehension of truths, and the adjective *noetic*. [13] Modern writers have tended to use *dianoia* as both a noun to denote the faculty of discursive thinking ('the *dianoia*'), and as a verb to denote its operation. There is some precedent, however, for using *dianoesis* as the verb form.

Our proposal, therefore, is to adopt *nous* and *dianoia* to denote what we have herein called *Reason* and *rationality*. These Greek terms have the advantage of being new to most modern readers, so that they do not carry numerous other senses, and they connect the distinction between *Reason* and *rationality* with a comparable one made by Plato, Aristotle, and later philosophers. We present this proposal, however, in a speculative way, i.e., to stimulate further thinking, rather than to insist that this is the best solution.

5. Conclusion

Here we have done the following: (1) posited the existence of two distinct mental faculties associated with the word 'reason', calling them *rationality* (discursive reasoning or ratiocination) and *Reason* (an immediate apprehension of truth); (2) suggested that *Reason* may apprehend not only mathematical and logical, but also moral and spiritual truths; (3) argued that the modern confounding of these two meanings has contributed to a disproportionate cultural emphasis on the empirical and scientific, and a corresponding undervaluing of the moral and spiritual nature of man; and (4) proposed the remedy of using separate terms to make more explicit the distinction between these faculties. We now consider certain more general implications of this problem.

5.1 Other ambiguous terms

Today we are adept at developing scientific terminology to describe the exterior world, whereas our vocabulary for describing internal experience is comparatively impoverished. A limited vocabulary for internal experience leads to our using single terms with multiple senses, which invites confusion, as is seen with the word 'reason'. Other important examples include the following:

Wisdom can mean either skilled practical judgment or a higher, more spiritual and philosophical faculty. In Greek, the terms *phronesis* and *sophia*, respectively, distinguish these two forms of wisdom. In English, the words prudence and sapience, respectively, express the same distinction, but are losing currency. [14]

Conscience has a range of meanings in modern usage, including (1) a Freudian super-ego, (2) a nagging voice of self-recrimination after wrongdoing, (3) a faculty for distinguishing good from bad, and (4) a motive force that urges one to do good.

Intuition can mean a vague gut feeling or 'inkling', or specific nonverbal knowledge gained by introspection.

Faith has many meanings, a fact particularly problematic given its fundamental importance to religion. Its meanings range from blind credence, to a supra-rational modality of knowledge. There is also the 'faith that moves mountains', suggesting a force of conviction of such a nature that it might even shape reality.

Will can mean either (1) determination or willpower, (2) one's wish, desire, or predilection (as in "what is your wish?"); or (3) the entire apparatus of the mind concerned with desire, judgment, choice, volition, and action.

Heart, as a psychological term, can mean (1) the seat of emotions, or (2) the core of our being – something more fundamental than thought and emotion, such as the One of Neoplatonism, of which Mind and Soul are emanations. (Uebersax, 2012 empirically examines the multiple psychological senses of *heart* in the Bible.)

These examples demonstrate the extent of terminological ambiguity associated with some of the most important existential, moral, and religious aspects of human nature. Such ambiguity would be unacceptable in physical sciences, where terms like 'gravity' and 'electromagnetism' have very precise meanings. The tremendous technological progress of the last century has been made possible by harnessing the near-miraculous power of collective human activity. Can we do the same thing in psychology? A prerequisite would appear to be a shared, precise vocabulary.

Why is our epistemological and psychological vocabulary currently so primitive? Does it reflect some inherent difficulty in approaching phenomenology collaboratively and scientifically? While it is potentially more difficult to develop consensual terms to denote interior experiences, which are by definition private, it is by no means impossible. As human beings our experiences are mostly the same. Similar conditions produce similar experiences in different individuals. We can identify with some accuracy the inner state of another by means of their facial expressions and the like. Hence even though two people cannot experience one another's mental states directly, they are still able to agree on terms to denote their private experiences.

Therefore the paucity of precise terms in phenomenology and epistemology is perhaps more due to cultural biases, lack of attempts, or insufficient motivation. It has certainly not helped that, in the centuries-old antagonism between materialism and idealism, our present culture is in an intensely materialistic phase (see e.g., Sorokin, 1985). Our educational, commercial, and civil institutions emphasize materialism, and idealism as an organized force in society today is all but absent.

However we are able to look back to the literature of earlier times for help. The Greek philosophical tradition from Plato to Proclus spans nearly 900 years (much longer if we include the earlier pre-Socratics and later Byzantine and Orthodox philosophers) and is an incredibly rich source of epistemological and psychological terminology, little studied today. [15] If we were to re-introduce Greek classics into the undergraduate curricula of our universities, older philosophical terms might find their way into common use where corresponding English terms are lacking. In any case, it seems particularly unwise that we continue to train psychologists without exposing them to Plato, Aristotle, or Diogenes Laertes. While this statement might seem arbitrary or even petulant to some, it will seem obvious and natural to any who has read these classical authors.

5.2 Brain hemisphere specialization

There might also be evolutionary factors at work. McGilchrist (2009) has recently drawn much needed attention to the division of cognitive specialization between the hemispheres of the human brain, and to important cultural implications of this division. Basically, the left hemisphere of the human brain is more specialized for speech and linear reasoning, while the right hemisphere is more specialized for a kind of holistic, intuitive kind of knowing (for left-handed people the arrangement may be reversed). In this scheme, the left brain hemisphere seems more closely associated with *rationality*. We have much less basis, however, to associate

Reason uniquely with the right brain hemisphere; nevertheless there are useful parallels between McGilchrist's theories and our discussion.

McGilchrist relates left-hemisphere rationalism to a parable of Nietzsche, in which an emissary sent to represent a ruler usurps the latter's authority. So too, human rationality has certain valid practical functions, but also a tendency to dominate or submerge other equally or more important faculties. Our rational mind has a vital function to play, but it is neither our entire self, nor necessarily our deepest, wisest, or most authentic self.

An interplay of genetic and cultural evolution, McGilchrist argues, has produced a radically orthophilic (left-hemisphere dominant) culture [16] – a source of myriad psychological and social problems – which we must seek to balance. More specifically, what is needed is to better integrate the left- and right-hemisphere functioning of the brain and their respective associated worldviews to effect a harmony between them.

In the same way we need today to better integrate *rationality* and *Reason*, at both the psychological and cultural levels. One way of seeing the current task is to explain to our highly developed *rationalistic* mind the nature and function of *Reason*. Without dedicated terms, it is difficult or impossible to organize our discursive thinking about our inner experience. Thus, improving our terms and vocabulary for *Reason*, and for various intuitive means of knowing, is a central task in this process of integration and evolution of consciousness.

5.3 Final remarks

Finally, it may be noted that the present discussion fits with recent suggestions that faculty psychology is not necessarily obsolete (e.g., Howe, 2009 and references therein). Faculty theory evolved precisely because it is how human beings view their own psychological functioning. Traditional faculties like reason, will, and memory are phenomenologically and pragmatically valid constructs. Modern scientific discoveries, while they have certainly increased our understanding of brain physiology, have supplied nothing to take their place.

The skeptical philosopher Sextus Empiricus prefaced one of his works with words to the effect that "and if what is said here is not exactly true, then something of the same sort is meant." These are fitting words to close the present study. While perhaps it may not prove to be complete and correct in every detail, it is given more in the hope of being correct in its broad outlines. In any case, an attempt has been made to approach the subject methodically. What is true may be retained

and elaborated on; whatever is incorrect can be dismissed, or perhaps may stimulate others to improve upon it in a cumulative and scientific manner.

Notes

1. Cf. Plato, *Letters* 7, 341ff.
2. A complete historical review of the distinction between higher and lower reason would be an immense – though perhaps an immensely valuable – undertaking. The purpose here is more modest: to supply sufficient evidence to show the plausibility of the distinction, and to suggest it is important enough to warrant scientific study today. Much more detail on the development of this distinction may be found in the sources listed in the Bibliography and the citations they contain.
3. *Nicomachean Ethics* 6 (cf. discussion of contemplation [*theoreia*] in Book 10); *De Anima* 3.4–8, *Posterior Analytics* 2.19, and in *Metaphysics*. See Burnyeat (2008), Biondi (2004), and Frede (1996).
4. See Sorabji (2005) and Wallis (1976).
5. For examples see Sorabji (2005) and Steel (1997). Neoplatonists see the higher reason as a faculty for apprehending Platonic Forms. Mathematical, moral, and various other Forms are collectively called 'intelligibles'. A distinctive feature of Neoplatonic epistemology is that the human mind is believed to contain a complete repertoire of copies or images of all intelligible Forms (Steel, 1997). This is tantamount to saying that anything any human being could discern by the intellect already exists in at least latent form in the mind of every person.
6. Mulligan (1955); Crowe (1977).
7. *De Trinitate* 12. Augustine's term for higher reason is *ratio sublimior*. Cf. Boethius' contrasting of reasoning (*ratiocinatio*) and intellect (*intellectus*) in *Consolatio* 4.6.17.
8. See for example Chryssavgis (2004), Louth (2007), and Williams (2007).
9. On nearly the same day this paper was completed, an episode of the television series *Nova*, titled '[Ape Genius](#)', was broadcast with remarkable scenes of chimpanzees fashioning spears for predation. Comments by one interviewed scientist implied that such behavior demonstrates that reason is not unique to human beings. This inference, however, rests on failure to conceptually

distinguish ratiocination from *Reason*. Precisely this problem is addressed in Section 3 here.

10. We have taken a conservative approach to delineating the functions of higher reason.

Aristotle and Neoplatonists attributed to *nous* additional functions, including the ability to apprehend the essential meanings of words, principles, or relations generally, or even what distinguishes one animal species from another (Burnyeat, 2008; Steel, 1997). In Patristic and later Greek Christian writing, *nous* has additional spiritual functions, *viz.* it is the principle faculty of religious knowledge and experience (Chryssavgis, 2004; Williams, 2007; Romanides, 2008) and the image of God in the human soul. *Intellect*, more or less a synonym for *Reason*, is often understood as the seat of insight, self-consciousness, and reflective awareness (Maher, 1910).

11. According to some interpretations of Plato's Divided Line (*Republic* 6.509d–513e), *dianoia* applies to mathematical reasoning only, and not to discursive reasoning generally. This is a controversial point (Peters, p. 124, 'noesis', par. 10). It suffices for our purposes to suggest that interpreting *dianoia* as discursive reasoning as distinguished from immediate noetic apprehending has ample precedent.

12. We could arguably justify using the Greek word *logizomai* or some other cognate of *logos* to denote the faculty of *rationality*. However *logos* already has so many other meanings that using such a term might only invite further confusion.

13. If the means by which we apprehend moral and spiritual truths are different from how we see mathematical truths, we might denote all by the collective term *noetic faculties*.

14. But perhaps they could be revitalized; we may add this to the suggestions made in the preceding section.

15. I have catalogued nearly 400 such terms in classical sources even without making a systematic effort to locate them.

16. The left brain hemisphere is associated with the right side of the body.

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