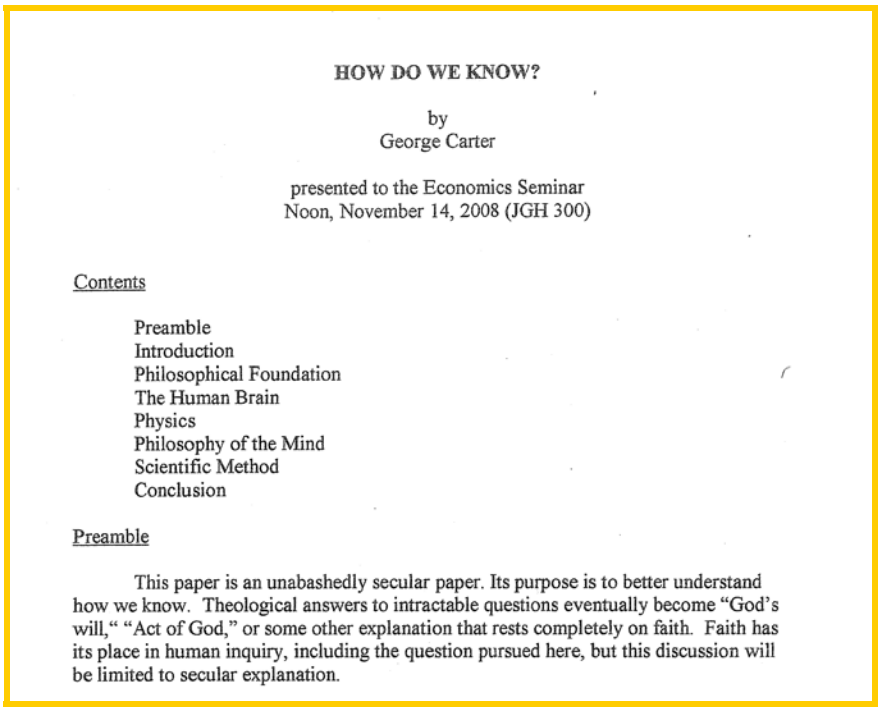
Does Anyone Still Stand Up for Him?

With what "EFIB Fridays" coordinator Sami Dakhlia referred to as "an inquiry into the science of knowledge" and an "epistemological topic that should be of interest to any researcher," CoB faculty were invited (via e-mail) to EFIB chairman George Carter's 14-November-08 presentation of his solo work entitled "How do We Know?" After reading the e-mail invitation sent via CoB Alternative Learning Coordinator Sonia Gaines-Littles, many in the CoB must have braced themselves for what was sure to be commonly expected – an upcoming rush of embarrassment for those affiliated with USM's b-school and its EFIB chairman. What was also on the minds of some was what Carter's supporters, those who stand up for him when he's engaging in the sorts of activities that have won him the title "smiling assassin," must be thinking upon retrieval of such an invitation from their inboxes.

Page 1 of Carter's treatise on the mind gets the party started (see below). There he lets would-be attendees know, through a "Preamble" no less, that his is a "secular paper."



HOW DO WE KNOW?

by
George Carter

presented to the Economics Seminar
Noon, November 14, 2008 (JGH 300)

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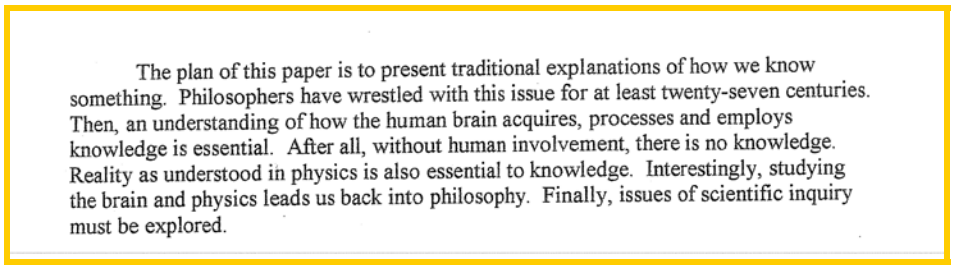
Preamble

This paper is an unabashedly secular paper. Its purpose is to better understand how we know. Theological answers to intractable questions eventually become "God's will," "Act of God," or some other explanation that rests completely on faith. Faith has its place in human inquiry, including the question pursued here, but this discussion will be limited to secular explanation.

Long-time CoB faculty, and long-time readers of USMNEWS.net know what others do not – that Carter is an expert on the secular *and* the spiritual, and all that they entail. This *we* know partly through his interesting interview with Karen Bota of *Episcopal Life* magazine back in April of 2004. At that time Carter was teaching courses in business ethics – sans the academic qualifications – on behalf of USM's College of Arts & Letters. Through Bota's article entitled "Taking Care of Business," (the "ethicist") Carter tells each of us that "ethical decisions today are more often linked to self-interest – seeking reward and avoiding punishment – than to internal standards of doing what is right 'no matter what'." Carter also adds that "[i]n business, we need to set up an ethical system with these external structures and reinforcement for the majority of employees, rewards for not doing certain things and punishments for doing them." Of course, this essay can't

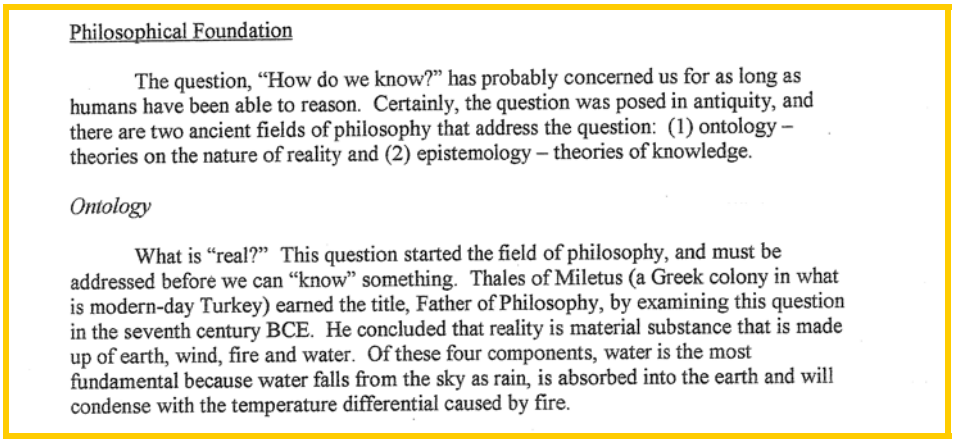
do justice to Carter's expertise in these vast fields, at least not to standard set by the contributor to USMNEWS.net who penned The Ethics Professor and the Company Man.

Moving beyond the beginning, which is hard to do with a *paper* containing *both* a Preamble and a table of contents, Carter lets his readers know that the plan of the paper is "to present traditional explanations of how we know something."



The plan of this paper is to present traditional explanations of how we know something. Philosophers have wrestled with this issue for at least twenty-seven centuries. Then, an understanding of how the human brain acquires, processes and employs knowledge is essential. After all, without human involvement, there is no knowledge. Reality as understood in physics is also essential to knowledge. Interestingly, studying the brain and physics leads us back into philosophy. Finally, issues of scientific inquiry must be explored.

From here Carter dives into the philosophical foundations of ontology.



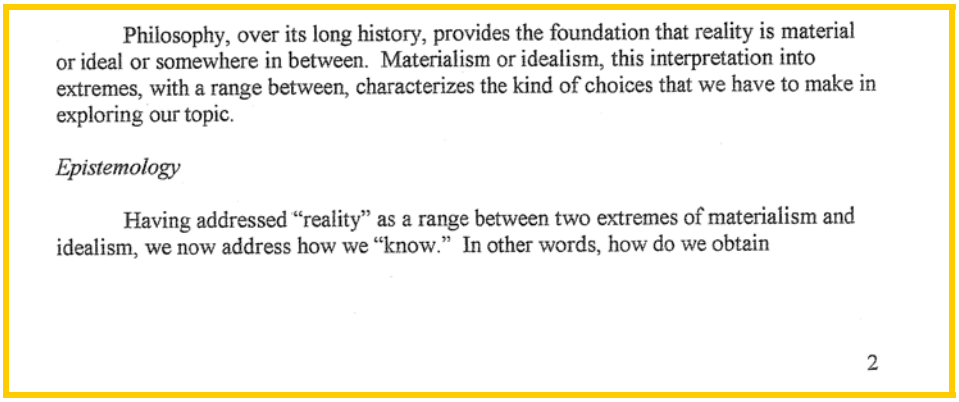
Philosophical Foundation

The question, "How do we know?" has probably concerned us for as long as humans have been able to reason. Certainly, the question was posed in antiquity, and there are two ancient fields of philosophy that address the question: (1) ontology – theories on the nature of reality and (2) epistemology – theories of knowledge.

Ontology

What is "real?" This question started the field of philosophy, and must be addressed before we can "know" something. Thales of Miletus (a Greek colony in what is modern-day Turkey) earned the title, Father of Philosophy, by examining this question in the seventh century BCE. He concluded that reality is material substance that is made up of earth, wind, fire and water. Of these four components, water is the most fundamental because water falls from the sky as rain, is absorbed into the earth and will condense with the temperature differential caused by fire.

From there Carter quickly guides us into a discussion of epistemology.



Philosophy, over its long history, provides the foundation that reality is material or ideal or somewhere in between. Materialism or idealism, this interpretation into extremes, with a range between, characterizes the kind of choices that we have to make in exploring our topic.

Epistemology

Having addressed "reality" as a range between two extremes of materialism and idealism, we now address how we "know." In other words, how do we obtain

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Keep in mind that by this point we are into page 3 of Carter's treatise and we have yet to encounter a referenced paper or book of any kind. This is all, at least to this point, George Carter.

After only 8 paragraphs about ontology and epistemology (combined), Carter jumps to an analysis of his first love – the human brain. The discussion of the brain begins at the bottom of page 3 (see below) and it runs through the middle of page 11. And like everywhere else in the paper, there is nary a reference/cited work.

The Human Brain

Anatomy

The Central Nervous System is the spine that has nerve projections into the various parts of the body (the peripheral nervous system) and a very well-developed, bulbous organ at one end: the brain. The brain is an extension of the spine in five parts ("encephalons") (going from spine to outermost): the myelencephalon (medulla, the evolutionary oldest), the metencephalon (cerebellum and pons), the mesencephalon, the diencephalon (thalamus, hypothalamus and eyes), and the telencephalon (the two hemispheres, the evolutionary youngest). The two hemispheres of the telencephalon

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No citations at all? Nope, and not even to talk about the lobes of the brain and how they are related. He even drew a picture for those in attendance (see below).

The two hemispheres are really two independent brains connected by a bundle of axons called the corpus callosum. Each hemisphere has four lobes as shown in Figure 1: the frontal (forwardmost and evolutionary youngest), parietal (middle), occipital (hindmost) and temporal (on the side). Each hemisphere resembles a glove with a thumb but no fingers. The thumb would be the temporal lobe.

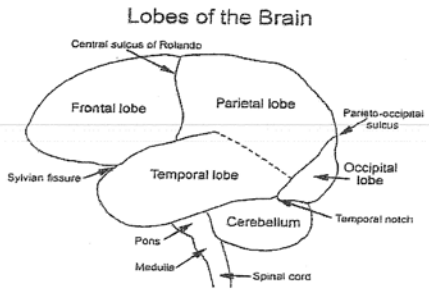

Figure 1: The Four Hemispheric Lobes

"Each hemisphere resembles a glove with a thumb but no fingers." (A mitten?)

After going over the lobes, Carter gets into the sparky neurons. The picture he drew to accompany his presentation of neurons, their structure and charge, is arguably one of the more impressive parts of the 19-page paper (that has no references). Of course, it is inserted below:

Neurons

Gray matter (cortex) is made up of neurons (nerve cells) that are where memory, learning and cognition take place in the brain. An individual neuron is a cellular membrane containing a gel-like fluid (cytoplasm) and within the cytoplasm, a nucleus. The nucleus contains DNA that provides inheritable instructions and generates proteins for changing cell activity.

The neuron is a special cell that differs from typical cells. Its outer membrane is not spherical. Rather, it has many jutting-out branches called dendrites. In addition, the neuron has a long tail (axon) that is connected to the neuron at the axon hillock. The axon is coated with a white cholesterol substance called a myelin sheet, and it has many axon terminals branching out from its sides and end. Figure 2 provides an illustration of a neuron.

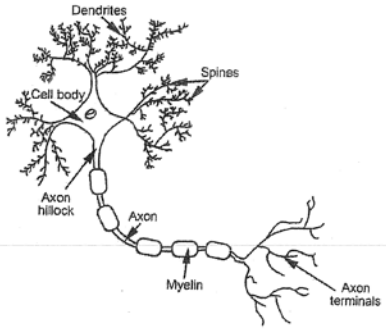

Figure 2: A Neuron

An atom with excess electrons (negative ion) has a negative charge. A positive ion has a deficiency of electrons and is positively charged. On balance, the cytoplasm has an excess of negative ions and a negative charge. The reverse is true of the cerebral fluid on the other side of the cellular membrane. This means that there is a voltage potential across the cellular membrane.

After a lengthy anatomy lesson (including "plasticity"), Carter gets to simple subjects like Newtonian and Quantum physics. The first of these is dispatched in four sentences, the second in about six (see below).

Newtonian Physics

Newtonian physics is based on an assumption of extreme materialism. Reality is the physical world, and that world is governed by discoverable laws that describe cause and effect. In effect, the world is a clock. Once a cause is initiated, its effect and all the subsequent effects are determinable by the laws that govern their actions.

Quantum Physics

Early in the twentieth century, technology had advanced to the degree that subatomic observations could be made. As a result, the extreme materialism and determinism of Newtonian physics came under attack with observations such as one particle could be in two places at once, or a particle could be a material object at one and the some time that it was an immaterial energy wave, or a particle could directly and immediately influence another particle that was light years away. Culminating this attack was Heisenberg's Uncertainty Principle. A material particle has position and velocity. Heisenberg showed that at the subatomic level, if you know one of those two characteristics then the other is indeterminate. Apparently at the subatomic level, the energy of observation is so high relative to the energy of the particle that what was meant to be observed becomes something else by the observation. This paradox is reminiscent of the old philosophical paradox," If a tree falls in a forest and no human hears it, did the falling tree make a sound?"

From here (on page 11) we head into the philosophy of the mind, and Carter takes his readers on a journey where they are joined by "Cartesian Dualism," "Monism," "Functionalism," and "Consciousness." This is sort of like the EFIB's own bizarro-world version of *The Canterbury Tales*. From there Carter throws in a dash of BA 301 and BA 303, concluding with brief discussions of statistics terms, data collection, and statistical inference.

What do we take from Carter's paper? He tells us in the final paragraph (middle of page 19), and after having provided exactly 0 references:

> An inescapable conclusion of this inquiry is that knowledge is quite fragile. The inquiry brings wonderment at human advancements in philosophy and science, and even more wonderment at how the human mind works, as we understand it. Equally, the inquiry makes one wonder at how so many can have such certain opinions about what they "know." But, they and we do!

After getting through what some say is Carter's swan song (planned for some time) to show his vast knowledge of the world one has to wonder whether those who have so often stood behind and stood up for Carter through the years (e.g., Farhang Niroomand, Charles Sawyer, Sami Dakhlia, Akbar Marvasti, John Clark, etc.) are proud of who they stood behind and stood up for.

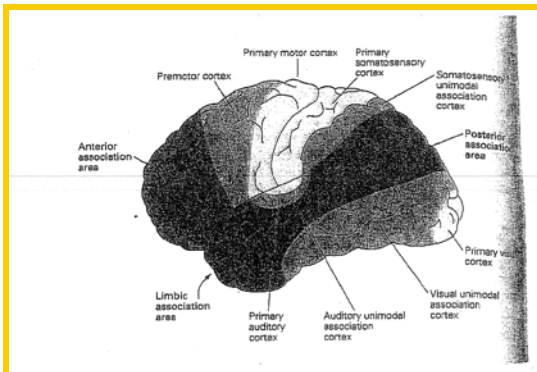

Figure 3: Primary, Unimodal and Multimodal Brain Areas

Another picture Carter drew/included.