

The Hard Problem of Consciousness Studies

Marvin E. Kirsh₁

Kirsh2152000@yahoo.com

₁ The California State University Los Angeles Department of Philosophy

Abstract

The question addressed by the hard problem of philosophy (3), how cognitive representation is acquired from the physical properties of self and the external, is examined from a perspective originating with Boethius(14) that knowledge is dependant on the nature of the perceiver and discussed with respect to the philosophy of George Berkeley (1,2,7) concerning the existence of matter with respect to perception. An account of the trails of history, scientific method, with respect to the naming and delineation of the hard problem suggest that its topic of address is a factor of plural elements-perceived as singular, a monism, only an aspect of its universality is perceived. A surface aspect is what seduces scientifically and, as a result, a confusion involving excessive abstraction and perceptually absent empirical fact, is postulated to accompany a false morality-an inclination to conquer it from scientific method is attributed to a seduction by naturally existing perplexity that is intermingled with unknown physical elements, themselves rooted from the same singular perplexity such that an ensuing interrogation targeted at the physical world and unavoidingly overlapping with the strictly philosophical has taken place. An invisible paper thin but sharp and self denigrating third facet to the commonly known philosophical walls, within the perplexing and the logical incongruence's, an artifact of perception and modeling of nature, results in a combined scientific (physical) and philosophical (reflective) assailing of natural paradox in a pursuit to summit human sufferings that are suggested to be, at least in part, of an unnatural and physical origin. Included as a conceptual tool is a section that discusses all possible human behavior as intuitively contained by the set of all the possible paths of nature emerged up to present and continued to emerge.

Discussion

Philosophy confronts science at the boundary of topics of mind and matter. Three appearing universal intersections can be described.

- A) Mind, cognition and consciousness explained by scientific means from the investigation of the particulars of matter
- B) Matter, its' presence and scientific properties as a dependant function of mind (Berkeley)
- C) Mind and matter both as dependant on some unknown property of the world

With respect to A) matters of mind are an intellectually consuming perplexity. The interrogation of nature for evidence and facts of which it is assumed it is unaware of, in order to construct a model based on interactions of cause and effect an activity of the both the mind and action based on the willed motion of corporeal matter, itself unaware of its' own means of functioning-seeking clues in external factors, is consequently suggested to have emotional roots not only with respect to motivating forces meditating inquiry but also with respect to productions from efforts-i.e. total content lacks logical congruency- a situation of the blind willfully leading the blind to seek what can be logically assumed not to be known anywhere-at the same time, with the same aggressive insistence willfully researching matters of free will; all categorily categorized into appropriate nomenclature and categories . A suggestion to 'drop dead' or figure out how not to-'drop dead or drop dead' , might not differ in description... a robbery with a threat,' don't make a move' companioned with research into the nature of free will, fatalism, determinism.-a perplexity only if no threat, but poor happenstance that seduces us.

The exact converse of A), B) leads to theological speculation that can be applied convincingly as logical argument for the existence of an all perceiving ever present deity in the wake of total lack of explanation/a vast darkness that scientific aggressions on nature necessarily falter at. In greater perspective addition of A with B results in the illogical and equally perplexing, equally inaccessible to the means of science , suggestion that "we are being robbed by god" of a normal lifetime.

Presented to the intellect simultaneously are facts that are perceivable as equivalent to the logical inability to know the means of cognition and perception and facts of a tangible nature resembling a hold up; both overlapping with the strictly ethereal/spiritual in nature, yet with extremely seducing scientific evidence tracing a potential root to a solution that, yet, impinging on logical reflections concerning eternity, the infinite, a beginning and end, are (inappropriately) applied to channel the forces of nature wishfully to ease human suffering. These methods lessen diversity by deductively restricting the choices available to natural processes, restricting cognitive openness; choices that are always bounded by either the legal and familiar or the uncertain. Scientific law applied as 'the legal', though, originates from a derived physical interrogation of nature in which it is logically impossible to arrive at data without exerting an influence on this decision process. It thus exactly reflects the 'hold up' situation that is suggested to be modulated by an infliction of a natural kind and becomes naturally stymied logically at the juncture of perennial and eternal perplexities about existence itself that consume eternally a wall of opposing faces. That this divide may have grown to encompass an additional face founded from the sharp and treacherous edge of paper experiment,

instead of a perplexity of two faces and we define and seek to summit an object that is artifactual an incoherent, if physical fact is absorbed cognitively as abstraction, has not been alternately considered . It is alternative C) that will be discussed.

The nature of the hard problem is considered with respect to a seduction originating in natural events to distort its' nature, and, in light of this, is intuitively suggestive towards a potential solution.

A. A Seemingly Uncontained Container

If one considers the total complexities of the human soul-tries to reflect on it scientifically one might reduce his labors to consider the total potential paths taken but by nature to the present in all situations or in given situations. From this perspective, behavior has no explanation but of choices, present and past occurrences, memory that is contained, restricted to the whole set of possibilities of the natural world, which can be viewed as having themselves come about from the route of past events such that nothing can exceed it or either has not occurred. Thus all facets of living might be envisioned to be contained by a near infinite and beyond witness set of paths to the present and that all divides, internal functioning of cells, genetics, the brain are arrived at in the same manner and are fueled themselves fowards towards the topologically open path of best diversity, a ubiquitous uniqueness without duplication in any set of circumstantial particulars, that by its' nature entails a physical force of self avoidance in that each and every location/domain and discernable components of associated particulars, internal or external , has an distinct identity and cannot physically overlap with one another-i.e. has a location. Employing this orientation a route to dissect the mind/matter paradox, the hard problem can be found.

B. The reflection of light and cognitive reflection

George Berkeley (1,2,7) of the 1400's purported that the existence of matter was a dependant function of the existence of a perceiving witness. He argued that language was a communication utility related to behavior and action and that intellectual abstraction, able to exceed coherent meaning, was self denigrating; in essence, though not stated as so, was abstracted itself from the existence of perplexity. From this perspective he argued for the existence of an all perceiving god, matter as either hard or soft, gaseous etc. but as an ordinary topic related to the corporeal, perceived incorporeally as sensory objects and capable of existing in no other way but in complicity with perception, as any other interpretation involved abstraction beyond coherent meaning into postulated generating strata that existed independently of the perceived world. To account for the existence of perceived matter in the absence of human witness he proposed the existence of God as an eternally perceiving agent present everywhere. This notion, argueable as an abstraction itself, not only has an innate unity but a logical necessity to account for existence altogether from experience, is of the same nature of these relections, and thus is a hard problem that

men themselves are not abstractions; existence itself beds with that which defies testimony. Earlier philosophers of the medieval period that preceded Berkeley followed conceptually from the ancient Greeks with the notion that all that exists has something that precedes it, and conjectured that it was thus illogical to discuss a logical beginning and proposed the existence of an omnipotent all perceiving timeless, entity, God as a creator of the world. The notion, though of an all knowing God also created philosophical problems about free will and determinism which were soothed (though never resolved) with notions that knowledge was totally dependant on the nature of the perceiver. Boethius (14) compared mans' perception of animals in relation to his own self perception and argued that we do not know what the perception of animals entails; Gods perception may be very different to be unknowable by human beings in a way that divine fore knowledge had no bearing on the free will or a feared predetermination of will via advanced knowledge of events. Knowledge of God, in terms of a positive moral goodness-better goodness of men, would result in a broader range of individual freedoms in the exercise of choice. Near the end of the Medieval period Saint Augustine (4,9) added a free will to God attributes in order to claim the free will of men, to further allow conscious reasoning and rational judgment in order to allow the conscientious application of punishment for moral offensives. With regards to matter, earlier Medieval philosophers viewed man and his daily living to occur in a tarnished realm, God/his nature to be accessible only with a euphoric ecstasy that transgressed the reality of perception. A hard problem is clearly visible, as it is today, during this period of turmoil in which ideas of mathematical infinity slowly diverged from ideas of eternity. Space was perceived as infinite, time as eternal, god an eternal all knowing entity that occupied all of space. Later William of Ockham (25) argued that the rationality employed in this period, the cosmology of the necessity of first causes was incompatible with theological reflections related to an omnipotent, immutable all knowing being, the eternal.

Modern science, able to deal with the infinite only, seeks to dissect rather than bear notions of eternity in a quest to establish notions of a natural order. At this juncture valiantly, but with an assumed failure, science becomes not only a slave to philosophy, but a passive and rational tyrant when it is not focusing actively on topics beyond it's domain, resulting in topics derived from abstracted abstraction that overlap into unresolved and clouded philosophical areas and that are beyond first order perception and cognition.

1) Space

These paradoxes, conflicts and rationalizations are perpetually underlined with the active seeking of space, room, volume, intellectual permissiveness, the term 'overlapping' referring to room, Strule for room, conflict and room associated hypothesis intended as a tool to pursue an environment and problems associated with it

that is composed strictly of room/space; accompanied with humanly self-willed incentives to occupy/rule (space?). At the early times empires were constantly being invaded and conquered with the great expenditure of resources, energy and time, that one might observe no change in habit or the applications of free will through to modern day. Boethius's notions about knowledge with relation to its' possessor seem to have been lost, at least not to have accrued any prominence, and has taken a different form in the study of epistemology that puts in analogy nominalism(6) and the thought of a world of ultimately unclassifiable particulars in a back seat, in a war that resembles, by analogy, an intelligent giving away of the Battle of the Bulge for the purposes of an experimental determination of what named spaces were not to be occupied after the (future) failed offense, but in the name of ending the inhumanities of war, though the treason potentially could result in as many inhumanities. 'Spaces' in this case results in definition as a statistical entity composed of unnamed casualties and events not connected in name with the avoidance of a unique plan or potential unique sufferings intended in the predisposition to give away plans; a non-discerned buldge results that is masked by the name 'buldge', seen with the same parity as the failed battle itself, but focuses in an opposite direction from the intended purpose of the exposing the offensive, with a nameless, in correspondence, assumed permissiveness with nature- the employment of mechanical contrivances and science technology, challenged intellectual resources as a means to advancement, a categorically good moral behavior, human intellectual conduct towards the alleviation of suffering as a measure of all things. In this case the ubiquitous and natural struggle for room in all aspects of nature as an actual realization of specific individual need, of self is given only a(n) (overlapping) seat in a contrived room-for- two dualism that includes an adjoining seat for time in the same room with science, a single room for both the eternal and the abstracted infinite, which none the less, can only be but a single unique room, a "contained" space/volume.

2) The Paradox

If paradox, in a new perspective can be placed on the front seat singly in the name of the nominalists(6), the existence of individual unique spaces as a property perceived at all locations, as analogous relation for the hard as to its' characteristics and properties, (a hard problem, now a primary singular hard problem though with unperceived divisions that are suggested to have grown to create a third face (with abstracted spaces that belong in the category of the empirical) and conceived of as experience is perceived of, as a wall of two faces, (yet in a world of single surfaces if one should inquire with nature). Might not space alone serve to substitute/satisfy Berkeley's philosophical requirement for a ubiquitous perceiver if one equates perception with the process and consequences of witness of any kind. For example the reflection and rebounding of light/sound might be considered as transmission and communication between perceiving' witnesses - internal sensory function, all processes, as acts of perception.

As an uncontained container, volumes of space themselves might be conceived to grow from the present to the future as a perception process that consumes energy and leaves a remainder of mass and volume as location dependent properties of matter in the nominalist's (6) seat, the remainder of interpretations occupying only a pseudo seat that is established for the purpose of sorting, perspective and advanced reference in the daily processes of living. The perceived hard problem now is a pseudo problem with respect to the set of unique actual volumes that compose it, and with an appended pseudo wall that is conceived with added faces in first seat to a second eternal ubiquitous paradox that might conceptually be equated with existence, the universe itself, and exists of itself as much as one might account for the existence of time, eternity -given two seats(the eternal and the infinite) in a single (eternal) space. In the naming and establishment of the hard problem, its' reflection along with the scientific, the primary paradox, the world present and perceiving in all, one might assume its' existence as a matter of either the physical and particular or of the spiritual and a corporal, but always reducible with the shedding of the abstracted to become the familiar wall of two faces from a human perspective and again reduces to become a single surface from a perspective of elemental primary witness (perceiving nature). The activities of the soul, all behaviors, potential behaviors are contained in the present, to infinity, for scientific purposes, for the purposes of understanding, comprehending overwhelming complexity, with nothing excluded.

3) A single surface

In this exercise we seem to be denouncing science, teeming with the nominalists in their insistence that nature cannot be known from categorization and the creation of genera, yet to recognize, perhaps, common experienced physical,/environmental stresses that may mirror only the stresses of an ideal environmental space but are augmented with additional demands for maintenance that arrive from added elements that mature as unrecognized, unnamed statistical inclusions to the paradoxes innately companioning reflective awareness; painting a less open nature as a natural standard, in a shallow sense, describable in a one step path leading to the scientific creation of non existent natural spaces whose existence is financed with the postulation/abstraction of standards/ constants-so simply describable that science reduces to a short description of historical behavior, the constant speed of light, relativity theory to the potential energy of an unnaturally imposed spring force/mass with a unknown etiology (here visualized to be an opposite to a combination of two factors (one artificial and one real that operated upon by some inversion method produce an additional factor to yield three factors from a single primitive factor). (This makes sense as the unfolding of history seems to produce new diseases that are traceable with the theoretical inclusion of a third witness to defined witness processes-i.e. contaminated intercourses, incoherent science theory construction, contaminated sexual intercourses, contaminated environments, that

together also encompass associated behaviors as processes that not only feed the fire but are cancerous of themselves.)

But what science and physics might be constructed from the open, from the single sided open surface, a mathematically competent product, an inversion, the mobius. If one considers light and sound, most likely also a single surface, but for present purposes as a dualism)- one might generate graphically many forms. The egg shown below is generated from very simple premises:

- a) light and sound have velocities and energies
- b) the energy of light can be given as $E=mc^2$ from the special theory of relativity (7) (c is held as a variable)
- c) the energy of sound can be related as product of kinetic motion and given from Newtons' equation as $E=mv^2/2$
- d) a total system energy derived from displacement energies that perpetually yield the birth of new volume can be expressed as :

$$E(\text{total}) = mv^2/2 + m\Delta c^2 \quad E t^2/m = \text{Distance}(\text{motion})^2/2 + \Delta \text{Distance}(\text{light})^2$$

Both time and mass are common in any specific instance and the equation reduces to:

$$E(\text{total}) t^2/m = \text{Distance}(\text{motion})^2/2 + \Delta \text{Distance}(\text{light})^2$$

If $R \sin(\theta)$ is expressed as v and $R \cos(\Phi)$ is expressed as Δc $R = (v^2 + \Delta c^2)^{.5}$

$$E(\text{total})^{.5} * t/(m^{.5}) = (\sin^2 \theta + \cos^2(\Phi))^{.5}$$

- e) if one seeks to graph an egg form the perspective of moving mass that emits light, the motion of the mass is unidirectional, the motion of the light is multidirectional and two dimensional, an equation to generate a radius from an energy of displacement derived from light is as follows:

$$R_a = (v^2 + 2*c^2)^2 + v^2)^{.5} \quad \text{substituting from d) for v and c}$$

$$R_a = ((R_b) \sin \theta)^2 + 2 * ((R_b) \cos(\theta))^2)^{.5} + (R_b \sin \theta)^2)^{.5} \quad (t=0)$$

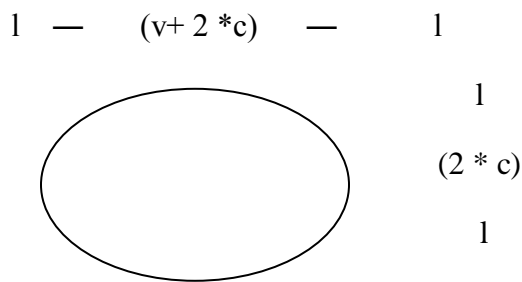
$$R_a/R_b = ((\sin \theta)^2 + 2 * (\cos \Phi)^2)^{.5} + (\sin \theta)^2)^{.5} \quad (t \neq 0)$$

$$R_b = (v^2 + c^2)^{.5}$$

The deviation of θ to Φ in the cosine term might be conceived of as an indicator of a single surface a primary wall from the natural perspective (but maybe still colored with human perception since a $t=0$ is not logically suggested to exist, at least to not to coexist with the concept of eternity) ; i.e the generation of volume from nothing, as the eternal impossible problem for which there could not exist scientific interest towards a solution)

Figure 1)

A basic oval obtained from a forwards motion of a mass(v) and the emission of light \odot from it (c =velocity of light, v =velocity of mass)

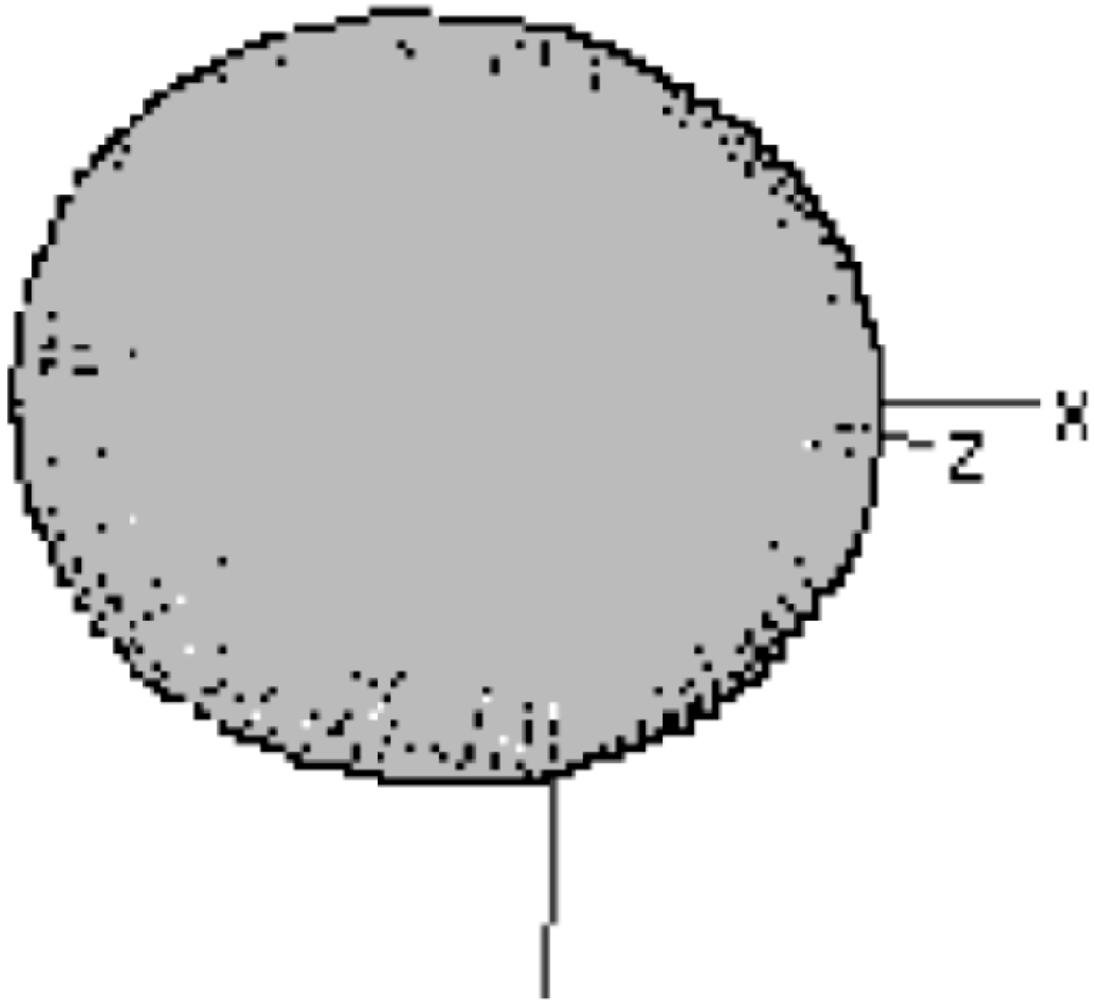


The following 2-D plot can be generated

$$F(x) = [R, \theta, \Phi]$$

Figure 2) The following 2-D plot can be generated

$$F(x) = [R, \theta, \Phi]$$



As the sine and cosine functions are out of phase in figure 2) the graph of an egg is composed of a singled surface as the unit of structure, total structure. Models resembling a chromosome, or schematic details of its' reproduction by DNA polymerases, or a single mobius strip can also be generated from similar equations.

Conclusions

Problem solving, the applications of science, becoming very sophisticated, enable the creation of near to real models utilizing computers, mathematical genetic algorithms but, regardless of the

perfection in copies, are not only by necessity forgery's, they are by necessity conceptually invalid. Mimicking mathematical assemblies that seek conceptual understanding return only practical application in engineering medical science, etc and never fulfill original goals. Though the creation of new tools and methods seem to accrue a profit, they adhere to a philosophy of ends that justify the means and leave as an avoided remainder a beginning that is ubiquitously aligned with beginning intentions and without a logical connection to resultant products. A coherent reverse path in the same logical/mathematical language from the natural to the emerged mathematical concepts employed does not exist. Entailed from these applications is the resulting denaturalization of man from his environment, a separation of man from his natural roots.

Science trended towards the pursuit of absolutes and constants still though has at its hand the tools to understand the forces and mechanics of forces of avoidance, attractions and repulsions related to surfaces, the areas and geometry of approach, mathematical considerations of energy, metabolism and detailed views of the physical constructions of the interiors and exteriors of many entities, e.g. cells, surfaces, cosmological structures etc. that are amenable to reinterpretation in light of new philosophical considerations. In this total approach, light has to be considered as the member of a witness set in which no other members can be included that exceed a location designated as [human species, light] i.e. cannot be deductively extrapolated via abstraction to describe light generally. For instance that a dog as a separate species may also perceive light is not applicable in terms of ascribing may be learned as universals. Energies of formation, the creation of volume from energy are feasibly employable in this light with respect to the human species, intuitively, from knowledge of macromolecules, physiology surfaces, and energy metabolism, to construct data of total surface areas, energies of displacement of both light and humans as a prelude into darker unknown areas involving real roles and functions either with respect to physiology or philosophical considerations. (5,6,9,11,12,13,15,17,18, 19,20).

Of particular interest, exemplary of the naturalization of concepts verses a predestined arrival at secondary paradox is a recent report (2) involving the problem of visual perception and object representation in the visual system. With a new conceptual approach, potential explanation that traverses the divide between physiological and perceptual function, data from optical location in the visual field is shown capable to also define symbolically. Simulated visual data related to location, area, volume, depth is transposed mathematically to data related to object borders and shading. With a created overlay/mask output is generated that returns a shape representation of the object. Representational information that is independent of location properties is suggested to be contained in the original visual input- symbolic representation with respect to object identity is not necessarily a matter of cognition, is a naturalized partner to location that is independent of, effort associated, cognitive collaboration and exchange, i.e. secondary events associated with secondary witness processes that entail plural locations (of

relating witness pairs) and energies or temporally contiguous transmissions-i.e. a sequence of location variables whether internal in the brain or external in the environment other than that involved in the original object detection. A unity to nature is suggested here that brings to prominence, a frustration with the eternally arrived at dualism, from false definition conceived by device to employ the infinite, but continually, throughout the history of science, attaining an eternal status.

The hard problem within the eyes of modern science has two faces seen as one, an eternal infinitely non regressing one for philosophical localities, and an infinitely regressing (less for the suggested identification of imposed, unnatural physical disturbances) for scientific localities and a multiple confusion resulting from a combination of these into one that is assumed modernly to be scientifically approachable, and is approached with a means that employs a partially conceived and misunderstood written philosophy as both an infinite and eternal, stationary, doorstep/remedy to support assertions and aggressions on nature, to support its' digressions, divert its' regressions, repress and/or divert its' trepidations, excuse it's failures to find or define a logical unity to its' topic of nature.

References

- 1) Adams, R.M ed Berkeley, George Three Dialogues Between Hylas and Philonous, 1979 Hackett Publishing Co. Inc
- 2) Ahn, Jong-Hoon and Lee, Yillbyung (2008) Representing an Object by Interchanging What with Where, Nature Precedings : hdl:10101/npre.2008.1686.1 : Posted 14 Mar 2008
- 3) Berkeley, George A Treatise Concerning the Principles of Human Knowledge, Hackett Publishing Co. Inc. 1982
- 4) Chalmers, David, J.(1955)Facing up to the Hard Problem of Consciousness Journal of Consciousness Studies 2(3):200-19

- 5) Chadwick, Henry. (1986) *Augustine*. Past Masters series.
- 6) Coleman, P. Nature 446, Frontier at Your Fingertips: Between the nano- and micrometre scales, the collective behaviour of matter can give rise to startling emergent properties that hint at the nexus between biology and physics, 379 (22 March 2007) | doi:10.1038/446379a; Published online 21 March 2007
- 7) De Wulf, Maurice. (2008) "Nominalism, Realism, Conceptualism." The Catholic Encyclopedia. Vol. 11. New York: Robert Appleton Company, 1911. 22 May 2008
- 8) Einstein, T.L. Survey of Self Avoiding Random Surfaces on Cubic Lattices: Issues, Controversies, and Results IMA Volumes IN Mathematics and its Applications Springer-Verlag KG 1992
- 9) Einstein, Albert Physics and Reality Journal of the Franklin Institute 22 1:3 359-382 March 1986 Tilton, H.B., Smarandache, F. ed. Today'sTake On Einsteins' Relativity Proceedings Of The Conference At Pima Community College East Campus Feb 18 2005 Pima College Press
- 10) Fogelin, Robert, 2001, Routledge Philosophy Guidebook to Berkeley and The Principles of Human Knowledge (Routledge, 2001)
- 11) Goldenfeld, N., 1 and Woese, C., Biology's Next Revolution: The emerging picture of microbes as gene-swapping collectives demands a revision of such concepts as organism, species and evolution itself., Nature 445, 369 (25 January 2007) | doi: 10. 1038/445369a; Published online 24 January 2007
- 12) Hesburgh Rev. Theodore M.(2005), Saint Augustine, Microsoft Student 2006 DVD Redmond WA
- 13) Knight, D. Kinds of Minds: Do differences in history, culture and education influence whether scientists focus on pieces and particulars, or make broad connections?, Nature 447, 149 (10 May 2007) | doi: 10. 1038/447149a; Published

online 9 May 2007 Lam, Vincent (2007) The singular nature of space-time. In [2006] Philosophy of Science Assoc. 20th

- 14) Macknik SL, Martinez-Conde S, Consciousness: Neurophysiology of visual awareness, New Encyclopaedia of Neuroscience, Ed. Larry R. Squire, Elsevier, Oxford; (In Press)
- 15) Martinez-Conde S, Macknik SL (2007), Mind Tricks- Cognitive Scientists take a lesson from MagiciansNature; 448, 414
- 16) Martinez-Conde S (2007) Mind Matters, . Blindsight: When the brain sees what you do not the Scientific American blog on science and mind
- 17) Michaelson, A., Morley, E., (1886), Influence of the Motion of the Medium on the Velocity of Light Am. J. of Science 3 1:377-386
- 18) Michaelson, A., Morley, E., (1887), On the Relative Motion of the Earth and the Luminiferous Ether Am. J. of Science, 34:333-336
- 19) O'Donnell, James, J. editor (1990), Boethius' Consolatio Philosophiae, edited, with a Commentary, by James J. O'Donnell. 2nd edition. Bryn Mawr College: Bryn Mawr, PA, 1990. Series: Bryn Mawr Latin Commentaries, edited by Julia Haig Gaisser and James J. O'Donnell
- 20) Russell, Bertrand, My Philosophical Development, 1959, Simon and Schuster NYC.
- 21) Russell, Bertrand, Whitehead, Alfred North, Principia Mathematica , second
- 22) Russell, Bertrand , The Problems of Philosophy, 1997, Oxford university Press
- 23) Slipher The radial velocity of the Andromeda Nebula 1912 edition Cambridge 1962
- 24) de Sitter, W., On Distance, Magnitude, and Related Quantities in an Expanding Universe (1934) Bulletin of the Astronomical Institutes of the Netherlands, Vol. 7, p.205

- 25) Spode, P., V., (ed.), (1994) Five Texts on the Medieval Problem of Universals: Porphyry, Boethius, Abelard, Duns Scotus, Ockham (Indianapolis, IN, 1994)
- 26) Tipton, Ian C. Berkeley: The Philosophy of Immaterialism , 1974 London: Methuen
- 27) Velmans, Max (2007) Reflexive Monism. (in press)