

**Writing Styles of the Poor and Infamous: You can't take a martyr too seriously**  
(An informal essay to my Spring 2002 NYU students and my friends from D'62)

My intention is to kill two, and perhaps more, birds with one essay. I am grateful for the e-mail and calls I have received from readers appreciative of my earlier essays on the WTC collapse and the death of Maurice Gross. Unfortunately those essays intoned a somber note that fortunately does not reflect my normal state. So in an attempt respond to everyone (students, friends, 62s, et. al.) at once, I have written an essay on topics closer to my heart, and aimed more at my Dartmouth classmates and my Spring 2002 undergraduates than anyone else.

NYU undergraduates in my Spring 2002 class may work with me on essays of this sort (I have several drafts) to make them available in HTML with all links to all available external readings - e.g., link my Plato *Seventh Letter* reference to the on-line document, and specifically, to the relevant passages, and so on.

First an apology for missing various appointments and not following up on e-mails, phone calls, and so on. This rudeness follows more from my last, somewhat unanticipated eye-operations in October-November. I went in for my checkup and the doctor unexpectedly announced, it looked like all systems go for my final laser blasts to the retinae. Armed to everything except the teeth (NYU's dental plan is minimal, but eyes are covered 100%), I said OK at 10AM, was operated on by 10:45, and was stumbling home by 11. No pain is associated with these laser operations although patient anxiety runs high. The main side effect was weeks of overwhelming tiredness (to bed at 7PM and up at 7AM) and inability to focus eyesight on anything closer than 3 feet for more than a few seconds. I virtually abandoned my social calendar. Oddly enough my retinal surgery healed in such a way that my long distance vision (over 20 feet) is excellent. The curious assortment of perceptual and cognitive distortions will be the subject of an essay when I have less emotional attachment to the phenomena. On the positive side, it meant that I could not read – so I started to write. I will finally finish some books I started over the years, and I shall sporadically send off essays hoping for comments and feedback.

In December I worked with a company to select laptop computers. We reviewed and studied (played with) many different machines. A few were excellent, but from my perspective, the hands-down best was the Compaq Presario 2701. I am writing this on the Compaq, which has such a high resolution and bright fifteen inch screen, that I can read it clearly with the type size set about ¼ or 3/8 inch high. I liked the Toshiba but it only had one CD player (the Compaq has two built in), and the IBMs were nice but vastly overpriced. Most laptops were aimed at traveling salespeople who had to give presentations, and so they were very light. I am strong and can carry this seven pound device on my limited appointed rounds.

Some people who knew me in the engineering school and the business school asked me what I am doing now. Rather than tell, I will show. Much of my work is quite technical, but a lot of it is readily comprehensible.

My main interest at present is in a branch of logic called 'pragmatics' today, but

more usually called 'rhetoric' in centuries past. Descartes' book, *The Discourse on Method*, should be called *The Discourse on Rhetoric*. In brief, following Rene Descartes, one uses language either to *instruct* or to *inform*, where these are technical terms to him – as they were throughout the Middle Ages. If one's writing style addresses the 'human reason' (i.e., 'deductive logic' in today's terms), one 'informs' the reader. If the writing style addresses the 'human will' (i.e., the human ability to guess) one 'instructs' the reader. If some intelligence 'informs' you, your 'knowledge' increases and you 'know' more. If some intelligence 'instructs' you, your 'belief system' is altered and you 'act' differently.

The main contribution of Rene Descartes is that he offered an iron-clad proof that 'rational engines' – in today's terms: computers and other-yet-to-be-invented machines - can 'inform' but rarely, if ever, 'instruct' – they (all machines and animals) are forever constrained to use the 3<sup>rd</sup> person pronoun forms, except by some artifice, or in trivial cases, for instance, one could program a computer to say 'How are you?' and to use a deductively definable class of fixed 2<sup>nd</sup> person phrases. However, no deductive machine could ever use all 2<sup>nd</sup> person forms appropriately in contexts. Only human intelligence can 'instruct' the will of another human being, and this requires both parties (speaker and hearer) to use the 2<sup>nd</sup> person pronouns.

Simplifying somewhat, most of my recent research has been to see (A) whether all third person statements (he, she, it, they) form a class of utterances (sentences) that can be defined by deductive logic, i.e., presented as a generative grammar, but (B) many statements involving the 1<sup>st</sup> (I) and 2<sup>nd</sup> (you) persons cannot be deductively defined. Using modern terms to clarify Descartes' position, this would mean that 3<sup>rd</sup> person statements are fodder for the human 'reason' (deductive mechanisms) and may be characterizable in a computer program or generative grammar, but that 1<sup>st</sup> and 2<sup>nd</sup> person statements reflect the friction between human 'wills' (the guessing or abductive mechanisms) and may not be formalizable in deductive terms. If this is so, as I believe it is, then following Descartes' terminology there is a distinct 'limit of mechanical explanation,' and some aspects of human language (mainly the semantics and use of 2<sup>nd</sup> person statements) in principle cannot be incorporated into a deductive machine.

Descartes' proof, often misleadingly called the 'other minds problem,' would have the same effect in 'artificial intelligence' that the proof outlawing perpetual motion machines has in physics. There are aspects of human intelligence, in particular creative aspects of the 'will' and the belief system involving 1<sup>st</sup> and 2<sup>nd</sup> person pronouns, that can never be comprehended by the human 'reason' – since the human reason only deals with deductive knowledge structures in the 3<sup>rd</sup> person. Speaking for myself, I see Descartes' proof, based on the 2<sup>nd</sup> person pronouns in French and Latin (and ancient Greek), as absolutely certain, more specifically, as having the stability and permanence discussed below by Pascal, who initially sensed the absoluteness of Descartes' proof through his toes, if he is to be believed. If it is correct, then it places definable limits on which aspects of human mentation can and which cannot be performed by a deductive machine.

Human reason can never define a deductive machine (computer) that can define

all of the 2<sup>nd</sup> person sentences in a language and use them appropriately in contexts. Descartes' proof is not a limitation on deductive machines in any absolute sense, since there is one such deductive machine that can use 2<sup>nd</sup> person forms appropriately in context – and here we have Descartes' use of the 1<sup>st</sup> person in his proof: I am such a machine.

Descartes' proof defines the 'limits of the human reason': Human reason cannot understand how to build a machine that can appropriately use 2<sup>nd</sup> person forms. Such machines can and do exist: I, me, myself. But, since appropriate use of the 2<sup>nd</sup> person involves the human will, it is incumbent upon Descartes to show that the human reason cannot comprehend the human will. This he does to perfection. Pascal said it the best: The heart has its reason that reason will never know. There may be an infinite number of different totally deductive machines that can appropriately use 2<sup>nd</sup> person pronouns in context, however, each and every one of them must operate on principles that are incomprehensible to the human reason.

This touches on the main reason that I have not published anything on this topic. Let us glimpse the obvious, and then quick jump back into the 3<sup>rd</sup> person form to escape the logical consequences. All prayers around the world (according to St. Augustine and some others) are in the 2<sup>nd</sup> person, usually regarded by the person(s) praying as an address to some higher power(s), perhaps God, gods, spirits, Nature, and so on. Often people praying orient their body in a direction, often assuming a specific body position. So, discussions of the 2<sup>nd</sup> person forms immediately brings up the concepts underlying prayer, particularly those in St. Matthew, and often focus on what the body should be doing when the prayer flows through the mind, as well as the 'attitude' of the will while the prayer is passing through. Prayers do not count if they are done in a 'show off' way.

To St. Augustine, Pascal, and the Port Royal group, praying was really 'communication' with a higher power. To Descartes, prayer was a mental exercise, akin to working proofs in Euclidean geometry, quite secular. Descartes' *Rules for Direction of the Mind* can be considered his secular version of St. Augustine's *Enchiridion*. For St. Augustine and Pascal, when you were praying, you were really getting 'outside yourself' hence you necessarily used the 2<sup>nd</sup> person (you). For Descartes, who sought to secularize prayer, praying was not communication with anything outside of yourself. Prayer is one part of your mind (your will) communicating with another part of your mind (wisdom) that normally lies dormant. For certain, Descartes believed in the power of prayer to change aspects of the person praying. The question remained, however, why should a prayer be in the 2<sup>nd</sup> person if it is not communicating with ..what...? What is a prayer directed at, what is the 2<sup>nd</sup> person object or thing that is the focus of the prayer? Descartes cataloged the human mental capacities till he found it.

There is a difference between riding a bicycle from NY to Boston and riding a stationary bike to burn off the same calories in the same time with the same effort. Presumably, one could get one's body into excellent shape with either type of bicycle and style of bicycling. Descartes thought of prayer as the mental equivalent of stationary bicycling. To use an image that oddly escaped Descartes, if you were completely coated

with dark chocolate, somewhat like a Godiva truffle, when you prayed everything would go on inside of you, and inside of your snug and seamless rich chocolate butter-cream frosting. For everyone else (Pascal, etc.), something happened outside of you, beyond the chocolate boundary stuck to the hairy external fringes of your body. For Pascal and St. Augustine, the 'I' is inside the sculpted frosting and the 'you' is outside. For Descartes, everything (the 'I' and the 'you') takes place in the layers of your mind and in the raspberry-jamlike elements that bind them, inside the light sprinkling of pralines and coco powder on your Tobler's extra bittersweet chocolate shell. Pascal thought one should kneel and move the lips while praying. In their complete split of the mental operations from bodily properties, both St. Augustine and Descartes knew the prayer should pray while lying in bed alone behind locked doors making no bodily movements. For Descartes, these were not questions like 'How many angels can dance on the head of a pin?' They were empirical questions that could be answered by conducting experiments, not on the deductive properties of the human reason, but on the abductive capacities, the guessing abilities, of the human will. [Note: the writing style of this paragraph is similar to that of Descartes. You noticed it if you were taken aback by the body-oriented analogies, which seem out of place in a discussion of the most abstract properties of the human mind. This is similar to Descartes' discussion of the Pineal Gland, in which he does not simply look down his nose at the reader, rather, he blows his nose on the careless reader.]

If Descartes interpretations of 2<sup>nd</sup> person utterances (and, in particular prayers) were taken seriously, modern churches would look like single room occupancy hotels, with the prayers busily praying silently, each tucked in his or her own bed. To make a long story short, if prayers are not communication but a sort of mental exercise best done alone, this would have taken much of the wind from many of the sails of the religions active in his day. It is no wonder that it became a crime punishable by death to read, own, buy, or sell any of Descartes' writings shortly after he died. It was perhaps with a sense of bitterness, but equally likely with an eye to a linguist obsessed with encryption and encoding (me) in the indefinite future, that Descartes defined the main virtue of Jesus Christ, to wit: *humility*, as a vice in his last work, *On the Passions*. Descartes, living in the secret-code obsessed 1600s, placed trips and triggers throughout his works.

The reaction against Cartesian thinking was so strong in the English speaking world that the words from the 1600s that could have been used to translate Descartes into English have been purged from the English language, and when this proved impossible since many are in the Bible, their meanings became changed. To understand what happened to Descartes, read Orwell's 1984. The 'standard' interpretation of Descartes, as found in the English world at least, is the 'literal' interpretation of Descartes. Far more interesting is the 'figurative' interpretation of his writings, which offers a theory of the human mind and a method for investigating it.

My goal is not to offer a new translation of Descartes, or simply to discuss his ideas in modern terms. I will master his writing style, which is the only one possible to convey his meanings and messages, and I will write a book that presents Descartes' messages in Modern English: *Writing Styles of the Poor and Infamous*. On the Internet I

(or rather, my students) will place all materials relevant to the full exposition of Descartes' position. Many of the books that Descartes cites and refers to have not been readily available in English since 1629. My book will contain coded numbers that greatly extend the footnotes, appendices, and bibliography. By entering the number or keyword on my website, the reader can obtain complete copies of most of the cited materials (written a hundred or more years ago), paintings in museums, short essays, and so on.

Since deduction, by definition, simply tells us what we already know, it cannot advance our knowledge, but simply provide another way of thinking about materials in our possession. Belief systems, the basic structures of the 'human will', are quite different and lead us to act (creatively) in situations where our knowledge is uncertain, unreliable, and scant. It might be, and probably is, possible to build computing machinery to analyze vast quantities of data – expressed in the 3<sup>rd</sup> person - concerning the economy and financial markets to give us fresh new ways of seeing things (perhaps in graphs or movies) we already know (perhaps in tables). But when we must decide to act – to buy, sell, or hold – we move into the data structures in the 1<sup>st</sup> and 2<sup>nd</sup> person involving hopes, dreams, fear, greed, envy, and more basically, the full set of virtues and vices that define the coordinate system of human beliefs that governs our actions: rational and irrational. Descartes contends the factors of belief governing the appropriate use of the 2<sup>nd</sup> person pronouns can never be reduced to deduction by human reason, in particular, by a computer/programmer/machine designer.

If you find my writing style engaging, it is because I follow closely the Descartes bifurcation of 2<sup>nd</sup> person versus 3<sup>rd</sup> person pronoun intelligence, and I only write in the 2<sup>nd</sup> person form: One human will attempting to instruct another human will. Insofar as I have mastered the writing style of Descartes (which is my goal), you should feel that I am talking to you as you read, even if the actual syntactic and morphological form is 3<sup>rd</sup> person. Even better, I will have totally mastered Descartes' style if, when reading my materials, the ideas seem to you somewhat obvious, like ideas you already knew but somehow forgot or just never thought about clearly. In this case, I am an 'instructor' that improves your ability to make good guesses based on perhaps inadequate or ill-defined information. If all I do is give you facts and data you did not already know, then I am providing your reason with ideas that your deductive processes can catalog and move around like furniture as you reason and judge. See if you can detect my style shifting in this essay, and in particular, mark those passages where you sense I am directly addressing you (2<sup>nd</sup> person) from those where the text simply informs (3<sup>rd</sup> person).

Of course, following the ideas of Chomsky's linguistics, one must differentiate the 'semantic' or meaning aspects of the pronouns from their 'morphological' or syntactic forms. If I am discussing hospitalization plans with my brother and I say: 'You should never have a baby without adequate hospitalization,' I clearly do not mean my brother by 'you' even if I am looking at him. 'You' here means someone, or people in general. If I am chastising my daughter for churning the whipped cream into butter in the KitchenAid or taking the lemon custard out of the double-boiler before it has firmed sufficiently, I might instruct: 'One must pay attention to details if one wants to achieve the culinary excellence fathers deserve.' Here, 'one' means 'you' and is a second person

semantic form even if I am in the living room and philosophizing via sound waves that only reach my daughter's ears in the kitchen through the hallway.

If you are thinking of doing graduate work in linguistics, and in particular in computational linguistics (the attempt to place the grammars of human languages on computing machines), write to me if you are interested in the projects I outline here. The NYU Linguistics Department counts as one of the best. The graduate department is small, and only has PhD candidates plus some post-docs and visiting scholars. The admission criteria are strict, but all students admitted to the PhD program in the future should obtain full support fellowships to cover their living and tuition for five years. Check out the website: [www.nyu.edu](http://www.nyu.edu) and go for Linguistics and Prof. Dougherty's Pages.

Someone in the class of 62 list once asked about the Dartmouth meeting in the 1950s that coined the term 'artificial intelligence,' at which George Miller (the psychologist), Noam Chomsky (the linguist), Marvin Minsky (the computer scientist), and Claude Shannon (the information theorist), and several other notables attended. This meeting, which I read about in 1960, captured my imagination and directed all my future studies - which, however, did not proceed in a straight line. Over the past thirty years I have met most and even worked with some of the conference attendees.

In 1964, more than anyone, I wanted to work with Claude Shannon at MIT, but as life unfolded, I never even met, heard, or saw him, although he was teaching at MIT while I was there. Withstanding the unsubtle jeers and mocks of the professors of Thayer School, I devoured the cybernetic studies of Norbert Wiener. He died before I was at MIT. In the Thayer School I worked with Myron Tribus on his rather heady project to derive the laws of thermodynamics from information theory by regarding measures (like temperature, pressure, volume, etc.) as measures of our 'information' or 'knowledge' of the state of a system. I remain convince today that Tribus' ideas captured the essential heuristics of thermodynamics. My Thayer Engineering advisor was Sidney Lees of the MIT Instrumentation Lab. I worked mainly on the 'instrumentation problem' of how the ships and airplanes of the 'good guys' could remain functional as the bullets, bombs, rockets, torpedoes, and anti-aircraft shrapnel of the 'bad guys' tried to shred the moving objects of the 'good guys.' I believe I was born, and have always tried to remain, on the side of the 'good guys.' Dr. Lees encouraged me to go to MIT to study symbol processing computer languages, such as Lisp.

The three main teachers and colleagues who influenced my intellectual life since graduating were Noam Chomsky, and his linguistic theories about the nature and structure of human languages; Konrad Lorenz, with his ethological ideas about the evolution of intelligence and emotions in man and animals; and Maurice Gross, with his total grasp of the problems involved in representing human language on a computing machine. Chomsky was my PhD advisor from 1966 till 1969. Maurice, who recently died, I met at MIT while we were students. I first encountered (met is too simple a term) Konrad Lorenz when I was a Visiting Professor at the University of Salzburg in Austria in 1977. If he had been younger and healthier, I would have resigned my position at NYU and stayed with him to work on his animal intelligence studies in Altenberg. Of all the

people I studied with, Konrad Lorenz was larger than life.

Chomsky and Gross tend to be complex, quite formal mathematically, and highly specialized. Lorenz's work, which won him a Nobel Prize, is none of the above; rather, it is remarkably insightful into the processes of evolution that have played a role in the development of intelligence. Konrad Lorenz's book *Behind the Mirror* provides one of the best reads about human and animal intelligence you will ever find. While Lorenz himself was in general a happy person, his writings about the role of humans in evolution offers a decidedly gloomy perspective. Coarsely summarizing and obfuscating details, humans are an evolutionary dead end (like the dodo bird). Human-like intelligence - while one might find a hint or a glimmer of it in the chimps - is in fact found scattered in the animal kingdom: the possum, the octopus, and so on. Do not read Lorenz at night before you go to bed since it might induce strange dreams. His book, *On Aggression*, can probably be read up till two hours before bedtime as long as you do something else interesting before retiring, or up to one hour if you have a brandy and play with your children.

Someone in the 62 class asked about the most significant thing we learned at Dartmouth. I never thought about the 'things' learned since most of the engineering facts I learned soon became obsolete and only the rhetorical techniques and research strategies carried over to later life. I spent years learning to design vacuum tube circuits, only to have tubes replaced by transistors. For a few years I designed analog transistor circuits, only to have them ousted by digital integrated circuits. In 1962 I studied phase-locked-loop circuits with a professor in a reading course in the abstract since they were too complex to build and fool around with. Now, I can buy them at the Radio Shack in bubble packs, two for a dollar.

Just about every technical detail I learned is obsolete.

I early learned that the only education is self-education, and the most decent thing any college education can do is to teach a student how to learn. The abundance of opportunity at Dartmouth enabled me to learn how to learn. The thinking that governed the learning and (learning)<sup>2</sup> remains as fresh today as then. Subject matter, I admit I have largely forgotten. I remember the deliveries of the professors more than what they said: The medium was the message. I was most impressed by the people I met. Almost all my memories are of personalities and human interactions.

But this is, of course, how it should be. Education arises from the friction of personalities and minds, not from the shoveling of ideas out of one mind into another. Education does not consist of a stern knowledgeable professor with a tap on the forehead filling up the empty mugs held out by grinning students with time worn details that the student must quickly gulp in and later regurgitate. Education based on multiple choice and true-false exams leads to early brain death, or worse, to the stillbirth of any intellectual potential timidly kicking inside a student. Real education, like the rubbing together of two dull knives, takes two minds, however sharp or dull at their encounter, and by the friction of ideas makes both of them sharper. Any teacher who thinks they

function as the hone against which dull blades rub to attain an edge should reflect that the only totally dull blunt object in the chef's knife block is the pointless hone.

Most students enter college with a drive to learn, but - like a pastry fanatic whose universe consisted of the donut selection at the A&P suddenly transported with a credit card to a Parisian Patisserie or a Viennese Café - they become bewildered by the cornucopia of courses, majors, programs, departments, career tracks, personalities, and opportunities that sprout at fertile spots in universities like mushrooms in cow pastures. Most colleges satiate a student's appetite to learn, sometimes with nourishing yeasty and buttery baguettes and croissants, but alas, at other times with lard-based indigestibles, containing dried out raisins, doused with white sugar paste. Some colleges succeed in extinguishing the appetite for learning in some students completely by fattening them up with enough data, facts, figures, analyses, and opinions to last a lifetime.

A good college raises the view of the hungry student eye opened to learning, not by pointing to the bewildering options and paths in front, which tends to confuse and cause the eyes to shut or glaze over, but by showing the student how to redirect their attention inward, to focus their learning on themselves, to learn to know oneself. The students must learn that they must learn to learn if they are ever to really learn anything. The college must awaken a frightened freshman's dimly perceived inner awareness that learning must be learned if we are ever to understand how our limited understanding of our inner understanding might be understood as a first step towards attaining a grasp of 'human understanding.'

How else can we know anything about the process of 'knowing' that defines 'knowledge'? Much of the freshman's eye-opening-and-inward-focusing experience requires a college to inspire self-confidence in self-expression and not simply to offer facts, figures, and a laptop. Only by giving a student the confidence to advance their own ideas by expressing themselves in essays and in seminars can a student shake off the fears that must necessarily arise as one tries not to be afraid of publicly expressing one's innermost person - of boldly making bare one's being to barbs. Only by turning a student into a thinker that thinks about his or her own thinking can we hope to have the student attain any insightful understanding of our understanding of insight or even a smidgen of insight into human understanding.

An excellent college functions like a stove to concentrate the heat of even the tiniest fire and to keep chilling blasts from blowing out the smallest flame. As Plato makes clear in his controversial *Seventh Letter*, in education, the student mind forms the kindling and the cord.

The college's facilities and the faculty's lectures can only provide the spark and the hot air to fan a smoldering student intellect into a flame. Once the flame burns of itself - and after the smoke and sparks abate from the bridges freshmen must necessarily burn behind them while their parents wipe their eyes and gasp for air - a student might undertake some advanced study - the inner eye focused inward always to acquire 'wisdom,' but with the other two turned outward towards external disciplines to acquire

‘knowledge.’

A good college provides broad, relevant, and ample opportunities for the outward-facing eyes and ears of a student to acquire knowledge that may lead to a successful career, a fat bank account, and a well-stocked wine cellar. An excellent college provides unique and singular opportunities for each student to open the inner-eye and to listen with his or her inner ear to recognize the randomly heard squeaking hinges of the tiny gateway that opens to the arduous uphill path that leads to wisdom. The discovery of this gateway, which we all intuit to exist, requires an act of will, much harder than any known physical exercise - see Plato’s allegory of the cave.

The first step on Wisdom’s path, the hardest step since it requires one to cut the ties that bind, can only be taken one-by-one by each in his or her own time - and this is why the never-never land atmosphere of a college remains essential: A student needs abundant time to reflect and freedom from the incessant driving of an empty stomach in order to hear and focus on the tiny gate squeak, and for the will to see by the first flashes of insight provided by the inner eye that there is a small tortuous path winding through brambles and over sharp stones that diverges from the main highway - this main highway paved with books, encyclopedias, true-false exams, and standardized tests representing all accumulated knowledge, and usually at colleges, arranged in disciplines intended to titillate human reason and attract adherents.

A good college focuses the student’s outward senses on the white line down the center of the road. An excellent college will do all in its power to have the student’s will, by a strenuous act of will, will to focus his or her inner senses on inner hinge squeaks that lead to small gates, to recognize divergent upward paths through the rocks and brambles, and most importantly, to grow the inner courage to set their sails and hold fast to the rudder and look only at their inner compass as they stumble up their chosen path.

Pascal offers an interesting thought. We are all floating along in some stream in a giant lake, and for any number of reasons - but, mainly because the human form represents the culmination of some incomprehensible biological plumbing fantasy and we reproduce hydraulically - we float in small groups consisting of the people we interact with: family, friends, colleagues... Some ambitious people kick harder and move ahead. Some laggards and lollygaggers hardly paddle, and must be encouraged by sticks and carrots. Pascal is floating, but all at once, he feels something with his feet - using toes which have never felt anything solid. He reflects that the source of the knowledge of his utter stability comes from a sense organ (toes?) that he least suspected of harboring even rudimentary concepts of such grave notions. Anyway, employing the toes that have given him his revelation now as a grasping tool, he climbs up on the object firmly sensed by his doigt de pieds, and the effort raises him slightly, freeing him from the current.

Perched slightly above and aloof from the swirl, made free by the sensations originally perceived by his toes, he senses a stability he never knew or dreamed could exist. He, on that chilly November evening, realizes that he, along with everyone else, was floating and drifting. Unbobbing as he thinks about the existence and source of his

new-found stability and the new sensation of a solid footing, Pascal hears something through his outer ear: All his rapidly advancing bobbing associates yell at him that he is falling far behind - he is drifting backwards and making no progress. His body has become still for the first time in his life, and, as he soaks in his new internal awareness, his motionless-ness makes the active swimmers fear that he might sink.

His previous companions urge him to kick and paddle extra hard to catch up. What is he to do? Jump back into the swishing animal soup of time from which he just escaped? Don't be silly. Does he shout back at his departing colleagues to try to describe his new-found sense of stability, initially sensed through his toes, but now integrated into his entire being and illuminating the path for his development of his will? Don't be sillier. Once Pascal climbed out, he ignored the swimmers and looked for other fixed stars on the terrestrial firmament standing still at his level. In his era, the North Star on the highest rock, was Rene Descartes. Pascal could have died! Their one meeting was apparently a total disaster, which for Descartes played out into a second smaller disaster with Roberval, a professor of geometry in Paris, in the carriage on his way home. But this is another story for another time.

A good college helps the student to discipline his or her 'reason' and embellishes his or her memory with so-called important facts. An excellent college provides the resources to help each student, each in their own way, achieve self-mastery, which can only be done by each student disciplining one's own 'will.' A human will cannot be disciplined from without, it can only undergo change from within. No combination of staff, faculty, and laptops can discipline a single solitary student will alone. A college can only help each student, one-by-one, to become master of his or her own will and launch them one-by-one on their individual wisdom-trip. Once started, like daily brushing and flossing, this 'self-discipline' must be nourished and maintained though a lifelong process of 'self-disciplining.'

Perhaps as the main goal, a college should undertake to develop in a student self-sufficiency of the brain.

I suspect thoughts similar to these flowed through the mind of Charles W. Eliot, president of Harvard University at the turn of the last century, when he edited the fifty+ volume set of the Harvard Classics. The realization that wisdom was the yolk of the educational egg must have been the drive that led him to make the first two volumes in the series completely out of order. Volumes 3 on up trek through world history and philosophy basically in a time sequence. But volumes 1 and 2 present a distillation of 'modern Wisdom' and 'classical Wisdom.' Why else would Franklin, Woolman, and Penn precede Plato, Epictetus, and Marcus Aurelius?

I daresay most people have never even heard of John Woolman, and here he is, boldly headlined in the first volume of the Harvard Classics. Woolman provides a beacon and a warning for those who dare to listen for, and hear, the hinge-squeak and brave to squeak themselves through wisdom's narrow gateway. Woolman passed through the turnstile-of-no-return on a summer's day when he refused to participate in the sale of a

slave and was fired on the spot from his salesclerk job at the small general store in New Jersey where his parents had gotten him a job. Woolman objected to one human being's selling another as 'general merchandise' in the house wares section.

Woolman's courage provides a beacon pointing towards Wisdom's highroad. But how does he provide a warning? In his entire autobiography - which describes an internal, not an external, journey - he rarely mentions anyone except himself, although here and there a burning disk nine inches in diameter and five feet in front of him lights up his inner world and tickles his inner ear with conversational distractions. For those put off by Woolman, you might try Helen Keller's incredible book, *My Religion*, which of course, has almost nothing to do with religion in any ordinary sense. Helen Keller, influenced by William and Henry James among others, was an ardent Swedenborgian.

One must always be ready to have one's perspectives and bearings shifted 180 degrees. I have visited many of the places that seemed exotic to me as a - looking back - rather naïve Dartmouth senior. Being a linguist, I have studied strange sounding languages (click languages, for instance) often with strange sounding names (Walpiri, Tlingit). In 1997 I was standing on the corner of Houston and Broadway in NYC with a Chinese PhD student in our department. The city is building a giant electric subway power station at this overworked and overloaded corner, where thousands of cars, trucks, busses, cranes, bulldozers, and fire trucks churn by every hour, and this is above ground. Below ground every day, hundreds of subway cars screech to a stop, disgorging and ingesting thousands of passengers in the four story subway stop, and then grind on to some exotic destination such as Coney Island or the Bronx Zoo.

As we watched some giant crane with a sort of enormous bouncing yo-yo attached pull a fat cable through the subway tunnel, this twenty four year old student told me that until he was sixteen years old, the only machine he had ever seen and touched in his mountainous village in China was a bicycle. He had seen trucks far away and airplanes overhead several times. Children kept score of how many airplanes they saw in a week. He said that New York City - which to me is Howard Johnson's Vanilla on the scale of exotica - could induce a hushed silence in the teenagers of his Chinese home village. For him and his Mu-Shu pork eating buddies on the mountainside, the hotdog, falafel, pizza, cheesecake eating New York City was off the scale as the most exotic destination on earth. When he left his home town for his education that led him to NYC, he never in his wildest imagination ever pictured anything like we were then watching. He said that for him to describe that he had spent the afternoon with a professor tracking down rumors of new styles of cheesecake at recently opened bakeries in NYC was probably even stranger than having to describe the vast assortment of specialized machines, and the motley assortment of internationals that were operating the machines.

Thinking of this student and others like him, I have adopted much of his perspective. Large cities like New York, which require the 24 hour operation of so many machines to simply remain functional, are themselves a sort of machine, and in this sense are exotic locales. The word 'machine,' with its current meaning, only came into languages in around the 1600s with the invention of the clock. (Records are scarce, but

before 1600 'machine' was apparently a vulgar French word for a part of the anatomy.) So NYC, but probably no rural backwater town anywhere, would appear exotic to a time traveler also.

Self-directed education must aim to keep the inner flame that provides light for the inner-eye from going out and to feed it in such wise as to provide more light than heat throughout the remaining years as a graduating senior sails from familiar shores and familiar faces into the turbulence of the open sea and steers towards the thrill of faraway places with strange sounding names. Hopefully our student sailor selects a mate, since the most meaningful progress on life's journey seems to be made with a man nursing the torn and tattered sails to catch every last bit of wind and a woman manning the tiller to maintain the course.

Getting back on the highway that leads to the little mountain college where the students have granite in their brains, let us point our noses towards the white center-line and focus on course content.

Thinking about the course content and subject matter endured during my six years at Dartmouth College, no memories of any course excites me or brings on a tear, with one three-hanky glowing exception.

While in the Tuck-Thayer program I totally fell in love with the accounting courses. A professor recommended me for an accounting job, and so, for one thrilling summer I worked for the government accounting office pouring over balance sheets known, by me at least, to be fraudulent, although others suspected mere errors. Random errors did occur here and there. But systematic errors inspired me. Where my manager saw smudges he attributed to an incompetent accountant, I saw the footprints of Mephistopheles. I felt like Sherlock Holmes pursuing Dr. Moriarity and could hardly wait to finish the one sheet to get on to the next cheat, or case, depending on your perspective.

This was of course all pre-computer, that is, pencil and paper. I loved cash flow accounting and its fundamental principles of robbing Peter to pay Paul, don't fix it if it isn't broken, and so on. It reminded me of thermodynamics: conservation of energy and money. Thinking of those old spreadsheets, each number in each cell was related to other numbers in other cells (in a third dimension if they were stacked, and in hyper dimensions if the entry linked to another set of sheets entirely, as in a relational database). Thinking in current terms, each cell was linked to other cells in a way that could be described by a constraint based logical system running on a parallel computer in a logical based language, like Prolog. A balance sheet shares semantic and pragmatic similarities with items describable, mathematically speaking, by finite state grammars and partial differential equations. All would prudently be programmed in Prolog running on a machine with parallel processors operating on a shared memory.

On one assignment (in the case analysis class) I showed the professor that the optimal thing for the company was to pause production and close the factory. (Maybe open a water main and flood the basement.) Furlough the workers and take all the free

cash and invest it in companies that supplied it with materials. The ostensible closing of the factory would cause the price of the supplies to fall, thereby - in that financial ice-age when stock prices were tied to real profits and not marketers' daydreams - dropping the price of the supplier's stock. We could snatch the supplier's common and preferred up for a song (a buyout with no junk bonds! - merely an opportune insurance-covered flood) and, if we could force a supplier's chapter 11, we could even own the supplier.

The possibility of a big Enron-style 40 million bonus to the CEO never crossed my mind. This 1963 solution, dunned with a C-, should, given today's moral revolution in business, be retroactively given an A+. My error was in being born too soon. I was ahead of the curve. Bowing to pressure I reworked my analysis into something more dawdlingly pedestrian, and did well since everyone did well (factory owners, workers, suppliers, the IRS, and the SEC). In 1963 Tuck homeworks, everyone had to live happily ever after. I suppose the faculty felt that they were preparing us for the 'real world.' But that was then, and this is now. Rather than having the Tuck accounting majors tuck everyone comfortably under a spreadsheet that balances so no one's fist full of money sticks out, the Nip-and-Tuck accountant - the new breed of Tuck accountant - should... But I do not want to get started on this Platonist moral crusade to make the name of a school match the content, methods, and directions of its teaching.

The Prof (I forgot his name) said my suggestions tended towards the illegal and offered me one great insight. He said: If you find you can make more money investing outside of your own widget company, you should have an investment company and get out of widgets. Through him I began reading biographies of business moguls to see if anyone changed from widgets to investment to chocolate candies to... My favorite such financier of this type is Warren Buffett, who bought the Berkshire shirt company, that in fact is a reinsurance company, that in fact is the Geico insurance company, that is more precisely a retailer of expensive chocolate bon bon's, that is about to manufacture Fruit of the Loom underwear, that leases jet planes, that... Grow with the flow. Mr. Buffett has done very well. Since he started with absolutely nothing, I found it easy to identify with the early Buffett. As the years rolled by, our lives took different financial trajectories.

In 1963, the philosophy department at Tuck Business School assumed that accounting meta-theory required everyone (shareholders, management, workers, lenders, the IRS, et. al.) to be tucked under a rubber spreadsheet with no fistfuls of dollars protruding or any paper trails to partnerships that appeared only in footnotes appended to one-time write-offs tucked into trundle beds. I produced rubberized spreadsheets to match the best. But Tuck cases did not stretch my real talents, which I felt were wasted in the 60s 'Tuck-them-in' School of Business. My skills would have flowered in the new millennium age 'Nip-and-Tuck' School. A spreadsheet should not be a Procrustean bed into which accountants squeeze real numbers via truncation, rounding, or outright errors. A balance sheet presents a systematic Platonic heaven of perfect numbers spun into a spidery web that only here and there is anchored to the Aristotelian earth by a silky thread of arguments, footnotes, and addenda in small print.

Sensing I was an anachronism - a 21<sup>st</sup> century junk bond takeover millennialist

locked into 1960s pencil and paper pragmatism – I abandoned hopes of triumph in the business world.

One problem I had at Tuck Business was that I thought outside of the box in ways that could have put me in the can. Looking back, my thinking would have made me a bundle in the era of junk bonds (a concept whose lunacy evaded even my most debauched accounting fantasies) or put in the clink, where I could have played golf and tennis with Wall Street's junk bond titans, and, being a linguist, could have developed the Oxford English Dictionary entries for 'take over target,' 'hostile acquisition,' 'leveraged buyout,' and other concepts crucial to the Nip-and-Tuck business world, that is, the real world – the Platonic world.

I have never studied economics or theology systematically aside from the classical discussions involving the unseen hand, the Holy Ghost, tax refunds, original sin, the proletariat, eternal damnation, huge surpluses, irrational exuberance, so on. I have however followed closely every currency scandal, rapacious takeover, and ludicrous financial skyscraper of cards involving college professors (like Sir Isaac Newton, who was sort of a college professor, and Charles Sanders Peirce, who wanted to be a professor). Tragically, we live in a time of minor crooks who can only deliver tediously boring monetary scandals. No living Wall Street scallywag can hold a candle to Ponzi, who apparently had the audacity to apply for a presidential pardon on the basis that his crime was amplified by the stupidity of the people he cheated. He maintained that, had anyone thought for a minute, they would never have let him get away with his pyramid scheme.

Monetary scandals, like the collapse of Argentina's bond market (and currency) play out in slow motion, probably because the news and the entertainment industries have merged, hence, everything must unfold as a mini-series. My heart goes out to those hapless skiers and mountain climbers that are killed suddenly by an avalanche, but I have little sympathy for those who are crushed over a period of years under an advancing glacier. How can it possibly be the case that the TIAA-CREF college professor retirement fund, probably the most conservative mutual fund in the universe, lost (or is losing as we speak) so much in the Argentina bond default that they have a representative on the bond-restructuring program that, presumably in the coming months, will try to salvage fifty cents (for the retirement years) on the dollar (contributed while working) for those professors who recklessly gambled their future in the triple A bond fund of the most conservative mutual fund company on earth?

Perhaps the ponderous prose of the Wall Street Journal, and its poet laureate Greenspan – whose style oscillates between gobbledygook and mumbo-jumbo in the true Platonist style - would be more comprehensible if a gifted playwright personified the dollar, the yen, the euro, and the newly hatched Argentino (or Patagon, or whatever) as competing monsters. A movie 'Godzilla meets Gargantua and Paul Bunyan on the Pampas' could help us grasp the complex financial issues in a human perspective. Treasury Secretary Paul O'Neil, who is obviously intelligent and perceptive – presumably this is why he was told to 'shut up' and is apparently on his way towards the

unemployment line – could be a sort of Mother Courage figure who could drift across the stage set of the Pampas to explain to the audience the significance of sundry facts, such as Argentina's old proposal to base their Peso on the Euro and dump the Buck, or maybe go fifty-fifty. I miss O'Neil's comments reflecting his bewilderment with the world's economic policy, and I hope the gag-order on him will soon be lifted. I disagreed with the bulk of O'Neil's analyses – being so common sensical they were clearly impractical – but he has/had a nose to ferret out the problems and sniff out the issues that formed grist for the Platonist accountant's mill.

For those who crave scandals with sleaze, but a cool kind of sleaze, look up the 'Affair of the Diamond Necklace,' which sort of involved Marie Antoinette just before she became unable to wear it. I understand someone made a movie about this. It could make a fantastic movie with the right pompous dumbbell playing the bishop, but it probably is some sort of a star vehicle that goes nowhere. Even wilder, Casanova cooked up a legalistically involved medical plan by which an elderly countess (about 85) could get pregnant and give birth to herself as a baby, thereby inheriting her own money. He made a bundle on this 18<sup>th</sup> century Medicaid fraud – from which he also enhanced and embellished his already renowned reputation for throwing a good party.

Casanova, ahead of his time in many dimensions, was an equal opportunity opportunist. He did not discriminate on the basis of age, race, gender, or religion and frequently offered parties – funded by an assortment of patrons - open to everyone under the slogan 'come one, come all.' In the last ten years his original French manuscripts were found in a safe in Germany and his original text has been restored and published. Most of the English translations are quite flaccid, often lacking pointed details, but this is remedied in the blow-by-blow French descriptions offered in his own or, more frequently, his assistant's hand. He was born and raised in Italy, but since he excelled in French, he adopted this as his native tongue and became extremely fluent in several dialects since he practiced French at every opportunity from Moscow to the Atlantic on people of every class and social station – often one-on-one, but more frequently in large groups. He spent most of his life on the run from the Catholic authorities of Venice, where he was charged (and completely guilty) of two crimes. First, he violated a grave by digging up a recently buried person and removing the arm, which he used in a sort of Halloween-style practical joke. The joke was overkill since the person who received the arm (as the punch-line of the joke) died of a heart attack upon receipt. Second, the Church disapproved of several bad habits he encouraged and developed by organizing a 'come-as-you-are' party at a convent in Venice.

Note: The previous paragraph reflects to a 'T' the *style* of Descartes' writing, but not the *content*. Never having met Professor Eleazor Wheelock, Descartes lacked the fundamental concepts underlying debauchery. The structure of the ambiguities in the previous paragraph, aimed at the proclivities and predilections of the class of 62 I fondly remember, have both a literal and a figurative interpretation. It was at this style that Descartes (and St. Augustine) excelled.

As for content: The 'hidden' or 'figurative' meaning in Descartes focuses on

specific parts of the bible (the *Apocrypha*) that were extremely controversial in the 1600's. The Pilgrim founders of Harvard banned the publication of the *Apocrypha* in English in 1629, and so, for English speakers, it is virtually unknown. It is virtually identical to the 'standard' known bible works, with one major exception: God did not send his son (Jesus), he sent his daughter (Sophia, or Wisdom). Descartes particularly liked the *Wisdom of Solomon* (the main book of the *Apocrypha*), and in his letter to the Doctors of the Sorbonne, he cites passages from it. Roughly speaking, in his day, this would have been equivalent to his lecturing the Catholic Doctors wearing a Protestant Martin Luther T-shirt. But let us abandon past battles and glories and lament the drollness of our present era.

A champion of famous crooks and cheats of our century might bring up the tired ho-hum story of Hattie Green, the billionaire Wall Street miser, whose son lost his leg to infection because she refused to pay doctor and hospital bills and tried home remedies. I was unable to finish the Wall Street Journal article on Martin Frankel, which offers his ingenious scheme to squeeze the bucks from insurance companies by piggy backing them – that was clever. However, in general, writings about Frankel give insight into the rich mind of a creative schizophrenic and not into the schizophrenic mind of the creatively rich. Such modern oddballs, which unfortunately define the case for all unsere Zeitgenossen, smack of the tragic, not of the scandalously absurd. I track the tragic to catalog past mistakes, but scrupulously survey the absurd since it defines our future.

Since graduating in 1962/4 I have closely followed developments in the bond markets and especially currency trading – which are the same thing if you think about it in terms of multi-nationals. I do not understand why some international company (Mercedes Benz, Ford, or GE maybe) whose real business is take-overs, although they might here and there produce a car or a waffle-maker, does not offer a 'convertible bond' that can be bought in Euros or Dollars and will be repaid in either Euros or Dollars, at slightly over the 10 year bond rate. This could provide a wonderful hedge, and speculative instrument, to enable one to reap the advantages of an overpriced dollar as long as it is overpriced, but be ready to make some real money if - or rather when - the Euro regains its footing and goes up ten or twenty percent, perhaps overnight. I would happily pocket 5% on my dollars or 3% on my Euros knowing that I could cash out in Euros when they rise 25% against the buck.

Linguistically speaking, the sentences describing the bond/currency markets have the odd property that they embody contradictions. Since the price of the bond varies inversely with the interest rate, one often encounters sentences like: 'The ten year treasury rose dramatically today from 5.6 to 5.1' Or, 'The dollar fell today against the Euro from .895 to .923.' 'There the 30 year bond dripped precipitously by rising 15 basis points.' 'The ten year went up through the roof as it fell 21 basis points.' Often the newspapers print the charts 'upside-down' so the picture matches the text. When linguists find languages (like Walpiri, I believe) that the people sometimes speak in 'reverse' saying it is hot when it is cold, they often think them 'exotic'. These considerations only involve 3<sup>rd</sup> persons pronoun structures.

Returning back to a point raised by Rene Descartes in 1640, if machines can only process 3<sup>rd</sup> person pronoun structures dealing with ‘human reason,’ but not 1<sup>st</sup> and 2<sup>nd</sup> person pronoun sentences dealing with ‘human will,’ then any attempt to develop a computerized trading (bond, stock, or currency) program that tries to act (buy, sell, hold) must necessarily fail – and fail in a specific way – if the trade requires us to incorporate properties of human will (greed, hope, daydreams, fear, envy, etc.) in the decision. A human being given the same data as a ‘deductive reason-based machine’ will, by using their ‘human will,’ not make the same decisions as will a ‘reason based’ machine. This human ‘reason-will discrepancy,’ or ‘knowledge-belief discrepancy,’ defines a possible ‘spread’ between ‘known’ value and ‘believed’ value that might be exploited for gain by those who appreciate the color green in the wallet of the body more than the pristine transparency of the crystal clear infinity in the inner eye of the pure mind. This spread was called ‘irrational exuberance’ by Greenspan, but others, like P.T. Barnum, had other names for it.

For my money, the kinkiest semantics and pragmatics in printed every day in the Bond and Currency sections of the New York Times and WSJ. Sometimes the editors place a little note telling the reader that the semantics is reversed in the sentences and ‘up’ often means ‘down,’ ‘lose’ means ‘gain,’ and so on. The semantics of the currency and bond markets, although the reverse of normal common sense language, does have a logic of its own. Some of my students are working on this as term papers. Speaking as a computational linguist interested in electronic dictionaries, there is a subset of English (French, Spanish...) words used in financial literature with the opposite meaning they have in ‘normal’ speech. In translating from one language to another, it is essential – not only to pick a synonym – but to pick that synonym that has the odd property of ‘reverse’ meaning in the second language.

But back to the scandalous. I have never cease to be amazed where non-coupon non-callable long term US treasury bonds turn up. This is a piece of paper about the size of your college diploma, but worth much more. Although it can be worth ten million or more, it functions just like cash if you have the right ‘friends,’ sort of like a fifty or a hundred, or a payroll check at your local liquor store. The person ‘cashing’ it does not have to know the bearer, but only to recognize him, perhaps as a frequent customer, or from seeing the person’s picture on the front page of newspapers as America’s most wanted person, or as a deposed dictator, or a famous movie actress trying to avoid taxes, or... In any major city of the world, and at select jungle outposts, a ten million dollar bearer bond would be instantly (in minutes) negotiable for a major fraction of its face value.

Every international carpetbagger worthy of the name and most certainly any self-respecting dictator in an unstable regime with a thought to self-preservation has a few of these multi-million dollar notes tucked into a money belt, or if the tyrant cannot even trust his honor guard, keister stashed for traveling light. Read the biography of Papillion, the French escape artist who said good-bye to Devil’s Island three times and was recaptured twice. Totally ignore the Steve McQueen movie, which has nothing to do with the real Papillion. Papillion could fold a new crisp crunchy five hundred franc note down

to the size of a matchstick, keister it, and stash it, all in less than a minute with one hand – possibly while the other held a gun. He was an economist's economist, a jungle trained double-keister currency trader.

The on-line Encyclopedia Britannica, as well as my home printed editions, do not contain an entry for Ponzi, who should almost be a patron saint for the Nip-and-Tuck economics of our time. Someone, who is in the encyclopedia, once said: Those ignorant of the past are going to fall for the same scams – or something like that. Only now, with merely a mouse and a laptop between the money-mad and the do-it-yourself 401k planners, it all happens faster.

Someday I will write about the world's greatest, but unknown and unappreciated, economic geniuses and the awe inspiring cash transactions they negotiated in large denomination bills, sometimes, as with Papillion, while naked and covered with mud at the intersection of jungle crossroads.

So what does it all mean? Warren Buffett, one of the world's ten or so richest men, is written up in *Lifestyles of the Rich and Famous*. Rather uniquely, while most of the other ten or so live on the Riviera or on a yacht and often eat caviar, Warren lives in his childhood home town of Omaha, Nebraska and usually eats burgers and fries.

Warren and I eat more burgers and fries than caviar, and in this we are similar. But our lives have diverged. While Warren and his bread are written about in *Lifestyles of the Rich and Famous*, I have undertaken to earn my bread by writing a book, *Writing Styles of the Poor and Infamous*.

The full title will be *Writing Styles of the Poor and Infamous: You can't take a martyr too seriously*, as soon as I find a publisher. In a nutshell, it offers a rhetorical analysis of the works of Rene Descartes, focusing on such linguistic questions as: Why did he switch back and forth between the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> person pronouns – somewhat like one finds in Conrad's *Lord Jim*? Why does he tell the reader that his books must be read four times to be understood? Why does he offer quotations and analogies in the strict style laid down by St. Augustine in *On Christian Doctrine*, written over a thousand years before Descartes was born? It is an analysis of the logic of rhetoric, or pragmatic logic, in the organization and structure of the life's works of Descartes. To some extent it is a study of writing styles of martyrs living under strict censorship. But more broadly the book is a rhetorical study of wisdom literature, which has been all but ignored in the English speaking world. For instance, Athena, the goddess of wisdom and of ancient Athens, has no entry in the *Oxford English Dictionary*, although other notable other-worldly persona earned sizeable entries, e.g., the Holy Ghost, Minerva, and so on.

*Writing Styles of the Poor and Infamous* will discuss the writing styles of St. Augustine, Pascal, E.B. White, and Papillion, among others with a spunky style – but focus squarely on Descartes. Why Papillion? When I read his autobiography, he had me convinced that – although he was a crook – he was perhaps innocent and framed of his crime. That is, up until the part where he is in solitary confinement and his friend kills

someone and... Although he is undoubtedly guilty of the crimes that sent him to Devil's Island, he writes as though he is an altar boy picked on by bullies in a cruel world. Papillion's content, quite like Descartes' writings in the 3<sup>rd</sup> person, often totally mismatches his style.

The writing style of Rene Descartes is the most complex of all, as one might expect given that he was one of the world's greatest geometers, algebraists, and linguists. I have written this essay a little bit in the Cartesian style of changing styles abruptly between paragraphs that mark sections.

The last part of this essay, from the paragraph beginning 'Getting back on the highway...' is written in the style of Papillion.

The immediately preceding paragraphs to that, starting with 'One must always...' is sort of in the style of E.B. White contrasting NYC with other places – I have just reread his 'Here is New York.'

The paragraph beginning 'I suspect thoughts similar...' is in the style of Elliot, the President of Harvard, and editor of the Harvard Classics, particularly the unnumbered volume called 'Lectures' and Volume 50, the 'Readers Guide and Indexes.'

The style of Pascal inspired the paragraphs following: 'Pascal offers an interesting thought.' He has an excellent sense of humor and writes extraordinarily well, with a sort of, 'you are there' quality.

Everything preceding that is in the style of St. Augustine. From the first paragraphs to the one that starts 'But this is, of course,...' is in the style of his Confessions and Descartes' Discourse on Method (the first person passages).

The paragraphs discussing 'knowledge' versus 'wisdom' are in content and somewhat in style similar to St. Augustine's typical writings, although this set of paragraphs reflects mainly the style of his discourse with his son, Adeodatus, from 'The Interior Master.'

I recommend you go back and examine the change in style, content, organization, and flow at each of these paragraph transitions. It will be good practice for those who want to understand the complexity of the structures of Descartes' writings.

Rene Descartes developed an incredibly complex writing style that enabled him to have two levels of ambiguity running through the entire set of works, plus a four way ambiguity that he indicated by his writing in the four pronoun system: I, you, he/she/it, and the obviative (the other, the rest). Some American Indian languages have the four pronouns as different words (morphologically explicit), and presumably, Rene Descartes would have had trouble encoding his messages (covertly) into these languages where he would have had to discuss 'the other mind' distinctly (overtly) as the fourth person pronoun. Since French has only a 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> he could conveniently discuss 'mind'

and ‘other mind’ both in the 3<sup>rd</sup> person with textual markers to indicate which was meant.

Morphologically, most Western languages have only three distinct pronouns in their paradigms (I, you, it), and express the fourth person by circumlocutions (the other, the rest, vice versa, else) and so on. So if Rene Descartes had been an American Indian, possibly his writings would be easier to understand. Anyway, when I abandon substantive proposals (such as monster movies to clarify issues of Platonic accounting applied to college professors losing their retirement monies to the Argentine currency crisis), and worse, when I start to lecture about linguistics, and I start to propose concrete problems – like Rene Descartes putting down his peace pipe and philosophizing in a buffalo-hide teepee on the Great Plains - it is time to go to bed. So, adios.

If there is any interest I can write an essay in Descartes’ style. I am currently writing the first chapters of my book and can send off a short essay. I warn you, however, he has no sense of humor and reading is an ‘active’ process since you are untying the knots he wove into his writings. Reading Descartes, like working a cross-word puzzle, requires you to have a blank sheet of paper and a pencil at the ready.

For the past several years, I have practiced writing in all of the different styles used by Descartes and also have, as you see above, searched out other people that write in one or more of his styles. Perhaps, rather than discuss Descartes observing a piece of wax melt in his hand in front of his fireplace – as he has in his writings - we can picture him with shivers running up and down his spine holding a piece of softening whale blubber seated on a block of ice in his igloo, philosophizing about the physical properties of dripping fat, not softening wax, as he should have, in a real four pronoun language.

The fact that Descartes – through no fault of his own - was born a well-to-do French nobleman speaking Latin and French and not as an Eskimo chief speaking Tlingit or Nootka we must bear as another cruel joke Nature has played upon science and philosophy. As linguist, a scholar, and student of human nature, I have taken it as my life’s task to right Nature’s wrong by discussing in modern English how Descartes’ church Latin and classical French would make much more sense in colloquial Nootka or Navaho jargon.

One must always remember that Descartes was a martyr. Within years of his death it was in France a crime punishable by death to buy, sell, or own any of his writings. In Holland, the most liberal of all countries at that time, it was forbidden to discuss Descartes either favorably or unfavorably at any university. In crystal clear English prose, I will attempt to show that Descartes – on the surface a French nobleman, but at a deeper level an Apache chief - was a martyr, and you cannot take the writings of a martyr too seriously.

