

Whattya Know?

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Presented to the Chicago Literary Club

October 5, 2009

Here we are together again -- our 136th season. What do you know!
Another year for us to gather as friends for conversation and to hear original papers delivered by a membership full of great learning, experience and varied interests. Whattya know!

That innocent, throwaway expression, *what do you know*, has been kind of haunting me for some time now. In one sense you might say it when you find something you didn't expect, like maybe a ten-dollar bill in an old pair of pants. Whattya know! Or it might be said of a chess move that puts you in some unforeseen jeopardy -- Whattya know. In another sense, when you put a question mark behind those words they might serve as a casual and friendly greeting, maybe a conversation starter. Or maybe it's more serious, more provocative, a little more demanding of an answer. Think hot lights and a police station. Just what do you know?

The reason that expression has gotten it's teeth into me recently is that after six decades I'm getting more curious about exactly what it is that I do know.

When I was a little boy, no more than five probably, there was a ritual that took place with my mother each night beside my bed. It was not listening to prayers. I did not kneel. I did not pray. Prayer was not among the insistent teachings of my parents. Yet, the ritual, quick and simple, caused the deep belief that I gave to its powers. I remember how just before climbing into bed my mother's hand would go gently to my lips and out of her cupped palm would fall a dozen or so white pellets which softened in my mouth and then slid down my throat and I was protected, for yet another bedtime, from the terrors of the night.

The pills came in a small brown bottle with a medical label. I saw it taken from a cabinet in the doctor's office that we had visited a couple of days before for a normal check-up that was required for me to enter the Chicago Public Schools. My mother mentioned to the doctor, almost as an after thought, that I was very much afraid of the dark and that I was unable to get to sleep unless an adult, usually my father, would sleep beside me. I paid close attention to her description of my malady because it was, at that time, central to my very being.

My anxiety started soon after dinner. It would progress steadily until about eight o'clock when I was scheduled for bed. The terrors were numerous. Shadows of passing cars would call my attention to an outside window and start my mind on the creation of hideous faces and forms crouching just below the sill. I'd clench my eyes shut. I knew that if I dared open them some fast moving fireball of a face, flung at me from the depths of hell, would come right through the window and envelop me in the bed before moving on to destroy my family in another room of the house where they were innocently reading the evening paper or listening to Fibber McGee. Or, I'd imagine some quiet rustling under my bed - human forms with animal features, men with hoofs and women with hair of hissing serpents. Any moment they would come oozing up from underneath and slide in quietly with me under the covers.

My mother's report to the doctor did not go into these particulars but she did give a fair representation of the severity of my problem. The doctor listened carefully and appeared to be concentrate on my complaint, trying to match the character of the disease with his vast knowledge. After a moment he reached into his cabinet and handed my mother the little bottle and gave

her instructions that I was to take the pills every night just before going to bed. “They always seem to do the job,” he said, to both of us.

Of course the pills were sugar. Of course I was getting a placebo. It was my first encounter with that amazing phenomenon. But it was years before I’d ever hear the word placebo or become aware of its powers.

Now you all know that the placebo response is a well-accepted part of medicine. There is much hard evidence of its effect. The paradox that there’s documented evidence of the effectiveness of a medically ineffective treatment leads to a sort of head scratching that will be touched upon later. But the fact remains that in many cases patients report relief, often as many as 30% of patients, from the symptoms of illness after receiving a faked treatment. Of course they don’t know they’re getting ineffective treatment, just as I didn’t know I was gobbling sugar pills. It’s the patient’s belief that he is being treated effectively that leads to relief. It’s not just pills. There have been many cases of sham surgical procedures, including knee surgeries to relieve arthritis, brain procedures for the relief of symptoms of Parkinson’s and the ligation of arteries to treat angina.

There is some disagreement over the prevalence of the placebo effect. In one such debate, doctors argued very different interpretations of a broad, long-term review of many studies. One group of doctors concluded that the overall incidence of the placebo effect was minimal. A second group, looking at the same data, concluded that it was robust. In a kind of *Alice in Wonderland* moment, the former accused the latter of finding the placebo effect active in so many cases because they were expecting to find it.¹

Now what makes a placebo effective – effective that is in the mind of the patient? What makes the patient believe that he is being effectively treated? It seems pretty straightforward. Powerful cues help us to make all the right inferences. I'm taking pills. The pills come in a prescription bottle. They were given to me by a medical professional. The whole experience sets me up to believe that I am being cared for. I have lots of reasons to believe that I should get better. And, what do you know, I do.

Before we go any further I need to get clear about one thing. I am not attempting a learned paper on placebos or medical efficacy or any of that. This club has plenty of fine doctors and I can already hear some of them

starting to grind their teeth. My background is in advertising. While I have some minor understanding of communication and persuasion, I know almost nothing about medicine. You don't want to get medical opinions from an advertising man.

What really interests me about placebos is how they demonstrate the potency of human belief, and how belief is so often confused with genuine knowledge. I'm fascinated by how we think we know things. Or should I say *believe* we know things. And right there lays a critical distinction – the difference between believing and knowing. To do justice to that distinction requires we get into some serious philosophical goo. I promise you we will not. It's getting late in the evening and people have been drinking. It's enough to say that by traditional definition, knowledge that something is true requires three things – you have knowledge of A if you believe that A is true, that you have evidence that A is true, and that A is, in fact, true. Knowledge requires justifiable, true belief. ²

But a belief can persist without solid evidence. And it can persist without it necessarily being true. Sometimes we call that a feeling.

Sometimes we call it a hunch. Believing something without hard evidence, particularly when it comes to weighty life matters, is often referred to as faith. Sometimes you just take some things on *faith*. You have faith your business partner won't run away with the cash; faith the plane won't crash; faith Bobby Jenks won't blow the save.

When I think about the word faith my mind goes, naturally enough, to the spiritual and to notions of religion. Given my personal mental make up when the ideas of religion and sugar pills get anywhere near each other I start to get intrigued by the similarities.

Now before we go further I want to be clear that I mean to cause no discomfort to either people of religious faith or to committed atheists. As for me, I suppose that I am a strange form of agnostic. I hold a strong belief in a particular doubt. That doubt is this. I seriously doubt that there is nothing beyond this life. I believe there is something, both before and after, but I completely reject the idea that mankind knows, or has ever known, what it is. What I find most interesting is that so many people do think they know what it is.

My own involvement with religion is a little sketchy. I was raised in a city neighborhood on the south side and in the formative years attended church to keep my mother happy. She sent me to Sunday School where I listened to Bible stories taught by the mother or father of some child in the class. The lessons were abstruse. The messages seemed mixed and equivocal – “an eye for an eye,” but “turn the other cheek.” Any earnest intent that I started with to learn the Bible’s lessons was quickly frustrated. My boredom grew. It was just too hard for me to tell the good guys from the bad guys. To me all the people in the Bible, the good and the bad, seemed to have their reasons to do what they did. I had not yet developed any serious skepticism, but I was increasingly reflective about whether what I was being told was true. What’s more, I started to feel a little put upon. My mother insisted on regular attendance. It was unfair to be confined in a church on a Sunday morning while my father was out hunting or shooting pool with my uncle. I should mention that my father did show up at Christmas and Easter services – I have no idea under what sort of ultimatum from my mother -- but he sat quietly and as he bowed his head with the others in the congregation you could hear between the ministers prayerful exhortations the little snips as he clipped his nails.

Maybe it was in those early days at Pullman Presbyterian that I came to suspect a couple of things about life: 1. There are at least two sides to every story, 2. Nobody has any real answers. And yet religion exists with all its answers in any number of forms. For the significant majority of 7 billion people religion functions as anything from a passive comfort, like background music, to the driving force in their lives. There are various explanations for the cause of belief and worship. One that I have always admired was Freud's *Future of an Illusion*. In his little book Freud develops the argument, in a lawyerly fashion, that man's belief in higher powers came from his inherent need to protect himself from things he could not control. Early man saw his fellows die by the brutal acts of nature. They would drown, freeze, fall in a hole, or be eaten by animals. These fates were so understandably fearsome that it's natural that one would want to buy some sort of insurance against that kind of agonizing end. So, man, that practical animal and the one with the most developed power of imagination, invented gods who were in control of all those things that went on in daily life. If there were gods there would be someone to whom a trembling mortal might appeal for protection, or at least leniency, from the horrors of this life. In his writing, Freud goes on to do his Freudian thing about the god being a father. He ascribes to the father, and to us the children, all those Freudian father

issues of fear and jealousy. He makes it all sound quite reasonable and quite believable too -- but is it true? Of course Freud's is only one interpretation. There are other learned explorations of the genesis and elaboration of religion. A collection and capsulation of these would be a fascinating paper to have presented before this group, but I'm not the one to do it. You don't want to get your Comparative Historical Theology from an advertising man.

But, getting back to the idea of those parallels -- what are the elemental components common to both placebo and religious belief? I think it comes down to two things: a need, and a credible agent who can be thought to provide for, or to facilitate the filling of that need. I'm afraid of the dark. I'm given a pill that was prescribed by a doctor, in his office. He wore a white coat. Was a five year old to doubt that it would work? As I said, early man came to grips with the horrors of nature first by personifying the elements of wind and fire and then positing gods to control them. It becomes even simpler when there is one god who can take care of all man's needs and fears. It's even more beguiling when he can give that god a presence and, indeed, an actual history on this earth in the form of agent -- a prophet, or a personification: Abraham, Noah, Jesus, Mohammad or Moses, to name a few.

The neighborhood I grew up in was mostly Catholic. I often wonder if my religious convictions would have been stronger or longer lasting if I'd had the exposure to God's manifestation and power that my pals experienced with the saints and Jesus' agents and the compelling ceremonies of the Catholic church. My boyhood buddies received blessings not only on Sundays but also during the week. They were insured against the unfortunate consequences of a sudden, un-prepared for death by a scapula. If one of them should have the bad luck to die before a priest could get to him he was protected by this small piece of brown cloth. They often rolled it and wore it rakishly around their necks. They looked very cool. I wanted one too. And at a time way before anyone knew the word steroid, my pals enhanced their sports performance – every at-bat, every free throw – by making the sign of the cross. Their schools were closed for holy days honoring people and events that I'd never heard. In the classroom their test papers were informed by what they had learned, but given an inspirational boost by the letters "JMJ" that they scrawled across the top of the page.

My own Presbyterian faith lacked those persuasive accouterments. Mine was a watered down ceremony conducted by a minister who, without

props and without drama, weakly exhorted our goodness, weekly. There was a period when I felt tremendous envy for the rigor and pageantry and especially the salvation of my Catholic friends. They explained to me, as it had been explained to them, that there was nothing really wrong with my religion, but theirs was the one, the true. Yes, I'd get to heaven, but it would probably take a little more time. I'd have to wait awhile. I didn't know why and it didn't seem fair that Catholics had some sort direct transport to heaven. I asked them how they knew this. They said they were certain. They had been told. Their faith had beauty and a highly persuasive stage management and their train to heaven was an express. But then my Catholic pals also gave frequent and fearsome reports of knuckle slaps by nuns with thick rulers and of being slammed violently up against the blackboard by certain priests. That didn't seem right to me. And neither did it seem right that one Sunday in my own church when Reverend Chisholm looked out over our totally white congregation and saw a well-dressed young black couple slip quietly into the last pew at our church to hear the word of God. During the handshakes at the door afterward Reverend Chisholm told the couple calmly but without equivocation that they would not be welcome there again. It seemed in those days that although I'd lost my fear of

monsters in the dark there were plenty of other monstrous things one needed to watch out for. And so far I'd only run into the Christians.

It was about that time, when I was just beginning my lasting acquaintance with doubt and equivocation, that I ran into a stunning picture in a book. I was mesmerized. I couldn't stop starrng at it. It was the same picture that stopped each of you cold the first time you saw it. It was the famous vase or two faces optical trick – you know the one, where foreground and background shift back and forth continuously. First you see a vase and then faces.³ This was not good. It's one thing to doubt your mother, your doctor, the clergy, but then to find you can't trust you own eyes.

So, here I was with the experience of sugar pills and being dubious about what I was being told about the most important questions of life. I was beginning to see some growing daylight between the idea of belief and truth, between belief and knowledge. Do I know something or do I just believe it to be so? Is belief as good as knowing?

* * *

There is a natural need for us to say the words, *this is*, or *I know*. If we can't do that there are just too many loose ends. We'll just go crazy. And it's not enough for us to feel that we know something is so. We also need to know, "why it's so." We are meaning seeking beings. We gather knowledge ravenously from observation and experience and then crave explanations of why something is the way it is. It is that character of our mental functioning that catapults us far beyond any other sort of biological intelligence. We have an unending need to explain, to find the cause of an event or experience and to project its implications. And, while we're at it, to spread credit or distribute blame for what has happened.

And it's not enough to know what's happened and why, we also need to know what hasn't happened yet. If necessity is the mother of invention, the desire to know is certainly the father of prediction. In the past, when I'd hear the word prediction my baby boomer, television-soaked mind would go to characters like Jean Dixon or Carnac, the Amazing Creskin, or perhaps Nostradamus. These days I'm more amused by the predictions of lesser seers, the political pundits, economic theorists, stock pickers and myth

spinners. Predicators are everywhere. They tout what people will feel, how they will vote, what they will buy, the price of oil, the path of the Dow.

We're tipped on what politicians will succeed, what companies will earn in the coming quarter and what college team will rise to the top of the polls.

We seek predictions about our personal fortune, our health and our love lives. When our children are born our first hope is to get confirmation that the kid is healthy and normal. Then, almost as quickly, we look hopefully for some abnormality, a sign of extraordinary intelligence or artistic gifts.

We are characters driven to a large extent by hope and fear and by prediction. Seldom are we able to say *Che Sara*. When in fact we might be much, much better off and might lead more profound lives by simply accepting that whatever will be will be. But, I'll stop with that. That's another conversation. You don't want to get your New Age Spirituality or Cosmic Humanism from an ad man.

Earlier this year and into the summer I spent some time with four very interesting books that all seemed to bear, each in a somewhat different way, on the topic of what do you know. One of them is a best seller and you may have come across it yourselves. In his book *The Black Swan*, Nassim Taleb makes the point of how prediction always seems to let us down. How events

and ideas of great historical consequence were on no one's radar -- the rise of Hitler, the fall of the Soviet Union, 9-11, various economic meltdowns, things that were off the charts, that fell outside of the rational imagination of the time. We are rocked by the things we never see coming. We never see them coming because they are so unusual. Taleb argues we are especially vulnerable to these occurrences because of our overweening belief that we do know the world, how it operates and what it will bring. We develop supreme confidence by cleverly explaining the connectedness of what are really random unconnected events in the past – and then think we have real knowledge. He describes two fallacies of reasoning that contribute to our naiveté about the course of events. The first is the “narrative fallacy,” That’s taking those loosely related, even disparate observations and making a story of them. If a storyteller can credibly connect dots, no matter how far apart they may be, he might get people to believe in certain causalities and consequences that in time become “knowledge.” Our minds love to hook together observations and weave tapestries. We grab at straws and spin golden insight. If someone can tell a plausible story they can create what seems to be a truth. Such is the narrative fallacy. And then once we have created what seems to be the truth we work to gather corroborating evidence, picking and choosing among what’s available – from the news headlines,

from economic indicators, from box scores, from rumors. This is the “fallacy of confirmation.” To me, all this leads to a population of minds filled with deep beliefs that are born of well crafted fictions, created by ourselves and others, often with the best intentions. These fictions are supported and held together with evidence selected for its conformity with the belief or rejected for its incongruity with that belief.

Coincidence is a rich source of both fallacies. A few years back a Cubs fan interfered with a playable foul ball that cost the Cubs the second out in the eighth inning of the sixth game of the League Championship Series. But that moment led, in the ensuing days, via some tortured calculus, to the belief that that single act caused the Cubs to lose the game and miss a chance to play in the World Series, which was itself further proof of the 60-year-old Billy Goat’s Curse. Those ideas are of course ridiculous, but try being light or dismissive about them in the summertime in a bar around Wrigley Field. Or on a more serious note, think about how some people connected Barack Obama’s attending the church of Reverend Jeremiah Wright and how that was offered as proof of the candidate’s black racism. Or, alternatively, how often in recent years a dyslexic stumble or malaprop was offered as hard evidence that George W. Bush was stupid. Thinking

people don't reason that way? Do they? Do *we*? Did your own pulse rate quicken a few seconds ago in relation to either the Obama or Bush examples? As intellectually unfounded as both of those connections might be, did you find yourself a little more tolerant of one of them, or the other? How does that happen? It happens because belief seeks confirmation and repels contradiction.

There was a time a number of years back when I engaged a professional psychologist for the purpose of assisting me through certain relationship difficulties. At that stage in my life I remember being of a haughty temperament and believed that discussing your emotions with strangers was a form of last-ditch effort reserved for people who were incapable of steering through the traffic of everyday life by themselves. The professional I mention was a principle in a partnership called, aptly, *Perspectives*. I got great value out of working with this man who engaged in some simple practices designed to get us (me and *her! that other!*) to better understand our own feelings, to overcome and correct our own misunderstanding of the feelings of the other. Each Tuesday at two o'clock I'd find myself on the far end of a nicely upholstered couch, staring at my thumbs. The therapist asked, sometimes with annoying frequency, "What

made you feel that way?” Or, “How did it make you feel when she said...” or, his trump card, “How did you come to that conclusion?” From that experience I developed a personal appreciation for the kind of reflection and inner work that helps one navigate the complexities the human mind presents to itself. I got a lot out of those sessions including a humorous short story called ‘*Joey*,’ which was presented to this club on one of these Monday nights several years ago. It was in those sessions that I learned to follow the therapist’s admonition to “Check it out,” To get in the habit of investigating the cause of my beliefs about my own ideas and the ideas of others.

We are beings that have been given the ability, or somehow developed the ability, to make complex inferences. We use this ability constantly and obsessively. We use inference magnificently. But we often use it perversely. We create elaborate ranks and distinctions among ourselves. We find differences in one another as individuals or as groups -- small and insignificant, non-functional differences, little bits of perceived separation – we find differences and then we drive a truck through them. We use our inference to evaluate people and types among us and go to great pains to articulate the nuances that assist us in identifying what’s good about *us* and

what's evil about *them*. Good and evil – is that perhaps another invention of man created to give explanation to things that are too complex to explain?

In another bit of summer reading I looked into David Foster Wallace's book *Everything and More – A Compact History of Infinity*. Wallace was an all around big brain who liked to think in the extremes of things large and small. His discussion of the infinite gets beyond my capabilities pretty quickly but he begins with the simple concept of mathematical abstraction. As children, when we learn to count (the road to infinity begins with baby steps) a teacher puts before us five apples or five pennies and we spend an afternoon or two adding them and taking them away. A few days later we come to class and all of a sudden there are no more apples or pennies. The teacher has removed them, forever -- no apples no pennies. Now there are only 5's and 3's and 1's – integers. For the rest of our lives we are manipulating integers, and other abstract symbols for apples and pennies and oranges or dollars, or light-years.

In the way that we move from the concrete, apples and pennies, to the abstract, integers, equations and operational statements, we also move from specificity to the generalization. As important as that is for our ability to

think and grow it also greases the skids and makes it easy sledding for a lifetime of easy inference.

I know we can't really function without abstraction and generalization. That I make that statement is trivial. We make observations or collect experiences and when they have happened enough times we come to conclusions. It's how we learn. If I'm a dog and I pee on the rug I get spanked. If I'm a husband and I take out the garbage, I don't. But, again, the problem comes when we practice abstraction and inference carelessly and we reach incorrect conclusions. This was recognized long, long ago and there are some rules of the road that developed to protect us from our own inept reasoning. We created and refined principles of logic, categories of fallacy. You know. "All A's are B; some C's are B...etc." Science is most respectful of these methods. Science requires unbiased observation, rigorous interpretation and demonstrated validity of our conclusions. We are taught all of these notions, these rules of the road. We know them but we constantly ignore them. We speed through syllogistic stoplights. We make illogical turns without signaling our intentions. We break all the rules and yet are rarely hesitant to make the claim, or steel ourselves with the feeling, that *we know*.

In thinking about this business of knowing, one eventually needs to go back to the philosophical texts. It is here that the questions have been addressed, argued and remained unresolved for millennia. What do you know and, more importantly, how do you know it and why do you think so. This is a matter that touched and influenced the whole span of Western thinking. The approaches and conclusions are varied and dipping into the thinking of the big names like Hume, Bacon, Descartes and Kant is tempting – but I won't. You don't want to get your epistemology from an advertising man.

But since I'm so troubled by the question I know that I need to turn to philosophy. In my current project I've come up with a new favorite. (I trade philosophers in every couple of years much like some people trade cars.) My new man is the late Karl Popper. Popper is an empiricist, and more specifically, a critical rationalist. That is a way of looking at the world of knowledge that I personally find most satisfying. The empiricist says, in simple terms, that what I know and believe to be the truth is pretty much confined to my own experience – what I have seen or have been told by others whose own opinions are themselves highly verifiable. Empiricists

collect information but are very reluctant to draw conclusions or generalize based on limited observation. They are suspicious when they encounter inductive reasoning. They will be more than happy to tell you what they see but not what it means. To thinkers like Popper, a world riddled with faulty reason and unfounded opinion requires that one maintain an almost constant skepticism – a kind of Star Wars Defense Initiative against all of the judgments and conclusions that come raining down around us. In an environment where people take great satisfaction in finding confirmation for their opinions, the skeptic will try to find just that one case where the conclusion does not hold in hopes of keeping the world safe from yet another false belief.

The skeptic spends his energies looking not for confirmation of belief but the negation of it. In Popper's seminal work, *The Logic of Scientific Discovery*, he offers the process and the promise that when dutifully applied leaves one with very little certain knowledge and the recognition that there is very little that might not ultimately be found to be not so. Now, this may sound like a pretty curmudgeonly philosophy practiced by characters with a disposition for pulling the wings off of flies. I don't think that it is. Instead it is a manner of thinking that challenges dogma and doctrine. It combats the

kind of unbending thinking that I feel was engendered by a belief in absolutes that traces back to the Platonic notion of idealized forms and that truth is ultimately manifest and will always reveal itself in time.

The words *should* and *is* live very comfortably in the inflexible mind of the true believer – the religious fundamentalist, the political hyper-partisan. Opposing that kind of rigidity and the world of *should* and *is*, the critical thinker requires evidence for conclusions and questions the veracity of the sources of that evidence. The critical thinker is a character that can respect authority but will never stop questioning it. Karl Popper pushes critical thinking to its limits.

Some would find the seriously engaged critical thinker to be negative or even obstructionist. There may be some truth in that since those who govern their speculations are less likely to be swept up by popular opinion and the ever-changing spirit of the times. What they do remarkably well is provide a combative counter to the doctrinaire, the canons and precepts that are rolled out to represent settled knowledge. Precepts, like all antecedent beliefs and “*isms*,” need to be regularly challenged against the possibility that they have been created out of unfounded inference and induction. Rigid

belief structures are a diminution of our ability to intelligently find our way in a world that is enormously complex and equivocal. They are fed by our need to find meaning and attach causality and judgment to everything we see.

Now that I've gotten all wound up on this subject I want to wind it down, but there's one more aspect that needs a look. I would have thought that my final understanding on the question of whatya know would come from the philosophers, but that is not the case. In recent years medical science has made gargantuan strides in understanding of how the brain works and the influence of brain chemistry on, not only our moods, but the notion of our own sense of knowing and belief. And since you don't want to get your cognitive neuroscience from an ad guy, I'd recommend looking into a book, *On Being Certain – Thinking You Are Right Even When You're Not*. Dr. Robert Burton, a neurosurgeon, presents a very persuasive case for how brain chemistry can create thought and direct our sense of the rightness of those thoughts. Burton suggests that there is a *feeling of knowing* that is created in the brain and that it exists independent of any temporal evaluative process. This feeling of knowing, manufactured if you will, contributes to our unshakable convictions. It also drives things like extra-normal visions,

precognition, the belief in the unseen, the knowing of the unknown, and faith itself. Burton argues that these are tricks of the mind, just as the vase or two faces puzzle or an Escher drawing is nothing more than a trick of perception. They manifest themselves outside the limits of our ability to reason and they overpower it.

While we can accept those visual tricks for what they are, tricks of perception, what about those other imponderables, like the idea of a vacuum – how does the mind deal with a complete absence of substance? How can we think of nothingness without conceiving of space to contain it? Or how about the birth of the universe bursting out of a single point before time? How do we begin to conceive of that moment, minus one? How can we conceive of no something before a beginning? When was the last time you let infinity really tickle your fancy? Burton suggests that we might be better off handling these huge questions on the outer limits of knowledge the same way we think of the vase or two faces. It is both and it is neither. It's a hard-wired trick of perception. We are biologically constrained to never really figure them out.

Whatever the conclusion on that score there is in what Burton says is a very practical lesson that I was thrilled to encounter because it so synched up with an idea that I'd long been feeling, and feeling more strongly as the years passed. The idea is this. We must fight our insistence that we know. We should carry with us the constant understanding that our declarations, our arguments, our opinions and beliefs for which there might be contrary evidence are really just speculations. Further, that for those conclusions for which we have evidence or "proof," that those proofs need always to be taken conditionally because time has a way of opening every certainty to question. And as a practical matter, how much more satisfying a life in which I recognize your judgments, your beliefs and your claims to certainty, not as a threat but simply growing out of a unique commingling of biology and experience. Let me recognize that my own ideas have no greater claim to truth than yours. Our uncertainty is something that needs to be nourished and even revered. Uncertainty is a gospel worth spreading.

On the other hand, if I hadn't concocted a false belief in a doctor's medicine I might still be afraid of the dark. And if I'd been less questioning in Sunday school I might now have a greater comfort about what's in store as by own death moves closer every year. Nonetheless, just the other day I

ran into an old friend from the old neighborhood and he said in that peculiar Southside patois, “Whattya know?” I wasn’t being uncooperative or evasive when I said, with deadly seriousness and just a little pride, “Not much. Buddy. Not much.”

Notes

1. For extensive discussions of the placebo effect, interpretations and the vigorous debate that surrounds it see *Deconstructing the Placebo Effect and Finding the Meaning Response*. DE Moerman, WB Jonas in *Annals of Internal Medicine*, 2002. Also see *The Skeptics Dictionary* www.skeptdic.com/placebo.html
2. Perhaps the first development of this idea came in Plato, *Theatetus*. The definition of knowledge as justified true belief was widely accepted until the 1960's when a paper written by the American philosopher Edmund Gettier opened new widespread discussion. For a more complete review of the issues and the objections including the Gettier Problem, see *Analysis of Knowledge* – Stanford Encyclopedia of Philosophy.
3. "Rubin's Vase" is a simple illusion devised by Danish psychologist Edgar Rubin in 1915. For that and numerous other examples of tricks of visual perception go to: www.opticalillusionist.com/illusions/rubin-vase-illusion

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