

Epistemology, Story-telling and Pedagogy

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Parable

Once upon a time there lived a tribe of happy nomads who lived in the largest country in Africa – the Sudan. These desert nomads depended on their sturdy and faithful camels for survival. Camels supplied nutritious milk in geographical locations where there was nothing to eat and it is important to remember that camel meat is tasty and nourishing. Practically disease-free and cholesterol-free! Camel hair and wool were used to weave clothes, tents and rugs. Camels were also first-rate riding animals. They could either run very fast over a short distance, or cover very long distances without tiring. They were sometimes known as ‘ships of the desert’ and their value to the nomads was priceless.

To say that the nomads loved their camels would be an understatement. These odd and sometimes grumpy creatures were their pride and joy and young nomadic children were constantly being tutored in the ways of the camel. We could say that young children of six or seven knew their camels in much the same way that ‘enlightened’, western children know their shoot-em-up game boys and internet chat rooms. An elderly nomad would only need to say – “Where is Fatimah today?” and precise geographical knowledge would pour forth from the mouths of alert and attentive stewards. A sick camel could trust a six-year old boy to minister tender loving care and a pregnant camel was never bereft of young midwives.

Unfortunately our young charges were unable to furnish a rational account of their ‘knowledge’. They could find any given camel at the drop of a hat but probe the young camel ‘expert’ and there was always a conspicuous lack of ‘rational method’. Living in a scientific society we sometimes forget the crucial ingredients that all proper knowledge must display. We can only be said to know something if we believe any given proposition for the right and proper reasons. A person must be able to support any given knowledge claim with appropriate logical and factual support. Eliminate this foundation and we are left with mere opinion and conjecture. In plain terms we are confronted with unenlightened dogma and belief.

In those days the Sudan was ruled by an enlightened, secular government and important representatives of the regime were distressed and alarmed by the crass ignorance of the nomadic offspring. Surveys clearly demonstrated that precise nomadic knowledge of quadratic equations, Boyle’s law, and the Big Bang theory was non-existent. Civil Servants in Khartoum became understandably cross, grumpy and tetchy. How could an enlightened society tolerate such an appalling antipathy to precise, accurate rational knowledge?

Knowledgeable agents of the state apparatus contacted the nomadic tribe and alerted them to the abysmal plight of their children's education. Something had to be done and the perfect solution was crafted. A law was passed that forced all the nomadic progeny to attend government-sponsored schools. In these centres of reason and science the youngsters would no longer waste their lives mastering conjecture and opinion about camels but the fundamental laws of maths and the hard sciences would be their daily companions. Precise knowledge would replace vague opinions.

In time the young nomads became increasingly rational and scientific. They learnt to despise their nomadic folk-lore and embraced the firm discipline of Cartesian prejudice. We can only possess knowledge when vagueness and fuzziness have been eliminated.

Overpowered and bullied by the modern descendents of Galileo and Descartes, the nomadic offspring gradually became 'enlightened'. They distinguished carefully between facts and opinions as any normal, healthy western child will do and the benefits and advantages of a western secular education became their prized possession. They learnt to despise any belief or prejudice that could not be explained in strict, scientific fashion and the old primitive concern and stewardship of camels became but a distant memory. Now they were able to draw accurate, scientific representations of these humpbacked beasts and develop cunning cigarette marketing strategies while quaffing excellent lager beer.

The nomadic offspring basked in the glories of algebra and statistics. Passionate discussions about electrons and protons were common fare and Newton's theory of gravity was fully mastered. Value-free, objective knowledge became an all-consuming focus. Happy days!

In the fullness of time their parents and their camels died and the young secular citizens became increasingly addicted to cigarettes, malt whisky, drugs, computer games and pornographic magazines. At last enlightenment had come to the largest country in Africa.

Polanyi and Western Epistemology

Michael Polanyi (1891-1976) was a fierce critic of what he called objectivism. For Polanyi the prevailing conception of science seeks to eliminate from science passionate, personal and human commitments. The best knowledge is 'objective' and this necessarily devalues and marginalizes the personal contribution of the knowing subject.

We can gain greater purchase on this critique of objectivism by briefly discussing logical positivism. Alfred Ayer was a disciple of the empiricist philosopher David

Hume. For Hume and Ayer the world can be understood as a 'bundle of perceptions' or in other words 'sense-data'. For both philosophers meaningful discourse is restricted to logical/mathematical statements and empirical assertions. This highly reductionist ontology (only sensation exists) leads to a highly reductionist view of knowledge (only empirical realities can be known.) This understanding of knowledge (objectivism) is still very influential in western societies.

The assumption of many western epistemologists is often that all genuine knowledge must be explicit. For example the standard tripartite analysis of knowledge is that we must be able to specify precise logical criteria in order to establish any claim to knowledge. The tripartite definition of knowledge concerns what philosophers call 'propositional' knowledge. This view of knowledge was first discussed by Plato in the Theaetetus. This definition has come to be called "the standard analysis" of knowledge. It is very basic to the study of epistemology. In Polanyi's terminology this is an objectivist approach to epistemology.

The heart of this view of knowledge goes like this:

S knows that p if and only if

- a) S believes p,
- b) S's belief in p is justified,
- c) P is true.

This oppressive understanding of knowledge has huge social implications that are often unnoticed. Young western citizens are often taught to distinguish between 'facts' and 'opinions' from an early age. A fact is often defined as a statement that can be proven true. Here are some facts.

The Empire State Building is 1,250 feet tall.
The Empire State Building has 6,500 windows.
The Empire State Building weighs 300,000 metric tons.

An opinion is often defined as a statement that expresses a person's belief, feeling or attitude about something or someone. An opinion is not factual. It is a 'value-judgment'. Here are some opinions.

It is wrong to torture babies.
It is wrong to blow up buildings with innocent people inside.
Genocide is evil.

It is an uncontested dogma for many western people today that 'facts' deliver hard, reliable knowledge and opinions merely alert us to peoples' 'feelings', 'values' and 'subjective' preferences.

In our parable we wanted to alert the reader to the important connection between western objectivist views of knowledge and the pervasive hedonism and lack of meaning that infuse our modern/postmodern societies. If human beings can only know trivial 'empirical facts' then important forms of knowledge about God and His norms/laws for life become downgraded to mere opinion and 'subjective bias'. This has catastrophic social consequences. Young people are being indoctrinated into positivism, objectivism and, at the same time, into consumerism, hedonism and most disturbingly - nihilism. The story of the Columbine killer illustrates this perfectly.

Eric Harris (1981-1999) was one of the two boys (the other was Dylan Klebold) who shot 12 students and a teacher at Columbine High School, Colorado, USA on 20th April 1999. He wrote the following in one of his notebooks :“just because your mommy and daddy tell you blood and violence is bad, you think it’s a f—g law of nature? wrong, only science and math are true, everything else, and I mean every f—g thing else is man made.”¹

Clearly Eric Harris and Dylan Klebold had absorbed the dogmas promulgated by Hume, Ayer and their many disciples. They had been indoctrinated into an objectivist, scientific worldview .

Can we challenge this austere and ethically bankrupt approach to epistemology?

We could argue that *we know more than we can tell*. This is the phrase with which Polanyi sometimes introduced what he called 'tacit' knowledge. For instance, you know your daughter's face. You could recognize it among a thousand with instant certainty. Yet you cannot tell how you know it; you could not specify exactly its shape, size, colouring etc.

As we see in our parable, nomads in the Western Sudan depend on the tacit knowledge by which their children can recognize each one of two hundred camels, and if one disappeared, know at once which it was, recognize its track and find it. The parents feared that if their children went to western 'secular' schools and learned arithmetic, algebra, Physics and other formal subjects, they would lose their practical epistemological powers, and their way of life would be destroyed. This story illustrates how important tacit knowledge can be and how explicit knowledge may destroy it.

To bring out the significance of this point imagine how a devotee of the standard tripartite view of knowledge would respond to our nomadic children. She would not accept that their tacit knowledge qualified as knowledge at all. And yet ironically their ability to identify Fatimah, the camel, leads to crucial propositional knowledge. A child versed in these extraordinary skills can put forward true and

¹ Eric Harris, www.verumserum.com/?p=415

life-preserving propositions about missing camels. "I know that Fatimah is drinking water by the third hill to the west of our village."

Polanyi also contended that tacit knowledge, the same kind that we use every day, is in fact the dominant principle of **all knowledge**, and that its rejection would involve the rejection of any kind of knowledge whatsoever. At the heart of all knowledge, he insists, however exact, however much it uses formal procedure, there is this element of personal judgment depending on an unformalisable intuition, a skilled integration of unspecifiable particulars. Let's unpack this for a moment.

When we focus our attention on an entity (e.g. a camel) and try to grasp what it is that we are observing, we use or rely upon a host of surrounding clues from the context, background and various hidden features of the entity. But we are not focusing our attention on the clues themselves. We do not attend to them directly. Instead we rely on them for the purpose of understanding the entity which has drawn our attention. Our knowledge of that array of clues is a knowledge that we cannot put into words once we focus our attention on the total 'object'. We know the particular clues in our reliance upon them as pointers to the whole meaningful 'object'. For Polanyi, we are *subsidiarily* aware of these particular sensory clues when we recognize an object of which we are *focally* aware. Focused explicit awareness presupposes a tacit, subsidiary awareness.

In the sciences where classifying is involved, this is easily recognised. Botanists and geologists have to spend a long time learning the skill of recognizing plants or rocks as belonging to a certain class or species. Medical students have to toil for months to acquire the skill of seeing the meaningful shapes in a lung X-ray. Written descriptions cannot explain everything. If they could there would be no need for live teaching or laboratory work. The student has to learn how to recognize the plant or the disease by watching how the expert does it, and trying herself, till she catches the significance of what the expert is doing.

For Polanyi proponents of the standard tripartite analysis of knowledge ignore this vital (if hidden) tacit component to knowledge. Without doubt explicit knowledge is important and very valuable but this insight should not blind us to the reality and significance of tacit knowledge.

Dooyeweerd and Polanyi

On my website I have a simple introduction to Dooyeweerd's philosophy. I tell a story about crocodiles and then I explain how Dooyeweerd would analyse the structural features of the crocodile using his very rich modal theory. For Dooyeweerd the crocodile displays fifteen irreducible aspects or dimensions. All of these aspects are important and must be recognized by scientists and philosophers. When we refuse to do this we are guilty of reductionism and

idolatry.² Both Polanyi and Dooyeweerd were extremely critical of reductionist philosophical and scientific theories.

Let's now combine the insights of both Polanyi and Dooyeweerd and show how they illumine different kinds of knowledge.

In Giles Milton's wonderful book *White Gold: The Extraordinary Story of Thomas Pellow and North Africa's One Million European Slaves* there is a fascinating story about a North African desert guide who had a very important kind of knowledge. Just like the nomads of the Sudan, this blind man 'knew' things that the common, objectivist perspectives simply cannot fathom.

In a desert it is vital to 'know' where water is. In 1731 the Cornishman Thomas Pellow met a blind guide who was able to **smell sand** and then 'know' where the next water hole could be discovered. This man told Pellow that he used his nose to lead them from waterhole to waterhole, sniffing the sand to determine their exact position. It should be noticed that the guide could not explain to Pellow exactly how he knew what he did in fact know.

Some of the thirsty and skeptically minded desert travelers decided to test the guide in order to see whether he had this important knowledge. One of them 'had retained a small bag of sand from two days previously and now presented this to the blind man. 'After he had sniffed on it for a much longer time than at first,' wrote Pellow, 'he told him that he had most grossly and basely imposed on him.' When informed it was sand from two days earlier, he was angry that the men had not trusted his abilities. He demanded that they scoop up some sand from where they were now standing and 'after just putting his nose to it, he said that we should, about four o'clock that afternoon, have water sufficient'. The caravan pressed onwards until they sighted a distant speck of green in the desert.

'At last,' wrote Pellow, 'we got up to these so very much longed after wells...and drank our fill'.³

This method of finding water intrigued Pellow and he quizzed his guide about his 'wonderful and surprising knowledge in 'smelling the sand'. The man replied that he had crossed the Saharan desert thirty times and, 'finding his sight gradually declining, he had, by often making the experiment.....attained to this so wonderful knowledge.' Such skill and knowledge were, in fact, by no means unique to this particular guide. They had been in use for centuries among the nomadic tribes of the Sahara. The medieval Arab traveler, Ibn Batouta, and the sixteenth-century adventurer, Leo Africanus, both mention similar techniques.

This kind of knowing re-enchants the world when we marinate in its significance. It can also transform philosophy from a dry, arid desert experience into a rich,

² For my introduction to Dooyeweerd go to <http://www.markroques.com/crocodiles.htm>

³ *White Gold* p.246.

meaningful experience that reminds us of a wonderful oasis full of trees, waterfalls, coconuts and loquacious parrots.

Let's now do some creative philosophising and develop a new way of doing epistemology. We could say that the blind guide had a very important form of tacit knowledge (Polanyi) that we must both honour and understand from a theoretical point of view. We could say that he has a kind of knowing that is qualified by the sensitive mode. This act of knowing displays all the aspects (following Dooyeweerd) but focuses upon the 'sensitive' dimension. In Dooyeweerd's terminology it is qualified by the sensitive aspect.

There is great significance to this. To disparage this kind of knowledge as merely 'intuition' is to rob this act of knowing of its important truth claims. We can verify that the guide had knowledge. We could say that his 'claim to knowledge' was tuned in to how things really are. His act of knowing was faithful to the way things really are.

By saying that this act of knowing displays all the aspects (remember the crocodile) we are alerting the reader to the hidden, tacit presence of the logical aspect. It is present in the act of 'smell' knowing without swallowing up the act of knowing. It is present but dormant. The blind guide was not doing something irrational or non rational. Rather the rational was present in a tacit sense. This complexity needs considerable elaboration and development.

Pedagogy and Different Kinds of Knowing

When we begin to think about pedagogy we must consider the vast gulf there is between the standard tripartite view of knowledge and the richer view of knowledge which I have briefly sketched. If we believe that knowledge is a one-dimensional affair (e.g. a passive understanding of the 'empirical facts' etc) we will produce teachers who are 'flat', one-dimensional, colourless and uninspiring.

We will hear lectures that incarnate this dull, false and dehumanising epistemology. Do we want to bore our students to death as we force feed them (remember how foie gras is made) with meaningless facts/logical atoms or do we want to bring them joy, colour, insight and a baptized imagination? Here is a story to bring out this point.

Case Study – George Cadbury and Epistemology

In my research at the West Yorkshire School of Christian Studies my colleague Arthur Jones and I have spent time marinating in the delightful story of English chocolate manufacturer George Cadbury who was born in 1839 and died in 1922.

George and his brother Richard were not just concerned about the quality and profitability of their chocolate. As Christians both men believed that "the happiness

and well-being of their employees was one of the chief aims of the business". They were profit-sensitive without being profit-driven.

What was it like to work in the Cadbury chocolate factory? Well from 1866 until 1916 each day began with Bible readings and prayers for all. The working day was considerably shorter than many other factories of the time. Cadbury was the first business enterprise to introduce the Saturday half day holiday (five and a half day working week) and were pioneers in adopting the custom of closing the factory on Bank Holidays.

In 1879, when the premises became too small, the brothers decided to build a factory in the country. They called this new site "Bournville". On this site the brothers provided football and cricket fields, a huge playground for children, swings and even an open air swimming pool. Utterly unheard of at the time!

Employees were encouraged to have fun and the sporting and recreational facilities were first-rate. Sometimes George would tell his employees to knock off early and everyone would enjoy playing and watching a cracking game of cricket on company time. On one occasion the brothers took all eleven wickets in a match. George once bought his employees a bicycle of the bone-shaker type, which they used to learn to ride on during the lunch-break. Sometimes half a dozen employees would be presented with a football and instructed to go and enjoy a football game in the local park!

Writing in 1871, George's sister recorded in her diary that George and Richard took the girls from the factory rambling over the Lickey Hills. Happy and exhausted the ramblers returned to the Cadbury mansion for tea and cakes!

Inside the factory there were warm cloakrooms for drying wet clothes and kitchen facilities for cooking food. The brothers also built superb houses for their employees. Every house had a spacious garden for growing vegetables. Fruit trees were planted and the garden dug over before each new owner moved in. Trees were planted along the wide roads.

Later George built schools and a shopping area for his employees. Cadbury campaigned for old-age pensions and fought against the brutal treatment of so many working people. He even paid £60,000 of his own money into pension funds for his employees! When he died in 1922, 16,000 people attended his funeral.

Following Dooyeweerd we know that a chocolate factory has an economic telos or guiding function. Cadbury was indeed a shrewd and canny entrepreneur. He made good profits and yet his factory was 'opened up' in an appropriate way for its sphere (Kuyper) to the ethical aspect (his care for employees) and to the aesthetic (the sheer delight of playing impromptu cricket games).

Consider Cadbury's innovative plan to build houses and spacious gardens and we glimpse a disclosure of the social aspect. Notice also that his factory was 'opened up' to the pistic/faith aspect. His employees heard Bible readings and prayers. The more astute of these men and women would have connected Cadbury's faith in Jesus Christ to the rich disclosure of the modal aspects. In some sense they were aware that following Jesus in the manufacture of chocolate was full of delightful and unexpected surprises.

In a sense we could say that Cadbury wanted his employees to **know** something about God's goodness and faithfulness. The Bible repeatedly tells us that the God who is revealed in Jesus Christ longs for His human creatures to **know deeply** that He is faithful to His many covenant promises. This knowledge is both personal (Polanyi) and faithful to the way things are (Dooyeweerd). The story of George Cadbury and his wonderful chocolate factory give us glimpses of many different kinds of knowledge. There is 'taste' knowing as experts test the chocolate. There is a 'technical' kind of knowing as the employees play with the bone-shaker bicycles. There is an 'economic' kind of knowing as fair wages are established. There is an 'ethical' kind of knowledge as Cadbury infuses the work place with goodness and mercy. And there is a faith (or pistic) kind of knowing as happy, cheerful workers get knowledge of God's loving kindness (Jeremiah 9:23-24) when Cadbury interrupts work for the simple pleasure of a cricket game.

Conclusion

So often objectivism is the implicit epistemology that holds sway in many classrooms in the western world. This view of knowledge disenchants the world. It hypnotises vulnerable, western people and leads inevitably to either consumerism (Tesco ergo sum) or nihilism. There is no meaning to life and so despair (Schopenhauer) or 'nonsense consumption' (Imelda Marcos) will inevitably rule the roost.

If, on the other hand, we attend to the multifaceted nature of the world (ontology) and the many rich ways in which we garner knowledge (epistemology) of this rich creation, our pedagogy will be transformed. We will integrate acting, imagining, playfulness, story-telling and appropriate humour into our teaching. We will become sensitive to the many different kinds of knowing that God has made possible.

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