



# The Professor & Research

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- 1) Purposes of Research?
- 2) Perils of Research?





## *A couple caveats ...*

I am biased.

I am new at this!



## *My (naive) road to research ...*

“When with bold telescopes I survey the old and newly discovered stars and planets, when with excellent microscopes I discern the unimitable subtlety of nature’s curious workmanship; and when, in a word, by the help of anatomical knives, and the light of chemical furnaces, I study the book of nature, I find myself oftentimes reduced to exclaim with the Psalmist, ‘How manifold are Thy works, O Lord! In wisdom hast Thou made them all!’ ”

- Robert Boyle, Irish scientist in 1600s



## *“Formative” quotes during my training ...*

“Look to your left; look to your right; these are your competition, and your job is to be better than them.”

“To be a successful researcher you must build your personal brand.”

“The goal of grant-writing is to get the grant money, even if you think it won’t actually work.”

- Highly accomplished biomedical researchers

Wait, what? More like “de-formative” quotes.  
Is this really what research is about?



## Some presuppositions...

Genesis 1:1

In the beginning God created the heavens and the earth. The earth was formless and void, and darkness was over the surface of the deep, and the Spirit of God was moving over the surface of the waters. Then God said, “Let there be light”; and there was light.

I Corinthians 8:6

Yet for us there is but one God, the Father, from whom are all things and we exist for Him; and one Lord, Jesus Christ, by whom are all things, and we exist through Him.

Matthew 22:37-39

And He said to him, ‘You shall love the Lord your God with all your heart, and with all your soul, and with all your mind.’ This is the great and foremost commandment. The second is like it, ‘You shall love your neighbor as yourself.’

“Research”: focused and systematic study of any particular thing



# Research Purpose 1:

*Explore and revel at the wonder of God's nature*

Psalm 19:1-2

The heavens are telling of the glory of God, and their expanse is declaring the work of His hands. Day to day pours forth speech, and night to night reveals knowledge.

Romans 1:20

For since the creation of the world His invisible attributes, His eternal power and divine nature, have been clearly seen, being understood through what has been made, so that they are without excuse.

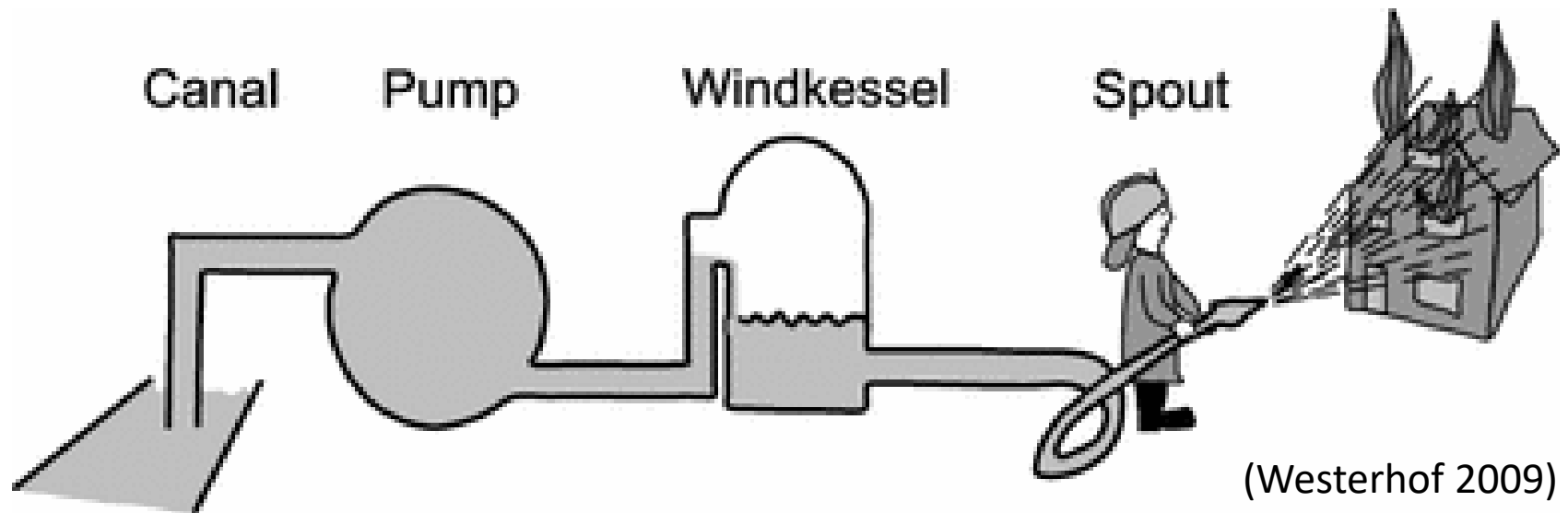


# Research Purpose 1:

*Explore and revel at the wonder of God's nature*

Quick example...

the Windkessel effect





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*Explore and revel at the wonder of God's nature*

Implications for the Christian professor...

1. Research can stoke our humility before the Creator.

Job 42:3

Therefore, I have declared that which I did not understand, things too wonderful for me, which I did not know.

I Corinthians 8:2

If anyone supposes that he knows anything, he has not yet known as he ought to know.

Deuteronomy 29:29

The secret things belong to the Lord our God, but the things revealed belong to us and to our sons forever, that we may observe all the words of this law.





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Implications for the Christian professor...

1. Research can stoke our humility before the Creator.

“The first gulp from the glass of natural sciences will turn you into an atheist, but at the bottom of the glass God is waiting for you.”

- Werner Heisenberg, German physicist in the 1900s



# Research Purpose 1:

*Explore and revel at the wonder of God's nature*

Implications for the Christian professor...

1. Research can stoke our humility before the Creator.
2. Research can stoke our intimacy with our Creator.

Isaiah 1:18

'Come now and let us reason together,' says the Lord,...

Jeremiah 33:3

Call to Me and I will answer you, and I will tell you great and mighty things, which you do not know.

Daniel 2:22

It is He who reveals the profound and hidden things; He knows what is in the darkness, and the light dwells with Him.



# Research Purpose 1:

*Explore and revel at the wonder of God's nature*

Implications for the Christian professor...

1. Research can stoke our humility before the Creator.
2. Research can stoke our intimacy with our Creator.
3. Research can stoke our ministry to colleagues and students.
  - Express joy, marvel, and wonder in our research!

“Give me wisdom so to use  
These brief hours of thoughtful leisure,  
That I may no instant lose  
In mere meditative pleasure,  
But with strictest justice measure  
All the ends my life pursues,  
Lies to crush and truths to treasure,  
Wrong to shun and Right to choose.”

- James Clerk Maxwell, Scottish physicist in 1800s



## Research Purpose 2:

*Employing our understanding for the love of humanity*

Romans 15:27

For if the Gentiles have shared in their spiritual things, they are indebted to minister to them also in material things.

James 2:15-16

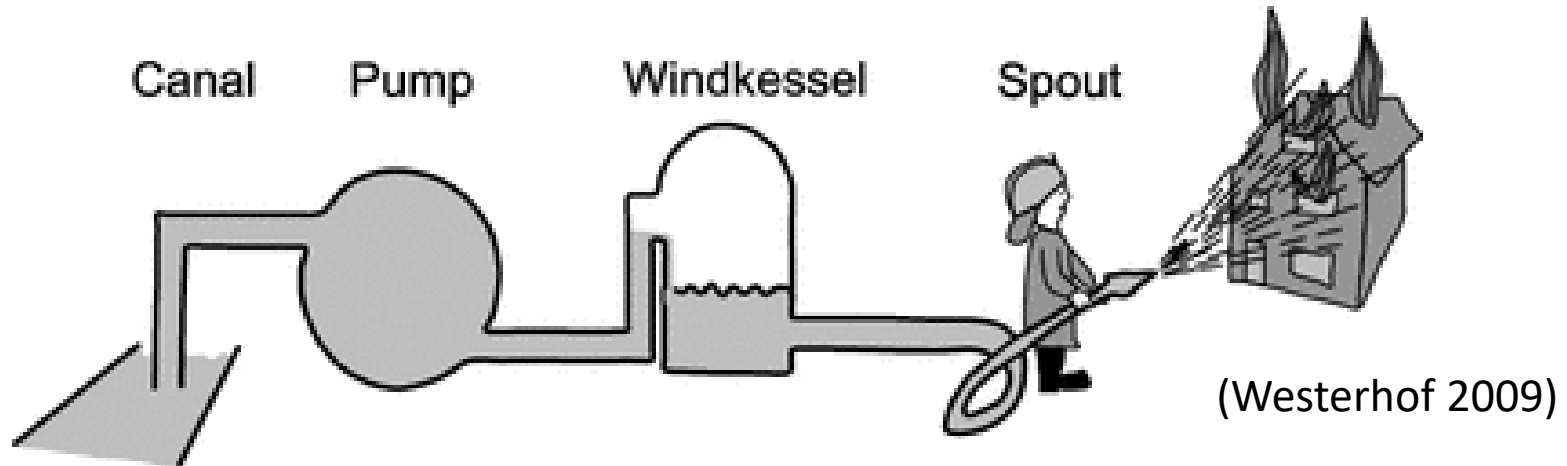
If a brother or sister is without clothing and in need of daily food, and one of you says to them, “Go in peace, be warmed and be filled,” and yet you do not give them what is necessary for their body, what use is that?



## Research Purpose 2:

*Employing our understanding for the love of humanity*

Quick example... the Windkessel effect



“The fact that we can quantify laws I’m sure is a gift to us that enables us to manage creation in the way that we’ve been called to.”

- Ross Hastings, Professor of Theology at Regent College  
(PhD in chemistry and a PhD in theology)



## Research Purposes:

*Explore and revel at the wonder of God's nature*

*Employing our understanding for the love of humanity*

Let's discuss!

- thoughts, concerns, applications about these 2 purposes?
- other purposes besides these?
- does purpose look different for arts, humanities, etc.?



# Research Peril:

## *De-formative influence of hyper-competition*

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# Research Peril:

## *De-formative influence of hyper-competition*

Partly just the American culture...

A screenshot of the Amazon Prime website interface. The top navigation bar is dark blue with the Amazon Prime logo on the left. A search bar on the right contains the text 'leadership' and a dropdown menu is open showing 'Books'. Below the navigation bar, the delivery location is set to 'Greenville 29611'. There are links for 'Buy Again' and 'Browsing History'. A secondary navigation bar contains links for 'Books', 'Advanced Search', 'New Releases', and 'Amazon Charts'.

1-12 of over 60,000 results for **Books : "leadership"**

A screenshot of the Amazon Prime website interface, similar to the one above. The search bar contains the text 'teamwork' and the dropdown menu shows 'Books'. The delivery location is 'Greenville 29611'. The secondary navigation bar is identical to the first screenshot.

1-12 of over 5,000 results for **Books : "teamwork"**





# Research Peril:

## *De-formative influence of hyper-competition*

More and more evidence that competitive science is destructive...

1. Introduces bias for unethical research practices  
(manipulating data, undermining other's work, malicious influence on other's careers)

“I have a strong reservation about having you as a faculty colleague in the same building here at this time because of a serious overlap in research and approach... We briefly discussed the possibility of a collaboration. But this is complex... An additional drawback in logistics is about the shared resources and facilities... I, as Director of the Institute, took the major role in securing and designing rodent holding, behavior and transgenic facilities... I am afraid that accommodating your lab would be difficult... I am sorry, but I have to say to you that at present and under the present circumstances, I do not feel comfortable at all to have you here.”



# Research Peril:

## *De-formative influence of hyper-competition*

More and more evidence that competitive science is destructive...

1. Introduces bias for unethical research practices  
(manipulating data, undermining other's work, malicious influence on other's careers)
2. Inhibits creativity
  - Of 135 major scientific innovations in years 1800-2000, 8:1 of these discoveries arose from network teams and/or non-market driven settings vs individuals in market-driven settings.



# Research Peril:

## *De-formative influence of hyper-competition*

More and more evidence that competitive science is destructive...

1. Introduces bias for unethical research practices  
(manipulating data, undermining other's work, malicious influence on other's careers)
2. Inhibits creativity
3. Reinforces inequalities
  - Competitive vs collaborative environments are more difficult for underrepresented groups to be included equitably



## Research Peril:

### *De-formative influence of hyper-competition*

Luke 20:46

Beware of the scribes, who like to walk around in long robes, and love respectful greetings in the market places, and chief seats in the synagogues and places of honor at banquets.

Matthew 20

So the last shall be first, and the first last ...

Whoever wishes to be great among you shall be your servant, and whoever wishes to be first among you shall be your slave just as the Son of Man did not come to be served, but to serve, and to give His life a ransom for many.



## Research Peril:

### *De-formative influence of hyper-competition*

You are not my competition.

You are my teammates, and our collective competition is the heart attack that could kill one of our fathers, or the Alzheimer's disease that could steal our mother's memories, or the cancer that could take our spouses, or friends, or kids.

Or global hunger, or global poverty, or social injustice, and on and on.



# Research Peril:

## *De-formative influence of hyper-competition*

Let's discuss!

In the midst of this competitive environment, how should/can the Christian professor deal with things like...

- Program rankings (US News, etc.)?
- Protectionist science? (unwillingness to discuss ideas, collaborate)
- Personal honors? (e.g., self nominations)
- Tenure?
- Personal branding?
- Publication prestige?
- Others perils of research?