Helping students CARE: Commonplace, Authority, Reason and Experience in developing student critical thinking.

Michael L. Connell. Ph.D.
When I think of the little children learning
In all the schools of the world,
Learning in Danish, learning in Japanese
That two and two are four, and where the rivers of the world
Rise, and the names of the mountains and the principal cities,
My heart breaks.

Come up, children! Toss your little stones gaily
On the great cairn of Knowledge!
(Where lies what Eculid knew, a little grey stone,
What Plato, what Pascal, what Galileo:
Little grey stones, little grey stones on a cairn.)
Tell me, what is the name of the highest mountain?
Name me a crater of fire! a peak of snow!
Name me the mountains on the moon!
But the name of the mountain that you climb all day,
Ask not your teacher that.

-- Edna St Vincent Millay
Family Resemblances...
Good thinking is good thinking
...at every level...
The Actions upon Objects Teaching cycle¹.

I am always right... maybe you are too...

BUT WHY I SHOULD CARE !!
Do you care enough to argue about it?
Claims are...

- single statements,
- topics requiring supporting argument,
- NOT questions
Grounds for Claims...

- Grounds, Reasons or Evidence
- Warrant
- Backing
- Qualifier
- Rebuttal
- Claim
A sample argument ...

data
  e.g. Harry was born in Bermuda

since
  e.g. A man born in Bermuda will be a British subject

because
  e.g. The following states and other legal provisions:

qualifier
  unless

rebuttal
  e.g. Both of his parents were aliens/he has become a naturalized American/...

claim
  e.g. Harry is a British subject
Steps in generating an argument...
How did you respond to this argument?

Zombies should have rights

- Zombies are the same species as humans
- Members of the same species should have the same rights
- When zombies turn people into zombies, those people still live as zombies
- This means zombies are not a threat, they should have rights
- If zombies are not a threat, they should have rights
- Zombies are dead people
- Dead people do not have rights
- Zombies are the same species as humans
- They have the physical form of a person
- Things with the same physical form are the same species
- Zombies cannot give birth to young as the result of mating with humans
- To be the same species, two members need to be able to reproduce
- Zombies are fundamentally different from the people they once were
- Zombies still move around
- Dead people do not move around
- Zombies still have brain activity
- People with brain activity are not dead

Zombies reproduce by biting people
The Survey Sez....

Should Zombies have rights??

- YES
- NO
- UNSURE
- I AM A ZOMBIE
<table>
<thead>
<tr>
<th><strong>RIGHTS FOR ZOMBIES!</strong></th>
<th><strong>NO RIGHTS FOR ZOMBIES!</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>zombies, to some extent, act like regular people in society. So, if they are acting like regular humans, then why shouldn’t they have rights? Zombies are only a little ugly.</td>
<td>The zombies are NOT humans, they are simply viruses that are taking the human body as a home. ...Rights should be served when any person, animal, thing or zombie is in their right senses, but zombies do not think with reason, they are not innocent.</td>
</tr>
<tr>
<td>if we do give them rights it wouldn’t affect us regular humans they will have to go to the same process as us if they do anything bad. They still have some brain activity and can move just like us they might not be as intelligent as us but they still deserve rights.</td>
<td>zombies should not have rights since they are no longer living and should not live among living humans. They are not intelligent enough and are a threat to society.</td>
</tr>
<tr>
<td>we should give some rights to a certain extent because if they start acting up or getting out of hand we can stop that from escalating. Just like how a human would get thrown into jail for assaulting someone then we should have some kind of punishment if that get out of hand.</td>
<td>if zombies are given rights they would have to be free to roam where they please and that could only mean always looking over your shoulder. It would not be a safe environment and zombies serve no purpose but be a threat.</td>
</tr>
<tr>
<td>zombies are probably great people. We only know that they wants brains and all based on movies and video games and my question is, what if they’re just wanting to talk to us? What if they're just wanting to see their loved ones? I believe that stereotypes discrimination is wrong and truly, I believe that they're just natural. Equality for all individuals am I right? Why shouldn’t they have rights?</td>
<td>Zombies should not have rights because they bring harm to humans... Although they were once humans they are far from the normal acts of humans because of mental state, diet of human flesh, and the changing of humans to zombies... Changing a human to a zombie is a change from living to dead, which is murder. And people who murder others shouldn’t have rights.</td>
</tr>
</tbody>
</table>
Types of Justifications – Expanded

Commonplace

Authority

Reason

Experience
...and the major question is still...

Which type of justification... Commonplace, Authority, Reason, Experience

... would convince my audience?
Commonplaces

Honey combe cake.

First melt a pound of butter, and beat it with one of common honey, then take twelve eggs, beat them well, and mix them with the honey, and pour the mixture of them into a pan, and let it stand by the heat, and when it is half set, put it into a cool oven to finish it. There you will find it sufficiently sweet, but if you wish it to be sweeter, add some more honey.

Yemem Chippis.

Grind 6 or 8 pounds of combed sugar, and mix it with 4 pounds of combed honey. Then beat it with a whisk and put it on a sheet of glass. It will harden in a short while, and you can then cut it into small pieces.

To drye Apreechts.

Take a pound of combed sugar, beat it well, and add a pound of combed honey. Then beat them together, and let them stand by the heat until they harden. After that, you can cut them into small pieces.

Apreech cake.

Take one pound of combed sugar, and mix it with 4 pounds of combed honey. Then beat it well, and let it stand by the heat until it hardens. After that, you can cut it into small pieces.

Apreech chippis.

Take one pound of combed sugar, mix it with 4 pounds of combed honey, and let it stand by the heat until it hardens. After that, you can cut it into small pieces.

Apreech Paste.

Take two and a quarter pounds of white sugar, put it into a kettle, and let it boil very slow. When it is well boiled, add 4 pounds of combed honey, and let it boil for a while. Then pour it into a plate, and let it cool. After that, you can cut it into small pieces.

New way for chippis.

Take four and a half pounds of white sugar, and beat it well. Then add 4 pounds of combed honey, and let it stand by the heat until it hardens. After that, you can cut it into small pieces.

Redberry cake.

Mix together one pound of redberries, one pound of white sugar, and a pound of combed honey. Then beat it well, and let it stand by the heat until it hardens. After that, you can cut it into small pieces.

To Rockes candy any flowers.

Mix together one pound of white sugar, one pound of combed honey, and one pound of combed combed sugar. Then beat it well, and let it stand by the heat until it hardens. After that, you can cut it into small pieces.
Commonplaces

• The notion of a *commonplace* has its origin in the oral histories passed down from pre-historic societies contain literary aspects, characters, or settings that appear again and again in stories from ancient civilizations, religious texts, and even more modern stories.

• A commonplace in argumentation is an aspect of culture, or universally accepted understanding, that can be used as a warrant to a claim.
Well, that's one worldview. But right now I'm looking for someone to make the case that $A^2 + B^2$ might not equal $C^2$. 
I generally trust my dentist, but...
...or at least a laboratory result!
Authority

- A logically valid argument from authority grounds a claim in the beliefs of one or more authoritative source(s), whose opinions are likely to be true on the relevant issue. Note: it is likely to be true, rather than necessarily true.
- As such, an argument from authority can only strongly suggest what is true -- not prove it.
- A logically fallacious argument from authority grounds a claim in the beliefs of a source that is not authoritative.
- (Often, this is called an appeal to authority, rather than argument from authority.)
The Illusion of Authority: The Dunning-Kruger Effect.
The trouble with the world is that the stupid are cocksure and the intelligent are full of doubt.

— Bertrand Russell
To argue with a person who has renounced the use of reason is like administering medicine to the dead.

Thomas Paine
At five-foot-six and 270 pounds, the bank robber was impossible to miss. On April 19, 1995, he hit two Pittsburgh banks in broad daylight. Security cameras picked up good images of his face— he wore no mask—and showed him holding a gun to the teller. Police made sure the footage was broadcast on the local eleven o’clock news. A tip came in within minutes, and just after midnight, the police were knocking on the suspect’s door in McKeesport. Identified as McArthur Wheeler, he was incredulous. “But I wore the juice,” he said.
Wheeler told police he rubbed lemon juice on his face to make it invisible to security cameras. Detectives concluded he was not delusional, not on drugs — just incredibly mistaken.
Wheeler knew that lemon juice is used as an invisible ink. Logically, then, lemon juice would make his face invisible to cameras. He tested this out before the heists, putting juice on his face and snapping a selfie with a Polaroid camera. There was no face in the photo! (Police never figured that out. Most likely Wheeler was no more competent as a photographer than he was as a bank robber.) Wheeler reported one problem with his scheme: The lemon juice stung his eyes so badly that he could barely see.
Wheeler went to jail and into the annals of the world’s dumbest criminals. It was such a feature, in the 1996 World Almanac, that brought Wheeler’s story to the attention of David Dunning, who saw in this tale that those most lacking in knowledge and skills are least able to appreciate that lack. This observation would eventually become known as the Dunning-Kruger effect we mentioned earlier.
Reasons are statements that support a given claim, making a claim more than a mere assertion. Reasons are statements in an argument that pass two tests. First, reasons are answers to the hypothetical challenge: “Why do you say that?” or “What justifications can you give me to believe that?” If a claim about liberal arts education is challenged, a reasoned response could be: “It teaches students to think independently.” Reasons can be linked—most often, not explicitly—to claims with the word "because."
In and off themselves, reasons are generally never enough to win an argument. You need to show your readers specific evidence supporting your reasons. The details you provide are what will make your reasons relevant. Try to include concrete evidence you will include to illustrate and explain your reasoning such as facts, statistics, stories, etc.
Of course I talk to myself. Sometimes I need expert advice.
Personal truths which arise from personal experience are weaker than empirical truths, for no matter how many people claim to have the same personal truths, if it’s not verifiable, it lacks the ability to be tested or repeated.

Since the brain interprets all we see, feel and react to, if the brain is thinking in a certain way during an experience, the way we perceive the experience may be altered. However, the happenings which led to the experience remain unaltered. No matter how real an experience might seem to you, if it never happened, it remains never having happened.
Argument errors selected from...
Ranking of the WORST offenders...

Worst Offenders.

- Authority
- Fear
- Ignorance
- Equivocation
- Ad Hominem
- Hypocrisy
- Consequences
- False Dilemma
- No True Scotsman
- Association
- Bandwagon
- Straw Man
Ranking of the WORST offenders...

Worst Offenders.

- Authority
- Fear
- Ignorance
- Equivocation
- Ad Hominem
- Hypocrisy
- Consequences
- False Dilemma
- No True Scotsman
- Association
- Bandwagon
- Straw Man

Sales
What makes these so bad?
NOTICE
AUTHORIZED PERSONNEL ONLY
Fear
Ignorance
"Quit stalling, Smithers. Where's the SALES chart?"
Ad Hominem

ad hominem kitteh sez,
ur wrong...
...bekuz ur stupid!
Hypocrisy

THE BLUE BUTTON IS TRUE

THE RED BUTTON IS FALSE
Consequences

Consequences

Just Ahead
False Dilemma
No True Scotsman

Come and have some *haggis*, Angus!

Put some aside and I'll have it later.

Sigh... I'll get the dog to eat it...

Uh oh.. not a true Scotsman!
Why do we 'all' have to be in the naughty corner? It was your fault!
Straw Man
Why COMMENSENSE and experience fails ...

HERE LIES COMMON SENSE

BELOVED HUSBAND & FATHER OF:

DISCRETION, RESPONSIBILITY & REASON.

REST IN PEACE.
We agree with people who think like us...

• If we agree with someone’s beliefs, we’re more likely to be friends with them. While this makes sense, it means that we subconsciously begin to ignore or dismiss anything that threatens our world views, since we surround ourselves with people and information that confirm what we already think.
We confuse selection factors with effects...

• The “swimmer’s body illusion” occurs when we confuse selection factors with results. Another good example is top performing universities: are they actually the best schools, or do they choose the best students, who do well regardless of the school’s influence?

Professional swimmers don’t have perfect bodies because they train extensively. Rather, they are good swimmers because of their physiques. How their bodies are designed is a factor for selection and not the result of their activities.
We are bad at predicting the odds...

• ... and yes, we ARE bad at applying basic probability as well...
The term **sunk cost** refers to any cost (not just monetary, but also time and effort) that has been paid already and cannot be recovered.

So, a payment of time or money that’s gone forever, basically.

The sunk cost fallacy plays on a human tendency to emphasize loss over gain.
We make bad comparison choices...

- The anchoring effect: we tend to focus on a particular value and compare it to our other options, seeing the difference between values rather than the value of each option itself.
We rationalize what we have already done...

• How many times have you returned from a shopping trip only to be less than satisfied with your purchase decisions and started rationalizing them to yourself?
• We are good at convincing badly thought-out purchases are necessary after all. This is known as post-purchase rationalization or Buyer’s Stockholm Syndrome.
We believe memories more than facts...

• My memory is getting better every year.
• I used to be able to remember everything that ever happened to me.
• Now, I can remember it whether it happened or not.
We rely on stereotypes more than we realize...

- The human mind is so wedded to stereotypes and so distracted by vivid descriptions that it will seize upon them, even when they defy logic, rather than upon truly relevant facts.
Basic Steps to Skepticism

Wherever possible there must be independent confirmation of the facts

Encourage substantive debate on the evidence

Arguments from authority carry little weight

Spin more than one hypothesis

Try not to get overly attached to a hypothesis

If there are two hypothesis that explain the data equally choose the simpler.

Ask whether the hypothesis can be falsified
So, what do we do?

• The lesson here? Whenever possible, look at the facts. Examine the data. Don’t base a factual decision on your gut instinct without *at least* exploring the data objectively first.
A student posed problem: Internet arguments

Cancel all my meetings.

Someone on the internet is wrong.
Graham’s Heirarchy of Internet Argumentation

refuting the central point
refutation
counterargument
contradiction
responding to tone
ad hominem
name-calling

- explicitly refutes the central point
- finds the mistake and explains why it's mistaken using quotes
- contradicts and then backs it up with reasoning and/or supporting evidence
- states the opposing case with little or no supporting evidence
- criticizes the tone of the writing without addressing the substance of the argument
- attacks the characteristics or authority of the writer without addressing the substance of the argument
- sounds something like, “You are an"
Small Group Discussions.
During your group discussions remember...

Don't raise your voice, improve your argument.
– Desmond Tutu
Try out your reasoning for Argument One in your small groups.

- Identify a community need that you care enough about to have an “argument” over.

- Give an example of what type of evidence would convince someone else to care as well from the perspective of:
  - Commonplace
  - Authority
  - Reasoning
  - Experience
A final argument...

Am I Batman?
One “authority” stated...

NO BRO

I AM BATMAN
...this claim, however, was quickly countered...
..which raised even more claims...
...which were in turn countered...

BUT...BUT...

I am BATMAN...
... countered...

I AM THE NIGHT I AM BATMAN

NO YOUR NOT BATMAN YOUR
JUST A BAT, NO I'M BATMAN
...and countered again!

I AM

BATMAN!
Arguments were put forward...
...supporting one warrant or another...
... based on a wide variety of evidence...
...some were more intriguing than others...

THE MULTIVERSE THEORY

Somewhere, within the quantum foam of existence, amongst the very building blocks of reality, there is a universe where you... are Batman.
...while others were clearly delusional...
... simple wish fulfillment ...
HOLY CRAP
I'M BATMAN!
... non-factual ...
... or not intended seriously.
Unfortunately, many did not understand the argument at all…
Which lead to ungrounded conclusions...
Sometimes these conclusions resulted in planned action...

I'm gonna hang a Batman outfit in my closet just to screw with myself when I get Alzheimer's.
Today’s argument, however, is simple...

Am I Batman?
... or, am I not...
Am I Batman? The argument is simple:

I'm not saying I am batman, I am just saying no one has ever seen me and batman in the same room together.
What do you think? And WHY!

• Remember, even I will “lie” for educational purposes.
• As such, an argument from authority can only strongly suggest what is true -- not prove it.
• Prepare a response to this identity crisis making direct reference to each of the CARE components of argument developed in class to date.
DO YOUR HOMEWORK!