# Appeal to Authority

- Important people or experts can make your argument seem more convincing.
  - Former U.S. president Bill Clinton thinks that junk food should be taken out of vending machines.
- Using reliable research can help your argument seem convincing.
  - A recent study found that students who watch TV during the week don't do as well in school.

# The Bandwagon

- You appealed to popularity or the fact that many people do something as an attempted form of validation.
- The flaw in this argument is that the popularity of an idea has absolutely no bearing on its validity. If it did, then the Earth would have made itself flat for most of history to accommodate this popular belief.
- Nine out of ten people prefer Wheet-Bix in the morning!

### The Burden of Proof

- You said that the burden of proof lies not with the person making the claim, but with someone else to disprove.
- The burden of proof lies with someone who is making a claim, and is not upon anyone else to disprove. The inability, or disinclination, to disprove a claim does not render that claim valid, nor give it any credence whatsoever. However it is important to note that we can never be certain of anything, and so we must assign value to any claim based on the available evidence, and to dismiss something on the basis that it hasn't been proven beyond all doubt is also fallacious reasoning.
- Example: Bertrand declares that a teapot is, at this very moment, in orbit around the Sun between the Earth and Mars, and that because no one can prove him wrong, his claim is therefore a valid one.

#### Black or White

- You presented two alternative states as the only possibilities, when in fact more possibilities exist.
- Also known as the false dilemma, this insidious tactic has the appearance of forming a logical argument, but under closer scrutiny it becomes evident that there are more possibilities than the either/or choice that is presented. Binary, black-or-white thinking doesn't allow for the many different variables, conditions, and contexts in which there would exist more than just the two possibilities put forth. It frames the argument misleadingly and obscures rational, honest debate.
- Example: Whilst rallying support for his plan to fundamentally undermine citizens' rights, the Supreme Leader told the people they were either on his side, or they were on the side of the enemy.

#### The Loaded Question

- You asked a question that had a presumption built into it so that it couldn't be answered without appearing guilty.
- Loaded question fallacies are particularly effective at derailing rational debates because of their inflammatory nature - the recipient of the loaded question is compelled to defend themselves and may appear flustered or on the back foot.
- Example: Grace and Helen were both romantically interested in Brad. One day, with Brad sitting within earshot, Grace asked in an inquisitive tone whether Helen was still having problems with her drug habit.

### False Cause

- You presumed that a real or perceived relationship between things means that one is the cause of the other.
- Many people confuse correlation (things happening together or in sequence) for causation (that one thing actually causes the other to happen). Sometimes correlation is coincidental, or it may be attributable to a common cause.
- Example: Pointing to a fancy chart, Roger shows how temperatures have been rising over the past few centuries, whilst at the same time the numbers of pirates have been decreasing; thus pirates cool the world and global warming is a hoax.

## The Slippery Slope

- You said that if we allow A to happen, then Z will eventually happen too, therefore A should not happen.
- The problem with this reasoning is that it avoids engaging with the issue at hand, and instead shifts attention to extreme hypotheticals. Because no proof is presented to show that such extreme hypotheticals will in fact occur, this fallacy has the form of an appeal to emotion fallacy by leveraging fear. In effect the argument at hand is unfairly tainted by unsubstantiated conjecture.
- Example: Colin Closet asserts that if we allow same-sex couples to marry, then the next thing we know we'll be allowing people to marry their parents, their cars and even monkeys.