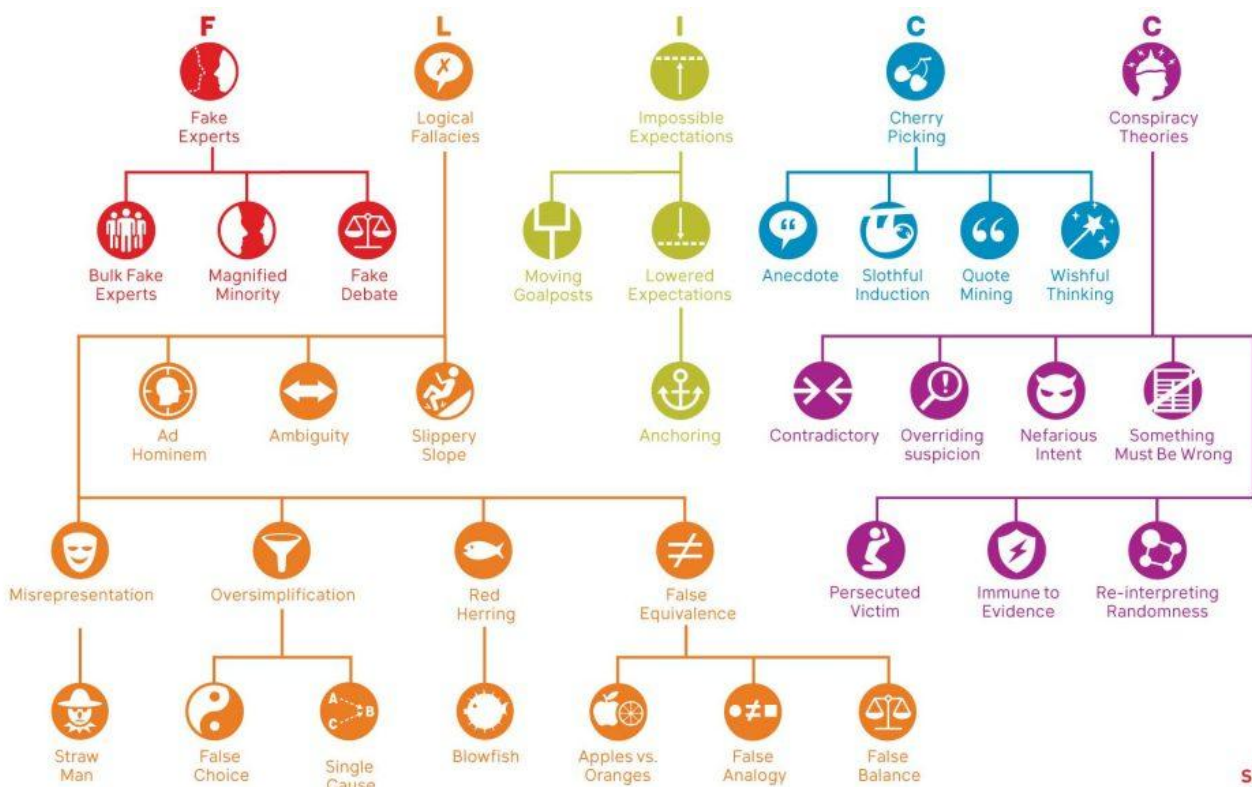


Overview and definitions of FLICC techniques



The table on the following pages contains the list of techniques currently (August 2022) defined in the FLICC taxonomy which are regularly used in science denial. The techniques are listed in the order in which they are arranged in the above graphic. More information regarding the taxonomy can be found in the blog post [A history of FLICC: the 5 techniques of science denial](https://sks.to/flicc-history) on Skeptical Science (sks.to/flicc-history)

Additional links to FLICC related to the Cranky Uncle game:

A blog post version of John Cook's paper "[Cranky Uncle: a game building resilience against climate misinformation](https://sks.to/crankyintro)" published in the Austrian periodical Plus Lucis for educators in 2021 (sks.to/crankyintro).

[Cranky Uncle - Resources for educators](https://sks.to/cranky-edu) (sks.to/cranky-edu)

[Teachers' Guide to Cranky Uncle](https://sks.to/crankyguide) (sks.to/crankyguide)

Overview and definitions of FLICC techniques

Page 2 of 7

ICON	TECHNIK	DEFINITION	BEISPIEL
	Fake Experts <i>(appeal to false authority)</i>	Presenting an unqualified person or institution as a source of credible information.	“A retired physicist argues against the climate consensus, claiming the current weather change is just a natural occurrence.”
	Bulk Fake Experts	Citing large numbers of seeming experts to argue that there is no scientific consensus on a topic.	“There is no expert consensus because 31,487 Americans with a science degree signed a petition saying humans aren't disrupting climate.”
	Magnified Minority	Magnifying the significance of a handful of dissenting scientists to cast doubt on an overwhelming scientific consensus.	“Sure, there's 97% consensus but Professor Smith disagrees with the consensus position.”
	Fake Debate <i>(false balance)</i>	Presenting science and pseudoscience in an adversarial format to give the false impression of an ongoing scientific debate.	“Climate deniers should get equal coverage with climate scientists, providing a more balanced presentation of views.”
	Logical Fallacies	Arguments where the conclusion doesn't logically follow from the premises. Also known as a non sequitur.	“Climate has changed naturally in the past so what's happening now must be natural.”
	Misrepresentation	Misrepresenting a situation or an opponent's position in such a way as to distort understanding.	“They changed the name from 'global warming' to 'climate change' because global warming stopped happening.”





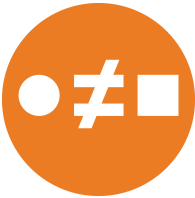

Overview and definitions of FLICC techniques

Page 3 of 7

ICON	TECHNIK	DEFINITION	BEISPIEL
	Straw Man	Misrepresenting or exaggerating an opponent's position to make it easier to attack.	"In the 1970s, climate scientists were predicting an ice age."
	Ad Hominem	Attacking a person/group instead of addressing their arguments.	"Climate science can't be trusted because climate scientists are biased."
	Ambiguity	Using ambiguous language in order to lead to a misleading conclusion.	"Thermometer readings have uncertainty which means we don't know whether global warming is happening."
	Slippery Slope	Suggesting that taking a minor action will inevitably lead to major consequences.	"If we implement even a modest climate policy, it will start us down the slippery slope to socialism and taking away our freedom."
	Oversimplification	Simplifying a situation in such a way as to distort understanding, leading to erroneous conclusions.	"CO ₂ is plant food so burning fossil fuels will be good for plants."
	False Choice	Presenting two options as the only possibilities, when other possibilities exist.	"CO ₂ lags temperature in the ice core record, proving that temperature drives CO ₂ , not the other way around."
	Single Cause	Assuming a single cause or reason when there might be multiple causes or reasons.	"Climate has changed naturally in the past so what's happening now must be natural."

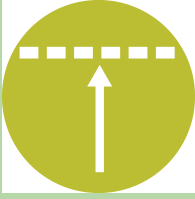

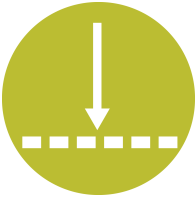




Overview and definitions of FLICC techniques

Page 4 of 7

ICON	TECHNIK	DEFINITION	BEISPIEL
	Red Herring	Deliberately diverting attention to an irrelevant point to distract from a more important point.	“CO ₂ is a trace gas so it’s warming effect is minimal.”
	Blowfish	Focusing on an inconsequential aspect of scientific research, blowing it out of proportion in order to distract from or cast doubt on the main conclusions of the research.	“The hockey stick graph is invalid because it contains statistical errors.”
	False Equivalence <i>(apples vs. oranges)</i>	Incorrectly claiming that two things are equivalent, despite the fact that there are notable differences between them.	“Why all the fuss about COVID when thousands die from the flu every year.”
	False Equivalence <i>(apples vs. oranges)</i>	Incorrectly claiming that two things are equivalent, despite the fact that there are notable differences between them.	“Why all the fuss about COVID when thousands die from the flu every year.”
	False Analogy	Assuming that because two things are alike in some ways, they are alike in some other respect.	“Climate skeptics are like Galileo who overturned the scientific consensus about geocentrism.”
	Fake Debate <i>(false balance)</i>	Presenting science and pseudoscience in an adversarial format to give the false impression of an ongoing scientific debate.	“Climate deniers should get equal coverage with climate scientists, providing a more balanced presentation of views.”

Overview and definitions of FLICC techniques

Page 5 of 7

ICON	TECHNIK	DEFINITION	BEISPIEL
	Impossible Expectations	Demanding unrealistic standards of certainty before acting on the science.	“Scientists can’t even predict the weather next week. How can they predict the climate in 100 years?”
	Moving Goalposts	Demanding higher levels of evidence after receiving requested evidence.	“Sea levels may be rising but they’re not accelerating.”
	Lowered Expectations	Lowering the standard by which you grade a performance or assess evidence.	“Two snapshots of Mars show shrinking ice, so Mars is global warming.”
	Anchoring	Depending too heavily on an initial piece of information when making subsequent judgments.	“2.2 million people might have died from COVID-19 so keeping it down to only 130,000 deaths is a good job.”
	Cherry Picking	Carefully selecting data that appear to confirm one position while ignoring other data that contradicts that position.	“Global warming stopped in 1998.”
	Anecdote	Using personal experience or isolated examples instead of sound arguments or compelling evidence.	“The weather is cold today—whatever happened to global warming?”
	Slothful Induction	Ignoring relevant evidence when coming to a conclusion.	“There is no empirical evidence that humans are causing global warming.”




Overview and definitions of FLICC techniques

Page 6 of 7

ICON	TECHNIK	DEFINITION	BEISPIEL
	Quote Mining	Taking a person's words out-of-context in order to misrepresent their position.	"Mike's trick... to hide the decline."
	Wishful Thinking	Choosing to believe something is true because we really want it to be true, instead of relying on scientific evidence.	"Forget climate model predictions of warming, I think we're about to experience global cooling."
	Conspiracy Theory	Proposing that a secret plan exists to implement a nefarious scheme such as hiding a truth.	"The climategate emails prove that climate scientists have engaged in a conspiracy to deceive the public."
	Contradictory	Simultaneously believing in ideas that are mutually contradictory.	"The temperature record is fabricated by scientists... the temperature record shows cooling."
	Overriding suspicion	Having a nihilistic degree of skepticism towards the official account, preventing belief in anything that doesn't fit into the conspiracy theory.	"Show me one line of evidence for climate change... oh, that evidence is faked!"
	Nefarious intent	Assuming that the motivations behind any presumed conspiracy are nefarious.	"Climate scientists promote the climate hoax because they're in it for the money."
	Something must be wrong	Maintaining that "something must be wrong" and the official account is based on deception, even when specific parts of a conspiracy theory become untenable.	"Ok, fine, 97% of climate scientists agree that humans are causing global warming, but that's just because they're toeing the party line."

Overview and definitions of FLICC techniques

Page 7 of 7

ICON	TECHNIK	DEFINITION	BEISPIEL
	Persecuted victim	Perceiving and presenting themselves as the victim of organized persecution.	“Climate scientists are trying to take away our freedom.”
	Immune to evidence	Re-interpreting any evidence that counters a conspiracy theory as originating from the conspiracy.	“Those investigations finding climate scientists aren’t conspiring were part of the conspiracy.”
	Re-interpreting randomness	Believing that nothing occurs by accident, so that random events are re-interpreted as being caused by the conspiracy.	“NASA’s satellite exploded? They must be trying to hide inconvenient data!”