University of Macerata English 2M-1 29/09/2022

1. **Logical fallacies**—combined with our incessant desire to make sense of our world.

often derive from an oversimplification of a complex situation, or

an inability to perceive things as they are, or

a desire to believe things which are unsubstantiated, or

excessive belief in a person or a group, or

the intention to deceive.

1. **Consider the following general concepts of—**
2. climate change
3. medicine and health remedies
4. science
5. religious belief
6. the spiritual world
7. education
8. economics
9. **Examples of a contention that may or may not be fallacious:**

Since mankind has an effect on the environment and the temperature is rising, we know that it is human activity which is changing our climate.

My bones creak and are sore whenever it is humid because I am old and my bones are brittle and dry.

The earth is the center of the universe because that is how it is explained by the bible.

Planets move in retrograde because of the division of the heavens into an endless succession of spheres.

I can feel my grandmother near me when I am suffering from anxiety because, at a certain point, all my fears vanish and I am left with a sensation of complete calm and tranquility.

Everyone knows that educated people aren’t fascists, so we ought to invest as much as we can into university because that will keep us from ever becoming fascists.

Capitalism is wholly inappropriate because it is predicated upon exploitation and causes people to become either masters or slaves.

1. **Political notions that widely accepted and largely false (**you are welcome to disagree for I am the least of earth’s creatures and far from infallible**).**

*State funded universities have drastically lower admission fees and, therefore, constitute the fairest way to organize higher education.*

**Alternative notion:**

1. State subsidized university exploits the poor.
2. More children of rich parents attend university.
3. The regressive tax system (IVA, etc.) means that the poor already pay proportionally more than the rich.
4. The government taxes the poor to send the rich to university where they become more affluent because of increased qualifications and skills.

*Setting a minimum wage is the fairest way to employ people and ultimately protects the weakest members of society from exploitation.*

**Alternative notion**:

1. Minimum wages for work do not benefit the poor.
2. Promotes illegality as employers break the law and pay workers less than the government requires.
3. Keeps poor, unskilled workers out of work because they are not economically viable to industry at the government mandated wage rate.
4. Allows other factors to determine who will work thus promoting discrimination based on race and gender.
5. Keeps the poor underemployed and incapable of gaining skills that translate into higher wages.
6. Makes industry less productive on the world market and thus reduces employment at home.

*Democracies are better than other forms of government because people would never vote to fight a war where the combatants were made up of its citizens.*

**Alternative notion**:

The United States of America has fought wars in 1776, 1812, 1846, 1898, 1916, 1941, 1950, 1962, 1990, 2001 and is the one of the oldest democracies in the world. What does this say about the relative pacifism inherent to democracy?

1.

2.

3.

4.

1. **Writing exercise:**

Please look at number 1). Use this statement as the basis of your essay. It should have an introductory paragraph with a statement of your thesis. That thesis will be about why people make logical errors in their arguments. You will then write a paragraph, with an appropriate example, of each of the five reasons listed. Then you should conclude with a brief paragraph which states how your original thesis was sufficiently demonstrated. In this final paragraph, you might add one more idea that you did not discuss previously.

Your essay should be about 500 words long and you must submit your work today. I will partially correct your essays for next week and you will be responsible for a final draft in two weeks.

1. **Logical Fallacies—this is a very boring list which you should read but, absolutely, do not have to memorize.**
2. [Appeal to the stone](https://en.wikipedia.org/wiki/Appeal_to_the_stone) (*argumentum ad lapidem*) – dismissing a claim as absurd without demonstrating proof for its absurdity.
3. [Argument from ignorance](https://en.wikipedia.org/wiki/Argument_from_ignorance) (appeal to ignorance, *argumentum ad ignorantiam*) – assuming that a claim is true because it has not been or cannot be proven false, or vice versa.
4. [Argument from incredulity](https://en.wikipedia.org/wiki/Argument_from_incredulity) (appeal to common sense, *argumentum ad ignorantiam*) – "I cannot imagine how this could be true; therefore, it must be false."
5. [Argument from repetition](https://en.wikipedia.org/wiki/Ad_nauseam) (*argumentum ad nauseam*, *argumentum ad infinitum*) – signifies that it has been discussed extensively until nobody cares to discuss it anymore; sometimes confused with [proof by assertion](https://en.wikipedia.org/wiki/Proof_by_assertion)
6. [Argument from silence](https://en.wikipedia.org/wiki/Argument_from_silence) (*argumentum ex silentio*) – where the conclusion is based on the absence of evidence, rather than the existence of evidence.
7. [Argument to moderation](https://en.wikipedia.org/wiki/Argument_to_moderation) (false compromise, middle ground, fallacy of the mean, *argumentum ad temperantiam*) – assuming that the compromise between two positions is always correct.
8. [Begging the question](https://en.wikipedia.org/wiki/Begging_the_question) (*petitio principii*) – providing what is essentially the conclusion of the argument as a premise.

“Men exploit women because women make less money.”

1. [Shifting the burden of proof](https://en.wikipedia.org/wiki/Philosophic_burden_of_proof) (see – *onus probandi*) – I need not prove my claim, you must prove it is false.

“You are white and a man, therefore you are a racist. That is an assertion of fact which you must disprove because all white men are racists.”

1. [Circular reasoning](https://en.wikipedia.org/wiki/Circular_reasoning) (*circulus in demonstrando*) – when the reasoner begins with what he or she is trying to end up with; sometimes called *assuming the conclusion*.
2. [Circular cause and consequence](https://en.wikipedia.org/wiki/Circular_cause_and_consequence) – where the consequence of the phenomenon is claimed to be its root cause.
3. [Continuum fallacy](https://en.wikipedia.org/wiki/Continuum_fallacy) (fallacy of the beard, line-drawing fallacy, sorites fallacy, fallacy of the heap, bald man fallacy) – improperly rejecting a claim for being imprecise.
4. [Correlative-based fallacies](https://en.wikipedia.org/wiki/Correlative-based_fallacies)
   1. [Correlation proves causation](https://en.wikipedia.org/wiki/Post_hoc_ergo_propter_hoc) (*post hoc ergo propter hoc*) – a faulty assumption that because there is a correlation between two variables that one caused the other.

“If women made as much as men it would prove that the patriarchy did not exist.”

* 1. [Suppressed correlative](https://en.wikipedia.org/wiki/Suppressed_correlative) – where a correlative is redefined so that one alternative is made impossible.

1. [Divine fallacy](https://en.wikipedia.org/wiki/Divine_fallacy) (argument from incredulity) – arguing that, because something is so incredible/amazing/understandable, it must be the result of superior, divine, alien or paranormal agency.
2. [Double counting](https://en.wikipedia.org/wiki/Double_counting_(fallacy)) – counting events or occurrences more than once in probabilistic reasoning, which leads to the sum of the probabilities of all cases exceeding [unity](https://en.wikipedia.org/wiki/Unity_(number)).
3. [Equivocation](https://en.wikipedia.org/wiki/Equivocation) – the misleading use of a term with more than one meaning (by glossing over which meaning is intended at a particular time).
   1. [Ambiguous middle term](https://en.wikipedia.org/wiki/Ambiguous_middle_term) – a common ambiguity in syllogisms in which the [middle term](https://en.wikipedia.org/wiki/Middle_term) is equivocated.
   2. Definitional retreat – changing the meaning of a word to deal with an objection raised against the original wording.[[1]](https://en.wikipedia.org/wiki/List_of_fallacies#cite_note-Pirie2006-1)
4. [Ecological fallacy](https://en.wikipedia.org/wiki/Ecological_fallacy) – inferences about the nature of specific individuals are based solely upon aggregate statistics collected for the group to which those individuals belong.

“Black Americans are so oppressed by the white patriarchy that they are far less likely to get vaccinated against COVID-19.”

1. [Etymological fallacy](https://en.wikipedia.org/wiki/Etymological_fallacy) – which reasons that the original or historical meaning of a word or phrase is necessarily similar to its actual present-day usage.
2. [Fallacy of accent](https://en.wikipedia.org/wiki/Accent_(fallacy)) – a specific type of ambiguity that arises when the meaning of a sentence is changed by placing an unusual prosodic stress, or when, in a written passage, it's left unclear which word the emphasis was supposed to fall on.
3. [Fallacy of composition](https://en.wikipedia.org/wiki/Fallacy_of_composition) – assuming that something true of part of a whole must also be true of the whole.

“Since white racists exist all whites are racists.”

1. [Fallacy of division](https://en.wikipedia.org/wiki/Fallacy_of_division) – assuming that something true of a thing must also be true of all or some of its parts.
2. [False attribution](https://en.wikipedia.org/wiki/False_attribution) – an advocate appeals to an irrelevant, unqualified, unidentified, biased or fabricated source in support of an argument.

“The Covid-19 epidemic was not caused by research in Wuhan, funded by the NIH, which specifically sought to test the possibilities of integrating human infectious diseases with a SARs-like bat virus.” Said the head of the research department in charge of Wuhan testing about the origin of the pandemic.

“Treatment of COVID-19 infection with ivermectin is totally useless and therefore part of a conspiracy to discredit the efficacy of the vaccine.” Before the WHO accredited the drug (last week) for its utility against the symptoms of COVID-19 infection.

* 1. [Fallacy of quoting out of context](https://en.wikipedia.org/wiki/Fallacy_of_quoting_out_of_context) (contextomy, quote mining) – refers to the selective excerpting of words from their original context in a way that distorts the source's intended meaning.

1. [False authority](https://en.wikipedia.org/wiki/False_authority) (single authority) – using an expert of dubious credentials or using only one opinion to sell a product or idea. Related to the [appeal to authority](https://en.wikipedia.org/wiki/Appeal_to_authority) fallacy.
2. [False dilemma](https://en.wikipedia.org/wiki/False_dilemma) (false dichotomy, fallacy of bifurcation, black-or-white fallacy) – two alternative statements are held to be the only possible options, when in reality there are more.
3. [False equivalence](https://en.wikipedia.org/wiki/False_equivalence) – describing a situation of logical and apparent equivalence, when in fact there is none.
4. [Fallacy of many questions](https://en.wikipedia.org/wiki/Loaded_question) (complex question, fallacy of presupposition, loaded question, *plurium interrogationum*) – someone asks a question that presupposes something that has not been proven or accepted by all the people involved. This fallacy is often used rhetorically, so that the question limits direct replies to those that serve the questioner's agenda.
5. [Fallacy of the single cause](https://en.wikipedia.org/wiki/Fallacy_of_the_single_cause) (causal oversimplification) – it is assumed that there is one, simple cause of an outcome when in reality it may have been caused by a number of only jointly sufficient causes.

“There's a coronavirus loose **in** Wuhan. How did that happen? Maybe **a bat flew into the cloaca** of a turkey and then it sneezed **into** my chili.” Jon Stewart discussing the absurd argument on how a non-human pathogen began to infect humans.

1. [Furtive fallacy](https://en.wikipedia.org/wiki/Furtive_fallacy) – outcomes are asserted to have been caused by the malfeasance of decision makers.
2. [Gambler's fallacy](https://en.wikipedia.org/wiki/Gambler%27s_fallacy) – the incorrect belief that separate, independent events can affect the likelihood of another random event. If a fair coin lands on heads 10 times in a row, the belief that it is "due to the number of times it had previously landed on tails" is incorrect.
3. [Historian's fallacy](https://en.wikipedia.org/wiki/Historian%27s_fallacy) – occurs when one assumes that decision makers of the past viewed events from the same perspective and having the same information as those subsequently analyzing the decision. (Not to be confused with [presentism](https://en.wikipedia.org/wiki/Presentism_(literary_and_historical_analysis)), which is a mode of historical analysis in which present-day ideas, such as moral standards, are projected into the past.)
4. [Historical fallacy](https://en.wikipedia.org/wiki/Historical_fallacy) – where a set of considerations holds good only because a completed process is read into the content of the process which conditions this completed result.

The entire Marxist argument about eventual advent of Socialism/Communism.

1. [Homunculus fallacy](https://en.wikipedia.org/wiki/Homunculus_fallacy) – where a "middle-man" is used for explanation, this sometimes leads to regressive middle-men. Explains without actually explaining the real nature of a function or a process. Instead, it explains the concept in terms of the concept itself, without first defining or explaining the original concept. Explaining thought as something produced by a little thinker, a sort of homunculus inside the head, merely explains it as another kind of thinking (as different but the same).
2. Inflation of conflict – The experts of a field of knowledge disagree on a certain point, so the scholars must know nothing, and therefore the legitimacy of their entire field is put to question.
3. [Incomplete comparison](https://en.wikipedia.org/wiki/Incomplete_comparison) – in which insufficient information is provided to make a complete comparison.
4. [Inconsistent comparison](https://en.wikipedia.org/wiki/Inconsistent_comparison) – where different methods of comparison are used, leaving one with a false impression of the whole comparison.
5. [Intentionality fallacy](https://en.wikipedia.org/wiki/Intentional_Fallacy) – the insistence that the ultimate meaning of an expression must be consistent with the intention of the person from whom the communication originated (e.g. a work of fiction that is widely received as a blatant allegory must necessarily not be regarded as such if the author intended it not to be so.)
6. [*Ignoratio elenchi*](https://en.wikipedia.org/wiki/Ignoratio_elenchi) (irrelevant conclusion, missing the point) – an argument that may in itself be valid, but does not address the issue in question.
7. [Kettle logic](https://en.wikipedia.org/wiki/Kettle_logic) – using multiple, jointly inconsistent arguments to defend a position.
8. [Ludic fallacy](https://en.wikipedia.org/wiki/Ludic_fallacy) – the belief that the outcomes of non-regulated random occurrences can be encapsulated by a statistic; a failure to take into account [unknown unknowns](https://en.wikipedia.org/wiki/There_are_known_knowns) in determining the probability of events taking place.
9. [Moralistic fallacy](https://en.wikipedia.org/wiki/Moralistic_fallacy) – inferring factual conclusions from purely evaluative premises in violation of [fact–value distinction](https://en.wikipedia.org/wiki/Fact%E2%80%93value_distinction). For instance, inferring *is* from *ought* is an instance of moralistic fallacy. Moralistic fallacy is the inverse of naturalistic fallacy defined below.
10. [Moving the goalposts](https://en.wikipedia.org/wiki/Moving_the_goalposts) (raising the bar) – argument in which evidence presented in response to a specific claim is dismissed and some other (often greater) evidence is demanded.
11. [Naturalistic fallacy](https://en.wikipedia.org/wiki/Naturalistic_fallacy) – inferring evaluative conclusions from purely factual premises[[50]](https://en.wikipedia.org/wiki/List_of_fallacies#cite_note-nat-fal-50) in violation of [fact–value distinction](https://en.wikipedia.org/wiki/Fact%E2%80%93value_distinction). For instance, inferring *ought* from *is* (sometimes referred to as the [*is-ought fallacy*](https://en.wikipedia.org/wiki/Is%E2%80%93ought_problem)) is an instance of naturalistic fallacy. Also [naturalistic fallacy](https://en.wikipedia.org/wiki/Naturalistic_fallacy) in a stricter sense as defined in the section "Conditional or questionable fallacies" below is an instance of naturalistic fallacy. Naturalistic fallacy is the inverse of [moralistic fallacy](https://en.wikipedia.org/wiki/Moralistic_fallacy).
12. [Nirvana fallacy](https://en.wikipedia.org/wiki/Nirvana_fallacy) (perfect solution fallacy) – when solutions to problems are rejected because they are not perfect.
13. [*Post hoc ergo propter hoc*](https://en.wikipedia.org/wiki/Post_hoc_ergo_propter_hoc) Latin for "after this, therefore because of this" (faulty cause/effect, coincidental correlation, correlation without causation) – X happened, then Y happened; therefore X caused Y. The Loch Ness Monster has been seen in this loch. Something tipped our boat over; it's obviously the Loch Ness Monster.[[53]](https://en.wikipedia.org/wiki/List_of_fallacies#cite_note-FOOTNOTEDamer2009180-53)
14. Conditional or questionable fallacies

* [Appeal to authority](https://en.wikipedia.org/wiki/Appeal_to_authority) (argument from authority, *argumentum ad verecundiam*) – a form of [defeasible](https://en.wikipedia.org/wiki/Defeasible_reasoning) argument in which a claimed authority's support is used as evidence for an argument's conclusion. The argument may actually be cogent when all sides of a discussion agree on the reliability of the authority in the given context. *See the* [*Red herring fallacies*](https://en.wikipedia.org/wiki/List_of_fallacies#Red_herring_fallacies) *section, above, for the fallacious variant.*
* [Broken window fallacy](https://en.wikipedia.org/wiki/Broken_window_fallacy) – an argument that disregards lost opportunity costs (typically non-obvious, difficult to determine or otherwise hidden) associated with destroying property of others, or other ways of externalizing costs onto others. For example, an argument that states breaking a window generates income for a window fitter, but disregards the fact that the money spent on the new window cannot now be spent on new shoes.
* [Definition fallacy](https://en.wikipedia.org/wiki/Definist_fallacy) – involves the confusion between two notions by defining one in terms of the other.
* The ends justify the means – an assertion that may or may not be defensible depending on the ends and means in question. The various approaches to this sort of question are the subject of the normative ethical theories of [consequentialism](https://en.wikipedia.org/wiki/Consequentialism).
* [Naturalistic fallacy](https://en.wikipedia.org/wiki/Naturalistic_fallacy) – attempts to prove a claim about ethics by appealing to a definition of the term "good" in terms of either one or more claims about natural properties. The naturalistic fallacy also has a more general version, covered in the ["Red herring fallacies" section](https://en.wikipedia.org/wiki/List_of_fallacies#Informal_fallacies), above.[[](https://en.wikipedia.org/wiki/List_of_fallacies#cite_note-fallacyfiles.org-82)
* [Slippery slope](https://en.wikipedia.org/wiki/Slippery_slope) (thin edge of the wedge, [camel's nose](https://en.wikipedia.org/wiki/Camel%27s_nose)) – asserting that a relatively small first step inevitably leads to a chain of related events culminating in some significant impact/event that should not happen, thus the first step should not happen. It is, in its essence, an appeal to probability fallacy.