

Zen and the art of understanding the Middle East

Zen and the Art of Understanding the Middle East

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and

The Fallacy Recognition Handbook

by Michael LaBossiere

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Introduction

Man is a unique animal in that most of what humans know is derived from others. We know about history that occurred before we were born only from records left by others. We know about events that occur in other parts of the world through accounts of others. We count on scientists and technical experts to tell us things about the physical world in language we can understand. We cannot usually investigate any of this knowledge.

When others try to fool us, or we try to fool ourselves, we can be easily led astray. The chances of being fooled are greater as the possibility for first hand investigation decreases. If someone tells you there is a bear in your bedroom, you can go and check if there is a bear there. If someone tells you there is life on the far side of the moon, you cannot check it so easily.

When we are called upon to make judgements about matters we don't understand, we rely on authorities. In a recent poll, it was found that over 20% of American voters had heard little or nothing about Iran and the Iranian nuclear development project. Yet, among this group that professed ignorance, 77% said that they favored sanctions against Iran, similar to the 78% who favored sanctions among the group who claimed to know about the subject! Those had not heard much, as those who had heard, apparently got their opinions from authorities, "people who should know."

Sellers' Markets in Information and Solutions

There are markets for information, as with anything else, and the laws of supply and demand apply. Not many people are usually interested in subjects like Tudor England or quantum wave mechanics. The supply of information generally exceeds the demand, and the buyers are usually fairly expert in the subject and can tell hoaxes and counterfeits from the genuine article. They are willing to pay the price of learning in order to acquire the information, and it is usually pretty steep. Learning is often BORING. It is hard work.

There is an insatiable demand for information about other subjects such as how to get rich in the stock market, how to cure cancer, how to be slim, how to attract women etc. The buyers are much more numerous than the sellers. Often they do not have the time, capability or inclination to afford the price of learning needed to acquire the information. The demand exceeds the supply. This attracts charlatans who manufacture counterfeits. The counterfeits, like the watches sold on the Internet, are inexpensive to acquire. Why pay \$5000 for a watch that you can buy for \$200? Why spend four years earning a university diploma, when you can get one through the e-mail in two weeks? Why spend time reading lots of boring books about the Middle East, when you can acquire the knowledge from a single article or easy to read book that identifies the villains and the good guys without a lot of boring facts? As one "historian" (Ilan Pappé) put it:

[V]ery pedantic and empiricist historians like to argue and to waste a lot of ink so to speak on figures, on numbers, as if the numbers are really important for the construction of myth, or if you have the accurate number you can destroy a myth or debunk it and I don't think it's very true.

(Quoted in a film about the Latrun battle and originally posted on the Web here - <http://www.olinfilms.com/latrun/script.html>)

Facts are boring. Facts are for pedants. The important thing is to create a myth that people believe.

The sellers market for information and solutions is particularly acute when there is no solution in sight, and the demand is very great. People who claimed they could turn lead into gold were in great demand in the Middle Ages, and people who claim they can create controlled nuclear fusion to produce power are in great demand today. Medicines that promise to keep you young are also in great demand. None of these solutions really work, but people hungry for good news will "buy" them. Solutions for the problems of the Middle East, like philosopher's stones that will turn lead to gold, are in great demand and each has its enthusiasts.

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It is difficult or impossible to get an unbiased jury about the Middle East or any other political subject. An analyst or researcher who is writing about quantum physics or molecular biology generally wants to understand or explain these subjects. A historian or analyst writing about Israelis and Palestinians or Iraq, is often writing in order to advance a particular view point and to assemble "facts" that will convince you that one side or the other is right, rather than to enhance your understanding or their own understanding. Ever since Thucydides and the Old Testament, histories are supposed to be "edifying." If history does not have a "moral of the story" then it is a "tale full of sound and fury, signifying nothing." The facts must be arranged to show the triumph or righteousness of the Jews, the Arabs, the Muslims, God, the Christians, the Athenians or the working class or good over evil. Facts and figures are for pedants. The important thing is to create myths and to weave intriguing tales. In every tale, there must be a villain and a hero, and every tale must have a happy end.

The Middle East is a far away region that is not well known in Europe, East Asia and the Americas. Most of the time, it has the same relation to the lives of most people in those countries as the boiler room of the Titanic had to the passengers of the ship. It is another place in the ship of the world, where people do things, such as extracting oil from the earth (or transporting spices in bygone days), which are necessary, but no concern or interest of yours.

However, when the iceberg hit the engines, the engine room of the Titanic became a place that attracted interest. When Middle East politics make tall buildings fall in New York or there are spectacular wars or terror attacks, there is a sudden demand for information about this Middle East place. Middle East web sites that are generally neglected in favor of sites that specialize in sex, commerce and sex commerce, are suddenly hosts to tens of thousands of visitors a day. Books that "explain" the events, which would otherwise gather dust in libraries, become best sellers. Too often, the Web sites and books convey a point of view rather than information. They sow disinformation and bias rather than increasing understanding.

The Will to Believe and Selective vision

Each side in a conflict has its gurus, and is a sellers' market for people of the same opinion. It is comforting to read facts or opinions that agree with your ideas, and unsettling to be confronted with facts that do not fit. This behavior is supported both by emotional and cognitive mechanisms. We each want to belong to a group and to get positive reinforcement for our beliefs. We each have constructed a "theory" of the world, and our perceptions and memories are based on that theory or schema.

In the very well known Ash experiment, subjects are asked to judge which lines are of equal length. When a group of people deliberately choose the incorrect pair of lines, the subject's judgement is influenced dramatically. About a third of the subjects will bow to group pressure and choose the pair of lines that is grossly unequal in length. People tend to believe what others believe.

We see what we are prepared to see. New learning is based on old learning. Experiments in memory and perception show that people tend to ignore or distort bizarre facts in story, because they don't fit with their own ideas. If I tell you that I went to the grocery to buy a bottle of milk and met a nice unicorn on the way who told me about a treasure, when you retell the story the unicorn might become a dog who barked or an old man who told me about the treasure.

Not surprisingly, the facts of Middle East events become distorted both by inadvertance and by intention. What happened five minutes ago is already history by the time you hear about it, and it has already been worked over through the eyes of the reporters. Immediately after the failure of the Washington and Taba peace talks in 2000 and 2001, two "histories" were created. One history that was partial to the Palestinians blamed the Israelis, while the other history, partial to the Israelis, blamed the Palestinians. When there is a Palestinian terror attack and an Israeli reprisal, the partisans of one side will focus on the Palestinian attack, while the partisans of the other side will focus only on the reprisal. What do you remember about the events of the summer of 2006? Do you remember that Hezbollah attacked Israel, or do you remember that Israel attacked Lebanon?

Rules of Thumb

For those without the time or patience to get into details, following are a few rules of thumb that will serve you well in distinguishing hoaxes from reality. All of these rules are common sense, but you would be surprised how often these rules are ignored. The people who peddle fake watches, get rich quick stock tips, and potions that are supposed to make you live forever all make a living because their victims do not follow the rules. Tyrants and dictators and cultists could not flourish if people really followed these rules.

Here are the most important ones:

- Be skeptical
- Don't be convinced by a single source
- Check the nature and bias of sources
- Do not spread rumors
- Remember that there have to be two sides to every story. Be sure to get both of them.
- Don't trust "alternative sources" unless there is a good reason. The truth may be "out there," but they generally do not have it.
- Check information and basic facts.
- Beware of slogans and catchwords like "justice," "legal," "holy."
- Beware of misuse of documents, quotes and statistics - they often seem very persuasive
- Pictures are very convincing, but they can be very misleading
- Don't be swayed by appeals that rest only on emotion.
- Don't adopt an opinion just because it is popular or politically correct.

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Be skeptical - Don't believe anything until you are pretty sure it is true, especially about supposed information that confirms your point of view or tells you something you wish were true. If someone promises to make you rich with a tiny investment, it is probably a swindle, and if someone tells you something you really want to believe about the Middle East, it is very possibly false.

Don't spread rumors - Never disseminate rumors or opinions that come in unsigned e-mails, are written up in books of doubtful repute or at obscure Web sites, unless you can check out the facts that they cite.

Single source - Never believe information that comes only from one source and that cannot be confirmed.

Two sides of the story - Never believe a media story that did not ask for comment by all concerned parties. Be skeptical about a media story that tells only one side. There almost always has to be another side to every story. BBC lost its credibility when it chose to exclusively highlight stories of suffering from Lebanon in the Hezbollah-Israel war of 2006, and ignored fatalities and destruction inflicted by the Hezbollah. Always look for a description of the same event from different sources: a "neutral" source, a source that supports one side in the conflict, and a source that supports the other side. If the Egyptian newspaper Al Ahram states that Israel is injecting Palestinian children with AIDS virus, check if this "story" (untrue) made the New York Times or an Israeli newspaper.

Who is the source? Who are we talking about - Always check the political bias of a source of information or commentator. If an organization is mentioned in a story, such as the Hezbollah "militants" or the Hamas "resistance," you can and should check the charter and activities of that organization, especially if the organization is disseminating the story.

"The truth is out there - But where?"

Always be skeptical about the claim that "Main Stream Media" are deliberately suppressing news stories. Media are usually hungry for news. If a story is not carried by a major media outlet, be suspicious! If only Al-Jazeera circulated a story that the USA used nuclear weapons in Iraq, and the story didn't appear in the New York Times or CNN or the BBC, it is not because these other outlets are run by "Zionists" or "Neocons."

Likewise be skeptical about claims that peer-reviewed scientific journals suppress the truth. It has happened, but it is far more likely that the person making the claim for controlled fusion, or depleted uranium scare stories, or secret poisons in the drinking water that were put there by communists, capitalists or Zionists, is a quack. Peer reviewed science produced penicillin, cardiac stents, vaccines, x-rays and atom bombs. Charlatan science produced Orgone boxes, snake oil salesmen and fake cures for cancer like Laetrile. Which are you going to believe?

Use and misuse of words

Words shape Middle East history. (see <http://www.mideastweb.org/wordhistory.htm>). Use of a word in a treaty or a description can create a fact, and that fact becomes a contention in the conflict. If someone writes "West Bank" they are possibly of a different political persuasion than someone who writes "Judea and Samaria." From the historical point of view, there was no West Bank before 1945 approximately, but maps of Israel and Palestine have shown "Judea" and "Samaria" ever since there were maps. In the hands of propagandists, "illegal" becomes synonymous with "bad." For example, the British prevented Jewish immigration to Palestine after 1939, and therefore most immigration was "illegal" as Palestinians often point out. However, the prohibition itself was "illegal" since it violates the terms of Mandate of the League of Nations. "Illegal" is not synonymous with "immoral." If the something is declared illegal, ask if the law has been applied equitably. The law treats rich and poor alike, - it forbids both to sleep on park benches.

Beginning in 1967, the Israeli government and the Israeli army controlled the West Bank (Judea and Samaria) and Gaza. Israeli troops were recently withdrawn from Gaza. These territories are called "occupied" by some and "disputed" by others, depending on which side they support in the conflict, but the facts remain precisely the same. Occupations are not illegal under international law, and nobody has ruled or declared that Israeli occupation of these areas is illegal, yet many articles and activist groups write about the "illegal occupation."

A "right" sounds like a good thing. If someone talks about a "right guaranteed under international law" it sounds even better. But the law is not always clear, some rights take precedence over others, some rights are not applicable to given situations, and some "rights" are not rights at all. The *droit du seigneur* is a famous right and well established, also known as *Jus primae noctis*.

It is the right of ancient Roman nobles and medieval lords to spend the first night with brides of their subjects. The "right of return" of refugees claimed by Palestinians is not clearly established in international law. The right of self-determination takes precedence over it. "Right of return" has more power as a slogan than as a legal argument.

Slogans - If a story or narrative is studded with slogans and value-laden pejorative terms, you are looking at propaganda, not a source of facts. "Apartheid wall," "colonialists," "Zionazis," "Arab Jihadis" and other such terms are usually signs that the article or book was written to convince rather than enlighten.

False information signals more false information

You can't know everything, but you do know some things. If a story or narrative includes some "facts" that you know are not true, the value of the rest of the item is in doubt. Journalist A certain journalist apparently invented stories about the Middle East conflict, which he published as news accounts. In one of them, he relates that he saw an orthodox Jewish settler put on his kippah before killing Arabs. Since orthodox Jews must always wear their skull caps, this story sounded very unlikely. A Web site that captions a picture "Jabotinsky in his Fascist uniform" and shows Jabotinsky in a uniform of the World War I Jewish Legion, is not a reliable source of information. That doesn't mean you cannot learn anything from it, but be careful!

Check information - The World Wide Web is becoming an increasingly valuable source of information, that can be used to check out claims and counter claims. If someone presents a "study" showing that cholesterol levels are unrelated to heart disease. If someone tells you to vote for candidate X rather than candidate Y because candidate X is bad for your favorite cause, check the voting record of candidate X and candidate Y before deciding. A good encyclopedia or history book is also useful for checking facts.

Technical whiz-bang

Be careful regarding technical claims if you do not understand the technical background, and don't be afraid to admit your ignorance. A few years ago a story was circulated in the New York Times and Jane's claiming that Israel was developing a biological weapon that would selectively target Arabs, based on genetic engineering. This story had begun its life as a science fiction entry written for a popular Israeli daily, but it was believed by intelligent and respectable people who had no understanding of genetics. Anyone who had taken an introductory course in human genetics and remembered it, would know that the human gene pool is hopelessly intermixed, and that there are no national groups that have uniform genetic weaknesses that could be attacked by a biological agent.

Understand the Context

Quotes - Quotes are often misleading or out of context, and there is a great traffic in fake quotes. Be suspicious if an article is based primarily on quotes, especially if there are ellipses (...) in the quotes. These are often used skillfully to make the speaker seem to say the opposite of what they really said. Thus, for example, Noam Chomsky could make it seem that Anthony Lewis wrote that Yitzhak Rabin wanted a Palestine that was poor and small, by selective quoting and creative use of ellipses. Others have made it seem that Moshe Dayan said that all the land settled by Jews was stolen from the Arabs, by omitting the phrase in his speech where he specifically noted that the land had been purchased. Words change their meaning and connotations over time. "Colonialism" is a "very bad" word today. 120 years ago it was quite acceptable in Western society. Colonialists were the good guys, and colonists were brave pioneers.

Misuse of source documents, references and articles - Numerous fabrications and distortions are based on the premise that people will not bother to check a source. Ilan Pappé wrote in his book, *The Making of the Israeli-Palestinian Conflict*, that Hagannah Plan Daled was a plan for permanently expelling the Arabs from Palestine. He never quotes from the document, because it is hard to find evidence for his claim in the document. In "The Iron Wall," Avi Shlaim gave the impression that there is a Zionist ideology of power, that was set down in an article by Zeev Vladimir Jabotinsky in an article called "The Iron Wall" written in 1923. This is the basis of Israeli foreign policy and military strategy according to Shlaim. Readers of the original article will note that it is about establishing a small Jewish self-defense force in mandatory Palestine and not about the modern IDF, and that Jabotinsky's views were rejected by the majority Zionist movement. These intentional distortions are cited repeatedly at third and fourth hand by people who never read the original documents.

Documents, like quotes, are sometimes unintelligible out of context. The Magna Carta is frequently cited as a charter of human rights, but those who succeed in reading it find it to be a farrago of medieval legal gobbledigook that provided rights to British nobles. It was only reinterpreted as a charter of legal rights for Englishmen by later generations.

Understanding the Cultural Context

Words and concepts that are translated the same way may have different meanings in different society. "People" (or community, *Ouma*) as in "Arabic

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Nation" or "Palestinian people" (Shaabi Filistiniyeh) does not have the same meaning as "people" as in "British people." There is an Arabic Ouma and a Muslim Ouma. There can be a British nation or people and an American people or a French people. There is no Christian people. "Arabic nationalism - a concept that embraces a number of sub-nations, doesn't mean the same thing as British nationalism or peoplehood. Separation of Church and State means something else in Europe where many states were born and separated from the same religion, and in the Middle East, where peoples and states were inextricably connected with religion. Cultural pluralism is the norm in Europe and the Americas. In the Middle East, societies and cultures are segmented. The differences in concepts and cultures can too easily be used to show that Middle Eastern cultures are "undemocratic" - because they don't institute the same sort of separation of church and state as exists in Western democracies, or "Apartheid" because they do not foster integration of cultures as is done in the West.

Lies, More Lies, Damn Lies and Newspapers

Caveat Lector - Let the reader beware of vicious op-eds. It is universally accepted that editorial writing does not have to tell the truth about facts, and it rarely does. It is absurd to write "in my opinion there was no Holocaust" or "in my opinion Israel received \$400 billion in US aid," because these are not assertions of opinion. They are false assertions of fact. It is perfectly acceptable to write such things in editorials, and people do it all the time. A two article series by Chris McGreal in the Guardian smeared Israel as an "Apartheid state" and made a number of provably false allegations. The Guardian editors had hyped the article with this introduction:

After four years reporting from Jerusalem and more than a decade from Johannesburg before that, the Guardian's award-winning Middle East correspondent Chris McGreal is exceptionally well placed to assess this explosive comparison. Here we publish the first part of his two-day special report

Clearly, anyone who read that introduction would think they are getting the straight goods, but it was not so.

Nevertheless a review board cleared McGreal of the obligation to be honest.

Readers would, in the Commission's view, be aware that this represented a particular – and polemical – approach to an extremely complicated subject, and that other versions of a historical account of the position in Israel would undoubtedly exist. It was clear from the manner in which the articles were presented that they represented the writer's personal thesis, based on his own experiences.

Really? Was that clear to you from the introduction above? If journals are not willing to adhere to elementary standards of honesty, the only thing one can do is use them to wrap fish and stuff cracks.

Attribution - A journalist can get away with any falsehood even in a news article by putting it in the mouth of someone else or quoting someone else. For example, "Report: US used nuclear weapons in Iraq," is an acceptable news headline. The report may be completely false. "There are no Arabs living in the Jewish quarter," according to a Palestinian I interviewed" Such an assertion appeared in the Guardian article written by Chris McGreal. Anyone reading the Guardian would think it was true, but it was not, and McGreal, who wrote it, could hide behind the defense of "attribution." He didn't say it - someone else did. He didn't take care to check the facts and present them either of course, because they contradict his thesis. If the attribution is to a "reliable source" it may be even more suspicious.

Beware of Generalizations

Beware of articles and theses that base themselves on a unitary concept of "the Arab mind," "Islamic thought" or "Jewish thought" or "Zionist thought" as if there were only one individual of each kind, or all of them thought alike, without exception at all times. Arab thought, Islamic thought, Jewish thought and Zionist thought (or anything else thought) are each universes of logical and cultural constructs. Ideas within each universe are related to each other, but not the same, and they evolve over time. It is useful to talk about Arab culture or Jewish Culture and to talk about the many facets of these cultures. It is very misleading to try to characterize any group as a whole or to reach conclusions about what the group "wants." "'The Jews' want to dispossess the Arabs' or "'The Arabs' want to kill all the Jews' are both statements that are not likely to be literally true, though many Arabs and Jews may have ill feeling toward each other.

Theology and scripture

Beware of arguments based on theology and scripture, unless you are really thoroughly acquainted with both. Scripture is subject to interpretation as well as mistranslation. Does the Qur'an really say that Islam will vanquish other religions, or does it say that the truth of Islam will "prevail"? Are Muslims really forced by their religious beliefs to conquer the entire world? If so, why haven't they tried to do so for most of history?

The Qur'an says this about religious compulsion:

In Sura 2, al-baqarah (the Cow):

256: There is no compulsion in religion. True guidance has been made clearly distinct from error. Therefore, whoever renounces 'Taghut' (forces of Satan) and believes in Allah has grasped the firm hand-hold that will never break. Allah, Whose hand-hold you have grasped, hears all and knows all.

But elsewhere in Sura 2 The Quran states:

190: Fight in the cause of Allah with those who fight against you, but do not exceed the limits. Allah does not like transgressors...

193: Fight against them until there is no more disorder and Allah's supremacy is established. If they desist, let there be no hostility except against the oppressors.[193]

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So there is "no compulsion," but one must fight until Allah's supremacy is established. We can quote different parts of any holy book to prove any point we wish to prove, and it has been done on many occasions.

Do Jews really put out the eyes of offenders? Why not? It says so in the Torah, doesn't it? "An eye for an eye and a tooth for a tooth." But what is written, and the way it is interpreted by different believers, are different things. Are all Christians who support Israel fanatics who believe in converting the Jews and in starting a war in order to bring about the coming of the Messiah? Ask Christians who support Israel, and you will get many different opinions.

Misleading Statistics

Nothing has greater power to convince than numbers, and nothing has more credibility than statistics about population, land ownership and the like. The unsuspecting reader can have no inkling that the numbers have been doctored, or that the basis of the numbers is dubious. Half a dozen sources regarding the "population of Palestine" in Ottoman times will give half a dozen widely differing numbers for various reasons. Depending on their point of view they may inflate census figures, count different parts of the land (there was no entity called "Palestine" before 1917) or rely on dubious sources (see <http://www.mideastweb.org/palpop.htm>). Common sense and first hand experience must prevail against fantastic assertions that there were no Jews in Palestine under the Ottomans or no Arabs. People whose families lived in the country at the time know that there were both Jews and Arabs here.

For political reasons, some want to make the case that the Arab birth rate in Israel is very high. Others want to make the case that it is much lower. Sure enough, each group can "prove" that they are right, presenting cut and dried statistics that contradict each other.

Always double check statistics against other sources before believing an argument based on statistics.

Dozens of books, articles and Web sites make the claim that about 45% of the land of Palestine in 1948 was "Arab Land" or government land, while only 8% was "Jewish land." They do not tell you that most of the "Arab Land" was not owned by individual Arabs. It belonged to villages or it belonged to the crown and was leased to specific persons or it was held in common. The British could not sort out the ownership rights, and so they listed all the land that was used by Arabs as "Arab Land" for tax registration purposes. All the "Jewish land" was bought and paid for with properly registered deeds.

Smoke in your eyes: a picture can be worth a thousand lies

Photos are very persuasive. Show a destroyed building or a destroyed block and write beneath it "Beirut was destroyed" and people will believe it, even if every other building in Beirut is still standing. Smoke can be and has been added to photos to make them seem more dramatic.

The same picture can be labeled, "Israeli rocket landing in Tyre" or "Hezbollah rocket launched from Tyre," The aggressors are portrayed as the victims. The "errors" are made time and again by biased photographers in supposedly reputable news services.

The woman crying for her destroyed home is very convincing, but what if the same woman appears in several cities, crying for several different destroyed homes?

What is Missing?

Deceptive Summaries - Events and histories are like fractals. At each level there is more information. Unless you are reading an original source document, you are always reading a summary. Summaries can be misleading, intentionally or otherwise. A summary of the US Civil war never has the same "feel" as a book about the civil war, and a book about the war doesn't leave you with the same impression as a book about one battle or one general, and no two summaries will be quite alike, and there is always another level of detail.

What did they leave out? - Every report or history leaves out some facts and emphasizes others. That is legitimate and inevitable. However, deceptive reports and histories leave out important facts and focus your attention only on the things they want you to see. Like a magician doing a trick, they focus your attention on one place, while the real action is going on somewhere else. One person actually complained that a history was biased because it included too much information. He insisted it should have started from a later date and should have excluded information that was unfavorable to his cause! Many histories do that. If you see a history that describes Palestinian refugees (or Sudetensland refugees) in detail, but says nothing about the war that created them and how it started, the history is not telling you the whole truth. Suppose a man from Mars read a history of World War II that began, "Allied troops invaded Germany, destroyed and occupied its towns, Soviet artillery pounded Berlin into rubble. Constant allied bombings forced Germans to live in constant terror." What would he think?

At any time there is an infinity of facts that may or may not be important. In 1996 -1998, Americans were attending to Monica Lewinsky, the war in Yugoslavia and perhaps to the peace negotiations between Israel and Palestine. Few paid attention to the Fatwa of an obscure fanatic in Afghanistan, who vowed to fight America, Saudi Arabia and Israel. Osama Bin Laden's ignored religious edict became important news only after the terror attacks of September 11, 2001.

Interest groups can also manipulate and divert our attention. A dozen dead Israelis or a thousand dead Lebanese are somehow of greater importance than tens of thousands of dead in Chechnya or Darfur. The occupation of Palestine is top news, but the occupation of Tibet is not. Self-determination for Palestinians is a viable issue, but self-determination for Basques, Welsh people, Kurds or Tibetans is not. What is shown to be important and what is really important may be two different things.

Myth versus fact versus narrative

In history, what people believe to have happened, or believe is about to happen, is often more important than what really happened. It is at least as important to understand that many people thought Saddam Hussein was developing weapons of mass destruction as it is to understand that after the fact, no such weapons were found. But despite some uncertainty about every history, we can know with fair precision what really happened, and what was fabricated. The fabrications cannot claim equal recognition with facts as "another point of view." In 1939, the Germans claimed that their invasion of Poland was due to Polish "provocations," a border attack by Polish forces. In fact, the Nazi government faked the entire attack, dressing up dead people in uniforms. The claim is not another legitimate "narrative." The claim that Zionists massacred 500 people in Jenin in April of 2002 is not a "point of view" to be taken into account, any more than are claims that the Holocaust was fabricated, or that no Arabs lived in Palestine 100 years ago, or that Jews and Arabs lived together in Palestine in a paradise of equality prior to the arrival of the Zionists. They are all demonstrably false. Believing doesn't make it so.

The past was not like the present; the future will be different

The human mind is so constructed that we assume that the past and future were and will be like the present. We have no other experience, and no other standard by which to judge. This is one of the "idols" that Sir Francis Bacon described in his "Novum Organum" - it is an idol of the tribe, that is, a distortion of perception due to the fact that we are human, and judge everything by our standards. It gives rise to a great many errors.

The world my-grandparents was born into did not include automobiles, radio, electric light, penicillin, sulfa drugs, telephones, televisions, tanks, nuclear weapons, computers or i-pods. They were subjects of the Turkish Sultan and the Czar. Ottoman Turkey was still a world power. The Suez Canal was pretty new. The British flag flew in the farthest corners of Asia and everyone thought the Sun would never set on the British Empire. France and Germany were eternal enemies.

Our grandparents thought differently than we do, and they could not foresee the world as it is today. Families had many children, but only a few of them might reach adulthood. In the United States, the mean life expectancy of a person born in 1880 was 39.6, and in the Middle East it was somewhat less. About a quarter of all children died before reaching one year of age. The armed forces of the United States were segregated by color, and the school system was segregated. The greatest experts of the day offered "proof" of the biological inferiority of the "Negro race." In Jerusalem of 1880 there was no railroad and no running water and no electric lights of course.

Near the end of the nineteenth century, one observer noted that the number of horses in Western cities was growing at a tremendous rate, and predicted that the cities of the future would be clogged with horse droppings. It is somewhat difficult, when attempting to understand history, to get into the minds of people who lived at that time.

The world our grandchildren will be born into will be different from our world. We cannot predict all the ways in which it will be different. It is safe to say that alliances will change, demography of different countries and groups will change and cultures will change. We cannot take for granted that the Arab and Muslim

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peoples will always be enemies of the Jews of Israel, or that the United States will always be an ally of the State of Israel. Alliances and enmities are not eternal and rarely last more than a few generations. In 1970, Gamal Nasser was still vowing that he would never recognize Israel and never make peace with Israel. Less than a decade later, his successor was addressing the Israeli Knesset and calling for peace.

Fallacy Recognition in the Middle East

These pages include all of Mike LaBossiere's Fallacy Recognition Handbook. All of the bad logic he illustrates finds wide application in Middle East advocacy. This section discusses some of his points and examines how they might apply to the Middle East. You will certainly recognize "Two wrongs don't make a right" and "Red Herrings" in much Middle East advocacy.

Some of the fallacies in the handbook are due to true errors in logical inference, such as improper inference of cause and effect. However, others are not errors in logic at all. Many are illogical "hidden persuaders" that have nothing to do with logic, but rather appeal to emotion in different ways.

Fallacies and Arguments

Deductive logic, or reasoning from first principles, was the generally accepted mode of argument in the Medieval times. Mathematical proofs are examples of deductive arguments. If the original axioms are true, and the reasoning is correct, the result must be correct. The original axioms are usually true by definition.

Inductive arguments are generally credited to Sir Francis Bacon. Unlike deductive ("top down") reasoning, induction first generalizes laws from regularly occurring phenomena. It is the basis of scientific reasoning. Inductive arguments are attempts to generalize laws based on individual cases. They are arguments based on gathering of facts and empirical proofs. There is no "logical" proof for such arguments. "The Sun will rise tomorrow" is not a logically necessary consequence of the fact that the Sun rose on previous days. Inductive logic should only lead to statements of probability. "The Sun will very probably rise tomorrow based on past experience" is a reasonable statement.

LaBossierre gives the following example of a valid inductive argument:

Premise 1: Most American cats are domestic house cats.

Premise 2: Bill is an American cat.

Conclusion: Bill is domestic house cat.

However, the conclusion is only *probably* true. Bill could be a mountain lion.

LaBossierre gives the following example of a fallacious inductive argument:

Premise 1: Having just arrived in Ohio, I saw a white squirrel.

Conclusion: All Ohio squirrels are white.

(While there are many, many squirrels in Ohio, the white ones are very rare).

Actually, it would be equally false to say all Ohio squirrels are white, even if you had seen 100 white squirrels. All you could say is that most of the squirrels you saw were white, and therefore probably most squirrels in Ohio are white.

We can never be absolutely certain about an inductive generalization. That means that any statement about the real world cannot be taken as "absolute truth." We are even less certain about the explanation for any generalization. We know that heavy bodies fall by watching many heavy bodies fall. Sir Isaac Newton explained this phenomenon as due to attraction of masses, and wrote equations that described it. These fit the behavior of cannon balls and apples falling on Newton's head very well, but were shown eventually to be incorrect for describing some other phenomena. That is why Albert Einstein's much more complex relativistic theory of gravity is now accepted. A statement that any explanation "must" be true has to be wrong.

The probabilistic nature of explanations of real world phenomena have given rise to a great deal of mischief however. It opens the way to legitimizing any theory and any explanation because "you can never know." However, while you can't know what did happen with absolute certainty, you can be fairly certain of what did not happen.

Deduction masked as induction - In political polemics, many arguments and "studies" that appear to be inductive arguments based on facts, are really deductive arguments based on dubious first premises that are either incorrect assertions of fact or simply value judgements, and the arguments tend to be circular.

Zionists are evil and want to steal the land of the Palestinians. Therefore, if they built a "security fence" it must have been done with the intent of stealing the land of the Palestinian Arabs. It is an apartheid Wall. The Zionists built an apartheid wall, and that proves they are evil and want to steal the land of the Palestinian Arabs.

Palestinian Arabs are evil and want to destroy Israel. Therefore, if they propose a peace plan, it must be a trick. The Palestinian Arabs have proposed a peace plan, therefore it must be another trick to destroy Israel.

Cause and Effect

Confusing Cause and Effect . Questionable Cause and *Post Hoc, Ergo Propter Hoc* errors - These are errors in causal inference: wrongly assuming that if A happened before B, or A and B are associated, then A caused B, or that there is any causal relationship between them.

Remember that logically, there is no reason to accept empirical inductive truths in any case. There is no "logical reason" why heavy bodies should fall, and we have had different explanations for this phenomenon in different centuries. In quantum physics and explanations of wave mechanics, the problem of "causality" is even more complex, because according to some explanations there can be "synchronous" causation, in which events in one place somehow influence events in another, without there being a direct "causal" relation in the usual sense. Moreover, in wave mechanics, particles can travel backwards in time, so that the "A" that is the "cause" actually happened after the "B" that is the effect.

However the problem of induction in principle and the problems of quantum mechanics should be separated from errors made in conventional inductive inference itself. If A and B are associated, or A precedes B then:

1. A could cause B or
2. A and B could be caused by a third factor or
3. A and B could have happened by coincidence.

You can only differentiate the cases by repeated observations and by experimentation. Repeated observations allow you to eliminate the possibility of coincidence. If people always get sick after drinking from the river, the cause of the sickness is probably connected with the river. If all the water sources are polluted you may need to experiment. Experimentation may require a theory of how A and B are associated that predicts what will happen if you perform certain manipulations. If there are living things in the water that cause the illness, then boiling the water should prevent illness.

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If you mistakenly believe that A causes B when in fact they are both caused by a third factor, the error is called "Confusing Cause and Effect." If you mistakenly believe that A causes B when in fact their occurrence together was a coincidence, the error is called "Post Hoc, Ergo Propter Hoc."

Inference about cause and effect is especially difficult for historical and social phenomena and events. It is difficult to perform experiments in history. Moreover, the events may be unique, or there might be a very tiny sample size. Human written history is only about 5,000 years old, and there have only been a few dozen civilizations. In the nineteenth century, most of the wealth and power in the world were concentrated in a handful of European countries and the United States. Many concluded that this was due to the inherent superiority of the "white race." Apparently, it was due to the accident of the industrial revolution, which occurred first in Europe. An observer today might conclude (and some have) that technological backwardness and lack of democracy in Muslim countries are due to the nature of the Muslim religion. But an observer in the seventh century would have noted that the Arab Muslims had a flourishing and literate civilization, while Europeans were ruled by illiterate kings and had descended to barbarism.

Slippery Slope

This line of reasoning says, "if we allow X, it will lead to Y." The "domino theory" was an example of that sort of reasoning. If South Vietnam fell, we were told, all of East Asia would fall to the Communists. South Vietnam fell, but East Asia did not fall to the Communists.

In general, there is "no reason" why any event has to follow from any other, because there is no proven logical basis for induction. However, in exact sciences we can make predictions with a fair degree of confidence because:

1. We are usually judging individual cases and basing our predictions on a huge sample of other cases.
2. Laws of physics, chemistry and biology are accepted or rejected based on predictive validity - the laws are accepted because they are able to predict what will happen, therefore they are probably useful for making predictions, regardless of whether or not they are "true" in some absolute sense.

For example, "If you jump out the window you will inevitably fall and not fly" is a fairly safe prediction unless you are talking to Clark Kent (Superman), and it is true whether or not they fall because of Newton's law, Einstein's law or a different explanation. On the other hand, when exact sciences try to predict unique events such as global warming or a giant meteorite crashing into the earth, the predictions are less certain.

In history and sociology we are always trying to predict fairly unique events based on an insufficient sample. Many such arguments have been used in the Middle East and elsewhere and have proven false. Experts predicted that the Zionists could never create a state, that no Jews would come to it, that it would be economically non-viable, that it would be wiped out by Arab adversaries, that it would fall apart because of internal splits between Jews of different origins or that it would be swamped by the demography of more numerous Arabs. None of these predictions came to pass. "Experts" now predict that a Palestinian Arab state would "inevitably" be a terrorist state, and other "experts" predict that the Israelis will wipe out the Arabs of Palestine. There is no certain basis for either of these predictions, even when they are backed by supporting verbiage. The figures and facts amassed to support them are always dubious and biased, and the conditions change too rapidly over time to allow prediction.

Gambler's Fallacy

If it came up heads three times in a row, then it has to come up tails this time, right? Wrong. That is the gambler's fallacy. Each event is independent. The gamblers' fallacy is only one of several errors people make in judging probabilities intuitively. People will tend to judge that what has happened will tend to happen, that what is part of their immediate experience has more permanence than things that are not a part of their immediate experience, and people fail to take into account contingencies.

Ad Hominem

Ad hominem arguments depend on delegitimizing the person who is advancing the counter-argument. Of course, who or where the information is coming from has some weight, based on inductive reasoning. If Joe is known to have no memory for history, he should probably not be believed immediately if he tells you something about history, but that does not mean his information should always be ignored. Even the little boy who cried wolf was finally telling the truth.

Ad hominem - Ad hominem attacks or arguments are based on the premise that the argument is wrong because the person advancing it is discredited. Often, they are introduced at a stage where logic is no longer relevant, and are just expressive of emotion. Ad hominem attacks are usually the resort of those who have lost the argument. They have no arguments left, so they discredit you as a "Zionist," "reactionary" "Nazi" etc. If they had not lost the argument before they made these rude claims, they should fairly be considered to have lost it after they engaged in ad hominem attacks.

Ad Hominem Tu Quoque - Just because an expert doesn't follow their own rules, doesn't mean the rules are wrong. Just because your doctor smokes, that doesn't mean he is lying about the dangers of smoking. However, while this may apply to matters of fact, it is hard to see how it can be applied to moral judgements or legal judgements that are supposed to be applicable to everyone equally.

Circumstantial Ad Hominem - This is disqualifying an argument because the person presenting it has a vested interest in one side. "You are just saying it is so because you are a man," "You are just saying it is so because you are a Zionist." Of course one should always consider the source, but you cannot discount a report just because it appears in a newspaper of the "wrong" side, or comes from a person who is on the "wrong" side in the conflict.

Genetic Fallacy - A claim that the idea is wrong because the origin of the idea is wrong, similar to Ad Hominem arguments. Examples relevant to the Middle East: The Mufti of Jerusalem claimed rights for the Arabs of Palestine, but the Mufti

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was a Nazi, therefore the claim is invalid. Evangelical Christians support the state of Israel. We don't agree with their views in other matters, so Christian support of Israel must be wrong.

Authority

Arguments based on authority are, in a way, the opposite of the "Ad Hominem" type error. An argument cannot be discounted solely because the person who advances it is distasteful or has a bad character, nor can it be accepted solely because the person is an "authority." LaBossiere notes that arguments based on the opinions of "authorities" are not cogent if the persons are not experts in the field. The opinions of an American movie star or a millionaire about the Middle East are not more valid than those of their taxi driver. Unfortunately, the millionaire or the movie star have far greater resources and can use them to make their opinions known and ensure that they are respected.

However, appeal to authority regarding questions of empirical fact is always risky, no matter what the status of the person in question. Experts and authorities can only give definitive statements about matters which it is in their competence to define. The king can define the law of the realm. If he says poaching is against the law, then it is true by definition. The religious authorities can define the laws of religion. If they say poaching is immoral, then it is immoral. But if the king or the moral authorities say 'there is no poaching in the land,' it may be true or not, and it doesn't depend on their authority. If brother John saw Bill Smith shoot a deer, then it doesn't matter a bit if King Henry proclaimed that there is no poaching.

The greatest authorities in the world believed, prior to the 19th century, that heavier than air flight was impossible, that men would never walk on the moon, that "negroid" "races" were "inferior" to "caucasoid" "races, and many other things we no longer hold to be true.

Regarding the Middle East, you can find an authority to back any opinion or point of view and to advance just about any factual assertion. Choose the right authority and you can put the population of "Palestine" (no such political entity at the time) in 1900 at anywhere from 200,000 to about 500,000 souls, and you can spin all manner of arguments based on that. You can find authorities who insist that radical Islamism will evolve to moderate democracy, and authorities who insist that the opposite is true. They all have cogent arguments and data to back their assertions.

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John Esposito and Bernard Lewis are both authorities on the Middle East, but they have opposing views on many questions. The only thing we can say is that the fact that Bernard Lewis or John Esposito are recognized authorities on the Middle East makes it far more likely that there is some truth in their opinions than in those of John Doe, who is from Smallville USA, and can't find the Middle East on a map. They may both agree on the facts, but their interpretation of those facts will be different.

The fact that we cannot rely only on authorities for an understanding of the Middle East presents a real problem. As we noted, humans rely on others for most of our information. If we are sick, we go to a doctor to get a diagnosis and we rely on his or her opinion. If we want to know the capital of Afghanistan we consult a book, and if we want to know how a computer or an automobile works we consult other books written by authorities, or we consult experts. But regarding political questions, and especially in the Middle East, it is virtually impossible to find an unbiased political expert.

Beliefs

Appeal to Belief - This is used two ways in arguments about the Middle East. The first way is approximately as LaBossiere describes, "everyone else believes this" so it must be so. This is especially potent if your professor or newspaper editor believes it to be so, and if you had better believe it is true if you want your work published. It is a variant of appeal to popularity and appeal to ridicule.

As LaBossiere notes, believing does not make it so. You cannot vote on facts. In history, what people believe to be true, may be as important as what actually is true. Remember the Ash experiment - people became convinced that two totally different sized lines were the same size, because "everyone" believed it to be so.

In the Middle East it is used a second way, to say "All the people in this group believe A, whereas the people in that group believe B. Both 'narratives' are 'legitimate' and have to be accepted. But not all narratives are legitimate. There can be differences of opinion, but inventions, lies and rumors are not fact. "All the X's believe the land belongs to them" doesn't make it so.

Appeal to Popularity and Ridicule - Opinion of others is a powerful persuader. Remember the Ash experiment, in which subjects were convinced that two grossly dissimilar lines were the same length, because others insisted that they were. These are similar to **Peer Pressure**.

Appeal to Novelty

Appeal to novelty, like many of these arguments, is not a logical fallacy, but it is a persuader that is used unfairly. The "new improved" version may just have a different package and a bigger price tag than the old one. 'New evidence' touted by historians often turns out to be of questionable value or tells the same story as the old evidence, and "new" peace plans often turn out to be the same plans that didn't work 20 years ago.

Every so often someone says "Let's try a fresh approach," but what they invariably offer is not new.

Appeal to Emotion

This is a favorite appeal of political partisans and it is best done with pictures, and misplaced appeals to compassion. Of course, emotion can include fear, spite, pity, satisfaction by flattery etc, all of which are listed separately by LaBossiere. Pictures of starving children, homeless people and war victims. The worst SS war criminal in Germany could look appealing and worthy of pity when he was dirty, hungry and in tatters. Saddam Hussein, the tyrant of Iraq, was pitiful when he was discovered in his hiding spot.

While emotional appeals to pity are sometimes based on legitimate grievances, we always have to ask if the proposed solution will ameliorate the problem or make it worse. The victims of Czarism were pitiful; the victims of Stalinism were beyond pity.

In the Middle East, revenge and spite have often been considered reasonable motives, and in fact they may be the "locomotive" of the Israeli-Palestinian conflict. These emotions are for "internal use." Flattery usually is applied to outsider third parties, "a liberal person like you should be appalled that..." Fear is featured prominently as well: "They'll get you next."

Appeal to Tradition

Appeal to tradition combined appeal to belief, "all of believe the true religion," with peer pressure, and authority: "The Imam said so," "our honored ancestors said so." "We always did it this way" is a potent argument, especially in pre-industrial societies. In the Middle East, there are appeals associated with some of the most reactionary traditions, especially treatment of women, homosexuals and minorities. "That is the traditional role of women in our society." Attempts to change these traditions are met with resistance: "You are imposing Western ways on our society - cultural imperialism!" Annoyingly (to you) people with customs that are different from yours often insist that they are right.

Tradition is the motive power of fundamentalist creeds in the Middle East, though often the "ancient traditions" were invented quite recently.

False Dilemma or Black and White Thinking

Black and White thinking poses a false alternative as the only alternative to the proposed solution. "If we don't destroy them, they will destroy us." It is pervasive in the Middle East and about the Middle East. . It is an argument that appeals to people who have no tolerance for ambiguity.

The idea that there can be both a Palestinian Arab state and an Israeli Jewish state is difficult for some people to assimilate. Likewise the idea that one side is not the exclusive villain is likewise difficult to assimilate. The opposite sort of error is illustrated by the "who is to say argument."

Special Pleading

The principles applied to one case or side, are not applied to another. For example, it is claimed that it is wrong for side A to be racists or to kill people, whereas side B must be excused because they are oppressed. Special pleading is used all the time in the Middle East, to claim that we must make allowances for racism or violence in Jewish settlers because of the Holocaust, or in Palestinian Arabs because of "oppression." It is often applied in dialogue, where allowances are made for unacceptable behavior of one side, because they are "expressing their anger." This sort of thinking is an abuse of the principle of relevant difference.

The Spotlight Fallacy

The spotlight fallacy causes one to assume that reality is like the exceptional cases highlighted in the news. You would not think that all people in your home town are murderers just because the police caught a murderer in your town. An event, a novel or documentary film can also put issues in the spotlight and suddenly makes you particularly aware of one or another aspect of them. "Newsworthy events" always put the spotlight on unrepresentative facets of societies and places. After all, it is only newsworthy if it is exceptional. There are no headlines that say "Today billions of people didn't get killed by a terror attack."

The spotlight fallacy is common in perceptions of the Middle East. Israel is not a war zone like Vietnam or Iraq, where everyone is under constant fire, and neither is Palestine, though that is the impression created by the media. Palestinian Arabs are not all poor or all terrorists, and Israeli Jews are not all orthodox settlers who live in Hebron and come from Brooklyn New York. Muslims are not all religious fanatics who want to blow themselves up.

Who is to Say?

This fallacy attempts to smooth over important differences for purposes of politeness. "Let's not discuss this because it will embarrass our guests." It is like accepting "two narratives" that include falsehoods. On the other hand, there are questions that cannot be decided empirically or by logic, either because there is not enough evidence, or the issues are questions of different values, or because deciding the questions definitively would have explosive social impact. Which God is the right God and which religion is the right religion? Most theological arguments in the West have been settled along the lines of "who is to say?" allowing the creation of pluralistic societies. A great deal of harm has been caused in the Middle East by people who cannot tolerate ambiguity

A Fallacy Recognition Handbook

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Fallacies and Arguments

In order to understand what a fallacy is, one must understand what an argument is. Very briefly an argument consists of one or more premises and one conclusion. A premise is a statement (a sentence that is either true or false) that is offered in support of the claim being made, which is the conclusion (which is also a sentence that is either true or false).

There are two main types of arguments: deductive and inductive. A deductive argument is an argument such that the premises provide (or appear to provide) complete support for the conclusion. An inductive argument is an argument such that the premises provide (or appear to provide) some degree of support (but less than complete support) for the conclusion. If the premises actually provide the required degree of support for the conclusion, then the argument is a good one. A good deductive argument is known as a valid argument and is such that if all its premises are true, then its conclusion must be true. If all the argument is valid and actually has all true premises, then it is known as a sound argument. If it is invalid or has one or more false premises, it will be unsound. A good inductive argument is known as a strong (or “cogent”) inductive argument. It is such that if the premises are true, the conclusion is likely to be true.

A fallacy is, very generally, an error in reasoning. This differs from a factual error, which is simply being wrong about the facts. To be more specific, a fallacy is an “argument” in which the premises given for the conclusion do not provide the

needed degree of support. A deductive fallacy is a deductive argument that is invalid (it is such that it could have all true premises and still have a false conclusion). An inductive fallacy is less formal than a deductive fallacy. They are simply “arguments” which appear to be inductive arguments, but the premises do not provide enough support for the conclusion. In such cases, even if the premises were true, the conclusion would not be more likely to be true.

Example of a Deductive Argument

Premise 1: If Bill is a cat, then Bill is a mammal.

Premise 2: Bill is a cat.

Conclusion: Bill is a mammal.

Example of an Inductive Argument

Premise 1: Most American cats are domestic house cats.

Premise 2: Bill is an American cat.

Conclusion: Bill is domestic house cat.

Example of a Factual Error

Columbus is the capital of the United States.

Example of a Deductive Fallacy

Premise 1: If Portland is the capital of Maine, then it is in Maine.

Premise 2: Portland is in Maine.

Conclusion: Portland is the capital of Maine.

(Portland is in Maine, but Augusta is the capital. Portland is the largest city in Maine, though.)

Example of an Inductive Fallacy

Premise 1: Having just arrived in Ohio, I saw a white squirrel.

Conclusion: All Ohio squirrels are white.

(While there are many, many squirrels in Ohio, the white ones are very rare).

Fallacies

Ad Hominem

Also Known as: Ad Hominem Abusive, Personal Attack

Description:

Translated from Latin to English, “ad Hominem” means “against the man” or “against the person.”

An ad Hominem is a general category of fallacies in which a claim or argument is rejected on the basis of some irrelevant fact about the author of or the person presenting the claim or argument. Typically, this fallacy involves two steps. First, an attack against the character of person making the claim, her circumstances, or her actions is made (or the character, circumstances, or actions of the person reporting the claim). Second, this attack is taken to be evidence against the claim or argument the person in question is making (or presenting). This type of “argument” has the following form:

1. Person A makes claim X.
2. Person B makes an attack on person A.
3. Therefore A’s claim is false.

The reason why an ad Hominem (of any kind) is a fallacy is that the character, circumstances, or actions of a person do not (in most cases) have a bearing on the truth or falsity of the claim being made (or the quality of the argument being made).

Example#1:

Bill: “I believe that abortion is morally wrong.”

Dave: “Of course you would say that, you’re a priest.”

Bill: “What about the arguments I gave to support my position?”

Dave: “Those don’t count. Like I said, you’re a priest, so you have to say that abortion is wrong. Further, you are just a lackey to the Pope, so I can’t believe what you say.”

Example#2:

John: “Sally was saying that people shouldn’t hunt animals or kill them for food or clothing. She also...”

Wanda: “Well, Sally is a sissy crybaby who loves animals way too much.”

John: “So?”

Wanda: “That means she is wrong about that animal stuff. Also, if we weren’t supposed to eat ‘em, they wouldn’t be made of meat.”

Ad Hominem Tu Quoque

Also Known as: “You Too Fallacy”

Description:

This fallacy is committed when it is concluded that a person’s claim is false because 1) it is inconsistent with something else a person has said or 2) what a person says is inconsistent with her actions. This type of “argument” has the following form:

1. Person A makes claim X.
2. Person B asserts that A’s actions or past claims are inconsistent with the truth of claim X.
3. Therefore X is false.

The fact that a person makes inconsistent claims does not make any particular claim he makes false (although of any pair of inconsistent claims only one can be true—but both can be false). Also, the fact that a person’s claims are not consistent with his actions might indicate that the person is a hypocrite but this does not prove his claims are false.

Example #1:

Bill: “Smoking is very unhealthy and leads to all sorts of problems. So take my advice and never start.”

Jill: “Well, I certainly don’t want to get cancer.”

Bill: “I’m going to get a smoke. Want to join me Dave?”

Jill: “Well, I guess smoking can’t be that bad. After all, Bill smokes.”

Example #2:

Jill: “I think the gun control bill shouldn’t be supported because it won’t be effective and will waste money.”

Bill: “Well, just last month you supported the bill. So I guess you’re wrong now.”

Example #3:

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Peter: “Based on the arguments I have presented, it is evident that it is morally wrong to use animals for food or clothing.”

Bill: “But you are wearing a leather jacket and you have a roast beef sandwich in your hand! How can you say that using animals for food and clothing is wrong!”

Appeal to the Consequences of a Belief

Description:

The Appeal to the Consequences of a Belief is a fallacy that comes in the following patterns:

#1: X is true because if people did not accept X as being true, then there would be negative consequences.

#2: X is false because if people did not accept X as being false, then there would be negative consequences.

#3: X is true because accepting that X is true has positive consequences.

#4: X is false because accepting that X is false has positive consequences.

#5: I wish that X were true, therefore X is true. This is known as Wishful Thinking.

#6: I wish that X were false, therefore X is false. This is known as Wishful Thinking.

This line of “reasoning” is fallacious because the consequences of a belief have no bearing on whether the belief is true or false. For example, if someone were to say “If sixteen-headed purple unicorns don’t exist, then I would be miserable, so they must exist”, it would be clear that this would not be a good line of reasoning. It is important to note that the consequences in question are the consequences that stem from the belief. It is important to distinguish between a rational reason to believe (RRB) (evidence) and a prudential reason to believe (PRB) (motivation). A RRB is evidence that objectively and logically supports the claim. A PRB is a reason to accept the belief because of some external factor (such as fear, a threat, or a benefit or harm that may stem from the belief) that is relevant to what a person values but is not relevant to the truth or falsity of the claim.

The nature of the fallacy is especially clear in the case of Wishful thinking. Obviously, merely wishing that something is true does not make it true. This fallacy differs from the Appeal to Belief fallacy in that the Appeal to Belief involves taking a claim that most people believe that X is true to be evidence for X being true.

Example #1:

God must exist! If God did not exist, then all basis for morality would be lost and the world would be a horrible place!

Example #2:

It can never happen to me. If I believed it could, I could never sleep soundly at night.

Example #3:

I don't think that there will be a nuclear war. If I believed that, I wouldn't be able to get up in the morning. I mean, how depressing.

Example #4:

I acknowledge that I have no argument for the existence of God. However, I have a great desire for God to exist and for there to be an afterlife. Therefore I accept that God exists.

Appeal to Authority

Also Known as: Fallacious Appeal to Authority, Misuse of Authority, Irrelevant Authority, Questionable Authority, Inappropriate Authority, Ad Verecundiam

Description:

An Appeal to Authority is a fallacy with the following form:

- 1) Person A is (claimed to be) an authority on subject S.
- 2) Person A makes claim C about subject S.
- 3) Therefore, C is true.

This fallacy is committed when the person in question is not a legitimate authority on the subject. More formally, if person A is not qualified to make reliable claims in subject S, then the argument will be fallacious.

This sort of reasoning is fallacious when the person in question is not an expert. In such cases the reasoning is flawed because the fact that an unqualified person makes a claim does not provide any justification for the claim. The claim could be true, but the fact that an unqualified person made the claim does not provide any rational reason to accept the claim as true.

When a person falls prey to this fallacy, they are accepting a claim as true without there being adequate evidence to do so. More specifically, the person is accepting the claim because they erroneously believe that the person making the claim is a legitimate expert and hence that the claim is reasonable to accept. Since people have a tendency to believe authorities (and there are, in fact, good reasons to accept some claims made by authorities) this fallacy is a fairly common one.

Since this sort of reasoning is fallacious only when the person is not a legitimate authority in a particular context, it is necessary to provide some acceptable standards of assessment. The following standards are widely accepted:

- 1. The person has sufficient expertise in the subject matter in question.*

Claims made by a person who lacks the needed degree of expertise to make a reliable claim will, obviously, not be well supported. In contrast, claims made by a

person with the needed degree of expertise will be supported by the person's reliability in the area.

Determining whether or not a person has the needed degree of expertise can often be very difficult. In academic fields (such as philosophy, engineering, history, etc.), the person's formal education, academic performance, publications, membership in professional societies, papers presented, awards won and so forth can all be reliable indicators of expertise. Outside of academic fields, other standards will apply. For example, having sufficient expertise to make a reliable claim about how to tie a shoe lace only requires the ability to tie the shoe lace and impart that information to others. It should be noted that being an expert does not always require having a university degree. Many people have high degrees of expertise in sophisticated subjects without having ever attended a university. Further, it should not be simply assumed that a person with a degree is an expert.

Of course, what is required to be an expert is often a matter of great debate. For example, some people have (and do) claim expertise in certain (even all) areas because of a divine inspiration or a special gift. The followers of such people accept such credentials as establishing the person's expertise while others often see these self-proclaimed experts as deluded or even as charlatans. In other situations, people debate over what sort of education and experience is needed to be an expert. Thus, what one person may take to be a fallacious appeal another person might take to be a well supported line of reasoning. Fortunately, many cases do not involve such debate.

2. The claim being made by the person is within her area(s) of expertise.

If a person makes a claim about some subject outside of his area(s) of expertise, then the person is not an expert in that context. Hence, the claim in question is not backed by the required degree of expertise and is not reliable.

It is very important to remember that because of the vast scope of human knowledge and skill it is simply not possible for one person to be an expert on everything. Hence, experts will only be true experts in respect to certain subject areas. In most other areas they will have little or no expertise. Thus, it is important to determine what subject area a claim falls under.

It is also very important to note that expertise in one area does not automatically confer expertise in another. For example, being an expert physicist does not automatically make a person an expert on morality or politics. Unfortunately, this is often overlooked or intentionally ignored. In fact, a great deal of advertising rests on a violation of this condition. As anyone who watches television knows, it is extremely common to get famous actors and sports heroes to endorse products that they are not qualified to assess. For example, a person may be a

great actor, but that does not automatically make him an expert on cars or shaving or underwear or diets or politics.

3. There is an adequate degree of agreement among the other experts in the subject in question.

If there is a significant amount of legitimate dispute among the experts within a subject, then it will fallacious to make an Appeal to Authority using the disputing experts. This is because for almost any claim being made and “supported” by one expert there will be a counterclaim that is made and “supported” by another expert. In such cases an Appeal to Authority would tend to be futile. In such cases, the dispute has to be settled by consideration of the actual issues under dispute. Since either side in such a dispute can invoke experts, the dispute cannot be rationally settled by Appeals to Authority.

There are many fields in which there is a significant amount of legitimate dispute. Economics is a good example of such a disputed field. Anyone who is familiar with economics knows that there are many plausible theories that are incompatible with one another. Because of this, one expert economist could sincerely claim that the deficit is the key factor while another equally qualified individual could assert the exact opposite. Another area where dispute is very common (and well known) is in the area of psychology and psychiatry. As has been demonstrated in various trials, it is possible to find one expert that will assert that an individual is insane and not competent to stand trial and to find another equally qualified expert who will testify, under oath, that the same individual is both sane and competent to stand trial. Obviously, one cannot rely on an Appeal to Authority in such a situation without making a fallacious argument. Such an argument would be fallacious since the evidence would not warrant accepting the conclusion.

It is important to keep in mind that no field has complete agreement, so some degree of dispute is acceptable. How much is acceptable is, of course, a matter of serious debate. It is also important to keep in mind that even a field with a great deal of internal dispute might contain areas of significant agreement. In such cases, an Appeal to Authority could be legitimate.

4. The person in question is not significantly biased.

If an expert is significantly biased then the claims he makes within his are of bias will be less reliable. Since a biased expert will not be reliable, an Argument from Authority based on a biased expert will be fallacious. This is because the evidence will not justify accepting the claim.

Experts, being people, are vulnerable to biases and prejudices. If there is evidence that a person is biased in some manner that would affect the reliability of her claims, then an Argument from Authority based on that person is likely to

be fallacious. Even if the claim is actually true, the fact that the expert is biased weakens the argument. This is because there would be reason to believe that the expert might not be making the claim because he has carefully considered it using his expertise. Rather, there would be reason to believe that the claim is being made because of the expert's bias or prejudice.

It is important to remember that no person is completely objective. At the very least, a person will be favorable towards her own views (otherwise she would probably not hold them). Because of this, some degree of bias must be accepted, provided that the bias is not significant. What counts as a significant degree of bias is open to dispute and can vary a great deal from case to case. For example, many people would probably suspect that doctors who were paid by tobacco companies to research the effects of smoking would be biased while other people might believe (or claim) that they would be able to remain objective.

5. The area of expertise is a legitimate area or discipline.

Certain areas in which a person may claim expertise may have no legitimacy or validity as areas of knowledge or study. Obviously, claims made in such areas will not be very reliable.

What counts as a legitimate area of expertise is sometimes difficult to determine. However, there are cases which are fairly clear cut. For example, if a person claimed to be an expert at something he called "chromabullet therapy" and asserted that firing painted rifle bullets at a person would cure cancer it would not be very reasonable to accept his claim based on his "expertise." After all, his expertise is in an area which is devoid of legitimate content. The general idea is that to be a legitimate expert a person must have mastery over a real field or area of knowledge.

As noted above, determining the legitimacy of a field can often be difficult. In European history, various scientists had to struggle with the Church and established traditions to establish the validity of their disciplines. For example, experts on evolution faced an uphill battle in getting the legitimacy of their area accepted.

A modern example involves psychic phenomenon. Some people claim that they are certified "master psychics" and that they are actually experts in the field. Other people contend that their claims of being certified "master psychics" are simply absurd since there is no real content to such an area of expertise. If these people are right, then anyone who accepts the claims of these "master psychics" as true are victims of a fallacious appeal to authority.

6. The authority in question must be identified.

A common variation of the typical Appeal to Authority fallacy is an Appeal to an Unnamed Authority. This fallacy is Also Known as an Appeal to an Unidentified Authority.

This fallacy is committed when a person asserts that a claim is true because an expert or authority makes the claim and the person does not actually identify the expert. Since the expert is not named or identified, there is no way to tell if the person is actually an expert. Unless the person is identified and has his expertise established, there is no reason to accept the claim.

This sort of reasoning is not unusual. Typically, the person making the argument will say things like “I have a book that says...”, or “they say...”, or “the experts say...”, or “scientists believe that...”, or “I read in the paper..” or “I saw on TV...” or some similar statement. In such cases the person is often hoping that the listener(s) will simply accept the unidentified source as a legitimate authority and believe the claim being made. If a person accepts the claim simply because they accept the unidentified source as an expert (without good reason to do so), he has fallen prey to this fallacy.

Non-Fallacious Appeals to Authority

As suggested above, not all Appeals to Authority are fallacious. This is fortunate since people have to rely on experts. This is because no one person can be an expert on everything and people do not have the time or ability to investigate every single claim themselves.

In many cases, Arguments from Authority will be good arguments. For example, when a person goes to a skilled doctor and the doctor tells him that he has a cold, then the patient has good reason to accept the doctor’s conclusion. As another example, if a person’s computer is acting odd and his friend, who is a computer expert, tells him it is probably his hard drive then he has good reason to believe her.

What distinguishes a fallacious Appeal to Authority from a good Appeal to Authority is that the argument meets the six conditions discussed above.

In a good Appeal to Authority, there is reason to believe the claim because the expert says the claim is true. This is because a person who is a legitimate expert is more likely to be right than wrong when making considered claims within her area of expertise. In a sense, the claim is being accepted because it is reasonable to believe that the expert has tested the claim and found it to be reliable. So, if the expert has found it to be reliable, then it is reasonable to accept it as being true. Thus, the listener is accepting a claim based on the testimony of the expert.

It should be noted that even a good Appeal to Authority is not an exceptionally strong argument. After all, in such cases a claim is being accepted as true simply because a person is asserting that it is true. The person may be an expert, but her expertise does not really bear on the truth of the claim. This is because the expertise of a person does not actually determine whether the claim is true or false. Hence, arguments that deal directly with evidence relating to the claim itself will tend to be stronger.

Example #1:

Bill and Jane are arguing about the morality of abortion:

Bill: "I believe that abortion is morally acceptable. After all, a woman should have a right to her own body."

Jane: "I disagree completely. Dr. Johan Skarn says that abortion is always morally wrong, regardless of the situation. He has to be right, after all, he is a respected expert in his field."

Bill: "I've never heard of Dr. Skarn. Who is he?"

Jane: "He's the guy that won the Nobel Prize in physics for his work on cold fusion."

Bill: "I see. Does he have any expertise in morality or ethics?"

Jane: "I don't know. But he's a world famous expert, so I believe him."

Example #2:

Dave and Kintaro are arguing about Stalin's reign in the Soviet Union. Dave has been arguing that Stalin was a great leader while Kintaro disagrees with him.

Kintaro: "I don't see how you can consider Stalin to be a great leader. He killed millions of his own people, he crippled the Soviet economy, kept most of the people in fear and laid the foundations for the violence that is occurring in much of Eastern Europe."

Dave: "Yeah, well you say that. However, I have a book at home that says that Stalin was acting in the best interest of the people. The millions that were killed were vicious enemies of the state and they had to be killed to protect the rest of the peaceful citizens. This book lays it all out, so it has to be true."

Example #3:

I'm not a doctor, but I play one on the hit series "Bimbos and Studmuffins in the OR." You can take it from me that when you need a fast acting, effective and safe pain killer there is nothing better than MorphiDope 2000. That is my considered medical opinion.

Example #4:

Siphwe and Sasha are having a conversation:

Sasha: "I played the lottery today and I know I am going to win something."

Siphwe: "What did you do, rig the outcome?"

Sasha: "No, silly. I called my Super Psychic Buddy at the 1-900-MindPower number. After consulting his magic Californian Tarot deck, he told me my lucky numbers."

Siphwe: "And you believed him?"

Sasha: "Certainly, he is a certified Californian Master-Mind Psychic. That is why I believe what he has to say. I mean, like, who else would know what my lucky numbers are?"

Appeal to Belief

Description:

Appeal to Belief is a fallacy that has this general pattern:

- 1) Most people believe that a claim, X, is true.
- 2) Therefore X is true.

This line of “reasoning” is fallacious because the fact that many people believe a claim does not, in general, serve as evidence that the claim is true.

There are, however, some cases when the fact that many people accept a claim as true is an indication that it is true. For example, while you are visiting Maine, you are told by several people that they believe that people older than 16 need to buy a fishing license in order to fish. Barring reasons to doubt these people, their statements give you reason to believe that anyone over 16 will need to buy a fishing license.

There are also cases in which what people believe actually determines the truth of a claim. For example, the truth of claims about manners and proper behavior might simply depend on what people believe to be good manners and proper behavior. Another example is the case of community standards, which are often taken to be the standards that most people accept. In some cases, what violates certain community standards is taken to be obscene. In such cases, for the claim “x is obscene” to be true is for most people in that community to believe that x is obscene. In such cases it is still prudent to question the justification of the individual beliefs.

Example #1:

At one time, most people in Europe believed that the earth was the center of the solar system (at least most of those who had beliefs about such things). However, this belief turned out to be false.

Example #2:

God must exist. After all, I just saw a poll that says 85% of all Americans believe in God.

Example #3:

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Of course there is nothing wrong with drinking. Ask anyone, he'll tell you that he thinks drinking is just fine.

Appeal to Common Practice

Description:

The Appeal to Common Practice is a fallacy with the following structure:

- 1) X is a common action.
- 2) Therefore X is correct/moral/justified/reasonable, etc.

The basic idea behind the fallacy is that the fact that most people do X is used as “evidence” to support the action or practice. It is a fallacy because the mere fact that most people do something does not make it correct, moral, justified, or reasonable.

An appeal to fair play, which might seem to be an appeal to common practice, need not be a fallacy. For example, a woman working in an office might say “the men who do the same job as me get paid more than I do, so it would be right for me to get paid the same as them.” This would not be a fallacy as long as there was no relevant difference between her and the men (in terms of ability, experience, hours worked, etc.). More formally:

- 1) It is common practice to treat people of type Y in manner X and to treat people of type Z in a different manner.
- 2) There is no relevant difference between people of type Y and type Z.
- 3) Therefore people of type Z should be treated in manner X, too.

This argument rests heavily on the principle of relevant difference. On this principle two people, A and B, can only be treated differently if and only if there is a relevant difference between them. For example, it would be fine for me to give a better grade to A than B if A did better work than B. However, it would be wrong of me to give A a better grade than B simply because A has red hair and B has blonde hair.

There might be some cases in which the fact that most people accept X as moral entails that X is moral. For example, one view of morality is that morality is relative to the practices of a culture, time, person, etc. If what is moral is determined by what is commonly practiced, then this argument:

- 1) Most people do X.
- 2) Therefore X is morally correct.

would not be a fallacy. This would however entail some odd results. For example, imagine that there are only 100 people on earth. 60 of them do not steal or cheat and 40 do. At this time, stealing and cheating would be wrong. The next day, a natural disaster kills 30 of the 60 people who do not cheat or steal. Now it is morally correct to cheat and steal. Thus, it would be possible to change the moral order of the world to one's view simply by eliminating those who disagree.

Example #1:

Director Jones is in charge of running a state waste management program. When it is found that the program is rife with corruption, Jones says "This program has its problems, but nothing goes on in this program that doesn't go on in all state programs."

Example #2:

"Yeah, I know some people say that cheating on tests is wrong. But we all know that everyone does it, so it's okay."

Example #3:

"Sure, some people buy into that equality crap. However, we know that everyone pays women less than men. It's okay, too. Since everyone does it, it can't really be wrong."

Example #4:

"There is nothing wrong with requiring multicultural classes, even at the expense of core subjects. After all, all of the universities and colleges are pushing multiculturalism."

Appeal to Emotion

Description:

An Appeal to Emotion is a fallacy with the following structure:

- 1) Favorable emotions are associated with X.
- 2) Therefore, X is true.

This fallacy is committed when someone manipulates peoples' emotions in order to get them to accept a claim as being true. More formally, this sort of "reasoning" involves the substitution of various means of producing strong emotions in place of evidence for a claim. If the favorable emotions associated with X influence the person to accept X as true because they "feel good about X," then he has fallen prey to the fallacy.

This sort of "reasoning" is very common in politics and it serves as the basis for a large portion of modern advertising. Most political speeches are aimed at generating feelings in people so that these feelings will get them to vote or act a certain way. In the case of advertising, the commercials are aimed at evoking emotions that will influence people to buy certain products. In most cases, such speeches and commercials are notoriously free of real evidence.

This sort of "reasoning" is quite evidently fallacious. It is fallacious because using various tactics to incite emotions in people does not serve as evidence for a claim. For example, if a person were able to inspire in a person an incredible hatred of the claim that $1+1 = 2$ and then inspired the person to love the claim that $1+1 = 3$, it would hardly follow that the claim that $1+1 = 3$ would be adequately supported.

It should be noted that in many cases it is not particularly obvious that the person committing the fallacy is attempting to support a claim. In many cases, the user of the fallacy will appear to be attempting to move people to take an action, such as buying a product or fighting in a war. However, it is possible to determine what sort of claim the person is actually attempting to support. In such cases one needs to ask "what sort of claim is this person attempting to get people to accept and act on?" Determining this claim (or claims) might take some work. However, in many cases it will be quite evident. For example, if a political leader is attempting to convince her followers to participate in certain acts of violence by the use of a hate speech, then her claim would be "you should participate in these acts of violence." In this case, the "evidence" would be the hatred evoked in the followers. This hatred would serve to make them favorable inclined towards the claim that they should engage in the acts of violence. As another example, a beer commercial might show happy, scantily clad men and women

prancing about a beach, guzzling beer. In this case the claim would be “you should buy this beer.” The “evidence” would be the excitement evoked by seeing the beautiful people guzzling the beer.

This fallacy is actually an extremely effective persuasive device. As many people have argued, peoples’ emotions often carry much more force than their reason. Logical argumentation is often difficult and time consuming and it rarely has the power to spurn people to action. It is the power of this fallacy that explains its great popularity and wide usage. However, it is still a fallacy.

In all fairness it must be noted that the use of tactics to inspire emotions is an important skill. Without an appeal to peoples’ emotions, it is often difficult to get them to take action or to perform at their best. For example, no good coach presents her team with syllogisms before the big game. Instead she inspires them with emotional terms and attempts to “fire” them up. There is nothing inherently wrong with this. However, it is not any acceptable form of argumentation. As long as one is able to clearly distinguish between what inspires emotions and what justifies a claim, one is unlikely to fall prey to this fallacy.

As a final point, in many cases it will be difficult to distinguish an Appeal to Emotion from some other fallacies and in many cases multiple fallacies may be committed. For example, many *Ad Hominems* will be very similar to Appeals to Emotion and, in some cases, both fallacies will be committed. As an example, a leader might attempt to invoke hatred of a person to inspire his followers to accept that they should reject her claims. The same attack could function as an Appeal to Emotion and a Personal Attack. In the first case, the attack would be aimed at making the followers feel very favorable about rejecting her claims. In the second case, the attack would be aimed at making the followers reject the person’s claims because of some perceived (or imagined) defect in her character.

This fallacy is related to the Appeal to Popularity fallacy. Despite the differences between these two fallacies, they are both united by the fact that they involve appeals to emotions. In both cases the fallacies aim at getting people to accept claims based on how they or others feel about the claims and not based on evidence for the claims.

Another way to look at these two fallacies is as follows

Appeal to Popularity

- 1) Most people approve of X.
- 2) So, I should approve of X, too.

3) Since I approve of X, X must be true.

Appeal to Emotion

1) I approve of X.

2) Therefore, X is true.

On this view, in an Appeal to Popularity the claim is accepted because most people approve of the claim. In the case of an Appeal to Emotion the claim is accepted because the individual approves of the claim because of the emotion of approval he feels in regards to the claim.

Example #1:

The new PowerTangerine computer gives you the power you need. If you buy one, people will envy your power. They will look up to you and wish they were just like you. You will know the true joy of power. TangerinePower.

Example #2:

The new UltraSkinny diet will make you feel great. No longer be troubled by your weight. Enjoy the admiring stares of the opposite sex. Revel in your new freedom from fat. You will know true happiness if you try our diet!

Example #3:

Bill goes to hear a politician speak. The politician tells the crowd about the evils of the government and the need to throw out the people who are currently in office. After hearing the speech, Bill is full of hatred for the current politicians. Because of this, he feels good about getting rid of the old politicians and accepts that it is the right thing to do because of how he feels.

Appeal to Fear

Also Known as: Scare Tactics, Appeal to Force, Ad Baculum

Description:

The Appeal to Fear is a fallacy with the following pattern:

- 1) Y is presented (a claim that is intended to produce fear).
- 2) Therefore claim X is true (a claim that is generally, but need not be, related to Y in some manner).

This line of “reasoning” is fallacious because creating fear in people does not constitute evidence for a claim.

It is important to distinguish between a rational reason to believe (RRB) (evidence) and a prudential reason to believe (PRB) (motivation). A RRB is evidence that objectively and logically supports the claim. A PRB is a reason to accept the belief because of some external factor (such as fear, a threat, or a benefit or harm that may stem from the belief) that is relevant to what a person values but is not relevant to the truth or falsity of the claim. For example, it might be prudent to not fail the son of your department chairperson because you fear he will make life tough for you. However, this does not provide evidence for the claim that the son deserves to pass the class.

Example #1:

You know, Professor Smith, I really need to get an A in this class. I'd like to stop by during your office hours later to discuss my grade. I'll be in your building anyways, visiting my father. He's your dean, by the way. I'll see you later.

Example #2:

I don't think a Red Ryder BB rifle would make a good present for you. They are very dangerous and you'll put your eye out. Now, don't you agree that you should think of another gift idea?

Example #3:

You must believe that God exists. After all, if you do not accept the existence of God, then you will face the horrors of hell.

Example #4:

You shouldn't say such things against multiculturalism! If the chair heard what you were saying, you would never receive tenure. So, you had just better learn to accept that it is simply wrong to speak out against it.

Appeal to Flattery

Also Known as: Apple Polishing, various "colorful" expressions

Description:

An Appeal to Flattery is a fallacy of the following form:

- 1) Person A is flattered by person B.
- 2) Person B makes claim X.
- 3) Therefore X is true.

The basic idea behind this fallacy is that flattery is presented in the place of evidence for accepting a claim. This sort of "reasoning" is fallacious because flattery is not, in fact, evidence for a claim. This is especially clear in a case like this: "My Bill, that is a really nice tie. By the way, it is quite clear that one plus one is equal to forty three.

Example #1:

Might I say that this is the best philosophy class I've ever taken. By the way, about those two points I need to get an A.

Example #2:

"That was a wonderful joke about AIDS boss, and I agree with you that the damn liberals are wrecking the country. Now about my raise..."

Example #3:

That was a singularly brilliant idea. I have never seen such a clear and eloquent defense of Plato's position. If you do not mind, I'll base my paper on it. Provided that you allow me a little extra time past the deadline to work on it.

Appeal to Novelty

Also Known as: Appeal to the New, Newer is Better, Novelty

Description:

Appeal to Novelty is a fallacy that occurs when it is assumed that something is better or correct simply because it is new. This sort of “reasoning” has the following form:

1. X is new.
2. Therefore X is correct or better.

This sort of “reasoning” is fallacious because the novelty or newness of something does not automatically make it correct or better than something older. This is made quite obvious by the following example: Joe has proposed that $1+1$ should now be equal to 3. When asked why people should accept this, he says that he just came up with the idea. Since it is newer than the idea that $1+1=2$, it must be better.

This sort of “reasoning” is appealing for many reasons. First, “western culture” includes a very powerful commitment to the notion that new things must be better than old things. Second, the notion of progress (which seems to have come, in part, from the notion of evolution) implies that newer things will be superior to older things. Third, media advertising often sends the message that newer must be better. Because of these three factors (and others) people often accept that a new thing (idea, product, concept, etc.) must be better because it is new. Hence, Novelty is a somewhat common fallacy, especially in advertising.

It should not be assumed that old things must be better than new things (see the fallacy Appeal to Tradition) any more than it should be assumed that new things are better than old things. The age of a thing does not, in general, have any bearing on its quality or correctness (in this context).

Obviously, age does have a bearing in some contexts. For example, if a person concluded that his day old milk was better than his two-month old milk, he would not be committing an Appeal to Novelty. This is because in such cases the newness of the thing is relevant to its quality. Thus, the fallacy is committed only when the newness is not, in and of itself, relevant to the claim.

Example #1:

The Adidas 900 pump-up glow shoe. It's better because it's new.

Example #2:

James: "So, what is this new plan?"

Biff: "Well, the latest thing in marketing techniques is the GK method. It is the latest thing out of the think tank. It is so new that the ink on the reports is still drying."

James: "Well, our old marketing method has been quite effective. I don't like the idea of jumping to a new method without a good reason."

Biff: "Well, we know that we have to stay on the cutting edge. That means new ideas and new techniques have to be used. The GK method is new, so it will do better than that old, dusty method."

Example #3:

Prof: "So you can see that a new and better morality is sweeping the nation. No longer are people with alternative lifestyles ashamed. No longer are people caught up in the outmoded moralities of the past."

Student: "Well, what about the ideas of the great thinkers of the past? Don't they have some valid points?"

Prof: "A good question. The answer is that they had some valid points in their own, barbaric times. But those are old, moldy moralities from a time long gone. Now is a time for new moralities. Progress and all that, you know."

Student: "So would you say that the new moralities are better because they are newer?"

Prof: "Exactly. Just as the dinosaurs died off to make way for new animals, the old ideas have to give way for the new ones. And just as humans are better than dinosaurs, the new ideas are better than the old. So newer is literally better."

Student: "I see."

Appeal to Pity

Also Known as: Ad Misericordiam

Description:

An Appeal to Pity is a fallacy in which a person substitutes a claim intended to create pity for evidence in an argument. The form of the “argument” is as follows:

1. P is presented, with the intent to create pity.
2. Therefore claim C is true.

This line of “reasoning” is fallacious because pity does not serve as evidence for a claim. This is extremely clear in the following case: “You must accept that $1+1=46$, after all I’m dying...” While you may pity me because I am dying, it would hardly make my claim true.

This fallacy differs from the Appeal to the Consequences of a Belief (ACB). In the ACB fallacy, a person is using the effects of a belief as a substitute for evidence. In the Appeal to Pity, it is the feelings of pity or sympathy that are substituted for evidence.

It must be noted that there are cases in which claims that actually serve as evidence also evoke a feeling of pity. In such cases, the feeling of pity is still not evidence. The following is an example of a case in which a claim evokes pity and also serves as legitimate evidence:

Professor: “You missed the midterm, Bill.”

Bill: “I know. I think you should let me take the makeup.”

Professor: “Why?”

Bill: “I was hit by a truck on the way to the midterm. Since I had to go to the emergency room with a broken leg, I think I am entitled to a makeup.”

Professor: “I’m sorry about the leg, Bill. Of course you can make it up.”

The above example does not involve a fallacy. While the professor does feel sorry for Bill, she is justified in accepting Bill’s claim that he deserves a makeup. After all getting run over by a truck would be a legitimate excuse for missing a test.

Example #1:

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Jill: "He'd be a terrible coach for the team."

Bill: "He had his heart set on the job, and it would break if he didn't get it."

Jill: "I guess he'll do an adequate job."

Example #2:

"I'm positive that my work will meet your requirements. I really need the job since my grandmother is sick"

Example #3:

"I should receive an 'A' in this class. After all, if I don't get an 'A' I won't get the fellowship that I want."

Appeal to Popularity

Description:

The Appeal to Popularity has the following form:

- 1) Most people approve of X (have favorable emotions towards X).
- 2) Therefore X is true.

The basic idea is that a claim is accepted as being true simply because most people are favorably inclined towards the claim. More formally, the fact that most people have favorable emotions associated with the claim is substituted in place of actual evidence for the claim. A person falls prey to this fallacy if he accepts a claim as being true simply because most other people approve of the claim.

It is clearly fallacious to accept the approval of the majority as evidence for a claim. For example, suppose that a skilled speaker managed to get most people to absolutely love the claim that $1+1=3$. It would still not be rational to accept this claim simply because most people approved of it. After all, mere approval is no substitute for a mathematical proof. At one time people approved of claims such as “the world is flat”, “humans cannot survive at speeds greater than 25 miles per hour”, “the sun revolves around the earth” but all these claims turned out to be false.

This sort of “reasoning” is quite common and can be quite an effective persuasive device. Since most humans tend to conform with the views of the majority, convincing a person that the majority approves of a claim is often an effective way to get him to accept it. Advertisers often use this tactic when they attempt to sell products by claiming that everyone uses and loves their products. In such cases they hope that people will accept the (purported) approval of others as a good reason to buy the product.

This fallacy is vaguely similar to such fallacies as Appeal to Belief and Appeal to Common Practice. However, in the case of an Ad Populum the appeal is to the fact that most people approve of a claim. In the case of an Appeal to Belief, the appeal is to the fact that most people believe a claim. In the case of an Appeal to Common Practice, the appeal is to the fact that many people take the action in question.

This fallacy is closely related to the Appeal to Emotion fallacy, as discussed in the entry for that fallacy.

Example #1:

My fellow Americans...there has been some talk that the government is overstepping its bounds by allowing police to enter people's homes without the warrants traditionally required by the Constitution. However, these are dangerous times and dangerous times require appropriate actions. I have in my office thousands of letters from people who let me know, in no uncertain terms, that they heartily endorse the war against terrorism in these United States. Because of this overwhelming approval, it is evident that the police are doing the right thing.

Example #2:

I read the other day that most people really like the new gun control laws. I was sort of suspicious of them, but I guess if most people like them, then they must be okay.

Example #3:

Jill and Jane have some concerns that the rules their sorority has set are racist in character. Since Jill is a decent person, she brings her concerns up in the next meeting. The president of the sorority assures her that there is nothing wrong with the rules, since the majority of the sisters like them. Jane accepts this ruling but Jill decides to leave the sorority.

Appeal to Ridicule

Also Known as: Appeal to Mockery, The Horse Laugh.

Description:

The Appeal to Ridicule is a fallacy in which ridicule or mockery is substituted for evidence in an “argument.” This line of “reasoning” has the following form:

1. X, which is some form of ridicule is presented (typically directed at the claim).
2. Therefore claim C is false.

This sort of “reasoning” is fallacious because mocking a claim does not show that it is false. This is especially clear in the following example: “1+1=2! That’s the most ridiculous thing I have ever heard!”

It should be noted that showing that a claim is ridiculous through the use of legitimate methods (such as a non fallacious argument) can make it reasonable to reject the claim. One form of this line of reasoning is known as a “*reductio ad absurdum*” (“reducing to absurdity”). In this sort of argument, the idea is to show that a contradiction (a statement that must be false) or an absurd result follows from a claim. For example: “Bill claims that a member of a minority group cannot be a racist. However, this is absurd. Think about this: white males are a minority in the world. Given Bill’s claim, it would follow that no white males could be racists. Hence, the Klan, Nazis, and white supremacists are not racist organizations.”

Since the claim that the Klan, Nazis, and white supremacists are not racist organizations is clearly absurd, it can be concluded that the claim that a member of a minority cannot be a racist is false.

Example#1:

“Sure my worthy opponent claims that we should lower tuition, but that is just laughable.”

Example#2:

“Equal rights for women? Yeah, I’ll support that when they start paying for dinner and taking out the trash! Hah hah! Fetch me another brewski, Mildred.”

Example#3:

“Those crazy conservatives! They think a strong military is the key to peace!
Such fools!”

Appeal to Spite

Description:

The Appeal to Spite Fallacy is a fallacy in which spite is substituted for evidence when an “argument” is made against a claim. This line of “reasoning” has the following form:

1. Claim X is presented with the intent of generating spite.
2. Therefore claim X is false (or true)

This sort of “reasoning” is fallacious because a feeling of spite does not count as evidence for or against a claim. This is quite clear in the following case: “Bill claims that the earth revolves around the sun. But remember that dirty trick he pulled on you last week. Now, doesn’t my claim that the sun revolves around the earth make sense to you?”

Of course, there are cases in which a claim that evokes a feeling of spite or malice can serve as legitimate evidence. However, it should be noted that the actual feelings of malice or spite are not evidence. The following is an example of such a situation:

Jill: “I think I’ll vote for Jane to be treasurer of NOW.”

Vicki: “Remember the time that your purse vanished at a meeting last year?”

Jill: “Yes.”

Vicki: “Well, I just found out that she stole your purse and stole some other stuff from people.”

Jill: “I’m not voting for her!”

In this case, Jill has a good reason not to vote for Jane. Since a treasurer should be honest, a known thief would be a bad choice. As long as Jill concludes that she should vote against Jane because she is a thief and not just out of spite, her reasoning would not be fallacious.

Example #1:

Bill: “I think that Jane did a great job this year. I’m going to nominate her for the award.”

Dave: "Have you forgotten last year? Remember that she didn't nominate you last year."

Bill: "You're right. I'm not going to nominate her."

Example #2:

Jill: "I think Jane's idea is a really good one and will really save a lot of money for the department."

Bill: "Maybe. Remember how she showed that your paper had a fatal flaw when you read it at the convention last year..."

Jill: "I had just about forgotten about that! I think I'll go with your idea instead."

Appeal to Tradition

Also Known as: Appeal to the Old, Old Ways are Best, Fallacious Appeal to the Past, Appeal to Age

Description:

Appeal to Tradition is a fallacy that occurs when it is assumed that something is better or correct simply because it is older, traditional, or “always has been done.” This sort of “reasoning” has the following form:

1. X is old or traditional
2. Therefore X is correct or better.

This sort of “reasoning” is fallacious because the age of something does not automatically make it correct or better than something newer. This is made quite obvious by the following example: The theory that witches and demons cause disease is far older than the theory that microorganism cause diseases. Therefore, the theory about witches and demons must be true.

This sort of “reasoning” is appealing for a variety of reasons. First, people often prefer to stick with what is older or traditional. This is a fairly common psychological characteristic of people which may stem from the fact that people feel more comfortable about what has been around longer. Second, sticking with things that are older or traditional is often easier than testing new things. Hence, people often prefer older and traditional things out of laziness. Hence, Appeal to Tradition is a somewhat common fallacy.

It should not be assumed that new things must be better than old things (see the fallacy Appeal to Novelty) any more than it should be assumed that old things are better than new things. The age of thing does not, in general, have any bearing on its quality or correctness (in this context). In the case of tradition, assuming that something is correct just because it is considered a tradition is poor reasoning. For example, if the belief that $1+1 = 56$ were a tradition of a group of people it would hardly follow that it is true.

Obviously, age does have a bearing in some contexts. For example, if a person concluded that aged wine would be better than brand new wine, he would not be committing an Appeal to Tradition. This is because, in such cases the age of the thing is relevant to its quality. Thus, the fallacy is committed only when the age is not, in and of itself, relevant to the claim.

One final issue that must be considered is the “test of time.” In some cases people might be assuming that because something has lasted as a tradition or

has been around a long time that it is true because it has “passed the test of time.” If a person assumes that something must be correct or true simply because it has persisted a long time, then he has committed an Appeal to Tradition. After all, as history has shown people can persist in accepting false claims for centuries.

However, if a person argues that the claim or thing in question has successfully stood up to challenges and tests for a long period of time then they would not be committing a fallacy. In such cases the claim would be backed by evidence. As an example, the theory that matter is made of subatomic particles has survived numerous tests and challenges over the years so there is a weight of evidence in its favor. The claim is reasonable to accept because of the weight of this evidence and not because the claim is old. Thus, a claim’s surviving legitimate challenges and passing valid tests for a long period of time can justify the acceptance of a claim. But mere age or persistence does not warrant accepting a claim.

Example #1:

Sure I believe in God. People have believed in God for thousands of years so it seems clear that God must exist. After all, why else would the belief last so long?

Example #2:

Gunthar is the father of Connan. They live on a small island and in their culture women are treated as property to be exchanged at will by men.

Connan: “You know father, when I was going to school in the United States I saw that American women are not treated as property. In fact, I read a book by this person named Mill in which he argued for women’s rights.”

Gunthar: “So, what is your point son?”

Connan: “Well, I think that it might be wrong to trade my sisters for cattle. They are human beings and should have a right to be masters of their own fate.”

Gunthar: “What a strange and new-fangled notion you picked up in America. That country must be even more barbaric than I imagined. Now think about this son. We have been trading women for cattle for as long as our people have lived on this island. It is a tradition that goes back into the mists of time. “

Connan: “But I still think there is something wrong with it.”

Gunthar: "Nonsense my boy. A tradition this old must be endorsed by the gods and must be right. "

Example #3:

Of course this mode of government is the best. We have had this government for over 200 years and no one has talked about changing it in all that time. So, it has got to be good.

Example #4:

A reporter is interviewing the head of a family that has been involved with a feud with another family.

Reporter: "Mr. Hatfield, why are you still fighting it out with the McCoys?"

Hatfield: "Well you see young man, my father feuded with the McCoys and his father feuded with them and so did my great grandfather."

Reporter: "But why? What started all this?"

Hatfield: "I don't rightly know. I'm sure it was the McCoys who started it all, though."

Reporter: "If you don't know why you're fighting, why don't you just stop?"

Hatfield: "Stop? What are you crazy? This feud has been going on for generations so I'm sure there is a darn good reason why it started. So I aim to keep it going. It has got to be the right thing to do. Hand me my shooting iron boy, I see one of those McCoy skunks sneaking in the cornfield."

Begging the Question

Also Known as: Circular Reasoning, Reasoning in a Circle, Petitio Principii

Description:

Begging the Question is a fallacy in which the premises include the claim that the conclusion is true or (directly or indirectly) assume that the conclusion is true. This sort of “reasoning” typically has the following form.

1. Premises in which the truth of the conclusion is claimed or the truth of the conclusion is assumed (either directly or indirectly).
2. Claim C (the conclusion) is true.

This sort of “reasoning” is fallacious because simply assuming that the conclusion is true (directly or indirectly) in the premises does not constitute evidence for that conclusion. Obviously, simply assuming a claim is true does not serve as evidence for that claim. This is especially clear in particularly blatant cases: “X is true. The evidence for this claim is that X is true.”

Some cases of question begging are fairly blatant, while others can be extremely subtle.

Example #1:

Bill: “God must exist.”

Jill: “How do you know.”

Bill: “Because the Bible says so.”

Jill: “Why should I believe the Bible?”

Bill: “Because the Bible was written by God.”

Example #2:

“If such actions were not illegal , then they would not be prohibited by the law.”

Example #3:

“The belief in God is universal. After all, everyone believes in God.”

Example #4:

Interviewer: "Your resume looks impressive but I need another reference."

Bill: "Jill can give me a good reference."

Interviewer: "Good. But how do I know that Jill is trustworthy?"

Bill: "Certainly. I can vouch for her."

Biased Generalization

Also Known as: Biased Statistics, Loaded Sample, Prejudiced Statistics, Prejudiced Sample, Loaded Statistics, Biased Induction, Biased Generalization

Description:

This fallacy is committed when a person draws a conclusion about a population based on a sample that is biased or prejudiced in some manner. It has the following form:

1. Sample S, which is biased, is taken from population P.
2. Conclusion C is drawn about Population P based on S.

The person committing the fallacy is misusing the following type of reasoning, which is known variously as Inductive Generalization, Generalization, and Statistical Generalization:

1. X% of all observed A's are B's.
2. Therefore X% of all A's are B's.

The fallacy is committed when the sample of A's is likely to be biased in some manner. A sample is biased or loaded when the method used to take the sample is likely to result in a sample that does not adequately represent the population from which it is drawn.

Biased samples are generally not very reliable. As a blatant case, imagine that a person is taking a sample from a truckload of small colored balls, some of which are metal and some of which are plastic. If he used a magnet to select his sample, then his sample would include a disproportionate number of metal balls (after all, the sample will probably be made up entirely of the metal balls). In this case, any conclusions he might draw about the whole population of balls would be unreliable since he would have few or no plastic balls in the sample.

The general idea is that biased samples are less likely to contain numbers proportional to the whole population. For example, if a person wants to find out what most Americans thought about gun control, a poll taken at an NRA meeting would be a biased sample.

Since the Biased Sample fallacy is committed when the sample (the observed instances) is biased or loaded, it is important to have samples that are not biased making a generalization. The best way to do this is to take samples in ways that avoid bias. There are, in general, three types of samples that are aimed at

avoiding bias. The general idea is that these methods (when used properly) will result in a sample that matches the whole population fairly closely. The three types of samples are as follows

Random Sample: This is a sample that is taken in such a way that nothing but chance determines which members of the population are selected for the sample. Ideally, any individual member of the population has the same chance as being selected as any other. This type of sample avoids being biased because a biased sample is one that is taken in such a way that some members of the population have a significantly greater chance of being selected for the sample than other members. Unfortunately, creating an ideal random sample is often very difficult.

Stratified Sample: This is a sample that is taken by using the following steps: 1) The relevant strata (population subgroups) are identified, 2) The number of members in each stratum is determined and 3) A random sample is taken from each stratum in exact proportion to its size. This method is obviously most useful when dealing with stratified populations. For example, a person's income often influences how she votes, so when conducting a presidential poll it would be a good idea to take a stratified sample using economic classes as the basis for determining the strata. This method avoids loaded samples by (ideally) ensuring that each stratum of the population is adequately represented.

Time Lapse Sample: This type of sample is taken by taking a stratified or random sample and then taking at least one more sample with a significant lapse of time between them. After the two samples are taken, they can be compared for changes. This method of sample taking is very important when making predictions. A prediction based on only one sample is likely to be a Hasty Generalization (because the sample is likely to be too small to cover past, present and future populations) or a Biased Sample (because the sample will only include instances from one time period).

People often commit Biased Sample because of bias or prejudice. For example, a person might intentionally or unintentionally seek out people or events that support his bias. As an example, a person who is pushing a particular scientific theory might tend to gather samples that are biased in favor of that theory.

People also commonly commit this fallacy because of laziness or sloppiness. It is very easy to simply take a sample from what happens to be easily available rather than taking the time and effort to generate an adequate sample and draw a justified conclusion.

It is important to keep in mind that bias is relative to the purpose of the sample. For example, if Bill wanted to know what NRA members thought about a gun control law, then taking a sample at a NRA meeting would not be biased.

However, if Bill wanted to determine what Americans in general thought about the law, then a sample taken at an NRA meeting would be biased.

Example #1:

Bill is assigned by his editor to determine what most Americans think about a new law that will place a federal tax on all modems and computers purchased. The revenues from the tax will be used to enforce new online decency laws. Bill, being technically inclined, decides to use an email poll. In his poll, 95% of those surveyed opposed the tax. Bill was quite surprised when 65% of all Americans voted for the taxes.

Example #2:

The United Pacifists of America decide to run a poll to determine what Americans think about guns and gun control. Jane is assigned the task of setting up the study. To save mailing costs, she includes the survey form in the group's newsletter mailing. She is very pleased to find out that 95% of those surveyed favor gun control laws and she tells her friends that the vast majority of Americans favor gun control laws.

Example #3:

Large scale polls were taken in Florida, California, and Maine and it was found that an average of 55% of those polled spent at least fourteen days a year near the ocean. So, it can be safely concluded that 55% of all Americans spend at least fourteen days near the ocean each year.

Burden of Proof

Also Known As: Appeal to Ignorance (“Ad Ignorantiam”)

Description:

Burden of Proof is a fallacy in which the burden of proof is placed on the wrong side. Another version occurs when a lack of evidence for side A is taken to be evidence for side B in cases in which the burden of proof actually rests on side B. A common name for this is an Appeal to Ignorance. This sort of reasoning typically has the following form:

1. Claim X is presented by side A and the burden of proof actually rests on side B.
2. Side B claims that X is false because there is no proof for X.

In many situations, one side has the burden of proof resting on it. This side is obligated to provide evidence for its position. The claim of the other side, the one that does not bear the burden of proof, is assumed to be true unless proven otherwise. The difficulty in such cases is determining which side, if any, the burden of proof rests on. In many cases, settling this issue can be a matter of significant debate. In some cases the burden of proof is set by the situation. For example, in American law a person is assumed to be innocent until proven guilty (hence the burden of proof is on the prosecution). As another example, in debate the burden of proof is placed on the affirmative team. As a final example, in most cases the burden of proof rests on those who claim something exists (such as Bigfoot, psychic powers, universals, and sense data).

Example #1:

Bill: “I think that we should invest more money in expanding the interstate system.”

Jill: “I think that would be a bad idea, considering the state of the treasury.”

Bill: How can anyone be against highway improvements?”

Example #2:

Bill: “I think that some people have psychic powers.”

Jill: “What is your proof?”

Bill: "No one has been able to prove that people do not have psychic powers."

Example #3:

"You cannot prove that God does not exist, so He does."

Circumstantial Ad Hominem

Description:

A Circumstantial ad Hominem is a fallacy in which one attempts to attack a claim by asserting that the person making the claim is making it simply out of self interest. In some cases, this fallacy involves substituting an attack on a person's circumstances (such as the person's religion, political affiliation, ethnic background, etc.). The fallacy has the following forms:

1. Person A makes claim X.
2. Person B asserts that A makes claim X because it is in A's interest to claim X.
3. Therefore claim X is false.

1. Person A makes claim X.
2. Person B makes an attack on A's circumstances.
3. Therefore X is false.

A Circumstantial ad Hominem is a fallacy because a person's interests and circumstances have no bearing on the truth or falsity of the claim being made. While a person's interests will provide them with motives to support certain claims, the claims stand or fall on their own. It is also the case that a person's circumstances (religion, political affiliation, etc.) do not affect the truth or falsity of the claim. This is made quite clear by the following example: "Bill claims that $1+1=2$. But he is a Republican, so his claim is false."

There are times when it is prudent to suspicious of a person's claims, such as when it is evident that the claims are being biased by the person's interests. For example, if a tobacco company representative claims that tobacco does not cause cancer, it would be prudent to not simply accept the claim. This is because the person has a motivation to make the claim, whether it is true or not. However, the mere fact that the person has a motivation to make the claim does not make it false. For example, suppose a parent tells her son that sticking a fork in a light socket would be dangerous. Simply because she has a motivation to say this obviously does not make her claim false.

Example #1:

"She asserts that we need more military spending, but that is false, since she is only saying it because she is a Republican."

Example #2:

“I think that we should reject what Father Jones has to say about the ethical issues of abortion because he is a Catholic priest. After all, Father Jones is required to hold such views.”

Example #3:

“Of course the Senator from Maine opposes a reduction in naval spending. After all, Bath Ironworks, which produces warships, is in Maine.”

Example #4:

“Bill claims that tax breaks for corporations increases development. Of course, Bill is the CEO of a corporation.”

Fallacy of Composition

Description:

The fallacy of Composition is committed when a conclusion is drawn about a whole based on the features of its constituents when, in fact, no justification provided for the inference. There are actually two types of this fallacy, both of which are known by the same name (because of the high degree of similarity).

The first type of fallacy of Composition arises when a person reasons from the characteristics of individual members of a class or group to a conclusion regarding the characteristics of the entire class or group (taken as a whole). More formally, the “reasoning” would look something like this.

1. Individual F things have characteristics A, B, C, etc.
2. Therefore, the (whole) class of F things has characteristics A, B, C, etc.

This line of reasoning is fallacious because the mere fact that individuals have certain characteristics does not, in itself, guarantee that the class (taken as a whole) has those characteristics.

It is important to note that drawing an inference about the characteristics of a class based on the characteristics of its individual members is not always fallacious. In some cases, sufficient justification can be provided to warrant the conclusion. For example, it is true that an individual rich person has more wealth than an individual poor person. In some nations (such as the US) it is true that the class of wealthy people has more wealth as a whole than does the class of poor people. In this case, the evidence used would warrant the inference and the fallacy of Composition would not be committed.

The second type of fallacy of Composition is committed when it is concluded that what is true of the parts of a whole must be true of the whole without there being adequate justification for the claim. More formally, the line of “reasoning” would be as follows:

1. The parts of the whole X have characteristics A, B, C, etc.
2. Therefore the whole X must have characteristics A, B, C.

This sort of reasoning is fallacious because it cannot be inferred that simply because the parts of a complex whole have (or lack) certain properties that the whole that they are parts of has those properties. This is especially clear in math: The numbers 1 and 3 are both odd. 1 and 3 are parts of 4. Therefore, the number 4 is odd.

It must be noted that reasoning from the properties of the parts to the properties of the whole is not always fallacious. If there is justification for the inference from parts to whole, then the reasoning is not fallacious. For example, if every part of the human body is made of matter, then it would not be an error in reasoning to conclude that the whole human body is made of matter. Similarly, if every part of a structure is made of brick, there is no fallacy committed when one concludes that the whole structure is made of brick.

Example #1:

A main battle tank uses more fuel than a car. Therefore, the main battle tanks use up more of the available fuel in the world than do all the cars.

Example #2:

A tiger eats more food than a human being. Therefore, tigers, as a group, eat more food than do all the humans on the earth.

Example #3:

Atoms are colorless. Cats are made of atoms, so cats are colorless.

Example #4:

Every player on the team is a superstar and a great player, so the team is a great team.” This is fallacious since the superstars might not be able to play together very well and hence they could be a lousy team.

Example #5:

Each part of the show, from the special effects to the acting is a masterpiece. So, the whole show is a masterpiece.” This is fallacious since a show could have great acting, great special effects and such, yet still fail to “come together” to make a masterpiece.

Example #6:

Come on, you like beef, potatoes, and green beans, so you will like this beef, potato, and green bean casserole.” This is fallacious for the same reason that the following is fallacious: “You like eggs, ice cream, pizza, cake, fish, jello, chicken, taco sauce, soda, oranges, milk, egg rolls, and yogurt so you must like this yummy dish made out of all of them.

Example #7:

A Fallacy Recognition Handbook

Sodium and chlorine are both dangerous to humans. Therefore any combination of sodium and chlorine will be dangerous to humans.

Confusing Cause and Effect

Also Known as: Questionable Cause, Reversing Causation

Description:

Confusing Cause and Effect is a fallacy that has the following general form:

- 1) A and B regularly occur together.
- 2) Therefore A is the cause of B.

This fallacy requires that there not be, in fact, a common cause that actually causes both A and B.

This fallacy is committed when a person assumes that one event must cause another just because the events occur together. More formally, this fallacy involves drawing the conclusion that A is the cause of B simply because A and B are in regular conjunction (and there is not a common cause that is actually the cause of A and B). The mistake being made is that the causal conclusion is being drawn without adequate justification.

In some cases it will be evident that the fallacy is being committed. For example, a person might claim that an illness was caused by a person getting a fever. In this case, it would be quite clear that the fever was caused by illness and not the other way around. In other cases, the fallacy is not always evident. One factor that makes causal reasoning quite difficult is that it is not always evident what is the cause and what is the effect. For example, a problem child might be the cause of the parents being short tempered or the short temper of the parents might be the cause of the child being problematic. The difficulty is increased by the fact that some situations might involve feedback. For example, the parents' temper might cause the child to become problematic and the child's behavior could worsen the parents' temper. In such cases it could be rather difficult to sort out what caused what in the first place.

In order to determine that the fallacy has been committed, it must be shown that the causal conclusion has not been adequately supported and that the person committing the fallacy has confused the actual cause with the effect. Showing that the fallacy has been committed will typically involve determining the actual cause and the actual effect. In some cases, as noted above, this can be quite easy. In other cases it will be difficult. In some cases, it might be almost impossible. Another thing that makes causal reasoning difficult is that people often have very different conceptions of cause and, in some cases, the issues are clouded by emotions and ideologies. For example, people often claim violence on TV and in movies must be censored because it causes people to like

violence. Other people claim that there is violence on TV and in movies because people like violence. In this case, it is not obvious what the cause really is and the issue is clouded by the fact that emotions often run high on this issue.

While causal reasoning can be difficult, many errors can be avoided with due care and careful testing procedures. This is due to the fact that the fallacy arises because the conclusion is drawn without due care. One way to avoid the fallacy is to pay careful attention to the temporal sequence of events. Since (outside of Star Trek), effects do not generally precede their causes, if A occurs after B, then A cannot be the cause of B. However, these methods go beyond the scope of this program.

All causal fallacies involve an error in causal reasoning. However, this fallacy differs from the other causal fallacies in terms of the error in reasoning being made. In the case of a Post Hoc fallacy, the error is that a person is accepting that A is the cause of B simply because A occurs before B. In the case of the Fallacy of Ignoring a Common Cause A is taken to be the cause of B when there is, in fact, a third factor that is the cause of both A and B. For more information, see the relevant entries in this program.

Example #1:

Bill and Joe are having a debate about music and moral decay:

Bill: "It seems clear to me that this new music is causing the youth to become corrupt."

Joe: "What do you mean?"

Bill: "This rap stuff is always telling the kids to kill cops, do drugs, and abuse women. That is all bad and the kids today shouldn't be doing that sort of stuff. We ought to ban that music!"

Joe: "So, you think that getting rid of the rap music would solve the drug, violence and sexism problems in the US?"

Bill: "Well, it wouldn't get rid of it all, but it would take care of a lot of it."

Joe: "Don't you think that most of the rap singers sing about that sort of stuff because that is what is really going on these days? I mean, people often sing about the conditions of their time, just like the people did in the sixties. But then I suppose that you think that people were against the war and into drugs just because they listened to Dylan and Baez."

Bill: "Well..."

Joe: “Well, it seems to me that the main cause of the content of the rap music is the pre-existing social conditions. If there weren’t all these problems, the rap singers probably wouldn’t be singing about them. I also think that if the social conditions were great, kids could listen to the music all day and not be affected.”

Joe: “Well, I still think the rap music causes the problems. You can’t argue against the fact that social ills really picked up at the same time rap music got started.”

Example #2:

It is claimed by some people that severe illness is caused by depression and anger. After all, people who are severely ill are very often depressed and angry. Thus, it follows that the cause of severe illness actually is the depression and anger. So, a good and cheerful attitude is key to staying healthy.

Example #3:

Bill sets out several plates with bread on them. After a couple days, he notices that the bread has mold growing all over it. Bill concludes that the mold was produced by the bread going bad. When Bill tells his mother about his experiment, she tells him that the mold was the cause of the bread going bad and that he better clean up the mess if he wants to get his allowance this week.

Fallacy of Division

Description:

The fallacy of Division is committed when a person infers that what is true of a whole must also be true of its constituents and justification for that inference is not provided. There are two main variants of the general fallacy of Division:

The first type of fallacy of Division is committed when 1) a person reasons that what is true of the whole must also be true of the parts and 2) the person fails to justify that inference with the required degree of evidence. More formally, the “reasoning” follows this sort of pattern:

1. The whole, X, has properties A, B, C, etc.
2. Therefore the parts of X have properties A,B,C, etc.

That this line of reasoning is fallacious is made clear by the following case: 4 is an even number. 1 and 3 are parts of 4. Therefore 1 and 3 are even.

It should be noted that it is not always fallacious to draw a conclusion about the parts of a whole based on the properties of the whole. As long as adequate evidence is provided in the argument, the reasoning can be acceptable. For example, the human body is made out of matter and it is reasonable to infer from this that the parts that make up the human body are also made out of matter. This is because there is no reason to believe that the body is made up of non-material parts that somehow form matter when they get together.

The second version of the fallacy of division is committed when a person 1) draws a conclusion about the properties of individual members of a class or group based on the collective properties of the class or group and 2) there is not enough justification for the conclusion. More formally, the line of “reasoning” is as follows:

1. As a collective, group or class X has properties A,B,C, etc.
2. Therefore the individual members of group or class X have properties A,B,C, etc.

That this sort of reasoning is fallacious can be easily shown by the following: It is true that athletes, taken as a group, are football players, track runners, swimmers, tennis players, long jumpers, pole vaulters and such. But it would be fallacious to infer that each individual athlete is a football player, a track runner, a swimmer, a tennis player, a swimmer, etc.

It should be noted that it is not always fallacious to draw a conclusion about an individual based on what is true of the class he/she/it belongs to. If the inference is backed by evidence, then the reasoning can be fine. For example, it is not fallacious to infer that Bill the Siamese cat is a mammal from the fact that all cats are mammals. In this case, what is true of the class is also true of each individual member.

Example #1:

“The ball is blue, therefore the atoms that make it up are also blue.”

Example #2:

“A living cell is organic material, so the chemicals making up the cell must also be organic material.”

Example #3:

“Bill lives in a large building, so his apartment must be large.”

Example #4:

“Sodium chloride (table salt) may be safely eaten. Therefore its constituent elements, sodium and chlorine, may be safely eaten.”

Example #5:

“Americans use much more electricity than Africans do. So Bill, who lives in primitive cabin in Maine, uses more electricity than Nelson, who lives in a modern house in South Africa. “

Example #6:

“Men receive more higher education than women. Therefore Dr. Jane Smart has less higher education than Mr. Bill Buffoon. “

Example #7:

“Minorities get paid less than whites in America. Therefore, the black CEO of a multi-billion dollar company gets paid less than the white janitor who cleans his office.”

False Dilemma

Also Known as: Black & White Thinking

Description:

A False Dilemma is a fallacy in which a person uses the following pattern of “reasoning”:

1. Either claim X is true or claim Y is true (when X and Y could both be false).
2. Claim Y is false.
3. Therefore claim X is true.

This line of “reasoning” is fallacious because if both claims could be false, then it cannot be inferred that one is true because the other is false. That this is the case is made clear by the following example:

1. Either $1+1 = 4$ or $1+1 = 12$.
2. It is not the case that $1+1 = 4$.
3. Therefore $1+1 = 12$.

In cases in which the two options are, in fact, the only two options, this line of reasoning is not fallacious. For example:

1. Bill is dead or he is alive.
2. Bill is not dead.
3. Therefore Bill is alive.

Example #1:

Senator Jill: “We’ll have to cut education funding this year.”

Senator Bill” “Why?”

Senator Jill: “Well, either we cut the social programs or we live with a huge deficit and we can’t live with the deficit.”

Example #2:

Bill: "Jill and I both support having prayer in public schools."

Jill: "Hey, I never said that!"

Bill: "You're not an atheist are you Jill?"

Example #3:

"Look, you are going to have to make up your mind. Either you decide that you can afford this stereo, or you decide you are going to do without music for a while."

Gambler's Fallacy

Description:

The Gambler's Fallacy is committed when a person assumes that a departure from what occurs on average or in the long term will be corrected in the short term. The form of the fallacy is as follows:

1. X has happened.
2. X departs from what is expected to occur on average or over the long term.
3. Therefore, X will come to an end soon.

There are two common ways this fallacy is committed. In both cases a person is assuming that some result must be "due" simply because what has previously happened departs from what would be expected on average or over the long term.

The first involves events whose probabilities of occurring are independent of one another. For example, one toss of a fair (two sides, non-loaded) coin does not affect the next toss of the coin. So, each time the coin is tossed there is (ideally) a 50% chance of it landing heads and a 50% chance of it landing tails. Suppose that a person tosses a coin 6 times and gets a head each time. If he concludes that the next toss will be tails because tails "is due", then he will have committed the Gambler's Fallacy. This is because the results of previous tosses have no bearing on the outcome of the 7th toss. It has a 50% chance of being heads and a 50% chance of being tails, just like any other toss.

The second involves cases whose probabilities of occurring are not independent of one another. For example, suppose that a boxer has won 50% of his fights over the past two years. Suppose that after several fights he has won 50% of his matches this year, that he has lost his last six fights and he has six left. If a person believed that he would win his next six fights because he has used up his losses and is "due" for a victory, then he would have committed the Gambler's Fallacy. After all, the person would be ignoring the fact that the results of one match can influence the results of the next one. For example, the boxer might have been injured in one match which would lower his chances of winning his last six fights.

It should be noted that not all predictions about what is likely to occur are fallacious. If a person has good evidence for his predictions, then they will be reasonable to accept. For example, if a person tosses a fair coin and gets nine heads in a row it would be reasonable for him to conclude that he will probably not get another nine in a row again. This reasoning would not be fallacious as

long as he believed his conclusion because of an understanding of the laws of probability. In this case, if he concluded that he would not get another nine heads in a row because the odds of getting nine heads in a row are lower than getting fewer than nine heads in a row, then his reasoning would be good and his conclusion would be justified. Hence, determining whether or not the Gambler's Fallacy is being committed often requires some basic understanding of the laws of probability.

Example #1:

Bill is playing against Doug in a WWII tank battle game. Doug has had a great "streak of luck" and has been killing Bill's tanks left and right with good die rolls. Bill, who has a few tanks left, decides to risk all in a desperate attack on Doug. He is a bit worried that Doug might wipe him out, but he thinks that since Doug's luck at rolling has been great Doug must be due for some bad dice rolls. Bill launches his attack and Doug butchers his forces.

Example #2:

Jane and Bill are talking:

Jane: "I'll be able to buy that car I always wanted soon."

Bill: "Why, did you get a raise?"

Jane: "No. But you know how I've been playing the lottery all these years?"

Bill: "Yes, you buy a ticket for every drawing, without fail."

Jane: "And I've lost every time."

Bill: "So why do you think you will win this time?"

Jane: "Well, after all those losses I'm due for a win."

Example #3:

Joe and Sam are at the race track betting on horses.

Joe: "You see that horse over there? He lost his last four races. I'm going to bet on him."

Sam: "Why? I think he will probably lose."

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Joe: “No way, Sam. I looked up the horse’s stats and he has won half his races in the past two years. Since he has lost three of his last four races, he’ll have to win this race. So I’m betting the farm on him.”

Sam: “Are you sure?”

Joe: “Of course I’m sure. That pony is due, man...he’s due!”

Genetic Fallacy

Description:

A Genetic Fallacy is a line of “reasoning” in which a perceived defect in the origin of a claim or thing is taken to be evidence that discredits the claim or thing itself. It is also a line of reasoning in which the origin of a claim or thing is taken to be evidence for the claim or thing. This sort of “reasoning” has the following form:

1. The origin of a claim or thing is presented.
2. The claim is true(or false) or the thing is supported (or discredited).

It is clear that sort of “reasoning” is fallacious. For example: “Bill claims that $1+1=2$. However, my parents brought me up to believe that $1+1=254$, so Bill must be wrong.”

It should be noted that there are some cases in which the origin of a claim is relevant to the truth or falsity of the claim. For example, a claim that comes from a reliable expert is likely to be true (provided it is in her area of expertise).

Example #1:

“Yeah, the environmentalists do claim that over-development can lead to all kinds of serious problems. But we all know about those darn bunny huggers and their silly views!”

Example #2:

“I was brought up to believe in God, and my parents told me God exists, so He must.”

Example #3:

“Sure, the media claim that Senator Bedfellow was taking kickbacks. But we all know about the media’s credibility, don’t we.”

Guilt by Association

Also Known as: Bad Company Fallacy, Company that You Keep Fallacy

Description:

Guilt by Association is a fallacy in which a person rejects a claim simply because it is pointed out that people she dislikes accept the claim. This sort of “reasoning” has the following form:

1. It is pointed out that person A accepts claim P.
2. Therefore P is false

It is clear that sort of “reasoning” is fallacious. For example the following is obviously a case of poor “reasoning”: “You think that $1+1=2$. But, Adolf Hitler, Charles Manson, Joseph Stalin, and Ted Bundy all believed that $1+1=2$. So, you shouldn’t believe it.”

The fallacy draws its power from the fact that people do not like to be associated with people they dislike. Hence, if it is shown that a person shares a belief with people he dislikes he might be influenced into rejecting that belief. In such cases the person will be rejecting the claim based on how he thinks or feels about the people who hold it and because he does not want to be associated with such people.

Of course, the fact that someone does not want to be associated with people she dislikes does not justify the rejection of any claim. For example, most wicked and terrible people accept that the earth revolves around the sun and that lead is heavier than helium. No sane person would reject these claims simply because this would put them in the company of people they dislike (or even hate).

Example #1:

Will and Kiteena are arguing over socialism. Kiteena is a pacifist and hates violence and violent people.

Kiteena: “I think that the United States should continue to adopt socialist programs. For example, I think that the government should take control of vital industries.”

Will: “So, you are for state ownership of industry.”

Kiteena: “Certainly. It is a great idea and will help make the world a less violent place.”

Will: “Well, you know Stalin also endorsed state ownership on industry. At last count he wiped out millions of his own people. Pol Pot of Cambodia was also for state ownership of industry. He also killed millions of his own people. The leadership of China is for state owned industry. They killed their own people in that square. So, are you still for state ownership of industry?”

Kiteena: “Oh, no! I don’t want to be associated with those butchers!”

Example #2:

Jen and Sandy are discussing the topic of welfare. Jen is fairly conservative politically but she has been an active opponent of racism. Sandy is extremely liberal politically.

Jen: “I was reading over some private studies of welfare and I think it would be better to have people work for their welfare. For example, people could pick up trash, put up signs, and maybe even do skilled labor that they are qualified for. This would probably make people feel better about themselves and it would get more out of our tax money.”

Sandy: “I see. So, you want to have the poor people out on the streets picking up trash for their checks? Well, you know that is exactly the position David Count endorses.”

Jen: “Who is he?”

Sandy: “I’m surprised you don’t know him, seeing how alike you two are. He was a Grand Mooky Wizard for the Aryan Pure White League and is well known for his hatred of blacks and other minorities. With your views, you’d fit right in to his little racist club.”

Jen: “So, I should reject my view just because I share it with some racist?”

Sandy: “Of course.”

Example #3:

Libard and Ferris are discussing who they are going to vote for as the next department chair in the philosophy department. Libard is a radical feminist and she despises Wayne and Bill, who are two sexist professors in the department.

Ferris: “So, who are you going to vote for?”

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Libard: 'Well, I was thinking about voting for Jane, since she is a woman and there has never been a woman chair here. But, I think that Steve will do an excellent job. He has a lot of clout in the university and he is a decent person.'

Ferris: "You know, Wayne and Bill are supporting him. They really like the idea of having Steve as the new chair. I never thought I'd see you and those two pigs on the same side."

Libard: "Well, maybe it is time that we have a woman as chair."

Hasty Generalization

Also Known as: Fallacy of Insufficient Statistics, Fallacy of Insufficient Sample, Leaping to A Conclusion, Hasty Induction

Description:

This fallacy is committed when a person draws a conclusion about a population based on a sample that is not large enough. It has the following form:

1. Sample S, which is too small, is taken from population P.
2. Conclusion C is drawn about Population P based on S.

The person committing the fallacy is misusing the following type of reasoning, which is known variously as Inductive Generalization, Generalization, and Statistical Generalization:

1. X% of all observed A's are B's.
2. Therefore X% of all A's are B's.

The fallacy is committed when not enough A's are observed to warrant the conclusion. If enough A's are observed then the reasoning is not fallacious.

Small samples will tend to be unrepresentative. As a blatant case, asking one person what she thinks about gun control would clearly not provide an adequate sized sample for determining what Canadians in general think about the issue. The general idea is that small samples are less likely to contain numbers proportional to the whole population. For example, if a bucket contains blue, red, green and orange marbles, then a sample of three marbles cannot possibly be representative of the whole population of marbles. As the sample size of marbles increases the more likely it becomes that marbles of each color will be selected in proportion to their numbers in the whole population. The same holds true for things others than marbles, such as people and their political views.

Since Hasty Generalization is committed when the sample (the observed instances) is too small, it is important to have samples that are large enough when making a generalization. The most reliable way to do this is to take as large a sample as is practical. There are no fixed numbers as to what counts as being large enough. If the population in question is not very diverse (a population of cloned mice, for example) then a very small sample would suffice. If the population is very diverse (people, for example) then a fairly large sample would be needed. The size of the sample also depends on the size of the population. Obviously, a very small population will not support a huge sample. Finally, the

required size will depend on the purpose of the sample. If Bill wants to know what Joe and Jane think about gun control, then a sample consisting of Bill and Jane would (obviously) be large enough. If Bill wants to know what most Australians think about gun control, then a sample consisting of Bill and Jane would be far too small.

People often commit Hasty Generalizations because of bias or prejudice. For example, someone who is a sexist might conclude that all women are unfit to fly jet fighters because one woman crashed one. People also commonly commit Hasty Generalizations because of laziness or sloppiness. It is very easy to simply leap to a conclusion and much harder to gather an adequate sample and draw a justified conclusion. Thus, avoiding this fallacy requires minimizing the influence of bias and taking care to select a sample that is large enough.

One final point: a Hasty Generalization, like any fallacy, might have a true conclusion. However, as long as the reasoning is fallacious there is no reason to accept the conclusion based on that reasoning.

Example #1:

Smith, who is from England, decides to attend graduate school at Ohio State University. He has never been to the US before. The day after he arrives, he is walking back from an orientation session and sees two white (albino) squirrels chasing each other around a tree. In his next letter home, he tells his family that American squirrels are white.

Example #2:

Sam is riding her bike in her home town in Maine, minding her own business. A station wagon comes up behind her and the driver starts beeping his horn and then tries to force her off the road. As he goes by, the driver yells “get on the sidewalk where you belong!” Sam sees that the car has Ohio plates and concludes that all Ohio drivers are jerks.

Example #3:

Bill: “You know, those feminists all hate men.”

Joe: “Really?”

Bill: “Yeah. I was in my philosophy class the other day and that Rachel chick gave a presentation.”

Joe: “Which Rachel?”

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Bill: "You know her. She's the one that runs that feminist group over at the Women's Center. She said that men are all sexist pigs. I asked her why she believed this and she said that her last few boyfriends were real sexist pigs."

Joe: "That doesn't sound like a good reason to believe that all of us are pigs."

Bill: "That was what I said."

Joe: "What did she say?"

Bill: "She said that she had seen enough of men to know we are all pigs. She obviously hates all men."

Joe: "So you think all feminists are like her?"

Bill: "Sure. They all hate men."

Ignoring a Common Cause

Also Known as: Questionable Cause

Description:

This fallacy has the following general structure:

- 1) A and B are regularly connected (but no third, common cause is looked for).
- 2) Therefore A is the cause of B.

This fallacy is committed when it is concluded that one thing causes another simply because they are regularly associated. More formally, this fallacy is committed when it is concluded that A is the cause of B simply because A and B are regularly connected. Further, the causal conclusion is drawn without considering the possibility that a third factor might be the cause of both A and B.

In many cases, the fallacy is quite evident. For example, if a person claimed that a person's sneezing was caused by her watery eyes and he simply ignored the fact that the woman was standing in a hay field, he would have fallen prey to the fallacy of ignoring a common cause. In this case, it would be reasonable to conclude that the woman's sneezing and watering eyes was caused by an allergic reaction of some kind. In other cases, it is not as evident that the fallacy is being committed. For example, a doctor might find a large amount of bacteria in one of her patients and conclude that the bacteria are the cause of the patient's illness. However, it might turn out that the bacteria are actually harmless and that a virus is weakening the person. Thus, the viruses would be the actual cause of the illness and growth of the bacteria (the viruses would weaken the ability of the person's body to resist the growth of the bacteria).

As noted in the discussion of other causal fallacies, causality is a rather difficult matter. However, it is possible to avoid this fallacy by taking due care. In the case of Ignoring a Common Cause, the key to avoiding this fallacy is to be careful to check for other factors that might be the actual cause of both the suspected cause and the suspected effect. If a person fails to check for the possibility of a common cause, then they will commit this fallacy. Thus, it is always a good idea to always ask "could there be a third factor that is actually causing both A and B?"

Example #1:

One day Bill wakes up with a fever. A few hours later he finds that his muscles are sore. He concludes that the fever must have caused the soreness. His friend insists that the soreness and the fever are caused by some microbe. Bill laughs

at this and insists that if he spends the day in a tub of cold water his soreness will go away.

Example #2:

Over the course of several weeks the leaves from the trees along the Wombat river fell into the water. Shortly thereafter, many dead fish were seen floating in the river. When the EPA investigated, the owners of the Wombat River Chemical Company claimed that it was obvious that the leaves had killed the fish. Many local environmentalists claimed that the chemical plant's toxic wastes caused both the trees and the fish to die and that the leaves had no real effect on the fish.

Example #3:

A thunderstorm wakes Joe up in the middle of the night. He goes downstairs to get some milk to help him get back to sleep. On the way to the refrigerator, he notices that the barometer has fallen a great deal. Joe concludes that the storm caused the barometer to fall. In the morning he tells his wife about his conclusion. She tells him that it was a drop in atmospheric pressure that caused the barometer to drop and the storm.

Middle Ground

Also Known as: Golden Mean Fallacy, Fallacy of Moderation

Description:

This fallacy is committed when it is assumed that the middle position between two extremes must be correct simply because it is the middle position. this sort of “reasoning” has the following form:

1. Position A and B are two extreme positions.
2. C is a position that rests in the middle between A and B.
3. Therefore C is the correct position.

This line of “reasoning” is fallacious because it does not follow that a position is correct just because it lies in the middle of two extremes. This is shown by the following example. Suppose that a person is selling his computer. He wants to sell it for the current market value, which is \$800 and someone offers him \$1 for it. It would hardly follow that \$400.50 is the proper price.

This fallacy draws its power from the fact that a moderate or middle position is often the correct one. For example, a moderate amount of exercise is better than too much exercise or too little exercise. However, this is not simply because it lies in the middle ground between two extremes. It is because too much exercise is harmful and too little exercise is all but useless. The basic idea behind many cases in which moderation is correct is that the extremes are typically “too much” and “not enough” and the middle position is “enough.” In such cases the middle position is correct almost by definition.

It should be kept in mind that while uncritically assuming that the middle position must be correct because it is the middle position is poor reasoning it does not follow that accepting a middle position is always fallacious. As was just mentioned, many times a moderate position is correct. However, the claim that the moderate or middle position is correct must be supported by legitimate reasoning.

Example #1:

Some people claim that God is all powerful, all knowing, and all good. Other people claim that God does not exist at all. Now, it seems reasonable to accept a

position somewhere in the middle. So, it is likely that God exists, but that he is only very powerful, very knowing, and very good. That seems right to me.

Example #2:

Congressman Jones has proposed cutting welfare payments by 50% while Congresswoman Shender has proposed increasing welfare payments by 10% to keep up with inflation and cost of living increases. I think that the best proposal is the one made by Congressman Trumple. He says that a 30% decrease in welfare payments is a good middle ground, so I think that is what we should support.

Example #3:

A month ago, a tree in Bill's yard was damaged in a storm. His neighbor, Joe, asked him to have the tree cut down so it would not fall on Joe's new shed. Bill refused to do this. Two days later another storm blew the tree onto Joe's new shed. Joe demanded that Bill pay the cost of repairs, which was \$250. Bill said that he wasn't going to pay a cent. Obviously, the best solution is to reach a compromise between the two extremes, so Bill should pay Joe \$125.

Misleading Vividness

Description:

Misleading Vividness is a fallacy in which a very small number of particularly dramatic events are taken to outweigh a significant amount of statistical evidence. This sort of “reasoning” has the following form:

1. Dramatic or vivid event X occurs (and is not in accord with the majority of the statistical evidence) .
2. Therefore events of type X are likely to occur.

This sort of “reasoning” is fallacious because the mere fact that an event is particularly vivid or dramatic does not make the event more likely to occur, especially in the face of significant statistical evidence.

People often accept this sort of “reasoning” because particularly vivid or dramatic cases tend to make a very strong impression on the human mind. For example, if a person survives a particularly awful plane crash, he might be inclined to believe that air travel is more dangerous than other forms of travel. After all, explosions and people dying around him will have a more significant impact on his mind than will the rather dull statistics that a person is more likely to be struck by lightning than killed in a plane crash.

It should be kept in mind that taking into account the possibility of something dramatic or vivid occurring is not always fallacious. For example, a person might decide to never go sky diving because the effects of an accident can be very, very dramatic. If he knows that, statistically, the chances of the accident are happening are very low but he considers even a small risk to be unacceptable, then he would not be making an error in reasoning.

Example #1:

Bill and Jane are talking about buying a computer.

Jane: “I’ve been thinking about getting a computer. I’m really tired of having to wait in the library to write my papers.”

Bill: “What sort of computer do you want to get?”

Jane: “Well, it has to be easy to use, have a low price and have decent processing power. I’ve been thinking about getting a Kiwi Fruit 2200. I read in that consumer magazine that they have been found to be very reliable in six independent industry studies.”

Bill: "I wouldn't get the Kiwi Fruit. A friend of mine bought one a month ago to finish his master's thesis. He was halfway through it when smoke started pouring out of the CPU. He didn't get his thesis done on time and he lost his financial aid. Now he's working over at the Gut Boy Burger Warehouse."

Jane: "I guess I won't go with the Kiwi!"

Example #2:

Joe and Drew are talking about flying.

Joe: "When I was flying back to school, the pilot came on the intercom and told us that the plane was having engine trouble. I looked out the window and I saw smoke billowing out of the engine nearest me. We had to make an emergency landing and there were fire trucks everywhere. I had to spend the next six hours sitting in the airport waiting for a flight. I was lucky I didn't die! I'm never flying again."

Drew: "So how are you going to get home over Christmas break?"

Joe: "I'm going to drive. That will be a lot safer than flying."

Drew: "I don't think so. You are much more likely to get injured or killed driving than flying."

Joe: "I don't buy that! You should have seen the smoke pouring out of that engine! I'm never getting on one of those death traps again!"

Example #3:

Jane and Sarah are talking about running in a nearby park.

Jane: "Did you hear about that woman who was attacked in Tuttle Park?"

Sarah: "Yes. It was terrible."

Jane: "Don't you run there every day?"

Sarah: "Yes."

Jane: "How can you do that? I'd never be able to run there!"

Sarah: "Well, as callous as this might sound, that attack was out of the ordinary. I've been running there for three years and this has been the only attack. Sure, I

worry about being attacked, but I'm not going give up my running just because there is some slight chance I'll be attacked."

Jane: "That is stupid! I'd stay away from that park if I was you! That woman was really beat up badly so you know it is going to happen again. If you don't stay out of that park, it will probably happen to you!"

Peer Pressure

Description:

Peer Pressure is a fallacy in which a threat of rejection by one's peers (or peer pressure) is substituted for evidence in an "argument." This line of "reasoning" has the following form:

1. Person P is pressured by his/her peers or threatened with rejection.
2. Therefore person P's claim X is false.

This line of "reasoning" is fallacious because peer pressure and threat of rejection do not constitute evidence for rejecting a claim. This is especially clear in the following example:

Joe: "Bill, I know you think that $1+1=2$. But we don't accept that sort of thing in our group."

Bill: "I was just joking. Of course I don't believe that."

It is clear that the pressure from Bill's group has no bearing on the truth of the claim that $1+1=2$.

It should be noted that loyalty to a group and the need to belong can give people very strong reasons to conform to the views and positions of those groups. Further, from a practical standpoint we must often compromise our beliefs in order to belong to groups. However, this feeling of loyalty or the need to belong simply do not constitute evidence for a claim.

Example #1:

Bill says that he likes the idea that people should work for their welfare when they can. His friends laugh at him, accuse him of fascist leanings, and threaten to ostracize him from their group. He decides to recant and abandon his position to avoid rejection.

Example #2:

Bill: "I like classical music and I think it is of higher quality than most modern music."

Jill: "That stuff is for old people."

Dave: “Yeah, only real sissy monkeys listen to that crap. Besides, Anthrax rules! It Rules!”

Bill: “Well, I don’t really like it that much. Anthrax is much better.”

Example #3:

Bill thinks that welfare is needed in some cases. His friends in the Young Republicans taunt him every time he makes his views known. He accepts their views in order to avoid rejection.

Personal Attack

Also Known as: Ad Hominem Abusive

Description:

A personal attack is committed when a person substitutes abusive remarks for evidence when attacking another person's claim or claims. This line of "reasoning" is fallacious because the attack is directed at the person making the claim and not the claim itself. The truth value of a claim is independent of the person making the claim. After all, no matter how repugnant an individual might be, he or she can still make true claims.

Not all ad Hominems are fallacious. In some cases, an individual's characteristics can have a bearing on the question of the veracity of her claims. For example, if someone is shown to be a pathological liar, then what he says can be considered to be unreliable. However, such attacks are weak, since even pathological liars might speak the truth on occasion.

In general, it is best to focus one's attention on the content of the claim and not on who made the claim. It is the content that determines the truth of the claim and not the characteristics of the person making the claim.

Example #1:

In a school debate, Bill claims that the President's economic plan is unrealistic. His opponent, a professor, retorts by saying "the freshman has his facts wrong."

Example #2:

"This theory about a potential cure for cancer has been introduced by a doctor who is a known lesbian feminist. I don't see why we should extend an invitation for her to speak at the World Conference on Cancer."

Example #3:

"Bill says that we should give tax breaks to companies. But he is untrustworthy, so it must be wrong to do that."

Example #4:

"That claim cannot be true. Dave believes it, and we know how morally repulsive he is."

Example #5:

“Bill claims that Jane would be a good treasurer. However I find Bill’s behavior offensive, so I’m not going to vote for Jill.”

Example #6

“Jane says that drug use is morally wrong, but she is just a goody-two shoes Christian, so we don’t have to listen to her.”

Example #7

Bill: “I don’t think it is a good idea to cut social programs.”

Jill: “Why not?”

Bill: “Well, many people do not get a fair start in life and hence need some help. After all, some people have wealthy parents and have it fairly easy. Others are born into poverty and...”

Jill: “You just say that stuff because you have a soft heart and an equally soft head.”

Poisoning the Well

Description:

This sort of “reasoning” involves trying to discredit what a person might later claim by presenting unfavorable information (be it true or false) about the person. This “argument” has the following form:

1. Unfavorable information (be it true or false) about person A is presented.
2. Therefore any claims person A makes will be false.

This sort of “reasoning” is obviously fallacious. The person making such an attack is hoping that the unfavorable information will bias listeners against the person in question and hence that they will reject any claims he might make. However, merely presenting unfavorable information about a person (even if it is true) hardly counts as evidence against the claims he/she might make. This is especially clear when Poisoning the Well is looked at as a form of ad Hominem in which the attack is made prior to the person even making the claim or claims. The following example clearly shows that this sort of “reasoning” is quite poor.

Example #1:

“Don’t listen to him, he’s a scoundrel.”

Example #2:

“Before turning the floor over to my opponent, I ask you to remember that those who oppose my plans do not have the best wishes of the university at heart.”

Example #3:

You are told, prior to meeting him, that your friend’s boyfriend is a decadent wastrel. When you meet him, everything you hear him say is tainted.

Example #4

Before class

Bill: “Boy, that professor is a real jerk. I think he is some sort of Eurocentric fascist.”

Jill: “Yeah.”

During Class:

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Prof. Jones: "...and so we see that there was never any 'Golden Age of Matriarchy' in 1895 in America."

After Class:

Bill: "See what I mean?"

Jill: "Yeah. There must have been a Golden Age of Matriarchy, since that jerk said there wasn't."

Post Hoc

Also Known as: Post Hoc Ergo Propter Hoc, False Cause, Questionable Cause, Confusing Coincidental Relationships With Causes

Description:

A Post Hoc is a fallacy with the following form:

- 1) A occurs before B.
- 2) Therefore A is the cause of B.

The Post Hoc fallacy derives its name from the Latin phrase "*Post hoc, ergo propter hoc.*" This has been traditionally interpreted as "After this, therefore because of this." This fallacy is committed when it is concluded that one event causes another simply because the proposed cause occurred before the proposed effect. More formally, the fallacy involves concluding that A causes or caused B because A occurs before B and there is not sufficient evidence to actually warrant such a claim.

It is evident in many cases that the mere fact that A occurs before B in no way indicates a causal relationship. For example, suppose Jill, who is in London, sneezed at the exact same time an earthquake started in California. It would clearly be irrational to arrest Jill for starting a natural disaster, since there is no reason to suspect any causal connection between the two events. While such cases are quite obvious, the Post Hoc fallacy is fairly common because there are cases in which there might be some connection between the events. For example, a person who has her computer crash after she installs a new piece of software would probably suspect that the software was to blame. If she simply concluded that the software caused the crash because it was installed before the crash she would be committing the Post Hoc fallacy. In such cases the fallacy would be committed because the evidence provided fails to justify acceptance of the causal claim. It is even theoretically possible for the fallacy to be committed when A really does cause B, provided that the "evidence" given consists only of the claim that A occurred before B. The key to the Post Hoc fallacy is not that there is no causal connection between A and B. It is that adequate evidence has not been provided for a claim that A causes B. Thus, Post Hoc resembles a Hasty Generalization in that it involves making a leap to an unwarranted conclusion. In the case of the Post Hoc fallacy, that leap is to a causal claim instead of a general proposition.

Not surprisingly, many superstitions are probably based on Post Hoc reasoning. For example, suppose a person buys a good luck charm, does well on his exam, and then concludes that the good luck charm caused him to do well. This person

would have fallen victim to the Post Hoc fallacy. This is not to say that all “superstitions” have no basis at all. For example, some “folk cures” have actually been found to work.

Post Hoc fallacies are typically committed because people are simply not careful enough when they reason. Leaping to a causal conclusion is always easier and faster than actually investigating the phenomenon. However, such leaps tend to land far from the truth of the matter. Because Post Hoc fallacies are committed by drawing an unjustified causal conclusion, the key to avoiding them is careful investigation. While it is true that causes precede effects (outside of Star Trek, anyway), it is not true that precedence makes something a cause of something else. Because of this, a causal investigation should begin with finding what occurs before the effect in question, but it should not end there.

Example #1:

I had been doing pretty poorly this season. Then my girlfriend gave me this neon laces for my spikes and I won my next three races. Those laces must be good luck...if I keep on wearing them I can't help but win!

Example #2:

Bill purchases a new PowerMac and it works fine for months. He then buys and installs a new piece of software. The next time he starts up his Mac, it freezes. Bill concludes that the software must be the cause of the freeze.

Example #3:

Joan is scratched by a cat while visiting her friend. Two days later she comes down with a fever. Joan concludes that the cat's scratch must be the cause of her illness.

Example #4:

The Republicans pass a new tax reform law that benefits wealthy Americans. Shortly thereafter the economy takes a nose dive. The Democrats claim that the tax reform caused the economic woes and they push to get rid of it.

Example #5:

The picture on Jim's old TV set goes out of focus. Jim goes over and strikes the TV soundly on the side and the picture goes back into focus. Jim tells his friend that hitting the TV fixed it.

Example #6:

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Jane gets a rather large wart on her finger. Based on a story her father told her, she cuts a potato in half, rubs it on the wart and then buries it under the light of a full moon. Over the next month her wart shrinks and eventually vanishes. Jane writes her father to tell him how right he was about the cure.

Questionable Cause

Description:

This fallacy has the following general form:

- 1) A and B are associated on a regular basis.
- 2) Therefore A is the cause of B.

The general idea behind this fallacy is that it is an error in reasoning to conclude that one thing causes another simply because the two are associated on a regular basis. More formally, this fallacy is committed when it is concluded that A is the cause of B simply because they are associated on a regular basis. The error being made is that a causal conclusion is being drawn from inadequate evidence.

The Questionable Cause Fallacy is actually a general type of fallacy. Any causal fallacy that involves an error in a reasoning due to a failure to adequately investigate the suspected cause is a fallacy of this type. Thus, fallacies like Post Hoc and Confusing Cause and Effect are specific examples of the general Questionable Cause Fallacy.

Causal reasoning can be quite difficult since causation is a rather complex philosophic issue. The complexity of causation is briefly discussed in the context of the specific versions of this fallacy.

The key to avoiding the Questionable Cause fallacy is to take due care in drawing causal conclusions. This requires taking steps to adequately investigate the phenomena in question as well using the proper methods of careful investigation.

Example #1:

Joe gets a chain letter that threatens him with dire consequences if he breaks the chain. He laughs at it and throws it in the garbage. On his way to work he slips and breaks his leg. When he gets back from the hospital he sends out 200 copies of the chain letter, hoping to avoid further accidents.

Example #2:

When investigating a small pond a group of graduate students found that there was a severe drop in the fish population. Further investigation revealed that the fishes' food supply had also been severely reduced. At first the students believed that the lack of food was killing the fish, but then they realized they had to find

what was causing the decline in the food supply. The students suspected acid rain was the cause of both the reduction in the fish population as well as the food supply. However, the local business council insisted that it was just the lack of food that caused the reduction in the fish population. Most of the townspeople agreed with this conclusion since it seemed pretty obvious that a lack of food would cause fish to die.

Red Herring

Also Known as: Smoke Screen, Wild Goose Chase

Description:

A Red Herring is a fallacy in which an irrelevant topic is presented in order to divert attention from the original issue. The basic idea is to “win” an argument by leading attention away from the argument and to another topic. This sort of “reasoning” has the following form:

1. Topic A is under discussion.
2. Topic B is introduced under the guise of being relevant to topic A (when topic B is actually not relevant to topic A).
3. Topic A is abandoned.

This sort of “reasoning” is fallacious because merely changing the topic of discussion hardly counts as an argument against a claim.

Example #1:

“Argument” against a bond measure:

“We admit that this measure is popular. But we also urge you to note that there are so many bond issues on this ballot that the whole thing is getting ridiculous.”

Example #2:

“Argument” for a tax cut:

“You know, I’ve begun to think that there is some merit in the Republicans’ tax cut plan. I suggest that you come up with something like it, because If we Democrats are going to survive as a party, we have got to show that we are as tough-minded as the Republicans, since that is what the public wants.

Example #3:

“Argument” for making grad school requirements stricter:

“I think there is great merit in making the requirements stricter for the graduate students. I recommend that you support it, too. After all, we are in a budget crisis and we do not want our salaries affected.”

Relativist Fallacy

Also Known as: The Subjectivist Fallacy

Description:

The Relativist Fallacy is committed when a person rejects a claim by asserting that the claim might be true for others but is not for him/her. This sort of “reasoning” has the following form:

1. Claim X is presented.
2. Person A asserts that X may be true for others but is not true for him/her.
3. Therefore A is justified in rejecting X.

In this context, relativism is the view that truth is relative to Z (a person, time, culture, place, etc.). This is not the view that claims will be true at different times or of different people, but the view that a claim could be true for one person and false for another at the same time.

In many cases, when people say “that X is true for me” what they really mean is “I believe X” or “X is true about me.” It is important to be quite clear about the distinction between being true about a person and being true for a person. A claim is true about a person if the claim is a statement that describes the person correctly. For example, “Bill has blue eyes” is true of Bill if Bill has blue eyes. To make a claim such as “X is true for Bill” is to say that the claim is true for Bill and that it need not be true for others. For example: “ $1+1=23$ is true for Bill” would mean that, for Bill, $1+1$ actually does equal 23, not that he merely believes that $1+1=23$ (that would be “It is true of Bill that he believes $1+1=23$ ”). Another example would be “The claim that the earth is flat is true for Bill” would mean that the earth really is flat for Bill (in other words, Bill would be in a different world than the rest of the human race). Since these situations ($1+1$ being 23 and the earth being flat for Bill) are extremely strange, it certainly seems that truth is not relative to individuals (although beliefs are).

As long as truth is objective (that is, not relative to individuals), then the Relativist Fallacy is a fallacy. If there are cases in which truth is actually relative, then such reasoning need not be fallacious.

Example #1:

Jill: “Look at this, Bill. I read that people who do not get enough exercise tend to be unhealthy.”

Bill: "That may be true for you, but it is not true for me."

Example #2:

Jill: "I think that so called argument you used to defend your position is terrible. After all, a fallacy hardly counts as an argument. "

Bill: "That may be true for you, but it is not true for me."

Example #3:

Bill: "Your position results in a contradiction, so I can't accept it."

Dave: "Contradictions may be bad in your Eurocentric, oppressive, logical world view, but I don't think they are bad. Therefore my position is just fine."

Slippery Slope

Also Known as: The Camel's Nose

Description:

The Slippery Slope is a fallacy in which a person asserts that some event must inevitably follow from another without any argument for the inevitability of the event in question. In most cases, there are a series of steps or gradations between one event and the one in question and no reason is given as to why the intervening steps or gradations will simply be bypassed. This “argument” has the following form:

1. Event X has occurred (or will or might occur).
2. Therefore event Y will inevitably happen.

This sort of “reasoning” is fallacious because there is no reason to believe that one event must inevitably follow from another without an argument for such a claim. This is especially clear in cases in which there are a significant number of steps or gradations between one event and another.

Example #1:

We have to stop the tuition increase! The next thing you know, they'll be charging \$40,000 a semester!”

Example #2:

“Europe shouldn't get involved militarily in other countries. Once the governments send in a few troops, then they will send in thousands to die.”

Example #3:

“You can never give anyone a break. If you do, they'll walk all over you.”

Example #4:

“We've got to stop them from banning pornographic web sites. Once they start banning that, they will never stop. Next thing you know, they will be burning all the books!”

Special Pleading

Description:

Special Pleading is a fallacy in which a person applies standards, principles, rules, etc. to others while taking herself (or those she has a special interest in) to be exempt, without providing adequate justification for the exemption. This sort of “reasoning” has the following form:

1. Person A accepts standard(s) S and applies them to others in circumstance(s) C.
2. Person A is in circumstance(s) C.
3. Therefore A is exempt from S.

The person committing Special Pleading is claiming that he is exempt from certain principles or standards yet he provides no good reason for his exemption. That this sort of reasoning is fallacious is shown by the following extreme example:

1. Barbara accepts that all murderers should be punished for their crimes.
2. Although she murdered Bill, Barbara claims she is an exception because she really would not like going to prison.
3. Therefore, the standard of punishing murderers should not be applied to her.

This is obviously a blatant case of special pleading. Since no one likes going to prison, this cannot justify the claim that Barbara alone should be exempt from punishment.

The Principle of Relevant Difference

From a philosophic standpoint, the fallacy of Special Pleading is violating a well accepted principle, namely the Principle of Relevant Difference. According to this principle, two people can be treated differently if and only if there is a relevant difference between them. This principle is a reasonable one. After all, it would not be particularly rational to treat two people differently when there is no relevant difference between them. As an extreme case, it would be very odd for a parent to insist on making one child wear size 5 shoes and the other wear size 7 shoes when the children are both size 5.

It should be noted that the Principle of Relevant Difference does allow people to be treated differently. For example, if one employee was a slacker and the other

was a very productive worker the boss would be justified in giving only the productive worker a raise. This is because the productivity of each is a relevant difference between them. Since it can be reasonable to treat people differently, there will be cases in which some people will be exempt from the usual standards. For example, if it is Bill's turn to cook dinner and Bill is very ill, it would not be a case of Special Pleading if Bill asked to be excused from making dinner (this, of course, assumes that Bill does not accept a standard that requires people to cook dinner regardless of the circumstances). In this case Bill is offering a good reason as to why he should be exempt and, most importantly, it would be a good reason for anyone who was ill and not just Bill.

While determining what counts as a legitimate basis for exemption can be a difficult task, it seems clear that claiming you are exempt because you are you does not provide such a legitimate basis. Thus, unless a clear and relevant justification for exemption can be presented, a person cannot claim to be exempt.

There are cases which are similar to instances of Special Pleading in which a person is offering at least some reason why he should be exempt but the reason is not good enough to warrant the exemption. This could be called "Failed Pleading." For example, a professor may claim to be exempt from helping the rest of the faculty move books to the new department office because it would be beneath his dignity. However, this is not a particularly good reason and would hardly justify his exemption. If it turns out that the real "reason" a person is claiming exemption is that they simply take themselves to be exempt, then they would be committing Special Pleading. Such cases will be fairly common. After all, it is fairly rare for adults to simply claim they are exempt without at least some pretense of justifying the exemption.

Example #1:

Bill and Jill are married. Both Bill and Jill have put in a full day at the office. Their dog, Rover, has knocked over all the plants in one room and has strewn the dirt all over the carpet. When they return, Bill tells Jill that it is her job to clean up after the dog. When she protests, he says that he has put in a full day at the office and is too tired to clean up after the dog.

Example #2:

Jane and Sue share a dorm room.

Jane: "Turn off that stupid stereo, I want to take a nap."

Sue: "Why should I? What are you exhausted or something?"

Jane: "No, I just feel like taking a nap."

Sue: "Well, I feel like playing my stereo."

Jane: "Well, I'm taking my nap. You have to turn your stereo off and that's final."

Example #3:

Mike and Barbara share an apartment.

Mike: "Barbara, you've tracked in mud again."

Barbara: "So? It's not my fault."

Mike: "Sure. I suppose it walked in on its own. You made the mess, so you clean it up."

Barbara: "Why?"

Mike: "We agreed that whoever makes a mess has to clean it up. That is fair."

Barbara: "Well, I'm going to watch TV. If you don't like the mud, then you clean it up."

Mike: "Barbara..."

Barbara: "What? I want to watch the show. I don't want to clean up the mud. Like I said, if it bothers you that much, then you should clean it up."

Spotlight

Description:

The Spotlight fallacy is committed when a person uncritically assumes that all members or cases of a certain class or type are like those that receive the most attention or coverage in the media. This line of “reasoning” has the following form:

1. Xs with quality Q receive a great deal of attention or coverage in the media.
2. Therefore all Xs have quality Q.

This line of reasoning is fallacious since the mere fact that someone or something attracts the most attention or coverage in the media does not mean that it automatically represents the whole population. For example, suppose a mass murderer from Old Town, Maine received a great deal of attention in the media. It would hardly follow that everyone from the town is a mass murderer.

The Spotlight fallacy derives its name from the fact that receiving a great deal of attention or coverage is often referred to as being in the spotlight. It is similar to Hasty Generalization, Biased Sample and Misleading Vividness because the error being made involves generalizing about a population based on an inadequate or flawed sample.

The Spotlight Fallacy is a very common fallacy. This fallacy most often occurs when people assume that those who receive the most media attention actually represent the groups they belong to. For example, some people began to believe that all those who oppose abortion are willing to gun down doctors in cold blood simply because those incidents received a great deal of media attention. Since the media typically covers people or events that are unusual or exceptional, it is somewhat odd for people to believe that such people or events are representative.

For brief discussions of adequate samples and generalizations, see the entries for Hasty Generalization and Biased Sample.

Example #1:

Bill: “Jane, you say you are a feminist, but you can’t be.”

Jane: “What! What do you mean? Is this one of your stupid jokes or something?”

Bill: “No, I’m serious. Over the summer I saw feminists appear on several talk shows and news shows and I read about them in the papers. The women were

really bitter and said that women were victims of men and needed to be given special compensation. You are always talking about equal rights and forging your own place in the world. So, you can't be a feminist."

Jane: "Bill, there are many types of feminism, not just the brands that get media attention."

Bill: "Oh. Sorry."

Example #2:

Joe: "Man, I'd never want to go to New York. It is all concrete and pollution."

Sam: "Not all of it."

Joe: "Sure it is. Every time I watch the news they are always showing concrete, skyscrapers, and lots of pollution."

Sam: "Sure, that is what the news shows, but a lot of New York is farmlands and forest. It is not all New York City, it just receives most of the attention."

Example #3:

Ann: "I'm not letting little Jimmy use his online account anymore!"

Sasha: "Why not? Did he hack into the Pentagon and try to start world war three?"

Ann: "No. Haven't you been watching the news and reading the papers? There are perverts online just waiting to molest kids! You should take away your daughter's account. Why, there must be thousands of sickos out there!"

Sasha: "Really? I thought that there were only a very few cases."

Ann: "I'm not sure of the exact number, but if the media is covering it so much, then most people who are online must be indecent."

Straw Man

Description:

The Straw Man fallacy is committed when a person simply ignores a person's actual position and substitutes a distorted, exaggerated or misrepresented version of that position. This sort of "reasoning" has the following pattern:

1. Person A has position X.
2. Person B presents position Y (which is a distorted version of X).
3. Person B attacks position Y.
4. Therefore X is false/incorrect/flawed.

This sort of "reasoning" is fallacious because attacking a distorted version of a position simply does not constitute an attack on the position itself. One might as well expect an attack on a poor drawing of a person to hurt the person.

Example #1:

Prof. Jones: "The university just cut our yearly budget by \$10,000."

Prof. Smith: "What are we going to do?"

Prof. Brown: "I think we should eliminate one of the teaching assistant positions. That would take care of it."

Prof. Jones: "We could reduce our scheduled raises instead."

Prof. Brown: "I can't understand why you want to bleed us dry like that, Jones."

Example #2:

"Senator Jones says that we should not fund the attack submarine program. I disagree entirely. I can't understand why he wants to leave us defenseless like that."

Example #3:

Bill and Jill are arguing about cleaning out their closets:

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Jill: "We should clean out the closets. They are getting a bit messy."

Bill: "Why, we just went through those closets last year. Do we have to clean them out every day?"

Jill: I never said anything about cleaning them out every day. You just want to keep all your junk forever, which is just ridiculous."

Two Wrongs Make a Right

Description:

Two Wrongs Make a Right is a fallacy in which a person “justifies” an action against a person by asserting that the person would do the same thing to him/her, when the action is not necessary to prevent B from doing X to A. This fallacy has the following pattern of “reasoning”:

1. It is claimed that person B would do X to person A.
2. It is acceptable for person A to do X to person B (when A’s doing X to B is not necessary to prevent B from doing X to A).

This sort of “reasoning” is fallacious because an action that is wrong is wrong even if another person would also do it.

It should be noted that it can be the case that it is not wrong for A to do X to B if X is done to prevent B from doing X to A or if X is done in justified retribution. For example, if Sally is running in the park and Biff tries to attack her, Sally would be justified in attacking Biff to defend herself. As another example, if country A is planning to invade country B in order to enslave the people, then country B would be justified in launching a preemptive strike to prevent the invasion.

Example #1:

Bill has borrowed Jane’s expensive pen, but found he didn’t return it. He tells himself that it is okay to keep it, since she would have taken his.

Example #2:

Jane: “Did you hear about those terrorists killing those poor people? That sort of killing is just wrong.”

Sue: “Those terrorists are justified. After all, their land was taken from them. It is morally right for them to do what they do.”

Jane: “Even when they blow up busloads of children?”

Sue: “Yes. “

Example #3:

After leaving a bookstore, Jill notices that she was undercharged for her book. She decides not to return the money to the store because if she had overpaid, they would not have returned the money.”

Example #4:

Jill is horrified by the way the state uses capital punishment. Bill says that capital punishment is fine, since those the state kill don't have any qualms about killing others.

Who is to Say?

Description:

This fallacy occurs when a person assumes that asserting “who is to say” (or some variation) ends the need for further consideration of an issue. It is assumed by the person that this tactic “proves” that there is no way to decide whether any position or view is better than another. The person may appear to be asking a question, but they have the answer in mind: no one is to say. The fallacy has the following form:

1. “Who is to say?” or some variation is presented.
2. Therefore there is no way to decide whether any position or view is better or worse than another.

This sort of reasoning is fallacious because the mere fact that someone says or writes “who is to say?” hardly proves that there is no better or worse position on the issue at hand.

It is, of course, possible that there are situations in which it is impossible to show that one position of view is any better than the others. However, this would have to be shown through argument. For example, what people like and dislike when it comes to food is a rather subjective matter-what proof could be given that Rocky Road ice cream is tastier than Heavenly Hash? In this case, it would be reasonable to hold the view that no one is to say what ice cream truly tastes better or worse.

This fallacy is often used as a tactic to simply end discussion or as an easy (lazy) way to avoid taking a position on an issue.

Example #1

Three students are discussing cheating.

Sally: “You know, I saw that Josh was cheating like a crazy monkey on the last test.”

Andrea: “Yeah, he’s like that.”

Bill: “Um, what the heck does ‘cheating like a crazy monkey’ mean?”

Sally: "Whatever, Bill. Anyway, I think cheating is wrong. People should work for their grades."

Andrea: "Hey, little miss judge, who are you to say what people should do?"

Sally: "What?"

Andrea: "I mean, how can anyone say what is wrong or right? You just can't."

Sally: "Whatever."

Example #2

Some people are discussing evolutionary theory versus creationism

Polly: "You know, the evidence for evolution seems overwhelming. There is the fossil evidence, the genetic data and all kinds of..."

Jim: "That may be. But you can't just chalk the universe up to chance. I think that God is a necessary factor in explaining the universe."

Geoff: "Hey guys, lighten up. I mean, no one can really decide who is right here. So, there is no point in fighting. Polly, you can keep on bowing down to Darwin and Rorty. Jim, you can keep on praying to Jesus. See everybody can be happy because no one is right...or wrong."

Polly: "Heretic. You must be burned."

Jim: "I'll get the wood and gasoline."

Geoff: "Hey, can't we all just get along?"

Jim & Polly: "No!"