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# RELEVANT TO THE CONCLUSION

In this section, we will discuss the third criterion; a strong argument must have reasons that are relevant to the conclusion

In addition to acceptable premises, and relevance to the issue, we have a third test; A strong argument must have premises relevant to the conclusion.[[1]](#footnote-1)

A strong argument must contain premises that provide reasons for, or are relevant to, the stated conclusion. The reasons offered in support of a thesis must relate or bear upon the thesis. There must be a way to connect these reasons as reasons for a specific conclusion.

We will define relevance as the connection between two claims where the first statement has a bearing on the truth or falsity of the second claim. This gives us the following possibilities:

 1. Favorably relevant

 2. Unfavorably relevant

 3. Irrelevant

In the first, the relevant statement counts for the truth of the other statement. In the second, the relevant statement counts for the falsity of the other statement; and in the third, the statement is neither favorable nor unfavorable to the other (statements that even if true are neither favorable nor unfavorable to another).

Some examples may make this clearer.

 It is very difficult to win the DCS after being down two games (the first claim). The Arizona Diamondbacks will not win the Division Championship Series, as they are two games down.

Here, the first claim is favorably relevant to the second. In example below, the first claim neither is favorable nor unfavorable to the second. It is irrelevant.

 The Cubs have drawn less than the Dodgers during the regular season. The Dodgers will win the LCS

The idea of favorable relevance means that one statement supports the other while unfavorable relevance means the claim counts against the second. As a criterion for evaluating arguments, this requirement insists that the reasons are favorably relevant to the conclusion. This does not guarantee a complete proof. It only says that if the premises are true, then they are evidence for the conclusion.

In Drill for More Oil we can see this principle at work.

 The Energy Information Administration report estimated that 18 billion barrels could be recovered from the offshore areas currently off limits to drilling, equal to nearly 2 ½ years of U.S. consumption. And it would be seven to 10 years before we begin to see sustained supply from the coastal waters.

 So, Congress would be ill advised to remove the Obama restriction on California coastal oil drilling. The impact on use of foreign oil would be negligible and we have more than adequate domestic supplies.

The above meets the relevance test. In general, one could not disagree with this argument by asserting the following; (the case of unfavorably relevant)

A glaring example of ill relevancy was revealed in a book by two New York Times reporters.[[2]](#footnote-2)

State Department personnel compile extensive data on countries where there is a flow of immigrants seeking asylum. The data include poverty, violence, gang activity and government corruption. These data are then used to support the thesis that asylum should be allowed when supported by this kind of information. However, someone in the immigration section of the administration doctored the report with a different thesis; to wit “Therefore, asylum should be denied,”

Let’s consider another recent argument put forward by the Republican. In their effort to replace the ACA they argue replacement is necessary because of the rise in premiums.

Adequately understood and verified, the rise in premiums could be a relevant reason to at least modify the act. However, this relevance drops out once the actual situation is explained. About 90 percent of Americans are covered by some form of health insurance. Most are covered by their employer where the increase has been low in the last few years. Only a small percentage of this group buy insurance themselves. Either through ACA market place but 85% of these individuals receive a subsidy. This leaves only 3% who are not eligible for subsidy and where the increase in premiums is a factor (about 3% of the uninsured who are not getting a subsidy).

I have worked on a device that I think might help apply both the third criteria and the final test—the adequacy test. Here it is below called the Relevento Meter

The sum of the reasons in the argument. Assume the first test is passed. If not, stop the evaluation there.

Label this set as A

## B. The Content of the thesis: Call it T1

## C. Our doubt is about the truth of T1 and whether A counts favorably(criteria 3) and adequately (criteria 4) for the truth of T1. (Note: A having past the first criterion, we will accept it as given)

In order to answer the question in C we need to ask the following:

*To what extent do we need to consider other reasons beside the content in A? The range of answers is*

**Always** **Never**

The Principle :(For criteria 3) The extent we judge A to be favorably relevant will cause the arrow to move more to the “Never” side of the above scale. The more we judge A to be irrelevant the more the arrow will to the Always side of the scale (i.e. always more reasons vs Never more reasons)

The Principle: (For criteria 4) The arrow should be roughly in the middle (satisfaction of criteria 3). The more we judge insufficiency the more the arrow should move to always.

Further Instructions: This meter is to be used in connection with your neutral judgment about the argument. So suspend any preconceived ideas about its strength as if you were a neutral party. The arrow moving to “Always” is an indication that the content of the reasons needs to be strengthened by additional reasons. The more it points to the “Never” side the higher probability is that the content of the reasons in A meet the third and fourth tests.

Note: This meter does not evaluate the warrant. A final analysis may require an examination of the competing warrants.

Use of the above and replace the need to memorize and try to apply the list of traditional fallacies. I have listed some below

# TRADITIONAL LABELS

Poisoning the Well

 Condemning a position because of the source of support for the position. The opposite of Appeal to Authority; similar to Ad Hominem

Abusive Ad Hominem

 An attack on the person, and not the view under discussion

Ridicule

 The attempt to divert attention away from a weakness by ridiculing an opponent or injecting unnecessary humor.

Tu Quoque Argument

 Meeting an attack or criticism by claiming the opponent is one too.

Authority

 Supporting a conclusion simply because of it is supported by an authority where the "authority" bears no relevance to the conclusion.

Tradition

 Support for a conclusion simply by an appeal to respect for a tradition

False Dilemma

 A forcing of two choices, when there is at least one more.

Genetic Fallacy

 Drawing a conclusion simply because of the history or origin of something

Common Opinion

 An attempt to support a conclusion simply because a large number of people support it

Playing to the Gallery

 Support for a conclusion by appealing only to an audiences strong emotions or sentiments on an issue.

Pity

 Attempts to persuade to accept a conclusion by appeal to sympathy on the part of the audience

Personal Circumstances

 Support for a conclusion simply by an appeal to personal or special circumstances of the audience

Force or Threat

 At attempt to persuade by implied or explicit threat or intimidation

Ignorance

 Asking one to accept a conclusion as true, simply because it has not been proven false.

 or asking one to accept a conclusion as false, simply because it has not been proven true.

Red Herring

 Comes from drawing the hounds away from the hunt by attracting them with another scent. Amounts to an attempt to divert attention away from a defect in your argument by introducing a side issue.

Trivial Objections

 Attacking a minor or non-central aspect of an opponent's view

Let’s use the relevento meter to test a traditional fallacy, the ad hominem.

Here is a passage for David Brooks, New York Times March 18

Trump is perhaps the most dishonest person to run for high office in our life time. . He is a childish man running for a job that requires maturity. He is an insecure little boy whose desires were somehow arrested at age 12. He surrounds himself with sycophants. He brags incessantly about his alleged prowess, like how far he can hit a golf ball.

Possible theses drawn from the above

A. So his proposal to build a will between the U.S. and Mexico is crazy

B. He is a misogynist

C He is a narcissist

D He would be a disaster as President

Using the relevento meter where would the arrow point in each of the above?

# ADEQUATE PREMISES

We come to the last of our four tests to determine whether an argument passes as a strong or defective free argument. In this criterion, we raise the question of whether the reasons are sufficient to support the thesis. This test is naturally the last test to perform, since if the other three have not lead us to criticize an argument as defective; we still need to ask are the reasons sufficient to support the thesis. So as a procedure matter, this test assumes that the other three have been applied and the argument has passed up to that point. If an argument has defective language, does not directly address the issue, or has reasons that are not favorably relevant, then it is probably unnecessary to ask if the reasons are sufficient.

Certain theses require a high level of sufficiency if the thesis is to be adequately supported. Remembering an earlier notion of quantification, obviously if the thesis claim is universal (All, Every, None, etc) a few cited instances are liable to have a sufficiency problem. For this reasons, in most practical arguments, we see other quantifies, such as “most”, “frequently”, “many” “lots of”, “numerous” etc. These would be these statements where the sufficiency test is appropriate, and the sufficiency test would tell us whether we judge the case to be “too few examples”.

The relevento meter works here. If the thesis has a high level of quantification (“Always”) then the arrow should point to “Never” if it is to pass.

Here is a passage from the April 2017 edition of the Sonoma County Gazette that carefully avoids the need to supply reasons to support and strong thesis.

In 2015, the International Agency for Research on Cancer (IARC) determined that glyphosate (the chemical in RoundUp) is a probable human carcinogen. The Environmental Protection Agency (EPA) has thus far not affirmed this finding, which has resulted the continuation of the status quo. However, recent revelations put into question the EPA’s credibility. Previously unsealed court documents from an ongoing cancer lawsuit against Monsanto contain e-mails which show unsettling actions and relationships between Monsanto, EPA regulators, and academics responsible for glyphosate’s safety research and regulations.

In the end, I was convinced that if low-dose exposure to glyphosate might cause birth defects, liver and kidney disease, endocrine system disorders, microbiome disruptions, and non-Hodgkin’s lymphoma, I didn’t want it sprayed at my park

Notice the author, Megan Kaun, is careful not to claim that glyphosate is the cause of the listed disorders and does not spell out what is specifically meant by “unsettling actions.” Rather the causal possibility is embedded in an “if clause” and the thesis is shifted from a causal claim, to a desire not to have it in the park. Applying the relevento meter to the causal claim would show the arrow pointing to the “always” side.

A special case of the “too few cases” charge is when important information is excluded. In the area of frivolous law suits (a charge often made without full information) there was a recent San Francisco case thought to illustrate the problem of frivolous law suits. It involved a cab driver who was sued by a man he captured by pinning this man against a wall with is cab. The man was being pursued because he had been seen snatching a purse. The man was injured (two broken legs plus other injuries) He sued the cab driver for $15,000. What was missing in most accounts was the fact that the suit was brought be the doctors and a hospital’s emergency room where the injured man had been treated. The suit was brought against the cab company’s insurance company although in the name of the cab driver. The purpose was to cover the costs of treatment for the injured man. It turns out that it was not a frivolous law suit at all.

# Causal Reasoning and Mill’s Method

When we conclude that there is a causal relation between the conditions or events, we have various linguistic expressions to state this thesis. Look for language such as C produces H, C is responsible for H, H was brought about by C, C leads to H, C creates H.

John Stuart Mill a nineteenth century philosopher and logician proposed criteria to determine whether there a causal relation exists. It attempts to establish some similar or shared conditions in the circumstances thought to be the cause.

Mill’s method of agreement:

 *If two or more instances of a phenomenon have only one circumstance in common, that circumstances is probably the cause of the phenomenon*

In a straight forward case, suppose the phenomenon is a case of food poisoning at a family picnic. Some ate the hot dogs, some did not. Some had the chicken, some did not. All, however, ate the potato salad. The method agreement points to the potato salad as the cause.

Mill’s Method of difference:

*If an instance when the phenomenon occurs and an instance when it does not have every circumstance in common except one and that circumstance occurs in the first case, that circumstance is probably the cause*

To change our picnic example, all ate the hot dogs and all ate the potato salad except one (who did eat the hot dog). All got sick except the one who did not eat the potato salad.. The potato salad is the likely suspect.

In a complete case, the two methods come together in the third of Mill’s Methods: The joint method of agreement and difference.

This method has several limitations. We still, do not know, for example, what it is about the potato salad that is the causal mechanism for the illness. Is it the potatoes, the celery, the onions, etc? (What is the likely answer here?)

To see how the last of our two criteria might work, or where the relevento meter arrow points to the “always” side. I want to look at an article by David Brooks, “Social Science Palooza II. It is the report of social science research in which the original researchers argue for certain causal explanations of familiar occurrences. But in addition to the report, Books puts forward his support of the findings, so let’s treat this as a particular set of arguments. I’ll reproduce various part of the article for examination:

 For example, Tobias J. Moskowitz and L. Jon Wertheim wrote a fantastic book excerpt in Sports Illustrated explaining home-field advantage. Home teams win more than visiting teams in just about every sport, and the advantage is astoundingly stable over time. So, what explains the phenomenon?

It’s not because players perform better when their own fans are cheering them on. In basketball, free-throw percentages are the same home and away. In baseball, a pitcher’s strike-to-ball ratio is the same home and away.

Neither is it the rigors of travel disadvantaging the away team. Teams from the same metro area lose at the same rate as teams from across the country when playing in their rival’s stadium.

Notice first this is an account of every sport, so let’s apply the sufficiency criterion. What sports are referenced in this beginning account? Only two, so while the original research may reference more than two, we only get two in Brooks reconstruction. The sufficiency test does not seem to be met at this point, i.e. the thesis is about Home teams, not just the two mentioned by Brooks.

What about his rejection of the travel requirement as an explanation for the home team? We don’t see which sports are in the account, but the rate of loss is about the same for certain teams that play each other close by (same metro area) in comparison with teams that travel great distances. But which sports, may make a difference. In baseball a certain team may be away for an extended period and during that period play games on many days in a row. This is not the case for football, and I am not sure about either hockey or basketball. So, it might be important to examine each sport individually. Again, the sufficiency criterion seems to raise this problem.

Notice the claim that it is not because players perform better. But notice only two measures of performance are cited, free throws and strike to ball ratio. But what about other performance indicators even these two sports, batting averages, percent of 3-point shots, etc.?

So, what is the positive explanation for this difference? Here is with Brooks reports

No, the real difference is the officiating. The refs and umpires don’t like to get booed. So even if they are not aware of it, they call fewer fouls on home teams in crucial situations. They call more strikes on away batters in tight games in the late innings.

Well this may be a factor, but applying Mill’s method how could we isolate this possibility? In baseball you could examine inter league play in markets where the teams are from the same metro area, e.g. the Yankees and the Mets, the Dodgers and the Angels, the Giants and the A’s. In these games there is usually an equal number of fans for both teams. One would then see of the causal thesis stood up.

Let’s try as a class exercise using Mill’s method to see if this explanation holds.

Here is the other problem. If this is occurring it is a happening at a level that officiators are unaware of this behavior, so it would be difficult to confirm.

Also note that Books does not dismiss other factors that might explain this phenomenon. In baseball, for example, there are playing field factors that are more familiar to the home team than the visiting team. Also, it is believed that ground crews will groom the field to the advantage of the home team (infield grass, mound position etc.)

As Gordon Dobbins from Fort Worth notes:

Mr. Brooks makes no reference to factors that favor home teams in various sports. These include face-off rules (ice hockey); last at-bats (baseball); being intimately familiar with the eccentricities of a baseball field or the rebounding experienced in a hockey rink; having the evenings/nights with one's family; the psychology of having the crowd on one's side; and other useful advantages.

# TRADITIONAL LABELS

(Again, the relevento meter can be used to achieve the same results as the following labels.)

Hasty Generalization

 Drawing a conclusion from limited, unrepresentative, or especially selected data

Domino Fallacy also The slippery slope

 Assuming one thing will lead to another and there is no stopping the process to a disastrous end

Neglect of Relevant Evidence

 Drawing a conclusion without considering the obvious and relevant counter argument

Post Hoc

 Concluding that because something occurred prior to an event, that it is the cause

Causal Oversimplification

 Regarding a contributing cause as the efficient and proximate cause

Cause with effect confusion

 Failure to recognize reciprocal causes and confusing effect and cause

Common Cause neglect

 Thinking that simply because two events are related, they are cause and effect

Necessary condition confused with sufficient

 Assuming that a necessary condition is also a sufficient condition

1. . H.P. Grice developed this idea. "Logic and Conversation” in The Logic of Grammar. Dickenson 1975 [↑](#footnote-ref-1)
2. Border Wars; Julie Hirschfled Davis and Michael Shear [↑](#footnote-ref-2)