

NAME: _____

Philosophy 1104: Critical Thinking

Another Practice Quiz #5

TIME: 60 minutes

1. The following passages each argue for some policy on the basis of its costs and benefits. Identify any problems or weaknesses with the analysis given, or questions you have about it.

- (i) People who do skydiving are obviously crazy. I mean, what's the benefit? Just a few minutes of exhilaration. Compare that to the potential cost, where your parachute fails somehow and you end up as flat as a pancake! It happens to about 50 people every year. Is it really worth dying just to get a few minutes of pleasure?

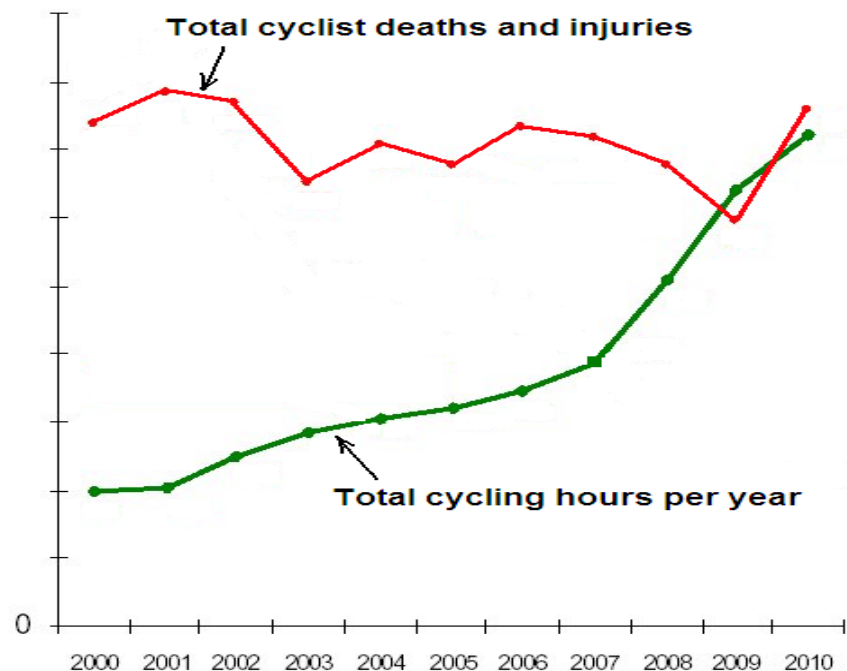
- (ii) Cyclists ought to be regulated, just like motorists. It's really a no-brainer. By making cyclists take a road test, and get a licence, we won't have these idiots riding on the wrong side of the road, running red lights, and so on. They'll know that if they do that then they'll lose their cyclist's licence and their licence plate with it! Lives will be saved.

- (iii) Local residents are opposed to building the new airport in south Greenwich, citing concerns about noise. A thorough cost-benefit analysis clearly shows, however, that the economic benefits of the airport far outweigh the economic costs. Proximity to an airport is very convenient, and property values will rise rather than fall. The airport will provide jobs for local people as well as tax revenue, to be spent on local amenities.

2. The following graph shows the *total* amount of cycling, and also the *total* number of cyclist deaths and injuries, in New York City from 2000 to 2010.

(i) What relationship does this graph show between the general popularity of cycling and the risk of death and injury per hour of cycling?

(ii) Using Mill's methods, what seems (superficially at least) to be a reasonable *causal* conclusion to draw from these data? Briefly explain your answer.



(iii) Is there any alternative causal hypothesis that might explain this graph? Suggest any you can think of, and identify any additional variables that you might examine to distinguish between these alternative accounts.

3. After an office party, a number of people were off sick, with symptoms of food poisoning. Rachel, one of those who feel ok, is trying to find the cause. She asked everyone what they ate at the party, and displayed the information on this table. [N.B. This question is a *modified version* of the one discussed in class.]

| | Got Sick? | Spinach dip | Samosas | Cheese plate | Smoked salmon | Veggie plate | Liver nuggets | Sliced lard |
|----------|------------------|-------------|---------|--------------|---------------|--------------|---------------|-------------|
| Rachel | | | ✓ | | ✓ | | ✓ | ✓ |
| Chris | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | |
| Donna | ✓ | ✓ | | | ✓ | ✓ | | ✓ |
| Janet | | ✓ | | ✓ | | ✓ | ✓ | |
| Kenton | | ✓ | | ✓ | | | ✓ | ✓ |
| Gurpreet | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | |

Using Mill's methods, what can you conclude in this case? Briefly explain your reasoning. (Assume that just one dish was the cause of the illness.)

4. A careful study of smoking at Langara college linked smoking with academic success. The GPA of each student was categorised as 'high' or 'low', and each student was also classes as a smoker or a non-smoker. The results are shown in the table below.

| | Smoker | Non-smoker |
|----------|--------|------------|
| High GPA | 25 | 160 |
| Low GPA | 41 | 142 |

- (i) What is meant by the claim that smoking is positively correlated with having a low GPA? Show that such a correlation exists here.

- (ii) What typical causal patterns are used to explain an observed correlation between two factors A and B?

- (iii) Write down what you see as the two or three best explanations of the *specific* correlation observed in this case, between smoking and GPA. (Use different causal patterns.)

5. Evaluate the following arguments from analogy, pointing out the most relevant difference(s).

- (i) What is taught at colleges and universities should depend entirely on what the students want to learn. After all, the student is the customer, and the instructor is the producer, or service provider. No one knows better than the customer what they want to buy. The idea of producers and service providers telling their customers what they should get is ridiculous! Imagine a hairdresser who refuses to give you the hairstyle you ask for!!

- (ii) Why should miners and factory workers complain about being forced to work 12 hour shifts? Junior doctors (i.e. hospital ‘residents’) are often required to work over 100 hours a week, in shifts of up to 30 hours. Lawyers are also notorious for working 70 hours a week. I thought miners were supposed to be tough!

- (iii) People are suggesting that we turn a section of Main Street into a permanent car-free zone, but this would harm the businesses there. Cars are basically the life blood of any city, transporting people and their vital dollars to the stores that need them. Think about what happens to a limb that loses its blood supply – it *dies*.

6. For each of the following, comment on the use of statistics, pointing out any flaws.

- (i) Professor Smith seems to be the kind of teacher that you either love or hate. I looked him up on ratemyprofessor.com, and hardly anyone thought he was just average. The comments were either praising him to the hills or shooting him down in flames.

- (ii) The recent cafeteria renovations are a huge hit with Langara students. A recent poll asked: “Do you approve of the new Langara cafeteria, with its increased choice, healthy-eating options, and comfortable seating? (Yes/No)”, and the response was an outstanding 86% who answered “Yes”.

- (iii) In our study we took an open-minded approach to the causes of the recent rise in diagnoses of childhood autism. We obtained rates of childhood autism from 200 cities in Canada and the United States, and compared these rates with over 400 other factors. The results are startling. Very strong correlations are seen between autism and the use of electric pencil sharpeners, as well as with consumption of black coffee by the child’s father.

- (iv) I’m very careful with my health. For example, I put these drops on my tongue every day, as studies show that they reduce the chance of tongue cancer by up to 40%.

- (v) My mom got all freaked out when I told her I'm going to be swimming with sharks next week during my scuba diving trip. I told her not to worry, as it's actually safer than driving a car. Only 4 people a year get killed by sharks in the US, compared to the thousands that die on the roads!

- (vi) People in Toronto often criticise the winter weather in Vancouver, saying that the constant grey skies and drizzle from October to March must be awful. But actually the weather isn't that bad. A survey of over 3,000 Vancouverites found that most people find the rain soothing, and would prefer it to Toronto's freezing temperatures and heavy snow.
