

Sample commentary

Original argument:

Commenting on the projected doubling of Auckland's population by 2031, Opinion writer David Gibbs says "we can all fit in". But if we all fit in, how are we going to move? The transport system is stuffed, and improvement is unlikely in the short term. The answer is to stop population growth.

(Ian Williamson, *NZ Herald*, short letters, 13 May 2013)

The context is that someone else has claimed that there is no difficulty in fitting twice the population of Auckland into the area. Williamson is responding by pointing out that if the population expanded in such a way, the population would be unable to move around successfully. The answer, he says, is to prevent the population from growing.

Basic argument

The final conclusion of the argument is that we should stop Auckland's population from growing.

The reason for that is that if the population grows, while people may be able to fit, they won't be able to move.

A reason is also given for that: the transport system is stuffed, and improvement to it is unlikely in the short term.

So the most basic form of the argument is like this:

P1) The transport system is stuffed.

P2) Improvement to it is unlikely in the short term.

C1) They won't be able to move.

C2) We should stop population growth.

The reconstruction process:

In P1 we need to supply a more complete proposition: the transport system in question is Auckland's. 'Stuffed' is a slang term, and needs to be replaced by something more informative. What does Williamson mean here? Most likely he means that the transport system is unable to move people around effectively (either trips take too long, or are too difficult). The complaint is not just that there is something wrong with the transport system, but that what is wrong is tied to what the

population is. That is, the size of the population being catered to is an important part of the way this argument functions. We can bring that out in this premise, and rephrase P1 as 'Auckland's current transport system is inadequate for its current population'.

P2 also requires some rephrasing. First of all, we need to clarify what is being referred to: Williamson is speaking of Auckland's transport system. It is this which he thinks will not improve. To be charitable, Williamson's point is unlikely to be that the transport system will not improve at all. Minor improvements to transport systems occur all the time. Williamson's point is that there will not be any *significant* improvement. This gives us 'Auckland's transport system is unlikely to undergo significant improvement in the short term'.

'The short term' is vague. What does Williamson mean by it? One time span relevant to the argument is the time between the letter being written and 2031, which is the estimated time it will take for the population of Auckland to double. We could build this in to P2, yielding P2` 'Auckland's transport system is unlikely to undergo significant improvement before 2031'. Alternatively, we could decide that it is the doubling of the population which is relevant, and build this in, yielding 'Auckland's transport system is unlikely to undergo significant improvement before the population of Auckland doubles'. Williamson expects that these will happen at around the same time, but there is the possibility that they will not.

The difficulty with making P2` so specific is that such specificity may have an undesirable effect on argument assessment in terms of the soundness of the argument. Suppose that significant improvements to the transport system are finished in 2032. In such circumstances P2` would be technically true, but this goes against the spirit of the argument. If the improved transport system is not finished in 2031, but is finished in 2032, Williamson's argument might turn out sound, but the *intent* of his argument would not be met. We therefore have a good reason for keeping this part of the argument somewhat vague.

If the time span Williamson has in mind is that between writing the letter and 2031, or until the population doubles, why does he use the expression 'in the short term'? Eighteen years would not necessarily be seen as 'short term'.

The answer is that Williamson is thinking of how long it takes to make changes to transport systems. Significant transport system changes take time: first plans must be made, and funds raised, and highways, bridges and tunnels (or alternatives) take time, usually years, to build. I think it is thus reasonable to allow Williamson his use of 'in the short term', so long as we remember what approximate timespan he is thinking of when we come to assess the truth of the premise.

In C1, 'they' is clearly intended to refer to those living in Auckland. The author does not mean that people who live in Auckland will literally be unable to move, but that if there is a substantial increase in Auckland's population the transport system will be

unable to cope. Thus C1 can be reworded as 'Auckland's transport system will be unable to cope with a substantial increase in the city's population'.

The reconstruction then requires the connection between P1–P2 and C1 to be made explicit. This could be done by means of a conditional of the form 'If Auckland's transport system is inadequate for its current population, and it does not undergo significant improvement in the short term, then that transport system will be unable to cope with a substantial increase in the Auckland's population'. However, it seems unlikely that this is a point specific to Auckland. A better connection makes a point about cities in general: 'If a city's transport system is inadequate for its current population, and it does not undergo significant improvement in the short term, then that transport system will be unable to cope with a substantial increase in the city's population'.

Because this premise is a general one about cities, we then need a premise which points out that Auckland is a city (P4).

A connecting premise is also needed between C1 and C2. C1 says 'Auckland's transport system will be unable to cope with a substantial increase in the city's population', and C2 claims 'Auckland's population should not be allowed to substantially increase'. Because C2 is a prescriptive conclusion and C1 is a descriptive one, the relevant connecting premise must contain a prescriptive element.

The connection could be made by means of a conditional: 'If Auckland's transport system will be unable to cope with a substantial population increase, then Auckland's population should not be allowed to substantially increase'. However, there doesn't seem to be anything specific to Auckland about this point: to the extent it is true, it seems to be true of cities in general rather than of Auckland in particular. Thus the connection can be made: 'If a city's transport system will be unable to cope with a substantial population increase, then the population of that city should not be allowed to substantially increase'. This is the simplest possible general connection which can be made. Using a simple connection is justifiable here because Williamson has given us no indication for any other way he intends the connection to occur. Invoking some other connection would therefore involve arguing for Williamson, rather than representing his argument, and so would be overcharitable.

Given the above discussion, the argument can be reconstructed in the following way.

Reconstruction:

P1) Auckland's transport system is inadequate for its current population.

P2) Auckland's transport system is unlikely to undergo significant improvement in the short term.

P3) If a city's transport system is inadequate for its current population, and it does not undergo significant improvement in the short term, then that transport system

will be unable to cope with a substantial increase in the city's population.

P4) Auckland is a city.

C1) Probably, Auckland's transport system will be unable to cope with a substantial increase in the city's population.

P5) If a city's transport system will be unable to cope with a substantial population increase, then the population of that city should not be allowed to substantially increase.

C2) Probably, Auckland's population should not be allowed to substantially increase.

Logical assessment

The inference from P1–P4 to C1 is not valid: the presence of 'unlikely' in P2 makes C1 merely probable. The inference is a forceful one: if P1–P4 were true, C1 would be more likely to be true than not.

The inference from C1 and P5 to C2 is a valid one, and the probability of C2 is not diluted any further than that of C1. Therefore the argument as a whole is forceful, and 'Probably' has been added before C1 and C2.

Soundness

The argument is forceful, so if the premises are true it will be inductively sound.

The truth of P1 partly depends on what is meant by 'inadequate'. Auckland's transport system certainly has problems, and they are the kind of problems which are common in large, relatively spread-out cities. Auckland's transport difficulties are also exacerbated by the way it straddles a harbour, which causes unavoidable bottlenecks. It is true that during rush hour it can take a long time to get anywhere in Auckland. Like many big cities, it is probably over-reliant on private vehicle use, which is a rather inefficient way to travel around. And its spread-out nature means that people wish to travel long distances. It is probably fair to call Auckland's transport system 'inadequate', both in the sense that it could be better than it is, and in the sense that it suffers certain geographical features which make it difficult to travel around efficiently.

P2 claims that Auckland's transport system is unlikely to undergo significant improvement in the short term. Some improvements are made, of course. But the complaint that there will be no *significant* improvement is more likely to be accurate. Auckland's chief bottleneck, at the Harbour Bridge, can only be alleviated by the building of another bridge or a tunnel, and the construction of either of those would take considerable time. Other significant improvements, such as the construction of

further highways, or a train system for public transportation, would also take considerable time. Williamson is right that such changes are unlikely to be completed over the next 15–20 years, which, as discussed above, seems to be more or less what Williamson meant by the ‘short term’. If such changes were going to be completed in that time frame, they would probably need to be agreed upon already, and they are not. This leaves Auckland with only relatively minor roading projects and tweaking of public transport arrangements, and Williamson seems to be discounting such minor improvements as not significant enough to make a difference. If the population does indeed double, it does seem that such minor changes will be insufficient to improve the ability of the population to move around the city quickly and easily.

So, I am willing to accept P2 as true, given its likely intended meaning.

At first glance P3 seems obviously true. If the transport system is currently not coping, and what it has to deal with is only going to get worse, then if they don’t improve it, its ability to cope will get worse.

However, this assumes that other things, such as the requirement to be transported around the city, will remain the same. In fact they may not do so. For instance, there may be an increase, in the future, in the number of people who are able to work from home, and who therefore do not need to move around the city at all. It is possible that the technology that enables this will change faster than transport systems can be changed. For instance, it has been noted that 40 per cent of rush hours trips in Auckland are education related: this is people travelling to school and university. If people became more willing to attend their local school, or substantially more university courses come to be taught online, then there might be substantially less need to travel around the city. At the rate at which technology is currently changing, as well as people’s willingness to use that technology, there might be substantially less need to travel within the time period Williamson regards as ‘short term’.

However, given what we currently know about people’s needs, P3 is likely to be true. Further, no matter how information technology changes, it is still true that there will be *some* need for people to be able to travel around Auckland city in 15–20 years’ time. Even if more people work and study from home in the future, if the population doubles it seems likely that the transport system will have trouble coping without substantial improvements.

P4 is a well-known fact. If someone doubts it, it can be easily established by consulting a map of New Zealand, or looking up Auckland in an encyclopedia.

Given the likely truth of P1–P4, and the force of the inference to C1, C1 is likely to be true, although we should keep in mind the slight reservations we had about P3.

P5 claims that if a city’s transport system will be unable to cope with a substantial population increase, then the population of that city should not be allowed to substantially increase. Assessing the truth of this claim is difficult. On the one hand,

we can see that having a major city around which people cannot move would be a significant disadvantage for that city. It would prevent business from operating properly, and would make life very unpleasant. It may indeed be worth avoiding. On the other hand, the consequent seems very strong. One might wonder if there are *any* circumstances which would justify employing draconian measures to prevent population increase. Someone might argue, for instance, that people have a right to choose where to live, and we should not interfere with that right. In that case, it might be that even though an increase in population will cause all sorts of problems, it is not the kind of thing that we should act to prevent.

Or, it may be the case that although some population control measures are not justifiable, other, gentler measures are justifiable. So, while ordering people to leave a city might be wrong, it may be acceptable to adopt policies which actively encourage people to live elsewhere. If what Williamson has in mind is such policy changes, it may be possible to give an argument justifying P5.

At this point, however, I am unsure whether or not P5 is true. Without a justified belief in that premise, I cannot rule the argument sound.