

Lange 5
Challenges to P3

(pp. 59–77)

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Counterfactuals and context

The correctness of a counterfactual conditional can depend on the context in which it appears.

Example (pp. 9–10)

Context influences whether we should say:

- *Had Babe Ruth been playing professional baseball this year, then he would have hit a great many home runs, even against modern pitching, because he was such an outstanding hitter.*
- *Had Babe Ruth been playing professional baseball this year, then he would have hit only a dozen or so homers, since after all, the Bambino would now have been about a hundred years old.*

The principle P3, as stated last time, did not mention context. Lange intends such principles to hold in *all* contexts (p. 55).

P3 (stated with reference to context)

If $p \in U$, then $p \in \Lambda$ iff, for all $q \in U$ consistent with Λ , $q > p$ is correct **in all contexts**.

- This is false if there exists a $p \in \Lambda$, and a $q \in U$ consistent with Λ , for which $q > p$ is not correct in some context.
- Today we'll consider some examples that might seem to be of that kind.
- In his book, Lange presents these examples as challenges to another principle, that he calls " Λ -preservation;" but any such example is equally a challenge to P3.

Arsenic case

Suppose that two physicians, after work, are discussing their day. One says to the other: "The nurse rushed over to me and reported that the patient had been accidentally injected with the syringe marked 'A.' That syringe was intended for the lab; it was filled with arsenic—'A' for arsenic. So I hurried over to the patient's bedside, although I knew, of course, that there was nothing I could do. But the most remarkable thing happened: the patient did not die. So our dismay turned to excitement: we thought we had a reportable case on our hands, and prepared to write a stunning article for The New England Journal of Medicine. Then I checked the syringe. The label turned out to be 'H', not 'A'. So it contained no arsenic after all. Though the patient was out of danger, I must say that we were a bit disappointed. Had the syringe been filled with arsenic, then we would have discovered that such a large dose of arsenic is not always lethal." (p. 59, last sentence modified)

The challenge to P3

Let $p =$ "Such a large dose of arsenic is always lethal," $q =$ "The syringe was filled with arsenic."

- $p \in \Lambda$
- $q \in U$ and is consistent with Λ
- The physician asserts $q > \sim p$, which seems correct in the context of the story
- If $q > \sim p$ is correct, then $q > p$ is not correct
- So this seems to be a counterexample to P3

Lange's response (pp. 60–61)

- If someone asserts “ $q > p$, because r ,” but denies $q > r$, then r is an implicit part of the antecedent of the conditional, i.e., they are really asserting $q.r > p$.
- In the arsenic example, let $r =$ “The patient lived.” Then the physician asserts “ $q > \sim p$, because r ,” but would deny $q > r$.
- Therefore, the counterfactual asserted by the physician is really $q.r > \sim p$, not $q > \sim p$.
- Since $q.r$ is inconsistent with Λ , this is not a counterexample to P3.

Darcy and Elizabeth

Suppose that Darcy and Elizabeth (characters from Jane Austen's *Pride and Prejudice*) have recently quarreled. Then Elizabeth would be cross with Darcy and so it seems correct to say:

(1) If Darcy were to ask Elizabeth for a favor, she would refuse.

But Darcy, being a proud man, would not ask Elizabeth for a favor if they had just quarreled. So we seem to have:

(2) If Darcy were to ask Elizabeth for a favor, it would be the case that they had not quarreled.

And since Elizabeth is generous except when cross, we have

(3) If Darcy were to ask Elizabeth for a favor and they had not quarreled, she would grant it.

From (2) and (3) it follows that:

(4) If Darcy were to ask Elizabeth for a favor, she would grant it.

Problem: (1) and (4) appear to be inconsistent. (p. 67)

Lange's resolution of the paradox (p. 73)

(1) is correct in some contexts and (4) is correct in other contexts but they are not both correct in the same context.

- *In a context in which we are illustrating Darcy's pride, we should say that Darcy would have asked Elizabeth for a favor only if there had been no prior quarrel between them, in which case Elizabeth would have granted his request.*
- *If our concern is to explain why Elizabeth did not perform a certain favor for Darcy, we might assert that Darcy did not ask Elizabeth for the favor, and it is no wonder—for he knew that if he had, she would not have granted it, in light of yesterday's quarrel.*

The challenge to P3 (pp. 73–74)

- Lange believes that, in contexts in which (1) is correct, the past is held fixed in all respects; he calls these “nonbacktracking” contexts.
- In a nonbacktracking context, any counterfactual assumption implies a violation of some law, if the relevant laws are deterministic (as they are in this example).
- So in any nonbacktracking context, P3 is violated.

Lange's accepts this criticism and modifies P3 to try to accommodate it.

My resolution of the paradox

People think (1) is correct, so they accept:

If Darcy were to ask Elizabeth for a favor, she would refuse because they recently quarreled.

But they also think (2) is correct, so they deny:

If Darcy were to ask Elizabeth for a favor, it would be the case that they recently quarreled.

So, by Lange's own criterion, "They have quarreled" is an implicit part of the antecedent in (1), i.e., (1) means:

If Darcy were to ask Elizabeth for a favor and they had recently quarreled, she would refuse.

Hence (1) and (4) have different antecedents and are not inconsistent. They can both be correct in the same context.

My response to the challenge to P3: There is no reason to believe in nonbacktracking contexts.

- 1 State a criterion that Lange gives for telling whether a fact is an implicit part of the antecedent of a counterfactual.
- 2 Lange describes an example in which it seems correct for a physician to say: “Had the syringe been filled with arsenic, then we would have discovered that such a large dose of arsenic is not always lethal.” Is this a counterexample to P3? Why, or why not?
- 3 Describe the paradox involving Darcy and Elizabeth; say what the two apparently inconsistent propositions are and why, in the context of the story, each seems to be correct.
- 4 Describe Maher’s resolution of the paradox involving Darcy and Elizabeth.