

Concluding Notes on “The Paradoxes of Time Travel”

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Abstract: I outline some objections to Lewis’s (1976) theory of abilities. I then discuss the threat of Logical Fatalism. I criticise Van Cleve’s riposte to Lewis’s paper and highlight a curious argument of Lewis’s. I end by commenting on Lewis’s solution to the Grandfather Paradox and matters arising.

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1. Lewis’s Theory of Abilities


From pp. 150–51 of Lewis (1976) it’s reasonable to attribute to Lewis the following theory of abilities (Lewis’s Thesis):

(LT) Relative to certain facts, A can (can’t) F if and only if those facts are compatible (incompatible) with A’s doing F.

Given Lewis’s liking for simple ideas I assume that by ‘compatible’ (‘compossible’ in the text) he meant ‘logically compatible’. The theory would be too unwieldy otherwise.

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I record three immediate counterexamples to (LT). (i) I can't speak Finnish, relative to the fact that I have never learnt it; but my speaking Finnish is logically compatible with my not having learnt it. (ii) An ape can't speak Finnish, relative to facts about its larynx and nervous system; but an ape's speaking Finnish is logically compatible with the facts about its larynx and nervous system. (iii) My speaking Finnish is logically compatible with Trump being President. By (LT) it follows that I can speak Finnish, relative to the fact that Trump is President. But this is absurd. The fact that Trump is President is irrelevant to my ability to speak Finnish. Moral: not all compatibilities yield abilities.

There are, of course, other objections to (LT). See, e.g., the next section; Matthew, Schultheis and Boylan 2017; Schwarz 2020; Maier and Kikkert 2025: 4.1–4.3. I should also mention Van Cleve's amusing reptilian objection. On the assumption that no fact is “better” than any other, Van Cleve complained that on Lewis's theory “...there would be no answer to the question whether the man menaced by the crocodile can escape. Relative to some facts he can, relative to others he can't, and that would be the end of the matter. There would no fact about whether he can escape all things considered or absolutely.” (Van Cleve, 173)

These objections prompt us to move in one of two directions: either agree with Lewis that ‘can’-judgements are always, explicitly or implicitly, relative to background facts but offer a different account of the truth-conditions of “Relative to certain facts, A can (can't) F” or else give up on relativistic accounts altogether (as Van Cleve seemed to recommend).

2. Logical Fatalism

The Logical Fatalist thinks that truths about future actions constrain what we can do, and that we can only do what we will do. To avoid this unpalatable result, facts about the future should be discounted in saying what an individual can or can't do. A simple example illustrates the point. Suppose that the President won't be killed next year. This fact is incompatible with anyone killing him then. But we should not conclude, as (LT) would have us do, that relative to the fact that the President won't be killed, no one can kill him. Rather, the fact that the President won't be

killed, since it's a fact about the future, should be discounted in saying what anyone can or can't do. What is true is that anyone with the means and opportunity can kill the President next year, only he won't, thus avoiding the Logical Fatalist's conflation of 'won't' with 'can't'.

Contrary to (LT), then, not all incompatibilities imply inabilities. In particular, incompatibility with a fact about the future doesn't yield an inability. We thus have another class of counterexamples to (LT). In fairness, Lewis was aware that we do not ordinarily count facts about the future in saying what someone can do. (Lewis 1976, 151) So presumably he would have agreed that facts about the future should be discounted.

There's one exception to this general rule, however. In the case of a traveller to the past, some facts about the future should not be discounted in saying what he can or can't do. In Lewis's story, Tim travelled back to 1921 with the intention of killing Grandfather before Father was conceived. Relative to 1921 there are facts about the future causally necessary for Tim's existence, and hence causally necessary for his presence in 1921. These facts should be counted in saying what Tim can or can't do. Grandfather's continued existence is necessary for Father's birth, and Father's birth is necessary for Tim's existence. Hence, Grandfather's continued existence and siring of Father, though a fact about the future, is a fact relative to which Tim can't kill Grandfather in 1921.

However, facts about the future causally unnecessary for Tim's existence should be discounted in saying what Tim can or can't do. The fact that no one shook Grandfather's hand in 1922, we may suppose, is such a fact. It isn't true that relative to the fact that no one shook Grandfather's hand, Tim can't shake his hand. Tim can shake Grandfather's hand, relative to facts about his means and opportunity, but he won't, since no one shook Grandfather's hand in that year.¹

¹ I prescind from discussing the challenge to free action posed by the thesis of causal determinism since that challenge, successful or not, concerns all agents, not just travellers to the past.

3. Rejoinder to Van Cleve

J. Van Cleve’s recent intervention requires comment. (Van Cleve, 2019) Van Cleve is right to highlight the threat of Logical Fatalism, but wrong to think that Lewis can avoid Logical Fatalism by “relativising”, i.e., by holding that ‘can’-judgements are not detachable from the background facts relative to which they are asserted. (Van Cleve, 173) Indeed Van Cleve is mistaken, twice over.

First, Lewis is a relativist about ‘can’-judgements (*vide* (LT)). Lewis would concede that there’s no absolute or all-things-considered ‘can’. Van Cleve is thus offering Lewis his own theory as a way out. Second, relativisation doesn’t automatically extinguish the threat of Logical Fatalism. Unless facts about the future are deliberately excluded from the class of admissible background facts, Logical Fatalism will supervene.

4. A Curious Argument

At one point Lewis wrote: “Tim cannot kill Grandfather. Grandfather lived, so to kill him would be to change the past.” (Lewis 1976, 150) Later in the same paragraph he wrote: “It is logically impossible that Tim should change the past by killing Grandfather in 1921. So, Tim cannot kill Grandfather.” (Lewis 1976, 150) These quotations seem to express the same argument. Two readings are possible.

On one reading, the argument endorsed in these remarks is the simple but invalid: $A; \sim\Diamond(A \ \& \ B);$ so $\sim\Diamond B;$ where $A =$ Grandfather lived through 1921, $B =$ Tim killed Grandfather in 1921, and A contradicts B . I assume that $\sim\Diamond B$ implies that Tim can’t kill Grandfather in 1921, and that the impossibility of changing the past implies $\sim\Diamond(A \ \& \ B)$.

Alan Hajek has urged another reading of Lewis’s argument which treats its major premise as a counterfactual (corresponding to the ‘would’ and ‘should’ in the quotations). We then get:

- (i) $A;$ so
- (ii) $B \ \Box \rightarrow (A \ \& \ B);$ but
- (iii) $\sim\Diamond(A \ \& \ B);$ so

(iv) $\sim\Diamond B$.

One problem with this argument is that (i) doesn't imply (ii). A different example makes the fallacy vivid. From "I lived through yesterday" it doesn't follow that "Had I been killed yesterday, I would have lived through yesterday and have been killed yesterday."

On either reading, then, Lewis's argument is invalid.

5. Lewis's Solution to the Grandfather Paradox

The just mooted confusion has implications for Lewis's solution to the Grandfather Paradox. Lewis wrote:

We have this seeming contradiction: "*Tim doesn't [kill Grandfather], but can, because he has what it takes*" versus "*Tim doesn't, and can't, because it's logically impossible to change the past.*" I reply that there's no contradiction. Both conclusions are true, and for the reasons given. They are compatible because "can" is equivocal. (Lewis 1976, 150)

The second italicised sentence, if I am right, is false. However, this doesn't invalidate Lewis's solution since we can replace the defective sentence with "*Tim doesn't, and can't, kill Grandfather because Grandfather's continued existence and siring of Father is causally necessary for Tim's existence.*" As Lewis observed: "No Grandfather, no Father; no Father, no Tim; no Tim, no killing." (Lewis 1976, 152)

There are possible worlds in which Grandfather's continued existence isn't causally necessary for Tim's existence. For example, there are worlds in which Tim travels back in time, kills Grandfather, and Grandfather is immediately resurrected. However, we may assume, the world of Lewis's story isn't one of these worlds.

Lewis's solution to the Grandfather Paradox can thus go through as advertised. If we focus only on local facts pertaining to Tim and Grandfather in 1921 (in particular, facts about Tim's proximity to Grandfather, his means and opportunity, etc.), we get the (ordinary) sense in which Tim can kill Grandfather. If we focus instead on global facts (including, crucially, the fact that Grandfather's continued existence and siring of Father is

causally necessary for Tim’s existence), we get the (extraordinary) sense in which Tim can’t kill Grandfather or do anything else that would prevent Father’s conception.²

6. Four Related Points

(i) Consider Grandfather’s business partner, Mycroft. The continued existence of Mycroft isn’t causally necessary for Tim’s existence. Hence, there’s no extraordinary sense in which Tim can’t kill him. Moreover, it would be wrong to think that Tim can’t kill Mycroft in 1921 because he will be assassinated in 1934, felled by a poisoned dart on the steps of the Diogenes Club. For the same reason it would be wrong to think that Tim can’t kill Grandfather in 1921 because he wasn’t killed then.

Unfortunately, Lewis made just this mistake. He cited, as a reason why Tim can’t kill Grandfather in 1921, “...the simple fact that Grandfather was not killed [then].” (Lewis 1976, 151) There is a reason why Tim can’t kill Grandfather in 1921—Tim’s killing Grandfather would undermine a condition for his (Tim’s) existence—but that’s not the reason given here by Lewis.

A simple example may clarify matters. Suppose a certain garden gate was open all day on 1 May 1921. Tim strolls past the gate on that day. Two questions: (1) Is there a sense in which Tim can close the gate? (2) Is there a sense in which he can’t close the gate? My answer to (1): Yes, since Tim has the means and opportunity to close the gate, he can do so, though he won’t. My answer to (2): No, if Tim has the means and opportunity, there’s no sense in which he can’t close the gate. The fact that the gate was open all day implies only that no one will close it, not that it can’t be closed. Unfortunately, the Logical Fatalist, and, I fear, Lewis, give the wrong answer to (2).

² Suppose that Tim’s parents met only because of the Second World War and that the war would not have happened if Hitler had not risen to power in Germany. Does this yield a sense in which Tim can’t travel to Munich in 1921 and kill Hitler? (No Hitler, no parents; no parents, no Tim; no Tim, no killing.)

(ii) The extraordinary sense in which Tim can't kill Grandfather shows that Lewis was wrong to urge a parallel between the abilities of Tim and Tom. Tom is a normal inhabitant of 1921, similar in age and physique to Tim. (Lewis 1976, 149–51) But there's a crucial difference between them. Unlike Tim, there's no one in 1921 whose continued existence is causally necessary for Tom's existence. If Tom can't kill someone that's for the usual reason, *viz.*, lack of means or opportunity.

(iii) People fall too easily into Logical Fatalist ways of thinking in the case of Tim. But they shouldn't. Suppose Tim travels from 1975 to 3000. We don't have Logical Fatalist intuitions about Tim when he arrives in 3000, so why do we have them when he arrives in 1921? (This question has most force if Eternalism—the doctrine that past, present and future are equally real—is assumed.) However, this much is true: the extraordinary sense in which Tim can't kill Grandfather implies that Tim's freedom of action is slightly diminished compared to other inhabitants in 1921.

(iv) In notes discovered after his death, Lewis proposed a new account of abilities. In the Abstract to his notes, written by the Editors of the Special Issue, Lewis's later view is summarised thus: "S is able to A if and only if there are no obstacles to his A-ing, where an obstacle is a "robust preventer": something that would (or does) cause S not to A, and which "wouldn't go away if things were just a little different." (Lewis 2020, 241) However, this account fails to validate the extraordinary sense in which Tim can't kill Grandfather, and it also fails to validate more mundane inabilities such as my inability to sit and stand at the same time. There's no 'obstacle' to success in these cases, certainly not on any causal reading.

7. Coda: The Death of Tim

Lewis never told us the amusing end to Tim's story, so let me do so here. After a series of comical attempts at assassination, Tim and Grandfather meet up. Over a few beers, Tim tells Gramps his whole sorry tale. The dialogue between the smart Grandfather and the not so bright Tim then goes as follows:

Grandfather: Tim, I was just wondering, do I ever get a criminal record?

Tim: Gosh, no. We had a joke in our house that old Gramps never got so much as a speeding ticket!

Grandfather: Oh, that’s good to know.

Grandfather then shoots Tim dead.

8. Conclusion

In sum: I outlined some objections to Lewis’s theory of abilities. I then discussed the threat of Logical Fatalism. I criticised Van Cleve’s riposte to Lewis’s paper and noted a curious argument of Lewis’s. In closing I made some remarks about Lewis’s solution to the Grandfather Paradox and matters arising.

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References

- Lewis, David. 1976. “The Paradoxes of Time Travel.” *American Philosophical Quarterly*, 13: 145–52.
- Lewis, David. 2020. “Outline of ‘*Nihil Obstat*: An Analysis of Ability.’” *The Monist*, 103(3): 241–44.
- Maier, John and Kikkert, Sophie. 2025. “Abilities”. In *The Stanford Encyclopedia of Philosophy* (Summer 2025 Edition), Edward N. Zalta and Uri Nodelman (eds.). URL: <https://plato.stanford.edu/archives/sum2025/entries/abilities>
- Mandelkern, Matthew; Schultheis, Ginger and Boylan, David. 2017. “Agentive Modals.” *Philosophical Review*, 126(3): 301–43.
- Schwarz, Wolfgang. 2020. “Ability and Possibility.” *Philosophers’ Imprint*, 20(6):1–21.
- Van Cleve, James. 2019. “Lewis and Taylor as Partners in Sin.” *Acta Analytica*, 34: 165–75.