

Resolving a puzzle about the fixity of the past

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Lampert (2022) argues that standard views concerning knowledge and the semantics of ‘actually’ are in conflict with a principle concerning the fixity of the past that many find plausible, namely:

- (FP) For any action φ , agent S , times t and t' (where $t \leq t'$) and possible world w , S is able at t to φ at t' in w only if there is a possible world w' with the same past as that of w up to t in which S φ -s at t' .¹

While Lampert’s discussion touches on several interesting issues, his attempt to establish the puzzle fails. As I show below, his argument is undermined by the fact that a past mental state or utterance involving a modal indexical – such as ‘actually’, on the account he targets – must, in virtue of its character, differ in content across worlds. Given this, I suggest, the argument can be seen to trade on an equivocation.

Lampert begins by establishing:

- (4) $Ap \supset \Box(K(Ap \supset p) \supset p)$.

Here ‘ \Box ’, ‘ A ’ and ‘ K ’ are to be read as ‘necessarily’, ‘actually’ and ‘it was, is or will be known that’; ‘ \supset ’ is the material conditional. He then asks us to assume that the following three claims actually hold, where $t \leq t' \leq t''$:

- (5) S actually φ -s at t'' .
(6) S is able at t' to not φ at t'' .
(7) It was known that (S actually φ -s at t'' only if S φ -s at t'') at t .

Then, from (4) and (5), we get:

- (8) Necessarily, if it was, is or will be known that (S actually φ -s at t'' only if S φ -s at t''), then S φ -s at t'' .

And, from (FP) and (6), we get:

- (9) There is a possible world w' with the same past as that of the actual world up to t' in which S does not φ at t'' .

1 (FP) and (4)–(11) below are direct quotes from Lampert 2022: 426–28.

Lampert then tells us that, ‘since w' and the actual world share *the same past* up to t' ’ (2022: 427), (7) and (9) imply:

(11) It was known that (S actually φ -s at t'' only if S φ -s at t'') at t in w' .

But (11) and (8) imply that S φ -s at t'' in w' , contradicting (9).

The problem here concerns the move from (7) and (9) to (11).

Let w be the actual world. Then, given the intended reading of ‘actually’ as an indexical modal operator (Lampert 2022: 429), what is actually expressed by ‘ S actually φ -s at t'' only if S φ -s at t'' ’ is the proposition:

(P) S φ -s at t'' in w only if S φ -s at t'' .

And the propositions actually expressed by (7) and (11) are, respectively, (7') and (11'):

(7') It was known that (P) at t .

(11') It was known that (P) at t in w' .²

But does the claim that w and w' share the same past up to t' , as per (9), mean that the truth of (7') in w implies (11')?

No. In sharing their past up to t' , w and w' share (among so many other things) linguistic meanings and concepts up to t' . For the vast majority of past mental states and utterances, this sameness of character will (given everything else) entail sameness of content. But, in the special case of mental states and utterances involving modal indexicals, this sameness of character entails a difference in content.³ For in shifting worlds, we shift the very aspect of context via which their character determines their content.⁴

To illustrate, suppose that, at t in w , S asserts ‘Actually, p ’, because S has a correspondingly indexical belief with the proposition expressed by ‘Actually, p ’ as its content. The modal indexical ‘actually’, and the corresponding

2 In (7') and (11'), with the relevant sentence substituted for ‘(P)’, ‘in w' ’ occurs in the scope of ‘known’, just as ‘actually’ does in (7) and (11). All are to be read as suitably *de re*. Cf. Soames 2002: 40–50, especially n. 43, 2007: 272.

3 Whether modal indexicals (or other devices permitting direct reference to/singular thought about the actual world) provide the only special case here depends, *inter alia*, on the possibility of direct reference to/singular thought about future objects. (See e.g. discussion of ‘Newman 1’ and ‘dthat [“the first child to be born in the twenty-second century”]’, in Kaplan 1968: 200–201, 1978: 241, 1989: 560, n.76; also Donnellan 1977: 20–25, Salmon 1998: 287–91, 2004, 2010: 72–75, Soames 2002: 91–93, Burge 2009: 314, n. 75, Jeshion 2010, Recanati 2012: ch. 12.)

4 I assume, as Lampert implicitly does, that there are not only utterances but also mental states involving modal indexicals, and will speak (perhaps loosely) in terms of ‘character’ in the case of both. (See Perry 1977, 1979, 1988, 2006, Kaplan 1989, Recanati 2012: chs. 5 and 18, 2015: ch. 6.)

indexical concept, refer to the world of the context. And in w , the world of the context is w . So the proposition expressed by ‘Actually, p ’ at t in w – the content both of the assertion and of the belief in question in w – is the proposition that p in w . Now suppose that w' has the same past as w up to t' . It follows that, at t in w' , S asserts ‘Actually, p ’, because S has a correspondingly indexical belief with the proposition expressed by ‘Actually, p ’ as its content. And again, the modal indexicals involved refer to the world of the context. But in w' , the world of the context is w' , not w . And so the proposition expressed by ‘Actually, p ’ at t in w' – the content both of the assertion and of the belief in question in w' – is the proposition that p in w' , not the proposition that p in w . It is doubtful that any utterance or mental state in another world could refer to this specific, actual world, w .⁵ But it is simply confused to think that a past utterance or mental state involving a modal indexical would have to be credited with this feat in w' . To include a world as a feature of context, and to hold that, in a context, modal indexicals refer to the world of that context, just is to hold that particular utterances and mental states involving modal indexicals have distinct contents in distinct worlds. In other words, the indexical account of ‘actually’ itself immediately implies that a past utterance involving ‘actually’, or a past mental state involving its conceptual analogue, must differ in content across any two worlds in which it exists – even if those worlds (otherwise) differ only in the future.⁶

This allows us to see the problem with reasoning from (7) and (9) to (11), as Lampert does. In assuming that (7) actually holds, we are assuming that w contains a modally indexical state of knowledge at t the content of which is both: (i) the proposition expressed by ‘ S actually φ -s at t ’ only if S φ -s at t ’ in w ; and (ii) (P). We can make sense of the idea that there is such a state of knowledge at t in w , despite (P) being contingent and making reference to a future time t'' , precisely because (P) can be expressed or thought

5 See the exchange between Edgington (1985, 2010) and Williamson (1987, 2021), where both doubt that there could be reference to the actual world w in another world w' . Soames (2007) is less sceptical, and provides an account of what this would come to according to which it would require grasping a complete specification of w . But since no such grasp is present in past utterances or mental states involving modal indexicals in w , no such grasp is present in any relevant utterance or mental state in w' .

6 For the clearest statement of this implication concerning the indexical account of ‘actually’, see Salmon 1987: 77–90, especially 81–83; cf. Kaplan 1989: 594–96 and 597, n. 64. Note that it does not follow that particular utterances or mental states involving other indexicals (such as ‘I’, ‘now’ and ‘here’) can vary in content across worlds. For whereas we are inclined to think that a particular utterance or mental state could have occurred in a different world – particularly a world that materially differs only in the future – we are not similarly inclined to think that a particular utterance or mental state could have occurred with a different agent, at a different time or in a different location. (But, for the related idea that a particular demonstrative mental state may differ in content across worlds, see Burge 1991: 208–9, nn. 13 and 14, also his 1977, 1983 – though this would require an appropriate material difference between the worlds in question at the time the demonstration occurs.)

using a modal indexical – that is, because it can be the content of an utterance or mental state of the form ‘Actually p only if p ’. Being so expressible/thinkable, it can be known a priori at any time ‘by simply thinking about semantics’, as Lampert puts it (2022: 427).⁷

But w' cannot contain a state of knowledge the content of which is both: (i) the proposition expressed by ‘ S actually φ -s at t'' only if $S \varphi$ -s at t'' ’ in w' ; and (ii) (P). For the proposition expressed by ‘ S actually φ -s at t'' only if $S \varphi$ -s at t'' ’ in w' is not (P), but (P'):

(P') $S \varphi$ -s at t'' in w' only if $S \varphi$ -s at t'' .

So, if there is to be a comparable state of knowledge in w' , the content of which is known a priori due to being expressed or thought using a modal indexical, then what is known must be (P'). But to assume, as per (9), that w' has the same past as w , is to assume that there is such a state of knowledge at t in w' . Indeed, it is to assume the existence of that very same, particular state of knowledge at t in w' . It is just that this state of knowledge, being modally indexical, differs in content in w' . That is, the supposition that w' has the same past as w up to t' , together with (7)/(7'), implies, not (11'), but (11''):

(11'') It was known that (P') at t in w' .⁸

Note that the root problem here is independent of the epistemic issues to which Lampert draws our focus. It does not turn on anything to do with knowledge, or even belief or utterance, concerning future times; nor on anything to do with the factivity of knowledge. For his argument relies essentially on the assumption that, if w' is a distinct world with the same past as w , then a past use of ‘actually’ (or its conceptual analogue) must have the same content in w' as it does in w . And, granted this sort of assumption, one could equally generate a contradiction simply from the assumption that (say) someone asserted ‘Dinosaurs actually existed’ at past time t (i.e. that, at t in

7 See, for example, Evans 1979: 183–86, Soames 2005: 120–23, 2007: 264–66. Note that whereas knowing the proposition that p in w requires empirical evidence if w is presented indexically, but not if w is presented via specification (Soames 2007: 272, and n. 5 above), knowing the proposition that p in w only if p requires empirical evidence if w is presented via specification, but not if w is presented indexically. (Assuming, that is, that knowing p itself requires empirical evidence.)

8 More precisely, (11'') is implied granted the assumption that (7)/(7') is witnessed by a modally indexical state of knowledge, which is the situation currently at issue. (If (7)/(7') is witnessed by a state of knowledge that presents w in some way that does not depend on w being the world of the context, say via specification, then it is implied that it was known at t that $S \varphi$ -s at t'' (see nn. 5 and 7 above). And so any apparent, downstream conflict with the supposition that, in w' , S does not φ at t'' , would simply be an instance of an ordinary, familiar issue concerning foreknowledge. It is in any case highly doubtful that (7) has such a witness.)

w , someone thereby asserted that dinosaurs existed before t in w). For the indexical account of ‘actually’ entails that, at t in w' , they asserted that dinosaurs existed before t in w' , while the assumption above requires that, at t in w' , they asserted that dinosaurs existed before t in w . But again, to accept the indexical account of ‘actually’ – on which the argument also essentially relies – just is to deny this sort of assumption. And yet, without it, (11)/(11') fails to follow from (7)/(7') and (9).⁹

It would be a mistake to object to all of this that the notion of ‘the same past’ at work in (FP) and (9) should nevertheless be thought to require sameness of content, even for utterances and mental states involving modal indexicals. For one thing, adherents of the indexical account of ‘actually’ clearly employ a standard notion of sameness of past in spelling out the relevant consequences of their account. Salmon (1987: 82), for example, considers a world that is ‘exactly like the actual world in every detail up to January 1, 2099’, but in which an utterance made here and now using ‘actually’ nevertheless differs in content. For another, ordinary ways of explicating or glossing ‘the same past’, so as to make (FP) plausible, already permit past utterances and mental states involving modal indexicals to vary in content across worlds with the same past. For a world is, or corresponds to, a complete world history, including a complete future. And so a specific world w is the world of the context for any utterance or mental state only if the future will be the way it is in w : a purely future difference determines a difference in world, and so a difference in context.¹⁰ The claim that a past modally indexical utterance or mental state referred to the specific world w therefore depends for its truth on the future being the way it is in w : it is not strictly or wholly ‘about the past’; it has not ‘already been made true’ by past events; its truth is not a ‘hard fact’ about the past; and so on.¹¹ All of which is to

9 Of course, one could derive – in an equivocal sense – (11) from (7) and (9) by (re)interpreting ‘actually’ as ‘in the world that is instantiated/obtains/is true’, rather than as a modal indexical. (On readings of ‘actually’, see e.g. van Inwagen 1980, Soames 2007, Chalmers 2011, Davis 2015 and Yalcin 2015.) But on this interpretation, (11'), again, clearly fails to follow. (Cf. n. 13 below.)

10 Again, see the references in n. 6 above. Note that the story may be different for defenders of the indexical account of ‘actually’ who also endorse modal realism, such as Lewis (1970, 1986). For, given modal realism, modally indexical reference to w may depend, not on the specifics of the future, but simply on being located in w . But Lewis, too, provides an understanding of what the ordinary notion of sameness of past comes to within his system – based on qualitative duplication of initial temporal segments – that permits past utterances and mental states to differ in reference across worlds with the same past. See Lewis 1983: 359–61, also his 1979, 1986: 206–9.

11 Contra Lampert’s claims at 2022: 431–33, where his focus on the apriority of a certain item of knowledge concerning w , while taking indexical reference to w for granted, obscures from view the fact that indexical reference to a specific world itself depends on a specific future – even though the specifics of that future need not (and perhaps cannot) themselves be known. (For the glosses mentioned in the text, see e.g. van Inwagen 2008: 218; Perry 2008: 159; Pike 1966: 370, Fischer 1989, Todd 2013.)

say that the relevant notion of ‘the same past’, the notion already in currency, is one according to which, when it comes to past states and utterances involving modal indexicals, sameness of past for distinct worlds does not require sameness of content. Indeed, it requires the opposite.¹²

Why did Lampert not see these problems with taking (11) to follow from (7) and (9)? Plausibly, owing to an unnoticed equivocation between two interpretations of (11).¹³ On the first, (11) is (11′). This combines with (8) to generate the contradiction, but fails to follow from (7) and (9), for the reasons explained. On the second, (11) is (11″).¹⁴ This follows from (7) and (9), but fails to combine with (8) to generate any contradiction. On neither reading does the argument go through.¹⁵

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12 That this is not a novel interpretation of ‘the same past’ is also confirmed by the fact that it does not resolve any traditional issues concerning (FP) and divine foreknowledge. For the divine beliefs at issue in that debate are not modally indexical; and, even if they were, the fact that such beliefs vary in content across worlds would leave the issues in place. That is, if w and w' have the same past up to t' , then it is still the case that if, at t in w , God believes that Louisa will fly to Paris at t'' , then, at t in w' , God believes that Louisa will fly to Paris at t'' ; and even if, at t in w , God (indexically) believes that Louisa will fly to Paris at t'' in w , then what follows is that, at t in w' , God (indexically) believes that Louisa will fly to Paris at t'' in w' . (Note, too, that any non-indexical knowledge God might be thought to have of w is irrelevant to difficulties involving divine foreknowledge. For there is no contradiction in supposing that, in w' , both (i) Louisa does not fly to Paris at t'' , and (ii) God knows at t that Louisa flies to Paris at t'' in w .)

13 Alternatively, one might attempt to pin the blame on an unnoticed equivocation between two readings of ‘actually’. On the modal indexical, *de re* interpretation, (8) follows from (4) and (5), but (11)/(11′) fails to follow from (7) and (9), as just noted. On the descriptive, *de dicto* interpretation (see n. 9 above), (11) follows from (7) and (9), but (8) fails to follow from (4) and (5). Lampert is clear, however, that he intends to employ the modal indexical reading of ‘actually’ throughout (2022: 429).

14 This second interpretation presumably results from imaginatively treating w' as the context for (11) – that is, from considering w' as actual. (See Davies and Humberstone 1980, Jackson 1998, Stalnaker 2001, Yablo 2002, Chalmers 2006.)

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