Fabrice Correia. Against Ordinary Presentism.

Main aim of this talk: argue against ordinary presentism, the view that (i) (absolutely) everything is present and (ii) there were or will be things which do not presently exist.

1. Past, Present and Future

The familiar, non-rigid tense-logical operators was, now and will:

- was $\varphi \Leftrightarrow$ was now $\varphi \Leftrightarrow$ now was φ;
- now $\varphi \Leftrightarrow$ now now $\varphi \Leftrightarrow \varphi$;
- will $\varphi \Leftrightarrow$ will now $\varphi \Leftrightarrow$ now will φ.

Define sometimes φ as was $\varphi \vee \varphi \vee$ will φ and always φ as $\neg$ sometimes $\neg\varphi$.

The rigid, less familiar tense-logical operators WAS, NOW and WILL:

- WAS $\varphi \Leftrightarrow$ WAS WAS $\varphi \Leftrightarrow$ NOW WAS $\varphi \Leftrightarrow$ WILL WAS φ;
- NOW $\varphi \Leftrightarrow$ WAS NOW $\varphi \Leftrightarrow$ NOW NOW $\varphi \Leftrightarrow$ WILL NOW φ;
- WILL $\varphi \Leftrightarrow$ WAS WILL $\varphi \Leftrightarrow$ NOW WILL $\varphi \Leftrightarrow$ WILL WILL φ.

The non-rigid tense-logical predicates past, present, future:

- past$(x) \Leftrightarrow$ was present(x);
- present$(x) \Leftrightarrow$ now present(x);
- future$(x) \Leftrightarrow$ will present(x).

The rigid tense-logical predicates PAST, PRESENT, FUTURE:

- PAST$(x) \Leftrightarrow$ WAS present$(x) \Leftrightarrow$ NOW past(x);
- PRESENT$(x) \Leftrightarrow$ NOW present(x);
- FUTURE$(x) \Leftrightarrow$ WILL present$(x) \Leftrightarrow$ NOW future(x);

Let π be the present time. Then:

- WAS $\varphi \Leftrightarrow$ always(present$(\pi) \supset$ was φ);
- NOW $\varphi \Leftrightarrow$ always(present$(\pi) \supset$ now φ);
- WILL $\varphi \Leftrightarrow$ always(present$(\pi) \supset$ will φ);

- PAST$(x) \Leftrightarrow$ always(present$(\pi) \supset$ was present(x));
- PRESENT$(x) \Leftrightarrow$ always(present$(\pi) \supset$ now present(x));
- FUTURE$(x) \Leftrightarrow$ always(present$(\pi) \supset$ will present(x)).

now is redundant. was, will, present and π suffice to define the remaining operators and predicates. Presence = existence?

2. Presentism, Anti-Presentism and Ordinary presentism

Consider ('everything' expressing absolutely unrestricted universal quantification):

(1) Everything is past, present or future
$\forall x$(past$(x) \vee$ present$(x) \vee$ future$(x))$;
(2) Everything is present
$\forall x$ present(x).

Presentists hold that (1) and (2) are true. *Anti-presentists* (e.g. eternalists and growing-block theorists) accept (1) but reject (2): they claim there are merely past or future things, e.g. merely future sons of Philipp, merely past electrons, merely past or future times.

Consider the *temporal transcendence thesis* (sometimes φ short for was $\varphi \vee$ now $\varphi \vee$ will φ, 'something' the dual of 'everything'):

(3) There were or will be objects which are not PRESENT
sometimes $\exists x \neg$PRESENT(x), i.e. sometimes $\exists x$ sometimes (present$(\pi) \wedge \neg$present(x)).

Plausible for both presentists and anti-presentists.

Ordinary presentism = presentism + the temporal transcendence thesis.

Aim 1: Provide an argument against ordinary presentism—and so, assuming the temporal transcendence thesis, in favor of anti-presentism. Aim 2: See how the ordinary presentist can escape the argument.

3. The Argument Against Ordinary Presentism

Suppose that there is way of defining the expression 'everything*' such that:

(i) It expresses universal quantification;
(ii) It is more comprehensive than 'everything' used absolutely unrestrictedly, in the sense that 'always, everything is identical to something*' is true ('something*' the dual of 'everything*');
(iii) 'If everything* is present, then always, everything* is PRESENT' is true.

Then *ordinary presentism is false*. In fact, by (i) and (ii) 'everything*' expresses absolutely unrestricted universal quantification, just like 'everything', and so by (iii), 'if everything is present, then always, everything is PRESENT' is true. But its antecedent is (2) and its consequent the negation of (3).

Claim: there is such a way of defining 'everything*', namely:

- Everything* Fs $\equiv_{df}$ The present time is such that always, everything is such that always, if that time is present, then that thing Fs.

On the assumption that always, there is a unique present time, the *definiens* is equivalent to each to the following two conditions:

- $\forall t$[present$(t) \supset$ always $\forall x$ always (present$(t) \supset F(x)$)];
- $\exists t$[present$(t) \wedge$ always $\forall x$ always (present$(t) \supset F(x)$)].

Remark: Kit Fine (1977, 1985, 2006) uses 'everything*' to reduce possibilist discourse to actualist discourse.

4. Digression: A Technical Result (Fine 1977)

L is a standard interpreted quantified tense-logical language with was, will, with $\forall$ (unrestricted universal quantification), present, $=$, T (the time-predicate) and π. L^+ is L enriched with $\forall^*$, which expresses what 'everything*' does. Use $\exists^* x$ for $\neg\forall^* x\neg$, always φ for was $\varphi \wedge \varphi \wedge$ will φ, and PRESENT(u) for always (present$(\pi) \supset$ present(u)).

Define translation function $^\circ$ from L^+ to L as follows (assume a given numbering of the variables):

- φ° is φ for φ atomic;
- $[\neg\varphi]^\circ$ is $\neg\varphi^\circ$;
- $[\varphi \wedge \beta]^\circ$ is $\varphi^\circ \wedge \beta^\circ$;
- [was φ]$^\circ$ is was φ°;
- [will φ]$^\circ$ is will φ°;
- $[\forall x\varphi]^\circ$ is $\forall x\varphi^\circ$;
- $[\forall^* x\varphi]^\circ$ is $\forall y(T(y) \wedge$ present$(y) \supset$ always $\forall x$ always (present$(y) \supset \varphi^\circ)$), where y is the first variable distinct from x which does not appear in φ°.

Given the meaning of 'everything*', for every sentence φ of L^+, φ and φ° mean the same.

The *Kripke-Fine theses* of L^+ are given by:

- S5 postulates for always;
- Free quantification theory for $\forall$:
  - $\forall x\varphi(x) \supset (\mathsf{present}(u) \supset \varphi(u))$ with usual condition on term u
  - $\forall x\ \mathsf{present}(x)$
  - $\forall x(\varphi \supset \psi) \supset (\forall x\varphi \supset \forall x\psi)$
  - $\varphi \supset \forall x\varphi$, x not free in φ;
  - $\varphi / \forall x\varphi$.
- Axioms for identity: $x = x$, $x = y \supset (\varphi(x) \supset \varphi(y))$ with usual condition on variable y;
- Axiom for presentness: $\mathsf{sometimes\ present}(u)$;

The *classical theses* of L^+ are given by that plus:

- Classical quantification theory for $\forall^*$:
  - $\forall^* x\varphi(x) \supset \varphi(u)$ with usual condition on term u
  - $\varphi \supset \psi / \varphi \supset \forall^* x\psi$, x not free in φ.

The *translation theses* of L^+ are all the sentences of the form:

- $\mathsf{always}(\varphi^\circ \equiv \varphi)$ (φ in L^+).

The *time-theses* of L^+ are all the sentences of L^+ which are instances of the following schemas:

- $T(\pi) \wedge \mathsf{present}(\pi)$
- $\mathsf{always}\ \exists!x(T(x) \wedge \mathsf{present}(x))$
- $\mathsf{always}\ \forall x(T(x) \wedge \mathsf{present}(x) \wedge \varphi \supset \mathsf{always}(\mathsf{present}(x) \supset \varphi))$.

Fundamental result: If all the Kripke-Fine theses of L^+ are true, as well as the translation theses and the time-theses, then all the classical theses of L^+ are true. Crucial consequence, generalized:

Given any language such as L^+, if all the Kripke-Fine theses of L^+ are true, as well as the translation theses and the time-theses, then: (A) $\forall^*$ obeys the postulates of classical quantification theory in L^+; (B) $\mathsf{always}\ \forall x\exists^* y(x = y)$ is true; (C) $\forall^* x\ \mathsf{present}(x) \supset \mathsf{always}\ \forall^* x\ \mathsf{PRESENT}(x)$ is true.

5. Justification of the Claim of Section 3

(i), (ii) and (iii) follow from premises (I) and (II):

(I) Every language such as L^+ has its Kripke-Fine theses, its translation theses and its time-theses true (**premise**)

(II) If $\forall^*$ satisfies the postulates of classical quantification theory in every language such as L^+, then 'everything*' expresses universal quantification (**premise**)

(i) 'everything*' expresses universal quantification (by I and II, given A above)

(ii) 'everything*' is at least as comprehensive as 'everything' (by I given B above)

(iii) 'If everything* is $\mathsf{present}$, then always, everything* is $\mathsf{PRESENT}$' is true (by I given C above).

6. How Can Ordinary Presentists Reply?

Only two options: reject premise I or reject premise II.

Reject premise I.

- Reject S5 for always. Not a possibility if the temporal order is total. (But if time is branching...)
- Reject axioms for identity. A possibility (e.g. some deny identity is transitive), but implausible.
- Reject free quantification theory for $\forall$. Does not seem to be an option.
- Reject axiom for presentness. No way!!
- Reject the translation theses. They hold by stipulation (definition of 'everything*').
- Reject the time-theses. See below.

Reject premise II. Discussion.

On the time-theses. Conditions for being a present time.

7. A way out?

Fine (2001) on what there is vs. what there REALLY is. Cf. Sider (2006) on the "logical kind" EXISTENCE. Characterize the debate in terms of what there REALLY is and not in terms of what there is.

References

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