Necessitist Propositional Dependence

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1 Overview

1. Singular and non-singular propositions.

    (a) Socrates was wise.

    (b) The teacher of Plato was wise.

2. Dependence conditionals. Examples:

    (a) If Socrates had never existed, there would not be the singular proposition that Socrates was wise.

    (b) If Socrates were to have had a fourth son, there would singular propositions about that son.

    (c) If Socrates were to have had a fourth son who was a stateseman, it would be possible that *he* be a philosopher instead.

2. The modal view.

    Modal Dependence. A singular proposition $\pi(Ft)$ depends ontologically upon individual $\delta(t)$ just in case it is (metaphysically) impossible that $\pi(Ft)$ exists and $\delta(t)$ does not.

3. Williamson and Stalnaker on the modal view.

    Stalnaker:

    It seems plausible to assume, first, that there are some propositions—singular propositions—that are object-dependent in the sense that the proposition would not exist if the individual [the proposition is about] did not. It also seems plausible to assume that there are some objects that exist only contingently and that there are singular propositions about those objects. These assumptions obviously imply that there are singular propositions that exist only contingently [. . .]. (Stalnaker 2011, 22)

An argument for propositional contingentism:

1. $\Box\forall x\Box[\exists\beta(\beta = \pi(Fx)) \rightarrow \exists y(y = x)]$

2. $\exists x[\Diamond\neg\exists y(y = x) \wedge \exists\beta(\beta = \pi(Fx))]$

3. $/\therefore \exists\alpha[\Diamond\neg\exists\beta(\beta = \alpha)]$

Williamson:

[H]ow could something be the proposition that *that dog is barking* in circumstances in which that dog does not exist? For to be the proposition that *that dog is barking* is to have a certain relation to that dog, which requires there to be such an item as that dog to which to have the relation. (Williamson 2002, 242)

[N]o well-developed metaphysical theory explains how a proposition can always modally lock onto an individual when there is no such individual to lock onto, just as no theory explains how a property (such as a haecceity or anti-haecceity) can always modally lock onto an individual when there is no such individual to lock onto. (Williamson 2013, 292).

2 Stalnaker's Contingentism

1. The neutral model of logical space $\mathscr{L}$.
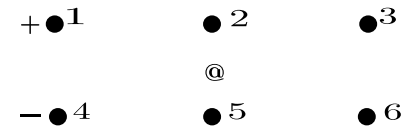
2. From first-order contingentism to propositional contingentism:

    (i) The divisions in logical space there are to be drawn are the *propositions*.

    (ii) It is contingent what divisions in logical space there are to be drawn.

    (iii) $/\therefore$ It is contingent what propositions there are.

3 Williamson's Necessitism

1. From modal comprehension to propositional necessitism.

   (a) Non-modal comprehension. $\exists\beta\forall\alpha_1,\ldots,\alpha_n[\beta(\alpha_1,\ldots,\alpha_n) \leftrightarrow A]$

   (b) Modal comprehension: $\exists\beta\Box\forall\alpha_1,\ldots,\alpha_n[\beta(\alpha_1,\ldots,\alpha_n) \leftrightarrow A]$

   (c) 0-place modal comprehension: $\exists\beta\Box(\beta \leftrightarrow A)$

   (d) Propositional necessitism: $\Box\forall\alpha\Box\exists\beta(\beta = \alpha)$

2. From propositional necessitism to first-order necessitism.

   i. $\Box\forall x\Box[\exists\beta(\beta = \pi(Fx)) \rightarrow \exists y(y = x)]$

   ii. $\Box\forall x\Box\exists\beta(\beta = \pi(Fx))$

   iii. $/\therefore \Box\forall x\Box\exists y(y = x)$

4 Two Dimensions of Dependence

1. 'Target' and 'source' possibilities in two-dimensional semantics.

   - Possibilities treated 'as counterfactual' and 'as actual' (Davies and Humberstone 1980)
   - World of *index* and world of *context* (Kaplan 1977; Lewis 1980)

2. Varieties of propositional dependence.

   - W a set of worlds, truth and falsity 'doubly-indexed' to a target possibility w, in view of a source possibility v.
   - $\vDash_v^w \varphi ::= \pi(\varphi)$ is true in w, in view of v.

   (a) Modal dependence: $\forall v, w \in W$: $\vDash_v^w \exists\beta(\beta = \pi(Ft)) \rightarrow \exists y(y = t)$

   (b) Source dependence: $\forall v \in W$: $\vDash_v^v \exists\beta(\beta = \pi(Ft)) \rightarrow \exists y(y = t)$

3. Available semantics for dependence conditionals.

   - W a set of worlds; $\mathsf{s} \in W^{W\times\mathscr{P}(W)}$ a 'similarity'-ordering on W
   - For $w \in W$ and $\pi(\varphi) \in \mathscr{P}(W)$, $\mathsf{s}(w,\pi(\varphi))$ the 'closest' world to w in respect of $\pi(\varphi)$
   - We write $w' \sim_\varphi w$ for $\mathsf{s}(w,\pi(\varphi))$

   (a) Dependence conditionals as 'target' shifters (Stalnaker 1968; Lewis 1973):

   $$\vDash_v^w \varphi > \psi \text{ just if } \vDash_v^{w'\sim_\varphi w} \psi$$

   (b) Dependence conditionals as 'source perspective' shifters:

   $$\vDash_v^w \varphi > \psi \text{ just if } \vDash_{v'\sim_\varphi v}^w \psi$$

5 Solving a Puzzle

- Problem pairs:

   1a. Even if I had been nothing, it would still be possible that I be something.

   1b. $\neg\exists x(x = a) > \Diamond\pi(\exists x(x = a))$

   2a. If I had been nothing, there would be no propositional information about me.

   2b. $\neg\exists x(x = a) > \neg\exists\beta(\beta = \pi(Fa))$

- Pragmatic resolution:

   1c. $\vDash_@^{w\sim_{\neg\exists x(x=a)}@} \Diamond\exists x(x = a)$

   2c. $\vDash_{v\sim_{\neg\exists x(x=a)}@}^w \neg\exists\beta(\beta = \pi(Fa))$

- 'Moderate' propositional necessitism:

   $$\vDash_v^v \forall x\Box\exists\beta(\beta = \pi(Fx))$$

- 'Alien' propositions.

   3a. If I were to have had a brother, *he* might have been a philosopher.

   3b. $\neg\exists x(Bxa) \wedge [\exists x(Bxa) > \Diamond\pi(Px)]$

   3c. $\vDash_{v\sim_{\exists x(Bxa)}@}^w \Diamond\exists x(Bxa \wedge \Diamond Px)$

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