The richness and strangeness of higher-order metaphysics

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Higher-order metaphysics

Higher-order logic allows quantification into positions other than name position.

[1] Cb

entails: [2] $\exists x\, Cx$ (quantification into name position – first-order);

[3] $\exists X\, X\mathrm{b}$ (quantification into predicate position – higher-order); and

[4] $\exists p\, p$ (quantification into sentence position – higher-order).

Higher-order metaphysics (Williamson 2003, 2013, Dorr 2016) puts higher-order logic to work in metaphysics.

Higher-order metaphysicians stipulate that higher-order quantification is *sui generis*: not definable in terms of first-order quantification or natural language.

Say that $\forall x$, x is an *object* (first-order quantifier!). Then higher-order quantifications are not generalizations about objects.

In higher-order metaphysics,

[5] $p = q$

is defined to mean:

[6] $\forall O(Op \leftrightarrow Oq)$;

and

[7] $F = G$

is defined to mean:

[8] $\forall U(UF \leftrightarrow UG)$.

Examples of higher-order theories:

(i) Fritz (2023) on 'propositional identity':

[9] $\forall p \forall q(p = q \leftrightarrow \Box(p \leftrightarrow q))$.

(ii) Frugé's (2025) 'higher-order realism' about properties:

[10] For some predicates F, $\exists X(X = F)$.

For example, if N means *is negatively charged*, then

[11] $\exists X(X = \mathrm{N})$.

Three tensions

Revolution versus continuity

E.g. Fritz 2023 introduces 'a language which allows us to formally regiment talk of entities like propositions, properties, and relations' (7). But the formal language 'is meant to improve on ordinary uses of' words such as 'proposition': 'the present use of these words may therefore likely come apart from their ordinary use' (31).

High ontology versus low ontology

On one hand… For Skiba (2021: 2), higher-order metaphysics involves a 'paradigm-shift … of great importance for many fundamental questions in metaphysics, since it comes with a drastic shift in perspective on the structure of reality' – higher-order metaphysics provides new levels of reality to 'place' entities at. Jones (2018) and Frugé (2025) offer 'higher-order realism' about properties. McCarthy (2026: 360) worries that higher-order logic invokes 'a host of abstruse higher-order entities'.

On the other hand… For Trueman (forthcoming): higher-order metaphysics does *not* offer 'a grand speculative metaphysic of previously unimagined entities'. Higher-order metaphysics is actually good news for the view that there are no properties (Liggins 2021, Button and Trueman 2024).

Importance versus unimportance

On one hand… Higher-order languages 'allow us to formulate deep questions about the structure of reality using only logical vocabulary' (Goodman 2024: 73) and are powerful 'for formulating important claims in metaphysics, and as a framework for investigating those questions' (Bacon 2024: xv).

On the other hand… Sider (forthcoming) sees higher-order ideology as dispensable, hinting that we shouldn't 'stay up nights wondering whether, for instance, $p = (p \,\&\, p)$, for all p'.

Conceptual engineering

Skiba 2026 argues convincingly that higher-order metaphysics is a conceptual engineering project. Higher-order metaphysicians:

> add to the stock of concepts we use in philosophy;
>
> modify the use of existing symbols, $\exists$ and $=$ (or introduce new ones); and
>
> modify the use of natural language expressions by employing a 'pronunciation convention'. For example, [3] $\exists X\, X\mathrm{b}$ might be read 'There is a property Barcelona has', and [4] $\exists p\, p$ might be read 'Some proposition is true'. Higher-order metaphysicians are clear that this is not what these natural-language sentences usually mean.

The topic continuity objection

… is that conceptual engineering projects change the subject. But Belleri (2025) shows that the notion of 'subject' (or 'subject matter') is too flexible to provide a solid objection.

An alternative version of the objection (Cappelen 2018: 101–2, echoing Haslanger 2000: 34: 'Revisionary projects are in danger of providing answers to questions that weren't being asked'): conceptual engineering is problematic because it causes redirection of inquiry.

Suppose we start by trying to answer 'Is it the case that *j*?' and through conceptual engineering switch to answering 'Is it the case that *k*?'.

Assume we find out that the correct answer to 'Is it the case that *k*?' is 'Yes'. Then we need no more inquiry just in case either (i) we already know that if *k* then *j*, or (ii) we already know that if *k* then not-*j* (where the 'if … then's are material conditionals).

Similarly, if the correct answer to 'Is it the case that *k*?' turns out to be 'No', then we need no more inquiry just in case either (i) we already know that if not-*k* then *j*, or (ii) we already know that if not-*k* then not-*j*.

Two representative examples:

> (i) Let *j* be [12] $\forall x \forall y(\mathrm{P}x \wedge \mathrm{P}y \rightarrow (x = y \leftrightarrow \mathrm{E}xy))$ ('Two propositions are identical just in case they are necessarily equivalent') and let *k* be [9] $\forall p \forall q(p = q \leftrightarrow \Box(p \leftrightarrow q))$.
>
> (ii) Let *j* be [13] $\exists x(x = \mathrm{n})$ ('The property of being negatively charged exists') and let *k* be [11] $\exists X(X = \mathrm{N})$.

Implications for the three tensions

Revolution versus continuity. The apparent continuity is an illusion.

High ontology versus low ontology. Higher-order metaphysical theories have no direct relevance to traditional ontological questions concerning the existence and individuation of properties and propositions.

Higher-order metaphysics has indirect relevance in that the new ideology helps us debate first-order questions, for example, by generating new ways to respond to arguments for the existence of properties (Liggins 2021, Button and Trueman 2024).

Importance versus unimportance. Because we have discontinuity in inquiry, the new questions do not inherit importance from their predecessors.

Appreciating higher-order metaphysics

Because higher-order views lack ontological commitments, they are economical. And because they do not posit identities, they avoid problems about identity conditions.

An example: propositional attitudes.

On the first-order theory, when you believe something, you and the proposition you believe are connected by the relation of belief. Generalizations about belief, such as 'There is

something Alex and Bo both believe', would be made using quantification into name position: [14] $\exists x(\text{Ba}x \wedge \text{Bb}x)$.

On a higher-order theory, the possession of a belief is better stated using a 'prenective': an expression that forms a sentence out of a name for a believer and a *sentence* (see e.g. Jones 2019). Generalizations about belief, such as 'There is something Alex and Bo both believe', would be made using quantification into sentence position: [15] $\exists p(\text{Ba}p \wedge \text{Bb}p)$.

The first-order view is committed to the existence of propositions. But the higher-order one is not. So questions about the nature and identity conditions of propositions do not arise for the higher-order view. Because it is extremely hard to answer those questions, this is a significant advantage.

Works cited

Bacon, Andrew 2024. *A Philosophical Introduction to Higher-Order Logics.* New York and London: Routledge.

Belleri, Delia 2025. 'You're changing the subject': an unfair objection to conceptual engineering? *Philosophical Quarterly* 75: 858–877.

Button, Tim and Robert Trueman 2024. A fictionalist theory of universals. In Fritz and Jones (eds) 2024: 245–290.

Cappelen, Herman 2018. *Fixing Language: An Essay on Conceptual Engineering.* Oxford: Oxford University Press.

Dorr, Cian 2016. To be F is to be G. *Philosophical Perspectives* 30: 39–134.

Fritz, Peter 2023. *The Foundations of Modality: From Propositions to Possible Worlds.* Oxford: Oxford University Press.

Fritz, Peter and Nicholas K. Jones (eds) 2024. *Higher-Order Metaphysics*. Oxford: Oxford University Press.

Frugé, Christopher 2025. Against instantiation. *Australasian Journal of Philosophy* 103: 316–336.

Goodman, Jeremy 2024. Higher-order logic as metaphysics. In Fritz and Jones (eds) 2024: 73–106.

Haslanger, Sally 2000. Gender and race: (What) are they? (What) do we want them to be? *Noûs* 34: 31–55.

Jones, Nicholas K. 2018. Nominalist realism. *Noûs* 52: 808–835.

Jones, Nicholas K. 2019. Propositions and cognitive relations. *Proceedings of the Aristotelian Society* 119: 157–178.

Liggins, David 2021. Should a higher-order metaphysician believe in properties? *Synthese* 199: 10017–10037.

McCarthy, William 2026. A Benacerraf problem for higher-order metaphysics. *Noûs* 60: 351–370.

Sider, Theodore (forthcoming). Higher-order metametaphysics. *Disputatio.*

Skiba, Lukas 2021. Higher-order metaphysics. *Philosophy Compass* 16: 1–11.

Skiba, Lukas 2026. Engineering existence? *Inquiry* 69: 101–126.

Trueman, Robert (forthcoming). Fregean predication. *Mind.*

Williamson, Timothy 2003. Everything. *Philosophical Perspectives* 17: 415–465.

Williamson, Timothy 2013. *Modal Logic as Metaphysics*. Oxford: Oxford University Press.