Errata to *Philosophy and Model Theory*

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Chapter 3

p.72, immediately prior to Proposition 3.10.
SA should be defined as comprising axioms (Q1)–(Q3) from Definition 1.9.¹

Chapter 4

p.88, proof of Proposition 4.16.
The entire paragraph starting ‘For reductio’ can be replaced with the following: ‘And in fact $v(\eta^2) > v(\frac{1}{\eta})$, since as we observed earlier $v(\eta^2)$ strictly decreases as $n$ increases.’²

p.105, immediately before the last displayed equation.
The word ‘not’ should be ‘note’.

Chapter 5

p.118. Proof sketch.
The sentence ‘But neither faithfully interprets the other, since these theories have different $\Sigma_1$-consequences, and faithful interpretation requires sameness of $\Sigma_1$-consequences’, should read ‘But $\text{PA} + \neg \text{Con(PA)}$ does not faithfully interpret $\text{PA}$, since faithful interpretation requires that the interpreted theory prove all the $\Sigma_1$-consequences of the interpreting theory’.

Chapter 7

p.153, last sentence of first full paragraph
The sentence should read ‘In short, it seems like the modelist can answer the Doxological Challenge if she can find a categorical theory.’

¹ The theory (Q1)–(Q2) has a model which comprises multiple copies of $\mathbb{N}$. It is therefore incomplete, since e.g. it does not decide the sentence ‘there are at least two elements which are not in the range of the successor function.’

² The replaced paragraph does, though, illustrate how one can use the value field to mimic Euler’s application of l’Hôpital’s rule. So we will likely retain it in the text somewhere.
Chapter 10

p.227, the manifesto statement
The text ‘logical framework of very theories’ should read ‘logical framework of the very theories’.

p.230, middle of page
The text ‘“0” as canonical’ should read ‘“0” as a canonical’.

Chapter 11

p.265. Proof of clause (qp:5).
Replace the text from ‘so there is some $y' \subseteq E_2 \text{ord}_2(y)$’ to the end of the proof of (qp:5) with the following: ‘so there is some $y' \subseteq E_2 \text{ord}_2(y)$ such that $R(v', y')$. Instantiating the induction hypothesis with $\text{ord}_1(v')$, $v'$, $y'$, and $x'$, there is some $z' \subseteq E_2 \text{ord}_2(y')$ such that $R(x', z')$. Moreover, $z' \subseteq E_2 \text{ord}_2(y)$; this holds since $y' \subseteq E_2 \text{ord}_2(y)$ by Proposition 8.25(3). Now, using Levelling$_2$, let $z = \{z' \subseteq E_2 \text{ord}_2(y) : (\exists x' E_1 x) R(x', z')\}$; by what we just showed, $(\forall x' E_1 x) (\exists z' \subseteq E_2 \text{ord}_2(y)) R(x', z')$. Equally, $(\forall z' \subseteq E_2 \text{ord}_2(y)) (\exists x' E_1 x) R(x', z')$ by (qp:3)–(qp:3). So $\Lambda(R, x, z)$ and hence $R(x, z)$ by (11.1). This completes the proof by induction.’

Chapter 12

p.285, first sentence of §12.A
The text ‘we show how define’ should read ‘we show how to define’.

Chapter 16

p.387, near the end of the introduction
The text ‘It was provided Sher’ should read ‘It was provided by Sher’.

Chapter 17

p.426, second sentence of the subsubsection ‘Rethinking categoricity’
The text ‘treating categoricity a desirable’ should read ‘treating categoricity as a desirable’.