## Corrections to Gödel Without (Too Many) Tears

These are corrections for the currently available print-on-demand paperback and hardback version of GWT, and the currently downloadable PDF.

## Distracting typos

**p. 43**. There are some numbering foul-ups in the displayed proof. With changes from (what it is now) line 6, it should read

1. 
$$0+0=0$$
 Instance of Q's Axiom 4  
2.  $0+a=a$  Supposition  
3.  $S(0+a)=Sa$  From 2 by the identity laws  
4.  $0+Sa=S(0+a)$  Instance of Q's Axiom 5  
5.  $0+Sa=Sa$  From 3, 4  
6.  $0+a=a\to 0+Sa=Sa$  From 1, 5 by Conditional Proof  
7.  $\forall x(0+x=x\to 0+Sx=Sx)$  From 6, since a was arbitrary.  
8.  $0+0=0 \land \forall x(0+x=x\to 0+Sx=Sx)$  From 1, 7  
9.  $\{0+0=0 \land \forall x(0+x=x\to 0+Sx=Sx)\} \to \forall x(0+x=x)$  Instance of Induction Schema  
10.  $\forall x(0+x=x)$  From 8, 9 by Modus Ponens

**p. 107** lines 3,4 and 5 up from bottom. Each occurrence of Prf on those lines should be overlined,  $\overline{\mathsf{Prf}}$ , giving us:

Hence, because 
$$\overline{\mathsf{Prf}}$$
 captures  $\overline{\mathit{Prf}}$ , we have each of  $T \vdash \neg \overline{\mathsf{Prf}}(0, \overline{\mathsf{n}}), \ T \vdash \neg \overline{\mathsf{Prf}}(1, \overline{\mathsf{n}}$ 

Therefore, we will also have (ii)  $T \vdash (\forall v \leq \overline{m}) \neg \overline{\mathsf{Prf}}(\overline{m}, \overline{n})$  – since Q and hence T 'knows' about bounded quantifiers (see §7.1).

## Trivial typos

Page	Line	Is	Should be
13	5	needs to expressively rich	needs to be expressively rich
72	Defn 18 ii.	$\neg \varphi((\overline{m},\overline{n})$	$ eg arphi(\overline{m},\overline{n})$

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