## ERRATA

## **VOLUME 29**

Book Review by Georg Kreisel of Kurt Gödel, Collected Works, Volume I, Publications 1929–1936

Page 168, lines 11/12	Read Sterling Hayden for George C. Scott
Page 173, line 18	Read $\vec{P} \mapsto D_{\vec{P}}$ for $\vec{P} \vdash D_{\vec{P}}$ .
Page 179, line 9	Read $\Sigma_1^0$ for $\Sigma_0^1$ .
Page 180, line 8	Read AI for AL.

## **VOLUME 28**

Correction to 'Survey of generalizations of Urquhart semantics', by R. A. Bull, *Notre Dame Journal of Formal Logic*, vol. 28 (1987), pp. 220-237.

My survey of generalizations of Urquhart semantics gave a summary of A. Q. Abraham's unpublished "Completeness of quantified classical relevant logic". Abraham's paper was discovered to have a subtle but apparently fatal flaw and my survey was hastily revised to avoid this flaw. That revision, while correct in principle, was badly botched in detail. This note gives further details of the necessary correction, together with a description of the original version, lest my botches be attributed to Abraham.

In Abraham's original version, the theory T introduced on p. 234 of my survey is not the set of theses, but any regular, prime, consistent-and-complete theory which extends the set of theses. Further,  $\mathbf{P}_T$  is the set of principal T-theories which are *consistent*. To prove that  $\mathbf{P}_T$  is closed under  $\cdot$  requires

$$\vdash (A \to F) \lor ((A \to F) \to F)$$

and the primeness of T. To prove that the condition  $a \cdot a^* \leq 0$  holds on  $\mathbf{P}_T$  requires

$$\vdash (\overline{A \to (\neg A)}) \lor (A \to B)$$

and the primeness of T. Deriving these theses requires the Contraction Axiom  $W, \vdash (A \rightarrow (A \rightarrow B)) \rightarrow (A \rightarrow B)$ , via

$$\vdash (A \to B) \to (\bar{A} \lor B).$$

To prove that the condition

if  $a \cdot b \le 0$  then, for some  $c, a \le c \& b \le c^*$ 

holds on  $\mathbf{P}_T$  requires that T be closed under the rule

if 
$$\vdash (A \land B) \rightarrow (\neg C)$$
 then  $\vdash (A \land C) \rightarrow (\neg B)$ 

of 'classical' relevant logic. Alas, there is no reason to believe that the set of theses can be extended to a consistent prime theory T which satisfies this condition.

To avoid this flaw, it is necessary to take T to be the set of theses of CR-