Paraconsistent and Paracomplete Systems

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Abstract

Every paraconsistent or paracomplete system invalidates one of the laws of indiscernibility or one of the laws of logical explosion.

Contents

Part I
General Paraqualifications

1 Paracomplete Systems

A system is generally paracomplete if it invalidates one or both of the laws of indiscernibility.

1.1 Indiscernibility of Identicals

$$\frac{\exists F\,(Fx \oplus Fy) \vdash x \neq y}{x = y \vdash \forall F\,(Fx \leftrightarrow Fy)}$$

1.2 Identity of Indiscernibles

$$\frac{x \neq y \vdash \exists F\,(Fx \oplus Fy)}{\forall F\,(Fx \leftrightarrow Fy) \vdash x = y}$$

2 Paraconsistent Systems

A system is generally paraconsistent if it invalidates some number of the laws of inconsistency.

2.1 Logical Explosion

$$\frac{\neg y \vdash \neg x \vee x}{x \wedge \neg x \vdash y}$$

2.2   Contradictory Consequence

$$\frac{\neg x \vee x \vdash \neg y}{y \vdash x \wedge \neg x}$$