Cogito? Ergo? Sum? An Onto-Logical Quandary Free of Existence Assumptions

Research Commentary – Konstantinos Nestor Germanos – MCMP Summer School 2025

Complete Essay

From Parmenides to Descartes, the link between thinking and being has been a philosophical constant. Descartes' Cogito (*I think, therefore I am*) remains its most famous expression. Read as an inference, the Cogito's logical status becomes contentious: does it prove existence, or assume it?

Classical first-order logic treats existence as an implication for singular terms and an explication of Quine's dictum, "To be is to be the value of a bound variable" for variables. These very same existential presuppositions render the Cogito non-inferential. Also, in classical logic, non-existent terms are generally not well-formed.
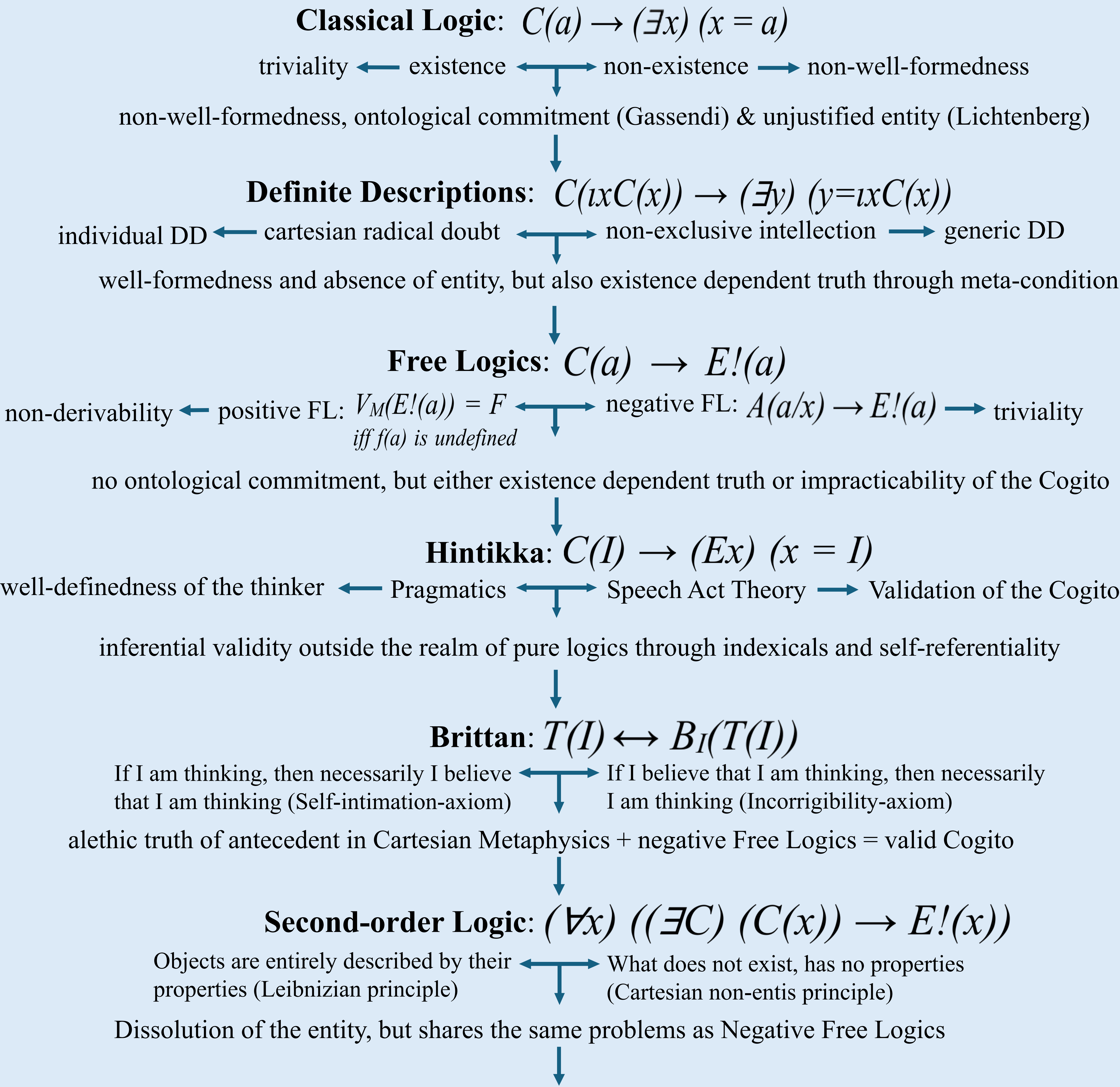
Russellian Definite Descriptions address the latter problem by decoupling existence from well-formedness, but they do not decouple existence from truth, thereby quarantining non-existents within classical semantics. Most importantly, however, they acknowledge the Lichtenbergian criticism that "*an unjustified I was smuggled in the cogito*" by replacing singular terms.

Free Logics were developed to address, among other things, this very problem. Whether we abide by the axiomatization of neutral, positive, or negative free logics, however, the Cogito is either truthvalueless, non-derivable, or merely trivial, respectively. Nevertheless, Hintikka and Brittan each gave a go at the inferential Cogito within Free Logics.

Hintikka thinks out of the logical box, introducing, besides indexicals, Speech Act Theory to support that it is the act of speaking the Cogito that validates it for oneself, also pragmatically ensuring a well-defined thinker. Brittan on the other hand claims to resolve the Cogito argument through the axiomatization of Cartesian Metaphysics in terms of self-intimation and incorrigibility. A second-order line of reasoning is also explored therein.

The claim of the present commentary is that, though they argue within different domains, both authors strongly rely on the self-referentiality of the Cogito to prove its inferential validity. While free logics on itself does not solve this existential quandary, it exposes the lines where logic, language, and being intersect, reminding us of the questionability of existence.

Important Sources:
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Classical Logic: $C(a) \rightarrow (\exists x)\ (x = a)$

triviality ⟵ existence ⟷ non-existence ⟶ non-well-formedness

non-well-formedness, ontological commitment (Gassendi) & unjustified entity (Lichtenberg)

Definite Descriptions: $C(\imath x C(x)) \rightarrow (\exists y)\ (y = \imath x C(x))$

individual DD ⟵ cartesian radical doubt ⟷ non-exclusive intellection ⟶ generic DD

well-formedness and absence of entity, but also existence dependent truth through meta-condition

Free Logics: $C(a) \rightarrow E!(a)$

non-derivability ⟵ positive FL: $V_M(E!(a)) = F$ *iff f(a) is undefined* ⟷ negative FL: $A(a/x) \rightarrow E!(a)$ ⟶ triviality

no ontological commitment, but either existence dependent truth or impracticability of the Cogito

Hintikka: $C(I) \rightarrow (Ex)\ (x = I)$

well-definedness of the thinker ⟵ Pragmatics ⟷ Speech Act Theory ⟶ Validation of the Cogito

inferential validity outside the realm of pure logics through indexicals and self-referentiality

Brittan: $T(I) \leftrightarrow B_I(T(I))$

If I am thinking, then necessarily I believe that I am thinking (Self-intimation-axiom) ⟵ ⟷ If I believe that I am thinking, then necessarily I am thinking (Incorrigibility-axiom)

alethic truth of antecedent in Cartesian Metaphysics + negative Free Logics = valid Cogito

Second-order Logic: $(\forall x)\ ((\exists C)\ (C(x)) \rightarrow E!(x))$

Objects are entirely described by their properties (Leibnizian principle) ⟵ ⟷ What does not exist, has no properties (Cartesian non-entis principle)

Dissolution of the entity, but shares the same problems as Negative Free Logics

Author's Conclusion: Self-referentiality is at the heart of any valid interpretation of the inferential Cogito. Though Hintikka and Brittan take different paths, their arguments rest on the same property of the Cogito. This is reflected in their common reliance on indexicals. Sometimes, self-referentiality takes away – other times, it gives!