

## A name for the logics of inconsistent systems

Francisco Miró Quesada Cantuarias (1918–2019)

Annotated and translated by  
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### Abstract

In this letter, translated into English for the first time here, Miró Quesada suggests three names for da Costa's logic of inconsistent systems (“ultraconsistent,” “metaconsistent,” and “paraconsistent”) and ranks them according to their negative semantic load.

**Keywords:** naming logics, inconsistent systems, non-classical logics, heterodox logics, paraconsistent logics.

### Introduction by the annotator

It is well-known that the term “paraconsistent logic” was coined by Francisco Miró Quesada, and it is often said that it “was employed by the first time in a lecture delivered by him [14] at the Third Latin-American Symposium on Mathematical Logic, held at the University of Campinas, Brazil, in 1976” [1, p. 11]. However, neither this talk was published in the proceedings of this SLALM [2], nor was it the first document where Miró Quesada used the term. Instead, Miró Quesada proposed this and two other terms in 1975 in a letter to Newton da Costa, answering to the latter's request to suggest a name for his logic of inconsistent systems. Regarding this episode, da Costa said:

I wrote to Miró Quesada, who saw the new logic with great enthusiasm, asking him to suggest a name for it. I remember as if was today that he answered to me making three proposals: it could be called *metaconsistent*, *ultraconsistent*, or *paraconsistent*. [6, ??]

Unfortunately, we were not able to obtain da Costa's letter to Miró Quesada, but we are presenting here both a scan of the original letter (see Figures 1

and 2) and its translation into English with some annotations. I thank Itala D'Ottaviano and Evandro Gomes for scanning and letting us print this letter, and José Carlos Cifuentes for his feedback on my annotations.

## The Letter

Lima, September 29, 1975

Dear Newton:

thank you very much for the invitation to Campinas. [Ayda] Arruda has just written to me and I, of course, have accepted. But as I told you in Lima, I do not consider myself a logician in any way, but an informed philosopher. However, just as you made me see, I believe that, I can propose interesting ideas on the philosophical domain, and that I handle logic well enough to be able to say some original things from the point of view of the philosophy of knowledge.<sup>1</sup> I have accepted to participate in the conferences on non-classical logics, because I think I can say some interesting things about the significance of the logic of inconsistent systems for the philosophy of knowledge. I will soon write to you in detail to show you what I intend to do.<sup>2</sup> As always, your suggestions will be received with joy.

I am very flattered that you consult me about the name that could be given to the logic of inconsistent systems.<sup>3</sup> This problem would be easy if it were not for the damned semantic load of words. I think the ideal denomination is “ultraconsistent logics,” because “ultra” in Latin means *beyond*. Remember the Pillars of Hercules, *non plus ultra*, and the motto of the Colónidas<sup>4</sup>, *plus ultra*, that is, beyond the Pillars of Hercules. You are a Colónida of logic because you have gone beyond consistency, you have created a logic that goes beyond consistency because it can be applied to both consistent and inconsistent systems (avoiding trivialization in this case). The problem is that “ultra” is used today as a synonym for *an extremely intense increase in a quality*. So “ultraconsistent logic” appears to be a logic that has an extraordinary consistency, a done and dusted consistency. That is why it would perhaps be better to say “metaconsistent logic,” because “meta” means in Greek *beyond, after*, that is, more or less the same as “ultra” (it also

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<sup>1</sup>This is not exactly an exhibition of false modesty by Miró Quesada, for he contributed much more to the philosophy of logic and “the knowledge field that” was then “beginning to be called ‘philosophical logic’” [14, p. 9], than to logic itself (but see [10, 13, 11]).

<sup>2</sup>The event referred to is the III SLALM mentioned in our introduction (cf. [8]).

<sup>3</sup>Newton da Costa’s logic of inconsistent systems was presented in English in 1974 [5], but it was already developed extensively in an “habilitation thesis” he wrote in Portuguese in the year 1963 [4], which is currently being translated into English by Itala d’Ottaviano [7].

<sup>4</sup>Miró Quesada possibly refers to the Peruvian literary movement *Colónidas*, which was developed between 1915 and 1916. This movement conceived itself as “a sequel to Columbus’ work, a foot in a new world: that of the new literature” [16, p. 7].



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Lima 29 de Setiembre de 1975

Querido Newton:

muchas gracias por la invitación a Campinas. Me acaba de escribir Lidya Arruda y, por supuesto, he aceptado. Pero como te dije en Lima, yo no me considero de ninguna manera un lógico, sino un filósofo informado. Sin embargo, tal como tu me hiciste ver las cosas, creo que, en el plano filosófico si puedo plantear cosas interesantes y que manejo la lógica lo suficiente como para poder decir algunas cosas originales desde el punto de vista de la filosofía del conocimiento. He aceptado participar en las conferencias sobre lógicas no clásicas, porque creo que puedo decir algunas cosas de interés sobre la significación de la lógica de los sistemas inconsistentes para la filosofía del conocimiento. Pronto te escribo en detalle para que veas lo que pienso hacer. Como siempre tus sugerencias serán recibidas con júbilo.

Me halaga mucho que me consultes sobre el nombre que podría darse a la lógica de los sistemas inconsistentes. Es un problema que sería fácil si no fuera por la maldita carga semántica de las palabras. Creo que la ~~palabra~~ denominación ideal es "lógicas ultraconsistentes", porque "ultra" en latín significa más allá de. Acuérdate de las columnas de Hércules: Non plus ultra y del lema de los colonias: plus ultra, es decir, más allá de las columnas de Hércules. Tu eres un colónida de la lógica pues has rebasado la consistencia, has creado una lógica que va más allá de la consistencia pues se puede aplicar tanto a los sistemas consistentes como inconsistentes (evitando en este caso la trivialización). Lo malo es que "ultra" se utiliza hoy día como sinónimo de aumento sumamente intenso de una cualidad. De manera que "lógica ultraconsistente" da la impresión de ser una lógica que tiene una consistencia extraordinaria, una consistencia oleada y sacramentada. Peseo tal vez sería mejor decir "lógicas metaconsistentes" pues "meta" significa en griego más allá de, después de, o sea, más o menos lo mismo que ~~en~~ "ultra" (significa, además, otras cosas, pero con casos diferentes). Ade-

Figure 1: Scan of Francisco Miró Quesada's original letter (in Spanish) to Newton da Costa, September, 29, 1975, *recto* (SPCLEARQ, FNCAC, 147).

means other things, but with different cases). Besides, it sounds very nice. It is true that it is a barbarism or, better, a solecism, but this should be no problem, since so is “sociology.” The defect of “metaconsistent” is that, in the mathematical-philosophical circles, “meta” is associated with “metatheory” and gives the impression that it is a logic relative to metalanguage. But, outside this semantic load, I would not see any objection.<sup>5</sup>

There is, however, another possibility: use [the prefix] “para,” which in Greek means *next to*.<sup>6</sup> “Paraconsistent logics” sounds nice, a bit esoteric, it gives a more or less precise idea of what it is about (logics that are not like the classical ones, but are a little *next to* them because they can be applied to inconsistent systems) and it has the advantage that there is no deforming semantic load. I thus propose you to choose between the following three names, whose precision is directly proportional to its negative semantic load:

- 1) Ultraconsistent logics
- 2) Metaconsistent logics
- 3) Paraconsistent logics

I hope you like any of the three, I would be happy to contribute to baptize this kind of logics that have such great philosophical importance.

I’m writing you soon to you to tell you about the Morelia Congress of Philosophy went, where I had an active participation, and a little about my work. Oh, and, as I think I’ve already anticipated, I want to ask you a question about the definition of constructible number.

With a big hug,




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<sup>5</sup>The term “paraconsistent” has been the object of criticism on more than one occasion and other terms have been proposed such as “non-explosive” [3, p. 7], “paratrivial” [9, p. 670], or even “parainconsistent” [15]. However, as we can see in this letter, Miró Quesada himself did not regard any of his proposals as optimal and he had somehow already anticipated some of his critics. For example, in showing his disagreement with the term “paraconsistent,” Walter Carnielli proposes the term “metaconsistent” [9, p. 670] as an alternative, to which Miró Quesada had already advanced some objections in the fragment annotated here.

<sup>6</sup>In personal communication, Graham Priest told me that “Miró Quesada does not say that, in Greek, the term ‘para’ can also mean *beyond*, as in ‘paradox.’ I have always preferred this as its meaning in ‘paraconsistent.’”



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más suena muy bonito. Es cierto que es un barbarismo o mejor, un solecismo, pero ello no le hace, pues sociología también lo es. El defecto de "metaconsistente" es que "meta" se asocia en los medios matemático-filosóficos con "metateoría" y da la impresión de que se trata de una lógica relativa al metalenguaje. Pero, fuera de esta ~~una~~ carga semántica, no vería yo ninguna objeción.

Hay, empero, otra posibilidad: utiliza "para" que en griego ~~para~~ significa al lado de. "Lógicas paraconsistentes" suena bonito, un poco ~~esotérico~~ <sup>esotérico</sup>, da una idea más o menos precisa de lo que se trata (lógicas que no son como las clásicas, sino que quedan un poco al lado de ellas pues pueden aplicarse a sistemas inconsistentes) y tiene la ventaja de que no hay carga semántica deformante. Te propongo pues, a elegir, entre las tres denominaciones siguientes, cuya precisión está en razón de su carga semántica negativa:

- 1) Lógicas ultraconsistentes
- 2) Lógicas metaconsistentes
- 3) Lógicas paraconsistentes

Ojalá que te guste alguna de las tres, me sentiría encantado de contribuir a bautizar a este tipo de lógicas que tienen tan grande importancia filosófica.

Pronto te escribo para contarte como fue el Congreso de Filosofía de Morelia, en el que tuve una activa participación, y para hablarte un poco de mis trabajos. Ah, y como creo ya haberte anticipado, quiero hacerte una consulta sobre la definición de número constructible.

Con un fuerte abrazo

*Paco*

Figure 2: Scan of Francisco Miró Quesada's original letter (in Spanish) to Newton da Costa, September, 29, 1975, verso (SPCLEARQ, FNCAC, 147).

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