APPENDIX I

Hugh MacColl and Russell’ Meinong

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AI.1. Introduction

The most influential approach to the logic of non-existents is certainly the one stemming from the Frege-Russell tradition. The main idea is relatively simple and yet somehow disappointing, to reason with fictions is to reason with propositions which are either (trivially) true, because with them, on Russell’s view, we deny the existence of these very fictions, or otherwise they are (according to Russell) false or (according to Frege) lack truth-value in the same trivial way. One of the most important early dissidents to that tradition was Hugh MacColl. It is in regard to the notions of existence and arguments involving fictions that MacColl’s work shows a deep difference from the formal work of his contemporaries. Indeed, MacColl was the first to attempt to implement in a formal system the idea that to introduce fictions in the context of logic amounts to providing a many sorted language. Interesting is the relation between Bertrand Russell’s critics to Alexius Meinong’s work and Russell’s discussions with MacColl on existence. Recent scholars of Meinong such as Rudolph Haller and Johan Marek and modal Meinongians such as Graham Priest, Richard Routley and Edward Zalta make the point that Russell’s Meinong is not Meinong.

An interesting historical question, is to study how Russell’s critics of Meinong could have been influenced by his discussion with MacColl. Notice that the main papers on this subject by Russell, Meinong and MacColl, where published between 1901 and 1905. We can not discuss this here thoroughly but I will nevertheless point out some issues for a future deeper research. MacColl’s work on non-existents resulted from his reaction to one lively subject of discussion of the 19th century, namely the existential import of propositions. This topic was related to the traditional question about the ontological engagement or not of the copula that links subject and predicate in a judgement. Franz Brentano published 1874 his theory on the existential import of the copula and on how to define away the alleged predicate of existence. J. S. Mill, after some discussions, acknowledged by February 1873 in a letter to Brentano that he has been convinced, despite his early arguments of his System of Logic. However, the most of the British traditional logicians did not follow Brentano and the opposition between them and the “Booleans”, who also charged the copula with existential import, triggered a host of papers on that subject. The early Russell of the Principles and Hugh MacColl defended the idea that there is a real and a symbolic existence, that seems to be close to Russell’s use of subsistence. MacColl’s example, probably borrowed from Mill, targeted the meaning of the copula “is” in expressions such as “is not existent.

"Take, for example, the proposition, “Non-existences are non-existent”. This is a self-evident truism; can we affirm that it implies the existence of its subject non-existences? […] In pure logic the subject, being always a statement, must exist – that is, it must exist as a statement." (MacColl 1902, 356.)

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1 The present appendix is based on the first 5 pages of Rahman 2009a.
2 Cf. Brentano 1874, chapter 7.
3 J.P.N Land’s paper 1876 “Brentano’s Logical Innovations” spelled out the position of the traditionalists and triggered in Mind the discussions on the existential import of propositions.
MacColl’s logic of non-existence is based on a two-fold ontology and one domain of quantification, namely:

- **the class of existents**, MacColl, calls them *reals*

  “Let $e_1$, $e_2$, $e_3$, etc. (up to any number of individuals mentioned in our argument or investigation) denote our universe of real existences”

  "[...] these are the class of individuals that, in the given circumstances, have a **real** existence".

- **The class of non-existents**

  "Let $0_1$, $0_2$, $0_3$, etc., denote our universe of non-existences, that is to say, of unrealities, such as centaurs, nectar, ambrosia, fairies, with self-contradictions, such as round squares, square circles, flat spheres, etc., including, I fear, the non-Euclidean geometry of four dimensions and other hyperspatial geometries".

  "[...] the class of individuals that, in the given circumstances, have **not** real existence. [...] **It does not exist really**, though (like everything else named), it exists **symbolically**.

  *In no case, however, in fixing the limits of the class $e$, must the context, or given circumstances be overlooked*.

- **And the domain of quantification**, the *Universe of Discourse*, containing the two precedent classes:

  "Finally, let $S_1$, $S_2$, $S_3$, etc., denote our Symbolic Universe, or "Universe of Discourse," composed of all things real or unreal that are named or expressed by words or other symbols in our argument or investigation [..]"

As expected, individuals, that are elements of the Universe of Discourse, might be element of the first two classes:

"We may sum up briefly as follows: Firstly, when any symbol $A$ denotes an individual; then any intelligible statement $\phi(A)$, containing the symbol $A$, implies that the individual represented by $A$ has a symbolic existence; but whether the statement $\phi(A)$ implies that the individual represented by $A$ has real existence depends upon the context".

and predicates might be interpreted by the means of classes containing reals, unreals or both of them.

"Secondly, when any symbol $A$ denotes a class; then any intelligible statement $\phi(A)$, containing the symbol $A$ implies that the whole class $A$ has a symbolic existence; but whether the statement $\phi(A)$ implies that the class $A$ is wholly real, or wholly unreal, or partly real and partly unreal,

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4 MacColl 1905a, 74.
5 MacColl 1906, 42.
6 MacColl 1905a, 74.
7 MacColl 1906, 42.
8 MacColl 1906, 43.
9 MacColl 1905a, 7.
10 MacColl 1905a, 77.
depends upon the context"^{11}

"When the members $A_1$, $A_2$, &c of any class $A$ wholly of realities or wholly of unrealities, the class is said to be a **pure** class, when $A$ contains at least one reality and also at least one unreality, it is called a **mixed** class"^{12}

(Notice that MacColl actually speaks of the existence of the class. I think that we should understand it as talking about the existence of the elements of the class. See below his rejection to interpret **hunger** independently of a hungry person)

The partition of the universe of discourse into existents and non-existents, might lead the modern reader to think in the anachronistic setting of a free logic with outer and inner domains. However, the description of the symbolic universe sounds puzzling. On one hand it sounds as we might do logic in such a universe abstracting away whether objects are or not existent On the other hand, MacColl, while replying in 1905 to Russell^{13} and to Arthur Thomas Shearman, insists that the distinction between existent and non-existents within the symbolic universe is crucial for his logic:

"The explanation from my point of view is, that the confusion is solely on their side [Shearman’s and other symbolists’ side] and that it arises from the fact that they (like myself formerly) make no symbolic distinction between realities and unrealities [...]. With them ‘existence’ means simply existence in the Universe of Discourse, whether the individuals composing that universe be real or unreal. [...].Once anything (real or unreal) is spoken of, it must, from that fact alone, belong to the symbolic universe $S$, though not necessarily to the universe of realities $e$^{14}

With some hindsight, some readers might think that according to the last quote above, MacColl is thinking on two kinds of existential quantification or at least of two kinds of existential predication, one that has as scope the whole symbolic universe and the other, when the classification between reals and not reals within the universe has been established, that applies to reals. In this sense, individuals might have a “symbolic” existence and a “real” existence.

Perhaps, there is some room to think dynamically about the interaction between the symbolic and the real existence. The real existence might come into play once the precise constitution of the universe of discourse has been *spoken out*. Juan Redmonand Mathieu Fontaine are developing a dialogic that renders justice to this dynamics from an epistemic point of view: symbolic existence will be assumed so long as we do not know about the ontological constitution of our universe of discourse. Do not fear we will not discuss this approach here.

A different source of puzzles might relate to ontological questions. What are those objects that are non-existent? Did MacColl come to a conception close to some kind of Meinongianism? Some arguments in favour of a positive answer are the following:

1) MacColl’s claim of two kinds of existence mentioned above. In fact, MacColl’s notion of existence seems to be closer to that of the early Russell than to the one of Meinong. Meinong had also three ontological domains: the existents, non-existents and subsistents. However Meinong’s concept of subsistents only applied to abstract objects while MacColl’s **symbolic existence** and Russell’s version of **subsistence** included existents and non-existents. Compare, e.g., once more MacColl’s remarks of 1902 and 1906

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^{11} MacColl 1906, 77.
^{12} MacColl 1906, 43.
^{13} “This sense of existence [the meaning in which we enquire whether God exists] lies wholly outside Symbolic Logic, which does not care a pin whether its entities exist in this sense or not”, Russell 1905, 401.
^{14} MacColl 1905b, 579.
"Take, for example, the proposition, “Non-existences are non-existent”. This is a self-evident truism; can we affirm that it implies the existence of its subject non-existences? […] In pure logic the subject, being always a statement, must exist – that is, it must exist as a statement."

"It [the class of non-existents...] does not exist really, though (like everything else named), it exists symbolically."

with the Russell of the Principles:

"Whatever may be an object of thought, or can occur in a true proposition, or can be counted as one, I call term [...]. Every term has being, i.e. is in some sense. A man, a moment, a number, a class, a relation, a chimera, or anything else that can be mentioned is sure to be a term."

MacColl and Russell make the point that everything named must have some kind of being. This point of theirs might be seen as an ontologically charged reading of Aristotle’s remark:

"Even non-existents can be signified by a name."

2) MacColl’s two notions of existence (the real and the symbolic existence) seem to have been conceived as predicates. Indeed; in MacColl’s notation existence, when applied to an individual or to (the members of a) class, is signalised by an exponential. Now; in general, letting by side the many changes and hesitations of his notational system, exponentials are used in principle to express a predicative role. In fact, the basic expressions of MacColl’s formal language are expressions of the form

\[ H^B \]

where \( H \) is the domain and \( B \) a predicate. He gives the following example:

\[ H: \text{the domains of horses} \]
\[ B: \text{brown} \]
\[ H^B: \text{The horse is brown: all of the elements of } H \text{ (horses) are brown.} \]

Similar applies to the use of the predicates of symbolic, real existence and non-existence:

\[ H^r: \text{The horse is real or has a real existence: all of the elements of } H \text{ (horses) are really existent.} \]
\[ H^u: \text{The horse is an unreality: all of the elements of } H \text{ (horses) are not really existent.} \]
\[ H^s: \text{The horse has a symbolic existence: all of the elements of } H \text{ (horses) are symbolically existent.} \]

Certainly, while in this context to introduce a predicate of existence for “reals” might be a sensible idea, to introduce symbolic existence as a third predicate, for symbolic existence is not. At least if the latter should render formally the semantics of a copula without ontological engagement. Symbolic existence should be understood as a perspective where the difference between existence and non-existence has not been (yet) drawn.

15 MacColl 1902, 356.
16 MacColl 1906, 42
17 Russell 1903, 43.
18 Aristotle, Posterior Analytics 92b29-30.
3) MacColl assumes a logic of equality for terms that refers to existens and non existent objects.

4) More generally, recall that according to Meinong we should distinguish the \textit{Sein} of objects – their existential status – from their \textit{Sosein}, their having – certain – features or properties. Thus, Meinongians claim that an object can have a set of properties even if it does not exist. This is the so-called \textit{Principle of Independence}: Pegasus, Ulysses, and Joseph Cartaphilus can be said to have properties without that the propositions involved become false. MacColl’s \textit{mixed classes} could be seen as assuming the principle of independence.

To state this clearly, it is doubtful that MacColl ever read Meinong’s work. However, while reading MacColl it is tempting to understand Russell’s version of Meinong’s notion of “subsistence” as an adaptation of MacColl’s \textit{symbolic existence} to the Meinongian framework. Nevertheless, in the overall context of MacColl’s philosophy in relation to which he explicitly acknowledged sympathies for Poincaré’s conventionalism and Peirce’s pragmatism we might contest considering him as guilty of Meinongianism. At least not of the kind where non-existents are some kind of independent entities that are part of our universe since the creation of the universe. Indeed, in his texts he explicitly defends the idea that thoughts and abstract notions and are not to be considered as independent of the thinker who is thinking them:

"There can be no hunger without a hungry person or animal; there can be no hardness without some hard-substance [...]. Similarly, I cannot conceive of a thought apart from a thinker or a feeling or sensation without a soul or feeler"\textsuperscript{19}

In this context, it sounds plausible that we might extend this conception of abstract objects and thoughts as ontologically dependent objects to the understanding of fictions in the way developed in part III of the present paper.\textsuperscript{20} Actually, this is what we will try to show, that is, how to put all the pieces of MacColl’s ontology to work together into one semantic frame for modal logic. In doing so, we will be guilty of a further anachronism: we will assume a kind of modal semantics of the sort that has been made popular after the work of Jaakko Hintikka and Saul Kripke. It is worth mentioning that Stephen Read showed that the modal system \(T\) is due to MacColl. Modal logic is thus in fact part of the achievements of MacColl though certainly he did not deployed or even conceived a model theoretical semantics. Nevertheless, let us make the point that he stubbornly makes the point that the classification between reals and not reals have to be relativized to given \textit{circumstances}.

\textsuperscript{19} MacColl 1910, 349-350.

\textsuperscript{20} For the compatibility of the semantics developed here with MacColl’s view see Rahman 2009a.