Russell’s Analysis

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1 The basics

Russell’s account of *The king of France is bald.* is the conjunction of three claims, an existence claim $p$ a uniqueness claim $q$, and a baldness claim $r$. The first two are presupposed and the third asserted (though Russell is not defending a fundamental distinction between presupposed and asserted).

\[
\begin{array}{c|c|c|c}
\text{The King of France is bald} & \exists x \text{ Kof}(x) & (\forall y \text{Kof}(y) \to x = y) & \text{Bald}(x) \\
& \text{Kof exists} & \text{Kof is unique} & \text{Kof is bald} \\
& p & q & r \\
\hline
\text{Presupposed} & \text{Presupposed} & \text{Presupposed} & \text{Asserted} \\
\end{array}
\]

Now consider:

(a) I like the visitor from Spain.

The Russellian analysis of (a) has the usual three components, each of which has been placed on a separate line of the translation in (b):

a. I like the visitor from Spain.

b. $\exists x [ \text{visitor}(x) \& \text{from}(x, \text{Spain}) \&$

   $\forall y [ (\text{visitor}(y) \& \text{from}(y, \text{Spain})) \to (y = x)] \&$

   $\text{like}(j, x)]$

The first line is the existence presupposition (there exists an $x$ who is a visitor from Spain); the second is the uniqueness presupposition ($x$ is the only visitor from Spain); and the third is what’s asserted. Note that the Noun Phrase *the visitor from Spain* includes the property of being from Spain, so that what belongs on the left hand side of the arrow in the uniqueness presupposition includes both being a visitor and being from Spain (in red!). The following is the wrong translation for the given sentence:

\[
\exists x [ \text{visitor}(x) \& \text{from}(x, \text{Spain}) \&$

   $\forall y [ \text{visitor}(y) \to (y = x)] \&$

   $\text{like}(j, x)]$
\]

This says there exists an $x$ who’s a visitor from Spain, and $x$ is the only visitor. It would be the right translation for *I like the visitor, who’s from Spain.*
2 Uniqueness

The uniqueness part of the Russellian analysis:

$$\forall y [\text{visitor}(y) \& \text{from}(y, \text{Spain})] \rightarrow (y = x)]$$

This can be paraphrased:

Only $x$ is a visitor from Spain.

To understand the logical representation of only you should think of it as a sort of backward every:

a. Every dog is a mammal. $\forall x \text{dog}(x) \rightarrow \text{mammal}(x)$

b. Every mammal is a dog $\forall x \text{mammal}(x) \rightarrow \text{dog}(x)$

c. Only dogs are mammals $\forall x \text{mammal}(x) \rightarrow \text{dog}(x)$

Similarly:

a. Only Clark Kent is Superman $\forall y \text{Superman}(y) \rightarrow y = \text{ck}$

b. Only $x$ is a visitor from Spain $\forall y [\text{visitor}(y) \& \text{from}(x, \text{Spain})] \rightarrow y = x$