

What (kind of) metaphor in binominal *of* constructions?

Main thesis :

Conceptual (spatial) metaphor is key to understanding the specific type of relation between nominal referents signified by the preposition *of*:

- the 'extraction' signified by *of* in binominal constructions where composition is at stake is an extension of *of*'s spatial meaning via conceptual metaphor
- while mainly quantitative (//the main focus of this paper), this extraction could also imply the selection of qualitative features in the referent of N2 which influence the lexical choice of N1, which in turn paves the way for more stylistic, enunciative metaphors involving N1
- this analysis is then extended to examples of *of*-phrases such as *a wow of a show*, in which the extraction enables the speaker to assign a more subjective category (N1) to the referent of N2, thus creating a phenomenological metaphor.

The presentation will rely on the NP *an army of robots*, which can mean one of three things:

- 1) no metaphor at all: (in a fictional world for eg.) an organized body of soldiers (an army) and these soldiers are exclusively of the 'robot' kind
- 2) metaphorical N2: (in a fictional world or in the real world) an army whose soldiers are human beings yet referred to pejoratively as mere machines (robots).
- 3) metaphorical N1: (in a firm or an administration for eg.) a stock of robots (machines, appliances, etc.), the large number of which being reminiscent of an army

It will also compare the meaning of *of* in binominal constructions such as *a wow of a show*.

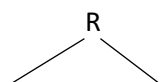
The objective is to understand the role of the preposition *of* in these noun phrases: what does *of* have to do with composition (an army of robot) or other, more visibly metaphorical NPs (a wow of a show), is its original, spatial meaning really relevant to explain its abstract, operational, meaning? How so?

Prerequisite concept: **composition**

Composition: a transitive relation involving two elements A and B with distinct roles (A "composes"= it is a constituent of...; B is "composed": it is the whole that contains the constituents)

- ➔ if A composes B, then A belongs to B as an essential part of B.
- ➔ Composition between A and B : the resulting state is a trace leading back to the original composition process. // passive forms imply the active form leading to the resulting state.

Any relation can be represented as a formula involving the elements a and b and the relation R:



This is an absolute representation of a relation.

a b
 (robots) (army)

A noun phrase presents the relation differently: it chooses a pivot (and its associated POV) and orients the relation by creating a (syntactic and semantic) hierarchy around it.

NP: *An army of robots*

- *Army* : syntactic head noun, semantic whole, participant B in the relation of composition.
- (*Of*) *robots*: syntactic dependent, semantic part of the whole, participant A in the relation of the composition

Composition is expressed as a **property of the head noun**: it is presented as **relative** to the head noun *army*, not absolutely. This leaves the resulting NP free to participate in other relations at a higher syntactic level: *An army of robots is perhaps the answer*; *We saw an army of robots*.

An army of robots: pivoting around the "whole", *army*. Another NP, pivoting around the "part", *robots*, could be, eg.: \emptyset *robots composing an army*. Different pivot = different orientation of the relation → neither NP can express the relation absolutely, in its entirety; it is always "limited" by the chosen POV. Compare :

A Robots composing an army	B an army of robots
<i>composing</i>	<i>consisting of robots</i>
<i>constituting</i>	<i>composed</i>
<i>making up</i>	<i>constituted</i>
<i>forming</i>	<i>comprised</i>
etc.	<i>made up</i>
	<i>formed from robots (?)</i>

In either case, a reduced subordinate clause containing a transitive verb such as *compose*, *constitute*, *make up*, etc. in the -ING or -EN form can express composition in the dependent, but only when the "whole" (*army*) is head can *of* appear, and appear alone. And it is the most frequent preposition required after those transitive verbs.

➔ **Link between OF and composition with head-noun = whole and dependent of-phrase = parts**

Why is OF enough to express composition, without any verb?

- **Because of the conceptual relationship between a whole and its parts** : an army is a whole that requires parts to be assembled in order to form a whole, \emptyset *robots*, in the plural, implies a number of entities that can theoretically create a new entity together. A verb can make the link between them explicit, but it is not necessary: in the absence of any explicit relation, *of* is enough to express minimal conceptual composition (a verb would only state the obvious relation). Iconicity: the less space between the words representing the concepts (*army*, *robots*), the closer the kind of relation between their referents.
- **Syntactically, composition is the only logical conclusion** given that the OF-phrase is presented as a syntactic dependent of the head noun (*army*), and therefore as expressing a property/an attribute of the main nominal referent, in a 2-element relation.

So far: unlike other relations (which require a verb to explicitly connect the participants), **composition** does not require a verb as it **is inferred from semantic and syntactic clues** in the noun phrase. However, that does not mean that **of** does not mean anything: its meaning **must be compatible** with the expression of composition, is instrumental in the expression of composition.

OF : an operation of 'extraction' + properties about the two nominal referents

<i>an army composed of robots</i>	<i>an army composed by robots</i>
Material cause	Efficient cause (philosophy)
<i>Internal</i>	<i>External</i>
integrated, inseparable	Important but can be separated

→ **Property 1 of the nominal referents: with OF in 'composition' verb-EN of...: the complement represents the material/substance of the whole that it composes**

Consist in vs. consist of: consist in = identification of A and B; *consist of* : the parts and the whole are inseparable but distinct (the whole would still be a whole with different parts, the parts could form a different whole than the one presented or no whole at all).

→ **Property 2 of the nominal referents: OF expresses the ontological distinction between the whole and its parts, even though they are inseparable (when combined to signify a nominal referent in a noun phrase)**

Hypothesis: *Of* is the only minimal grammatical trace that composition is expressed in a complex binominal noun phrase; it therefore must express its most fundamental operation, which is confirmed (and therefore masked) by the syntactic and semantic hierarchy of the noun phrase (see supra).

Traditionally, *of* can express composition via conceptual metaphor.

OED: of < IE *ap(o), meaning distancing, separation, origin. OED (X711) "The primary sense was *away, away from* (...) From its original sense, *of* was naturally used in the expression of the notions of removal, separation, privation, derivation, origin or source, starting-point, spring of action, cause, agent, instrument, material and other senses, which involve the notion of taking, coming, arising, or resulting from".

Naive realism (Lyons 1977, 438-46): **abstract relations stem from spatial relations.** An abstract relation is somehow likened to a certain spatial relation and is understood as a **"natural" extension** of that spatial relation. N.B.: saying spatial relations come first and are used as models does not explain why it is possible, let alone obligatory in some cases. The objective of this paper is to shed some light on the kind of conceptual metaphor at work with *of*, and see how metaphor can lead to a theory of composition.

OF : a movement from a starting point. Unlike *from*, which can let go of the starting point, ***of* cannot let go of the starting point (the parts)** in order to create the whole. Because it is syntactically and semantically connected to the starting point (the parts), ***of* can only express the beginning** of the movement, so it **only implies the rest of the composition** process, i.e., the destination/terminal point in the movement (the whole): the syntactic attribution of the *of*-phrase to the head-noun "completes"

the movement. *Of* is used to extract an underlying property of the "parts" (their forming a "whole") to analyse it and make it the explicit theme of the noun phrase: \emptyset *robots* is already a "whole", a "whole" that is then re-defined as such by *an army*, which highlight its singular unity. (analysis and rephrasing to emphasise something= reelaboration)

Compare:

1 <i>a number of robots</i>	Number= quantity made of discontinuous entities // minimal identification of the "whole". Almost-pure reelaboration as number is the lexical counterpart of the grammatical -s in <i>robots</i> . A number of = quantifying periphrasis → verbal agreement in the plural: <i>a number of robots were lost</i>
2 <i>a group of robots.</i>	Group= the parts are (or are seen as) parts of a whole, or at least as connected to one another.
3 <i>an army of robots</i>	Army= a complex specialised set. If no metaphor in the NP, or no metaphorical meaning for <i>army</i> , verbal agreement in the singular: <i>an army of robots is needed</i> . Metaphorical meaning in <i>army</i> is optional and unrelated to the automatic (obligatory) metaphorical meaning of the of-composition, which is follows if "army"="large number" is understood as preconstructed. Reelaboration of quantity and reanalysis of the referent (numerous and obedient) may lead to this optional metaphorical meaning.

In *a wow of a show*, the whole construction N1 of N2 is used by the speaker to playfully upset the syntactic and semantic hierarchy, using of to extract a quality that is no longer the 'logical' category expected to re-elaborate N2, but a more 'subjective', phenomenological category. Once again, two kinds of metaphor are used: the conceptual metaphor present whenever extraction (of) operates, a more discursive metaphor through the speaker's choice of N1 as a subjective category for N2.