Why is a Metaphor like a Model?
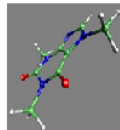
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Richard Goldschmidt (1878-1958)

What do these have in common?

1. Violin string
2. Movable type
3. Prism / the spectrum
4. Mosaic blocks
5. Protein Molecules

Metaphor as a counter example

If I stop the A string of a violin about an inch from the base, the tone C is produced by the string. This does not mean that the string has a +C body at that point which, when stopped, becomes C.

— Goldschmidt, 1946

The plot thickens. . .

Let us compare the chromosome with its serial order to a long printed sentence made up of hundreds of letters of which only twenty-five different ones exist. In reading the sentence a misprint of one letter here and there will not change the sense of the sentence; even a misprint of a whole word (rose for sore) will hardly impress the reader.

— Goldschmidt, 1940

But the compositor might arrange the same set of type into a completely different sentence with a completely different meaning, and this in a great many different ways, depending upon the number of permutating letters and the complexity of the language **(the latter acting as "selection")**

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3. **Genotype-Phenotype relation (letters to meaning)**
   - Yes. But only if we problematize the distinction between selection and development.

If they be two, they are two so
As stiffe twin compasses are two,
Thy soule the fixt foot, makes no show
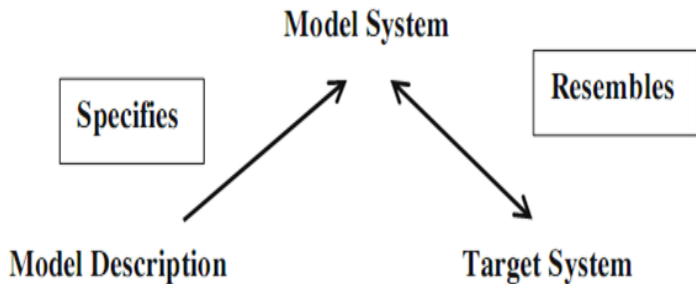To move, but doth, if the'other doe.

And though it in the center sit,
Yet when the other far doth rome,
It leanes, and hearkens after it,
And growes erect, as that comes home.

Such wilt thou be to mee, who must
Like th'other foot, obliquely runne;
Thy firmnes drawes my circle just,
And makes me end, where I begunne.

— John Donne A Valediction: Forbidding Mourning

"the emotion evoked by a good conceit is not simply surprise, or, in Dr. Johnson's terms, wonder at the preversity which created the conceit, but rather a surprised recognition of **the ultimate validity** of the relationship presented in the conceit"

— Princeton Encyclopedia of Poetry and Poetics

[Cupid] is described with great elegance as a little child... for things compounded are larger and are affected by age; whereas the primary seeds of things, or atoms, are minute and remain in perpetual infancy....

[He is] represented as naked... there is nothing properly naked, except the primary particles of things...

The blindness... [For] it seems that this Cupid, whatever he be, has very little providence; but directs his course, like a blind man groping, by whatever he finds nearest...

His last attribute is archery: meaning that this virtue is such as acts at a distance...

— Francis Bacon, Of the Wisdom of the Ancients, Cupid Or the Atom.

Manipulations
(in pretense) ? → Ultimate Structure
RELATIONAL PROPERTIES → Match to target
(outside the
pretense?)

→ **EXEMPLIFICATION** → Inferences on the model that
apply to the target:
1. Outside the pretense
2. In the pretense (the key is
used "backwards") – an
argument can be
instantiated so it works in
the make belief world

Uses of the metaphoric models

- As counter examples.
- Exploring conceptual possibilities (cf. "cognitive model", Rheinberger).

> => How-possibly; phenomenological models.
> => Typically do not warrant strong conclusions.

Take home messages
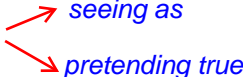
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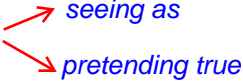- Models exemplify relational properties.

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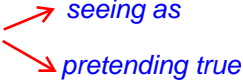
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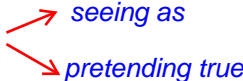
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- ... but maybe are not very good ones.
- They are a good test case for accounts of models/modeling.