

Chapter 1

How to Account for Information

Luciano Floridi

University of Hertfordshire, UK & University of Oxford, UK

INTRODUCTION

In Floridi (2005), I argued that a definition of semantic information in terms of alethically-neutral content—that is, strings of well-formed and meaningful data that can be additionally qualified as true or untrue (false, for the classicists among us), depending on supervening evaluations—provides only necessary but insufficient conditions: if some content is to qualify as semantic information, it must also be *true*. One speaks of false information in the same way as one qualifies someone as a false friend, (i.e. not a friend at all). This leads to a refinement of the initial definition into:

[DEF]: *p* qualifies as semantic information if and only if *p* is (constituted by) *well-formed, meaningful* and *veridical data*.

[DEF] captures the general consensus reached by the debate and mentioned at the outset of this section. According to it, semantic information is, strictly speaking, inherently *truth-constituted* and not a contingent *truth-bearer*, exactly like knowledge but unlike propositions or beliefs, for example, which are what they are independently of their truth values and then, because of their truth-aptness, may be further qualified alethically.

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THE NATURE OF THE UPGRADING PROBLEM: MUTUAL INDEPENDENCE

[DEF] nests semantic information into knowledge so tightly that one is naturally led to wonder whether anything else might be missing, in order to upgrade from the weaker to the stronger phenomenon, and hence between their corresponding concepts. Indeed, the threshold can be so fine that one may often overlook it, and thus fail to distinguish between the two propositional attitudes, treating “Mary is informed that the water in the electric kettle is boiling” and “Mary knows that the water in the electric kettle is boiling” as if they were always interchangeable without loss. In everyday life, this might be the norm and the conflation is usually harmless: it can hardly matter whether the bus driver is informed or knows that the traffic light is red. Philosophically, however, the distinction captures an important difference, and hence it is important to be more accurate. It takes only a moment of reflection to see that one may be informed (hold the information) that p without actually knowing that p . Not only because holding the information that p does not have to be a *reflective* state (although it is not necessarily the case that $I_p \rightarrow II_p$, one may also object that $K_p \rightarrow KK_p$ is notoriously controversial as well) but also because, even when it is, it might still arguably be *opaque* and certainly *aleatoric* (epistemic luck), whereas knowledge cannot.

Consider *opaqueness* first. It is open to reasonable debate whether a messenger carrying (in her memory, in her hand on in a pocket, it does not matter) an encrypted message p that she does not understand—even if she is informed that she carries p —may be said to hold the information that p . On the one hand, one may argue that she is not genuinely informed that p . On the other hand, one may retort that, if she can deliver the information that p (and we are assuming that she can) then she can legitimately be said to be informed that p or hold that information. The interesting point here

is not to solve the dispute, but to note that the dispute itself is reasonable, whereas, if the same messenger knows that p , there can be no doubt that she must also understand the information carried by p . It might be open to debate whether holding the information that p is necessarily a non-opaque state, but such a dispute would be pointless in the case of knowing that p .

Next, consider *epistemic luck*. When asking how semantic information may be upgraded to knowledge, we are not asking what further axioms may need to be satisfied by **K**. For even if we were to upgrade **K** all the way up to **S5**, as we are perfectly and indeed easily able to do, we would still be left with the problem of the non-aleatoric nature of knowledge. Now, raising the issue of epistemic luck serves two purposes. It further strengthens the conclusion that there is a clear difference between (holding) the semantic information that p and (having) the knowledge that p . And it points in the direction of what might be missing for semantic information to upgrade to knowledge.

Regarding the first purpose, epistemic luck affects negatively only knowledge but not semantic information. To see why, one may use a classic Russellian example: if one checks a watch at time t and the watch is broken but stopped working exactly twelve hours before ($t-12$) and therefore happens to indicate the right time $t-12$ at t , one is still informed that the time is t , although one can no longer be said to know the time. The same applies to a more Platonic example in which a student memorises, but fails to grasp, the proof of a geometrical theorem: she is informed (holds the information) that the proof is so and so, but does not really know that the proof is so and so. Generalising, Russell-Plato- or Gettier-type counterexamples may succeed in degrading “knowing” to merely “being informed” (“holding the information that”), but then “being informed” is exactly what is left after the application of such counterexamples and what remains resilient to further subjunctive conditionalization.

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