

Editorial

A Semantic Journey from Data to Evidence, from *Dynamis* to *Eentelécheia*

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Today, we are immersed in a “quantitative” world of data, calculations, percentages and statistics. However, when can a datum or series of data count as evidence? Before entering into the heart of the matter, we need to clarify what data and evidence are, the communicative function each one has, as well as the relationship between their respective meanings. It may be useful to examine the definitions of the two terms provided by the Oxford (OD) and Cambridge (CD) dictionaries,¹ respectively:

DATA: information, especially facts or numbers, collected to be examined and considered and used to help decision-making (OD).

DATA: facts or information, especially when examined and used to find out things or to make decisions (CD).

EVIDENCE: the facts, signs or objects that make you believe that something is true (OD)

EVIDENCE: anything that helps to prove that something is or is not true (CD)

The lexeme DATA contains the concept of virtuality or directionality (e.g. *collected to be examined*). In their inert and raw state preceding discourse, data might be compared both to a mere denotative entry in a dictionary and to the Greek term *dynamis*, meaning a latent, potential state of power and meaning, which, if properly detonated, can erupt as *energeia*, or *entelecheia*. Just as any lexeme provided by a dictionary can contain several possible semic pathways, realisable only within discursive contexts, so too a datum, as *dynamis*, thanks to its discursive potential and significance, can achieve *entelechy*, meaning the actualisation of what is otherwise mere potential. In other words, data have the power (*dynamis*) to achieve the status of evidence but need the dynamic thrust of discourse to realise their *entelechy* and count as evidence. The lexeme EVIDENCE refers to the outcome of the discursive process to which data are subjected to acquire credibility.

The issue of the rapport between these two key concepts is vital to institutional and commercial communication that seeks to build up its credibility and trust. Very often the so-called “man in the street” tends to confuse data and

evidence, using the two interchangeably. Steering away from more philosophical discussions, it would be interesting to try to explore the semiotic mechanisms that come into play during the transition from one of these two conceptual nuclei to the other. In an attempt to grasp the difference between data and evidence, we might resort to “narrativity” as an interpretative hypothesis intended as “an organizing principle of meaning that permeates all kinds of discourse” (Lorusso - Violi 2004: 82).² As Marrone (2007: 38) argues, to bestow meaning on events we use a narrative method, that is, we think, speak or write about them by weaving them into a sequence, by linking them with other events: those which occurred before and others we expect may happen afterwards. Narrativity, therefore, shapes human experience, acting as a grid that assigns meaning to what happens and what we do. Greimas ([1969]1977: 23) holds that narrativity needs to be “situated and organized prior to its manifestation. A common semiotic level is thus distinct from the linguistic level and is logically prior to it, whatever the language chosen for the manifestation”. The notion of narrativity concerns not only stories proper (novels, films, news stories etc.) but also all other kinds of textual configurations apparently distant from traditional stories as such, like the instructions we need to follow to download an app to our smartphone or computer, for example. Greimas even goes so far as to trace the existence of narrative structure in a cookery recipe. Along these lines, narrative is a basic, constant form of human expression and communication regardless of the semiotic substance utilized for its transmission: “narrative is international, transhistorical, transcultural: it is simply there like life itself” (Barthes 1977: 79).

Among the various communicative settings where proof of the credibility of data used to corroborate evidence is particularly crucial, there is that of clinical research. In this domain, medical literature relies heavily on factual, quantitative data spun into the fabric of the evidence essential to clinical practice, especially after an approach called Evidence-Based Medicine (EBM) began to establish itself at the dawn of the present century. Designed for the transfer of available knowledge from the realm of monitored scientific research to the hands-on care of patients, this research paradigm is based on “the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients” (Sacket *et al.* 1997: 71). Therefore, quantitative, systematically evidential data are also the indispensable supports healthcare providers use to bolster their narratives of scientific-medical trials.

Following the reflections provided by Propp’s (1968) *Morphology of the Fairy Tale*, we might analyse a clinical trial as if it were a story set in motion by an initial lack expressed as a clinical hypothesis or question to be addressed and resolved, like the challenges tackled and overcome by the heroes and heroines of folk tales. In Propp’s description of a typical tale, we find an initial state of equilibrium which is compromised by an event that the protagonist, with the help of others and that of prodigious instruments, makes a great effort to re-establish. The narrator of this story provides the data necessary to describe the characters and the events that comprise its fabric. In a medical trial a patient who was well

(state of equilibrium) falls ill (compromise of the initial state of equilibrium), consults a doctor (protagonist) who, with the help of consultants (others) and with the help of medical instruments and drugs (objects), strives to cure (re-establish the previous state of equilibrium) the patient. In most fairy stories, the protagonist is successful. In clinical trials there are cases of failure too. Patients may not recover and may even die.

As in the case of a traditional narrative, through the mechanisms belonging to what semioticians call “enunciative praxis”, the discourse of clinical trials is “convoked”, “selected” and “handled” (Fontanille 2017). The medical data are collected by an enunciator-storyteller, who coincides, typically, with the team of researchers who conducted the trial, and transformed it into a “discourse” intended for an audience or, more probably, a readership (ideally the members of the world’s healthcare community). The flow of data needs to be selected on the basis of criteria of relevance in order to guarantee the *tellability* or *reportability* of the narrative (Labov 1997; Norrick 2005). This is the operation that makes a story worth telling, or “noteworthy,” which is in keeping with Sacks’ claim that “the sheer telling of a story is something in which one makes a claim for its tellability” (1992: 12). The evidence will be built only with those data deemed worthy of narration. This selective cut runs, in fact, right through the entire narrative space of the trial. When constructing his/her discourse, the enunciator-storyteller carries out other key cognitive operations to attribute meaning to the data collected and selected, such as comparing, correlating, and evaluating. Discourse finds its deepest meaning in its narrative dimension: the enunciator assembles, relates the data, compares before and after, evaluates and draws conclusions. We can say that the informative material available as data reaches its “semiotic felicitousness” only when they are woven into a story. It is the connections between data that serve as the basis for the construction of meaning. The story also incorporates and confers meaning to the data communicated through the iconographic apparatus that accompany the report. Graphs, tables, and numerical sequences are data in the pure state, which acquire meaning thanks to the mediation of the narrative form. The data are intertwined according to a background “plot” and grouped into sections which, borrowing a term from Barthes, we can call *lexias*. For Barthes (1974: 13-14) “Lexias are simply units in which the reader who is actively producing the text discovers the explosion and scattering of meaning”. Narrativity, tellability but also directionality: each *lexia* provides a semantically oriented reading path that contributes to the production of the global meaning of the text. Once aggregated into *lexias* the data are converted into evidence and contribute to filling the information need that gave rise to the “story” of the clinical trial.

In a nutshell, data are evidence in the virtual state awaiting realisation through inclusion in narrative discourse, while evidence is the end product of the story whereby the data called into play become meaningful and credible. When data are of high quality and subjected to rigorous semiotic work, then the evidence is strong, can build trust and, perhaps, help to improve the quality of life too.

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Additional information

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