A model of workflow adaptable to interpret scientific data through a social environmental view integrated in a political decisional context. Brief article.

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When we are the authors of studies containing data or measurements achieved by scientific observations, we often fall into the characteristic presumptuousness of referring to a restricted number of persons which belong to the same field of culture. Obviously, the complicated contents of the scientific expressions, often imposes the use of such an elitist language that the scientific articles need a decoder, or better, a lower level of the comprehension which make useful to divulge those messages to the people (one of the aims, not the last, of the authors).

The links between the results shown and the conclusion to be transferred to the society are often delegated to professional subjects coming from disciplines different from the one which has originated it.

If this can be considered positively from the point of view of the neutrality of the interpretation, however it seems that does not subsist the certainty that could be followed by a coherent use with the initial originator movement. In other words "to give data, to explain and draw conclusions" are the tasks of the scientists, then "to decide the context of the applicability and their utilisation" rest delegated to the others. This consolidated way of doing, often forces the minority, even if sometimes small presence of the scientist at the decision table.

I think that exists an out and out hiatus or solution of continuity on this development model. If it is true, we have the necessity to hypothesise the creation of new species of scientist, who subjective component must be strong, who has the capacity to relate adequately with himself and the others (objects included), who has a big accomplishment of synthesis and able to receive credibility derived from his professional story (the totality of these characteristics are rarely to find).

One of the difficulties, I mean, that the reaching the participation of the scientists to the important decisional processes consists in the impossibility to apply that models which can integrate the interpretation of the scientific data with a social environmental contemporary view. So that the contemporaneity of the events assumes a dynamic and relativistic rule and reveals the impossibility to adequate the decision in a modulated instantaneous way. A series of events, belonging to the same phenomenon, risen in a short determined period, which have as consequence the nonsyncronic decisions, could be represent graphically and by a simple mathematical formula in the following way:
\[ e_i \in E \quad d_i \in D \]
\[ S \subseteq E \quad Z \subseteq D \]
\[ S \Rightarrow Z \]

Where:
- \( e_i \) = single event,
- \( d_i \) = single decision,
- \( E \) = set of all possible events,
- \( D \) = set of all possible decisions,
- \( S \) = subset of \( E \) of the happened events,
- \( Z \) = subset of possible decisions \( D \) to assume when the events \( S \) were verified. The final formula represents the production of \( Z \).

The graphic shows what and how the decisions, derived by a finite number of contemporary events (a, b, c) are different, have a several weight and overall could be qualitatively and quantitatively unequal.

In the schema above listed, the rationality is absent, as we can observe.

If in one way this "Babel" of decisions prevents a clear interpretation of the pathway, from where the final decision can arise, on the other hand it could allow a remodulation and an itself nondestroyed changes in a relatively short time.

To the objection that the container of the events is only theoretically a contemporaneous one, we can reply that the area set "contemporaneity" can be expanded in a sufficient way to force the definition instrumentally.

The rationality has been impose when the organised environmental social system impacts with this "Coacervum" of life. The actual workflow looks at the scientific component to belong to a niche which puts at the beginning of the steps.

Giving a "commitment" from a political administrative structure, the next step through the scientific component we consider necessary the analysis of the phenomenon and the data process.

The last part of the block schema (Legislative staff) is most important because it interfaces the society. Three specialised disciplines (constituzionalist, forensic and economic) prevail against scientific in that final step. Concerning this, an article of the Italian newspaper "Il Sole 24 ore" of 6th Jan., 2005 showed the composition of the commission for the reformulation of the environmental rules where the rate "scientific components/others" was 2/24 as an example of science disadvantage (considerations of Berro). This fact confirms that the writing rules is
delegated to the staff more able and efficient to interact with the society than the experts of the matter. It is really true that the scientific language has low comprehension to the people but other aspect of selection could be coexist, is it?

I can reply "yes, it is" to both the answers. In fact primarily the scientific language shows the tendency to got lost in details, to be isolated because of it is influenced by the "cinism" of the data and the results (sometimes unidirectional) and by a low adaptability to the political situations. The selection depends by historical period and by the social-political aspects (sometimes inventions or scientific works were utilise after tens of years).

A new situation to which we necessarily must put attention is that linked to the impetuous advance of the technology and its instruments. The image of the scientist "nude and pure" is substitute and inevitably conditioned by the technology and the economic systems governing their evolution.

More than the natural evolution of the man, actually I would like to think about the evolution forcing or pressure that the technology exerts on the humans.

We are in the presence to the substitution of the function mind, physiologically elaborated by the central nervous system, (it is out the door).

The scientists become more and more drivers of instrumentation in a run planned by the requirement of the market. At this point I do not know till when the phrase of Albert Einstein will persist: “One day, machines will be able to solve all problems. But none of them will be able to set one”.

Coming back to the root of the title of this article, I can think to a description of a pathway which starts from the analysis of scientific data and arrives at the possible final decision.

Are the Scientific data consolidated or comparable?

Not. In this type of social context we must use only "certificate data" to read and to analyse.

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The algorithm of behaviour describes a procedures by fixed rules. This flux allows, when the scientific model is variable or modifiable, to re-elaborate the algorithm. In other words, the workflow, upper illustrated, is performable by the following practical example concerning hypothetical environmental pollution.

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The final decision, in this case, will be oriented to the procedures of the techniques of recovery or renewal which cost are determined by the market, so as the expire times are regulated by the
existent law. Consequently we put in consideration that the scientific component results always absent at the decisional table. I think necessary, especially for the Italian applied research, to introduce a new department of science which points to the realisation of a structure similar to that in function at the University of Maryland, named TEDCO (Technology Development Corporation). So that we will make a big jump in the application "tout curt" of the scientific discoveries without any political filtering.

Also, we could attribute new functions to the scientific component, before and after every decision by adaptive methods to the researchers and to the common people as well: "TO MAKE KNOWN". Perhaps this structured model could go better than that quoted at the beginning of this article, where we found a "scientist who subjective component must be strong , etc.". These special professions must rise on the universities and go to new scientific generation of private companies.

The advantages of this way to do, could find a check in the fast application of the discoveries, in the cut-off the filtering of the bureaucratic politic apparatus and in the positive feedback for the research.

The dangers, already manifested, for example for the Environmental Science, are on the transversal introduction of courses inside some university faculties, driven by departmental corporations. This fact can reduce the model in pieces, for evident purposes of the power, linked to particular professional categories.

The attending transformations are overall depending by the velocity of the application models and in their modification with the aim to give less difficult to the life of the citizens when they enter in competition with other international people. The human factor, with its necessities, will be, at last, a condition to realise choices.

At this purpose I think useful to quote a concept taken from an interesting publication of the E.C. concerning the Economy Intelligence:

“The human process is not an easy one, it must be encouraged by the top management, recognised as a valued skill, maintained for the long term and be facilitated by specialist, at least at the beginning or when strategy is refreshed”. In other words it is necessary to consider the human growing process as a wealth to maintain for a long time and to encourage from the start until the end.

In conclusion I would like to introduce an abstract concept "the savvy science" which, I think, will allow to select the best evolution processes to facilitate the logic and ethic choice of decisional solutions.

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