

WISDOM, SCIENTIFIC EXPERTISE AND LAYPEOPLE

A COMMUNITY OF INQUIRERS

Pierluigi Barrotta, Roberto Gronda

University of Pisa

pierluigi.barrotta@unipi.it; roberto.gronda@unipi.it

Iseed Workshop – 31 October/2 November – Trondheim

MAIN THESIS

Scientific experts and laypeople can and must work together to solve the socially relevant problems that any democracy faces. Scientific experts and laypeople are the components of a community of inquirers, whose task consists in passing from the definition of a problem to its solution

First sub-thesis:

It is not enough to be a good scientist to be a good scientific expert. To be a good scientific expert, the scientist must be endowed with wisdom

Second sub-thesis:

public opinion is not limited to setting the goals that the scientific expert should consider as exogenous data. Rather, in a well-functioning democracy, laypeople can and, in some cases, must a) help the scientific expert better define socially relevant problems, b) help the scientific expert, even epistemically, solve socially relevant problems

First sub-thesis

- Good scientists are not necessarily good scientific experts
- Good scientific experts are good scientists endowed with epistemic wisdom
- Wisdom can have different functions
- Each function of wisdom corresponds to a different figure of scientific expert
- wise scientific experts can have different roles in the different stages of a public inquiry

The distinction between scientists and scientific experts

The necessity of distinguishing between scientists and scientific experts ultimately relies on the now widely acknowledged fact that the explanation or prediction of a particular event is never (leaving the remarkable exception of artificial circumstances) deducible from theoretical knowledge along with initial conditions

The distinction between scientists and scientific experts

Scientific competence consists of knowledge made up of universal or generic assertions (laws, models, empirical uniformities, and the like), while the scientific expert, in addition to the competence thus defined, must know how to apply general knowledge to situations that have the characteristic of being unique and therefore unrepeatable. Therefore, being good scientists, namely having a good scientific competence, is a necessary but not sufficient condition for being good scientific experts. Scientific experts must also have the skill to apply general knowledge. The application is not a matter of deductive or mechanical activity. It requires *personal judgments*

Personal judgements of this kind – i.e., the ability to apply general knowledge to unique situations - defines the wisdom of a scientist who for this reason is also a good scientific expert

THE FUNCTIONS OF WISDOM

- *The instrumental function:* the purpose of the action is clearly defined. The expert only has to choose the most suitable means to achieve the goal
- *The function of specifying values:* Values must very often be transformed in specific ends
- *The function of justifying the end:* This function does not belong to moral discourse only
- *The function of handling conflicts among several ends:* How we should behave when two or more ends are apparently incompatible in the given circumstances
- *The function of evaluating the overall means-end relationship:* Even if the means are adequate to achieve a given end, wisdom has the task of assessing whether the end achieved has unintended negative consequences

THE STEPS OF A PUBLIC INQUIRY

- 1) indeterminate situations
- 2) institution of problems
- 3) determination of facts
- 4) possible solutions
- 5) new unified situations

Second Sub-Thesis

public opinion is not limited to setting the goals that the scientific expert should consider as exogenous data. Rather, in a well-functioning democracy, laypeople can and, in some cases, must a) help the scientific expert better define socially relevant problems, b) help the scientific expert, even epistemically, solve socially relevant problems

What is a Public Problem

1. Technoscientific and societal aspects are strictly interwoven
2. Technoscientific aspects should be broadened to encompass the whole body of expert knowledge
3. The object «Public Problem» is not reducible to its techno-scientific components
(transdisciplinarity)

What is a Public Problem

Let's draw a distinction here:

Social vs Public Problems

A problem is social if it affects a certain number of people without being adequately perceived as such by them

Scientific Experts and Citizens at Play

Enlarged community of inquirers

What kind of *cognitive* (broadly conceived) contribution may citizens make to public inquiry carried out together with scientific experts?

Scientific Experts and Citizens at Play

Some Epistemic Functions Performed by Citizens:

1. Citizens as Bearers of Preferences
2. Citizens as Evidence Providers
3. Citizens as Sponsors of New Expertise

Scientific Experts and Citizens at Play

A further possibility:

4. Citizens as Semantic Contributors

Scientific Experts and Citizens at Play

A further possibility:

4. Citizens as Semantic Contributors

What about «expert» notions such as:

Disease, Well-Being, Sustainability, Risk, Biodiversity

A Hypothesis for Citizen Science

Is there any positive connection between the success (or desirability) of citizen science projects and the role of citizens as semantic contributors?

Thank You!