

Logic can be considered as the discipline that studies reasoning, especially when it is used for two fundamental activities: justifying a belief - I believe that B, because P, Q, and R, etc. - and justifying a decision – I will do D, because P, Q, and R, etc.

The study of the justification of beliefs is the matter of deductive logic; the study of the justification of decisions is the matter of practical logic, currently called decision theory.

Deductive Logic and Decision Theory both have their roots in Aristotle work, the **Organon**. They developed during these centuries till they become full technical disciplines formulated as, say, mathematical theories of considerable complexity about theoretical and practical types of reasoning.

The development of these theories, is a rich and fascinating technical subject, or rather set of subjects, belonging to Mathematical or akin Departments.

The **application** of logical concepts, tools and results to very important and very difficult problems belonging to the humanities and social areas, is where the main interest of Logic lies for me. Here Logic needs, in a sense, to transgress its technical and mathematical boundaries and join forces with other disciplines, perhaps psychology, perhaps argumentation theory, perhaps ethics or political theory, or even rhetoric and others, to tackle complex societal issues of great contemporary relevance.

Some examples are in order:

- 1. How can one adjudicate between a utilitarian view of action, say, maximizing a certain utility function for a chosen group of people, and the deontic duties one assigns to that group? Is it possible to produce an optimal blended solution, mixing utility and duty?
- 2. How can one develop a methodology to assess if a certain complex reasoning laid down to justify, say, a certain political position or political measure with great social and economic impact, has flaws, or has weaknesses and how can one spot, attack or support those weaknesses?
- 3. Given two or more non convergent interests, that are hold, let us suppose, by different parties or groups involved in a negotiation procedure, how can one reach an equilibrium that is the best rational outcome possible?



4. How can one improve voting procedures in order to enhance the way the voting results express the will of the majority and do also justice to the will of the minorities?

These questions are, I assume, immediately perceived as **very relevant** for current day society. To contribute with clean methodological approaches and scenarios for possible solutions to these and related questions is, I take it, an important scientific achievement.

Those are the kind of issues and problems that **Nova University Institute of Philosophy (Instituto de Filosofia da NOVA)** selected as an important part of its research agenda.

This Institute was 5 times evaluated with "Excellent" by an international panel appointed by the European Research Council on demand of the Portuguese Foundation for Science and Technology, the public Portuguese agency that evaluates and funds national research.

And for the development of this Institute's research agenda we count with a brilliant group of young researchers together with a few seasoned ones. And they count on Logic to develop their research, Logic together with other disciplines.

The celebration of the World Logic Day, to which I fully subscribe, further reaffirms that we are on the right path to contribute to research with a positive impact on society.

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