

# ARISTOTLE'S PHRONESIS: PUTTING SOME MEAT ON THE PHILOSOPHY OF INNOVATION

*Gabriel J. Costello*

## 1. Introduction

*Dante in the Divine Comedy describes his encounter with Aristotle as follows: "I saw the master sage of those who know" Inferno Canto IV, 131 (Dante, 1984 translation) .*

Dante considered Aristotle as epitomizing the pinnacle of human reason and his references to Aristotle came second only to that of the Bible. Without doubt, Aristotle is one of the most influential thinkers in the history of western civilisation. His works have covered an eclectic range of subjects such as logic ethics, metaphysics, politics, natural science and physics (ODE, 2006). Aristotle's science was not superseded until the scientific revolution of the 16<sup>th</sup> and 17<sup>th</sup> centuries (ODS, 1999). Critchley (2001) points out that among other things, ancient philosophy endeavoured to amalgamate knowledge and wisdom: "namely, that knowledge of how things were the way they were would lead to wisdom in the conduct of one's life. The assumption that ties knowledge and wisdom together is the idea that the cosmos as such expresses a human purpose. This is called the "teleological view of the universe" (p. 7). This paper will focus on Aristotle's ethical writings, especially examining his synthesis of the ideas of knowledge and wisdom and their application in practice. This he achieved through the concept of phronesis (*phronēsis*) variously described as practical wisdom. Taylor (2005) explains phronesis as having, in ancient Greece, connotations of intelligence and soundness of judgement. In his deliberations on ethics, Aristotle used the term to represent the complete excellence of the practical intellect. In the practical sphere it was the equivalent of *sophia* in the theoretical sphere.

This paper will argue that the management and teaching of innovation requires a bottom-up approach to "put some meat"<sup>1</sup> on the recent theoretical examinations of responsible innovation (Vincent Blok, 2014; V. Blok, Hoffmans, & Wubben, 2015; Vincent Blok & Lemmens, 2015). It will claim that the realisation of the concept of "Responsible Innovation" requires a radical change of focus by its agents (Hornsby, 2005). Moreover, the philosophical impetus for such a transition can be facilitated by a rediscovery of Aristotle's concept of phronesis.

The structure of the proposed paper will be as follows. First there will be a review of Aristotle's concept of Phronesis with reference to the Nichomachean Ethics. Then there will be an examination of the contemporary topic of phronesis and the recent interest in the area resulting from the scholarship

---

<sup>1</sup> EN Book VI Chapter 7 (Aristotle, 1967 translation)

of Bent Flyvbjerg. Next there will be a short review of innovation and the emerging area of responsible innovation (RI). A discussion of the implications of Phronesis for the management and teaching of innovation will be presented. Finally the conclusions of the study are offered as well as some implications for future work.

## 2. Phronesis

*A man is aware that light meats are easily digested and beneficial to health but does not know what meats are light. Such a man is not so likely to make you well as one who knows that chicken is good for you.*

*Aristotle*

Taylor (2005) defines phronesis as “comprising a true conception of the good life and the deliberative excellence necessary to realize that conception in practice via choice”. In the *Nicomachean Ethics*, Aristotle describes three approaches to knowledge: *episteme*, *techne* and *phronesis*. Flyvbjerg (2001) explains that “whereas *episteme* concerns theoretical know why and *techne* denotes technical knowhow, *phronesis* emphasizes practical knowledge and practical ethics” (p. 56). He summarizes the three as follows (p. 57):

- **Episteme - Scientific knowledge.** Universal, invariable, context-independent. Based on general analytical rationality. The original concept is known today from the terms “epistemology” and “epistemic.”
- **Techne - Craft art.** Pragmatic, variable, context-dependent. Oriented toward production. Based on practical instrumental rationality governed by a conscious goal. The original concept appears today in terms such as “technique,” “technical,” and “technology.”
- **Phronesis - Ethics.** Deliberation about values with reference to praxis. Pragmatic, variable, context dependent. Oriented toward action. Based on practical value-rationality. The original concept has no analogous contemporary term.

Flyvbjerg continues to elaborate on the term phronesis in Aristotelian terms:

In Aristotle’s words phronesis is a “true state, reasoned, and capable of action with regard to things that are good or bad for man.” Phronesis goes beyond both analytical, scientific knowledge (*episteme*) and technical knowledge or know-how (*techne*) and involves judgments and decisions made in the manner of a virtuoso social and political actor. I will argue that phronesis is commonly involved in social practice, and that therefore attempts to reduce social science and theory either to *episteme* or *techne*, or to comprehend them in those terms, are misguided. (ibid. p 14)

Chapter six of the *Nicomachean Ethics* discusses a number of characteristics of the mind and in particular the two main intellectual virtues *phronesis* (practical wisdom) and *sophia* (philosophic wisdom) (Ackrill, 1973). Furthermore the person who has phronesis can be described as a *phronimos* having the following attributes (p. 28)

The *phronimos*<sup>2</sup> is good at deliberation: he can sum up a situation, weigh up various factors, and work out what to do to promote or achieve his objectives. Often enough, because of his experience and wisdom, he can see straight off the best thing to do, without having to go through a process of deliberation.

Aristotle continues: “observe, too, that prudence (practical wisdom) is something more than knowledge of general principles. It must acquire familiarity with particulars also, for conduct deals with particular circumstances and prudence is a matter of conduct. This accounts for the fact that men who know nothing of the theory of their subject practise it with greater success than others who know it. It is in fact experience rather than theory that normally gets results. Practical wisdom being concerned with action, we need both kinds of knowledge; nay, we need the knowledge of particular facts more than general principles”. EN Book VI Chapter 7 (Aristotle, 1967 translation).

### **3. Distinguishing contemporary from classical phronesis**

Flyvbjerg described “Phronetic Social Science” is an approach to the study of social phenomena based on a *contemporary* interpretation of the *classical* Greek concept phronesis, variously translated as practical judgment, practical wisdom, common sense, or prudence. Phronetic planning research is phronetic social science employed in the specific study of policy and planning (Flyvbjerg, 2018).

In The Sage Dictionary of Qualitative Management Research, Flyvberg points out that Phronetic Organizational research effectively provides answers to the following four value-rational questions, for specific problems in management and studies:

1. Where are we going with this specific management problem?
2. Who gains and who loses, and by which mechanisms of power?
3. Is this development desirable?
4. What, if anything, should we do about it?

Thus, in his view, Phronetic Organizational Research concerns deliberation, judgement, and praxis in relation the four questions. Praxis is the process by which *phronesis* as a concept becomes lived reality.

### **4. Innovation –a brief overview**

The general innovation literature is voluminous and eclectic and a comprehensive review is beyond the scope of this study. This section will provide a short overview in order to provide a primer on the subject of innovation and to support the main argument of the paper; that the area is ripe for philosophical investigation.

---

<sup>2</sup> While the quotation uses *phronimos* as masculine, it goes without saying that the term equally applies to the feminine.

## 5. Responsible Innovation (RI)

According to Stilgoe (2013), the “broad aim of responsible innovation is to connect the practice of research and innovation in the present to the futures that it promises and helps to bring about”. Furthermore Owen, Heintz and Bessant (2013) argue that responsible innovation challenges us “to ask what kind of future we want from science and innovation and the values this is based on”. Additionally they insist that RI is not just a question of being another ethical review or bureaucratic hurdle but a positive realignment of innovation to socially desirable ends that is values-based rather than just rules-based. von Schomberg (2013) states that Responsible Research and Innovation (RRI) is becoming an increasingly important factor in European policy, in particular in the most recent EU research framework “Horizon 2020” which sets out the strategy for the EU to become an “Innovation Union”. This section will argue that current debates in the emerging area of RI can be underpinned by the philosophical notion of phronesis.

## 6. Discussion: Insights for Philosophy of Management

Recently Blok (2017) has requested a new research agenda for the philosophy of innovation stating that “this calls for an opening up of the concept of innovation and the philosophical reflection on a concept of innovation that is able to address the grand challenges of our time”. Furthermore, engaging with the practical is part of a tradition that goes back to Aristotle “who made frequent reference to concrete examples to illustrate his theoretical points” (Kenny, 2010). This paper will contribute to the debate by proposing a novel vantage point for the philosophy of innovation that is grounded in the innovating agent and examined through the prism of Aristotle’s phronesis.

## 7. Conclusions

*We are what we repeatedly do. Excellence, then, is not an act, but a habit.*

*Aristotle*

The conclusion section will summarise the claim of the paper and suggest further development of the work.

## References

- Ackrill, J. L. (1973). Introduction In M. Warnock (Ed.), *Aristotle's 'Ethics' / translated from the Greek by W.D. Ross ... and others ; selected and with an introduction by J.L. Ackrill* London: Faber.
- Aristotle. (1967 translation). *The ethics of Aristotle, the Nicomachean ethics / translated from the Latin by J.A.K. Thomson*: Penguin.
- Blok, V. (2014). Look who's talking: responsible innovation, the paradox of dialogue and the voice of the other in communication and negotiation processes. *Journal of Responsible Innovation*, 1(4).
- Blok, V. (2017). Philosophy of Innovation: A Research Agenda <https://doi.org/10.1007/s40926-017-0080-z> published on-line November 2017. *Philosophy of Management*.

- Blok, V., Hoffmans, L., & Wubben, E. F. M. (2015). Stakeholder engagement for responsible innovation in the private sector: critical issues and management practices. *Journal on Chain and Network Science (SPECIAL ISSUE: Responsible innovation in the private sector)*, 15(2), 147-164.
- Blok, V., & Lemmens, P. (2015). The Emerging Concept of Responsible Innovation. Three Reasons Why It Is Questionable and Calls for a Radical Transformation of the Concept of Innovation. In B.-J. Koops, I. Oosterlaken, H. Romijn, T. Swierstra & J. v. d. Hoven (Eds.), *Responsible Innovation 2: Concepts, Approaches and Applications*: Springer.
- Critchley, S. (2001). *Continental philosophy : a very short introduction*. Oxford: Oxford University Press.
- Dante. (1984 translation). *The Divine Comedy: Volume 1: Inferno by Dante Aligheri translated by Mark Musa*: Penguin Classics
- Flyvbjerg, B. (2001). *Making Social Science Matter : Why Social Inquiry Fails and How It Can Succeed Again (Translated by Stephen Sampson)*: Cambridge University Press.
- Flyvbjerg, B. (2018). What is Phronetic Social Science? <http://flyvbjerg.plan.aau.dk/whatisphronetic.php> accessed January 30th 2018.
- Hornsby, J. (2005). agent. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed., pp. 512-513). Oxford Oxford University Press.
- Kenny, A. (2010). *A New History of Western Philosophy*: Oxford University Press.
- ODE. (2006). Aristotle *Oxford Dictionary of English , Second Edition, Revised* (Second Edition ed.). Oxford Oxford University Press.
- ODS. (1999). Aristotle. In J. Daintith & D. Gjersten (Eds.), *Oxford Dictionary of Scientists* (Second Edition ed.). Oxford Oxford University Press.
- R. Owen, Heintz, M., & Bessant, J. (Eds.). (2013). *Responsible Innovation: Managing the Responsible Emergence of Science and Technology in Society*. London: John Wiley.
- Stilgoe, J. (2013). Foreword: Why Responsible Innovation? In R. Owen, M. Heintz & J. Bessant (Eds.), *Responsible Innovation: Managing the Responsible Emergence of Science and Technology in Society*. London: John Wiley.
- Taylor, C. C. W. (2005). phronēsis. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- von Schomberg, R. (2013). A vision of responsible innovation. In R. Owen, M. Heintz & J. Bessant (Eds.), *Responsible Innovation*. London: John Wiley.