BOOK REVIEWS, NOTES AND COMMENTS

Edited by Federica Napolitani Cheyne



SCIENZIATE D'ITALIA Diciannove vite per la ricerca

Elisabetta Strickland

Roma: Donzelli Editore; 2011. 108 p. ISBN 978-88-6036-631-3 € 16,00. [Women scientists of Italy. Nineteen lives dedicated tofor research]

In 2011 Italy celebrated its 150th anniversary of unity as a single nation. For this particular occasion Elisabetta Strickland, professor in Algebra at the University of Rome "Tor Vergata", published *Scienziate d'Italia*, a delightful tribute to all those Italian women who dedicated their lives to science in the last 150 years.

As the subtitle recites, nineteen lives dedicated to research emerge from the pages of this small volume in a vivid and enjoyable way. Nineteen short biographies of women which are a fresco of the different social environments and times in which they lived. Their names, also listed in the cover of the book, are: Giuseppina Aliverti, Massimilla Baldo Ceolin, Margherita Beloch Piazzolla, Giuseppina Biggiogero Masotti, Rita Brunetti, Enrica Calabresi, Maria Cibrario Cinquini, Maria Bianca Cita Sironi, Cornelia Fabri, Elena Freda, Margherita Hack, Rita Levi Montalcini, Eva Giuliana Mameli Calvino, Lydia Monti, Pia Nalli, Filomena Nitti Bovet, Maria Pastori, Livia Pirocchi Tonolli e Pierina Scaramella.

Some of these women are well known, like Nobel Prize Rita Levi Montalcini (the only Italian woman to receive this prestigious award) or the astronomer Margherita Hack, others are less familiar to the general public. All of them, however, in their different personal histories, share the same genuine passion for knowledge and courageous determination in pursuing their researches, often in hostile environments and in imposing their ideas in a community formed and ruled chiefly by men.

Among these nineteen scientists, Filomena Nitti Bovet deserves a few more words in this book review which is published in the journal of the Istituto Superiore di Sanità (ISS) where she worked along with her beloved husband Daniel Bovet. They both moved from the Pasteur Institute in Paris to Rome and worked side by side, linked and inspired by a common passion. Daniel Bovet received the Nobel Prize in Physiology or Medicine in 1957. Filomena was an exceptional woman for her time and her story deserves to be read as an example to the new generation of young researchers.

The obstacles faced and the sacrifices made by these scientists contributed to spread the view that women are not suited only to play domestic roles or be good nurturing mothers, not even in the traditionally moral Italian society of the last century.

Today half of the Italian researchers are women, but the so called "crystal roof" is still there to frustrate their career advancement in managerial positions. Gender equality is still a goal to be reached. Strickland's book is there to remind all of us that "science needs essentially passion and feelings which are virtues commonly considered prerogative of women".

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LA MEDICINA DEI NUOVI VAMPIRI Vittoradolfo Tambone e Luca Borghi (Eds)

Acqui Terme (AL): Academia Universa Press; 2010. 160 p. ISBN 9788864440361. 19,00 €. [The medicine of new vampires]

This is a book dealing with pop-philosophy. The best definition (at least in my opinion) of pop-philosophy comes from Ion Valaskakis who reported it in his blog (http://popphilosophy.typepad. com/): *Thinking seriously about not-so-serious things* | *Searching for substance in a superficial world*.

If we should stop to the first part of the definition, we could safely judge pop-philosophy as a typical

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nihil sub sole novum activity: it is not so difficult to find tracks of this kind of attitude all along history, starting from ancient writers and philosophers that routinely used the rethorical tool of seriously dealing about not-so-serious things (*e.g.* Luciano di Samosata *True story* or Horace's and Giovenale's *Satyrae*), and ending into the "divertissments" XVIII century philosophers were so fond of (think of Diderot and Voltaire), in some sense even some modern aspects of science-fiction literature can be equated to such kind of work.

But we are forced to go ahead and think of the second part of the definition "searching for substance in a superficial world" that turns a more or less amusing and acute rethorical exercise into an incredibly realistic and urgent drama. We immediately (especially if we come from the rich and affluent part of the world) grasp the world around us is "superficial" and that the real thing ("substance") is hidden and we must actively search for it. This is no more a joke, this is something very important that happened not so many years ago and now is here to stay, in the same time we have the perception this can become a tragedy. Many thinkers defined our affluent society as based on "loisir" i.e. on the fact entertainment, vacations, fun time became our more important experiences, the ones by which we define ourselves, instead of the time-honored "serious things" like marital status, family, nation, religion, work (by the way work apparently is the most honored activity nowadays, but not in terms of specific master ability, *i.e.* for internal reasons, but only for the image of social position it gives, again in terms of "privileged mean" for getting a good position in the loisir scenery).

This sounds reasonable but something is lacking, anyone knows that we can remain "superficial" only by lying to ourselves and forgetting about the basics of our human experience: after all we know very well sorrow does exist and, most important of all, soon or later we will die. This implies this "superficial world" gives the impression to be "The whole world" only thanks to a huge effort. While we can speculate (here it is not the place where to talk about this point, Tambone and Borghi in any case give us some tracks to follow) about which "general idea of the world" is at the basis of this exaggerated importance given to "not-so-serious" things, it is important to spend some time about the genesis of this scenery.

Any society, in any time, needed a "global shared representation" in order to both give to his members some general coordinates to find their place in the world and to transmit the basic "common sense" to accommodate the basic questions of life. For millennia this was the work of art, as correctly St. Thomas the Aquinas pointed out "art" is "reason in act" and its main duty was "to make the unvisible, visible". This worked in a remarkably efficient way for centuries and this is the reason why we learn much more about Middle Ages walking around for Siena or looking at the frescoes in Assisi St. Francis church than reading history books. The presence of a continuum going from Giotto or Cavallini down to the anonymous painter of a country oratory guaranteed of the continuous, vital, exchange between the "top" and the "bottom" of the society.

With the substantial end of "art" as a recognized socially relevant activity (the "art-for-art" romantic motto is equivalent to state "art is useless") we lose this continuum but, given the "need of representing ourselves" is a fundamental need of human beings, the only consequence on the long run, was to leave "popular artistic forms" by alone to do the job. For more than two centuries (this is especially evident in Italy for the singular richness of our figurative tradition) this translated into the establishment of two separate tracks: an Academic mostly self-referential but technically innovative tradition and a popular, mainly conservative, track re-iterating in a more and more degraded form the last "really universal" great art canon, i.e. Baroque (with poor wax saints substituting Bernini's Estasi di Santa Teresa). In contemporary times, wax saints and folk songs were substituted by movies and international pop songs, the fundamental intuition of pop philosophy is that the time honored work of "society self-representation" was not the job of Academic Art but of the popular one.

The point is that while wax saints were a genuine "bottom-up" expression of normal people, the nowadays "pop" forms vehiculate along the opposite "top-down" direction messages coming from the elites. The great idea of the curators of *La medicina dei nuovi vampiri* is to catch the "essential" out of this representation effort, *i.e.* the most serious affair of all: "the problem of life and death".

This immediately makes an apparently not-so-serious-thing (the popular "Twilight" saga Tambone and Borghi deeply analyze in all the most tiny particulars) an incredibly serious affair. The editors take our hand and show us how the initiator (the first Vampire) of the saga was actually a physician (Carlisle Cullen) and that the main character was again a laureate in medicine (Edward Cullen). This fact immediately sets the basics: science, through medicine, is the only possible source of immortality, this is the new religious statement. The goal of medicine is no more to try and restore patients own normal life but to push him/her toward an "ideal goal" of perfect life. This perfect life is totally out of reach to humans as they are (the non Vampires, human, characters of the saga are depicted as weak, unreliable and definitely not adequate to cope efficiently with their world), it only can be achieved by the "vampirization" that is nothing more nothing less than the very old topic of this kind of stories: to say a definitive farewell to your soul.

The new (and frightening) point is that, in absence of a shared perspective of an eternal transcendental life after death, this could be a not so bad affair, after all. It is worth noting how the author of the saga is fundamentally "honest" as for the negative consequences *in this life* generating from abandoning the human finite condition (*e.g.* the vampires have exceptional mental and physical strength but are absolutely not competent as for normal emotional reactions), but very ambiguous as for the deep motivations to maintain our fragile human condition. The fact mass-media try and convince us that technology can effectively offer the mankind the gift of "eternal youth" or at least of an increased mental and physical power makes all the affair incredibly serious. At this point, Tambone and Borghi, offer us the antidotes to contrast the Vampires, instead of the old-fashioned ail, they give us the two most powerful weapons: science and faith. In the fourth chapter of the book Medicina e immortalità. La Genesi storica we discover that, at odds with other fields of biomedical sciences where huge progresses were made, the nowadays remedies against death and senescence are pathetically similar to the ones of centuries ago, this simply dissipates all the bla-bla about trans-humanism, enhancement and other post-modernist myths. The seventh chapter "Immortalità tra fede e fiaba" (Immortality between faith and fairy tale) clearly depicts the Christian Faith idea of eternal life, neatly discriminating it by the "material immortality of the Vampires".

We have in our hands two powerful vaccines against this mythology, some of us will only make use of the Science one, some other will use only the second one, as for me, I will take both.

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FILOSOFIA DELL'AGIRE SCIENTIFICO Alfredo Marcos

Acqui Terme (AL): Academia Universa Press; 2010. 211 p. ISBN-10: 8864440283. 20,00 \in . [Philosophy of doing science]

What is the help philosophical thought can offer to scientists? What is the motivation for studying classics in our days? The more common answers to the two above questions in these days vary from an extremely categorical "No help, metaphysics is dead and our problems are so far from the ones facing ancient Greeks (or Romans, or Medieval philosophers) that the only goal a classics student can pursue is linked to archaeology and in any case limited to a very strict portion of the society" to the intellectualistic "The help is linked to the historical description of the path of science across the years so to give both *intellectual satisfaction* to the scientists acting as the *cantors* of their triumphs and to increase science appreciation in the *educated* population".

Very depressive indeed, especially if considering the perception (very clear and vivid to any critical and objective practitioner of science) of the nowadays crisis of basic and applied science in terms of both falling down of apparently established dogmas (e.g. fading away of the one gene-one protein molecular biology dogma, emergent properties of matter not explained by first principles) and the lack of practical efficacy (e.g. dramatic drop of new drugs, end of the dream of genome based individual preventive medicine, evident epidemiology limits with chronic diseases). We would like, in such moments of paradigm crisis, to listen to some basic and fresh new idea from people whose job should be the "passion-motivated" exploration of the "knowledge-asit-is" (this is by the way the meaning of the word "philosophy"). This is no more the time to reiterate historical *post hoc* observations (e.g. Kuhn's idea of normal and revolutionary periods of science) or to investigate some minor statements hidden in forgotten works of a famous scientist to further explore the consequences of an already established theory (e.g. the n-th comment to Darwin's or Bohr's writings).

We would like philosophers to do their job: to go back in time so to discover the original "meaning of the basic concepts" that in the centuries progressively deviated from the original so provoking problems in understanding each other and thus a substantial Babel-like information crisis making harder and harder any substantial increase in knowledge.

A philosopher should be for the practical scientist what a caulker is for a sailor: he should scratch from the heel of the science boat all the parasites slowing it down and making unbearably heavy the navigation. In doing so, the philosopher needs to go back to the "original wood layer". Alfredo Marcos is a perfect caulker, and this can be appreciated already from the title of his book Filosofia dell'agire scientifico means "phylosophy of doing science" that is totally different from having entitled the book "Filosofia della scienza" (philosophy of science). In the last three centuries we talked too much of science as an autonomous entity as if any human activity could exist without any reference to the *real* human beings practicing it. Philosophical investigation concentrated too much into the "theoretical side" looking almost exclusively at an absolute and disembodied (and thus deeply unrealistic) "scientific context" as such. This made philosophy progressively less relevant for practical scientists that wisely preferred some more "immediately operative" and "first-hand" tools for solving their problems (e.g. why look at philosophy if I can directly use mathematics or statistics?) in doing so, philosophers gave to scientists (and to the general public) a bad caricature of actual science work instead of the real thing (how many of you scientists (or physicians, or engineers) reading at this comment can honestly affirm their

day-to-day work is mainly based upon formal-logic?). Marcos correctly individuates this disembodiment of science as a symptom of a pernicious disease of modern thinking: the a-critical love of machines making philosophers (and after them many scientists) to imagine science progress should consist in a continuous decrease of the need of human beings to perform science, being it (at least in principle) a purely automatic, and thus absolutely precise and mother of a definitive truth, work to be left to machines.

Even if (at least so I hope) to the great majority of us this appears much more like a nightmare than a dream, and notwithstanding the feasibility of such a goal was already demonstrated to be unfeasible by many evidences (*e.g.* Godel's theorem), this pernicious anti-humanistic idea is still alive (by the way the apparently innocuous use of the word humanistic as opposed to scientific has to do with the before mentioned nightmare). Talking about "doing science" instead of simply "science", prof. Marcos makes the fundamental move in the direction of the embodiment (*i.e.* humanization) of science and he reaches this incredibly important goal by going back to Aristotle and to his definition of "practical knowledge".

Starting from Renaissance onward (with the only enlightening but largely forgotten exception of Blaise Pascal) epistemologists got stuck into a one-dimensional back-and-forth between "induction" (now we call it "bottom-up thinking") *i.e.* trying to infer general consequences from local evidences, and "deduction" (now we call it "top-down thinking") in which local consequences are derived from basic principles.

To make a long story short, we can safely say that the debate more or less had as fundamental consequence something that Aristotle understood more than two thousand years ago: "deduction" (when correctly applied) is totally trustworthy but cannot add brand-new "pieces of information" (the mathematics, theoremproof model of thinking), Induction can add new information to the existing picture but cannot be totally trustworthy. To make fresh air to come inside, we need to "escape" into another dimension that is constituted by "practical knowledge", that dimension the ancient Romans called "prudentia" that is the (non-formalized) ability to cope with substantial (and not totally eliminable) uncertainty that is "the *virtue* typical of whom reflects before acting so not to face unnecessary risks". Look at the words in capital letters: virtue, acting, risks, they point to human features, to something that can only be attached to human beings (not to procedures, abstract ideas, concepts), this is something that scientists share with artisans, businessmen, lawyers, physicians, athletes, soldiers, sailors, airmen... It is not for pure chance that in the Italian dictionary the 90% of verbs (actions performed by human beings) date back to the XIV century, while the great majority of nouns are much younger (no more than 200 years). It is sad that the English translation of Italian "prudenza" is totally devoid of any reference to knowledge and only mention "safety" and "carefulness", in order to re-gain the richness of the original meaning we must

go to the lemma "wisdom" (saggezza) that resonates with a "practical knowledge" acquired by experience and insight but surely it is not linked to science.

On the contrary, the distinction made by Medieval philosophers between "reason" (from the Latin "ratio" that in common language had the meaning of "computation" or "mathematical proportion") and "intellectus" was based on the acknowledgement that for doing science the pure computation was not sufficient, starting from XVIII century this distinction (perfectly rephrased by Pascal in terms of "esprit de geometrie" and "esprit de finesse") was progressively blurred and forgotten.

This forgiveness had the consequence that the actual work of real scientists, not the caricature of science of philosophy books that is mainly based on "prudentia" (and the notation made by Marcos quoting Cicero about the crucial and positive role played by rethorics in science is enlightening, especially in these times in which, very sadly, we attach to "rethorics" not the positive meaning of the need of giving a clear explanation of our statements but the negative meaning of "sophisticated lies") remained simply outside the philosophers explanations.

This book "calls the things with their real name" correctly putting "practical knowledge" at the very top of the science tools, this is the necessary first step to make science work to escape from his self-referentiality, lack of real innovation and unbearable confusion about ethical consequences.

We must be grateful to prof. Marcos for this achievement: eventually a book where a scientist can find its work realistically described, a great help for self-consciouness, useful stuff for thinking.

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Tere parter WEAR WEB 2.0 PARTA YOUNGER & PETER MOREAN

USING WEB 2.0 FOR HEALTH INFORMATION Paula Younger and Peter Morgan (Eds)

London: Facet Publishing; 2011. 164 p. ISBN 978-1-85604-731-9.

A ccording to the Global Language Monitor, the term "Web 2.0" entered the lexicon of English language as the one-millionth word on 10 June 2009 at 10:22 GMT (http://www.languagemonitor.com/ no-of-words/), ten years after the term had been first coined by Darcy DiNucci in her article *Fragmented future*. The term has become in vogue from 2006 onwards and as with many other popular terms, especially in the field of information technology, it is abundantly used and abused, without proper knowledge of its real meaning. The editors of the book *Using Web 2.0 for health information* show to be aware of the importance of this problem and start off with a concise glossary, followed by a well written definition of the terms "health information" and "Web 2.0" in the first part of their book. This overview not only serves as a synthetic reference for healthcare information professionals, but also as a very useful and practical introduction for less expert readers.

Besides this first introductory part, the book is divided into three further sections: six chapters deal with the implications of Web 2.0 for health information, five give practical examples of web applications in health information provisioning and two chapters discuss considerations about Web 3.0 and draw overall conclusions. Each chapter is written by a different author or group of authors (mostly health librarians) and in spite of some inevitable overlaps between the articles, the overall impression is that the writing between the chapters has been carefully coordinated, resulting in a fluently readable book (obviously, the interest varies depending on subjects).

As pointed out in the first part of the book, the disadvantage of Web 2.0 is mainly the transience of information (excellent blogs are closed almost overnight). The risk with information technology is indeed that what was emerging yesterday, not only is no longer emerging today, but can easily be replaced tomorrow even before reaching a plateau of production. The hype cycle of technologies tends to be relatively short, which makes it very difficult to write a book about them. Moreover, although using URLs as a reference is inevitable in a book on Web 2.0, their availability cannot be assured in the future and could limit the usability of the book in time. In this case however, the web references were chosen with care in order to point to stable content.

In the second part, on Web 2.0 implications, chapter three deals with emerging technologies in health, medical and nursing education. Due to the reason described above, some of the references given in this chapter seem somewhat outdated, although only dating back to the year 2007, which generally in research terms is really yesterday. The appendix with selected examples of emerging technologies in healthcare education is exhaustive and will be useful for specialists looking for examples in their specific fields to learn from. Chapter four gives a practical example of use of blogs and wikis in a graduate-level course (maybe it could be better placed in the third part of the book). The lessons learned and recommendations given will allow persons setting up similar courses to tackle several problems already in the phase of definition. The other chapters of part two are more brief then the first two but very well targeted and written. The subjects of supporting research and patients needs via Web 2.0 are described with many precious references. Finally, an appealing chapter on crowdsourcing is suitably inserted into this part of the book, as well as a general overview of some ethical and legal questions in the use of Web 2.0.

The real added value of the book is provided by the third part which discusses practical examples of web applications in health information provisioning. This part is made up of five brief chapters where personal experiences are described with regards mainly to the following technologies and services: blogs, wikis, RSS feeds, podcasts, Twitter. Although the field of application of the chapters is strictly health information, the shared experiences are generally applicable and therefore relevant for any information professional or even end-users in their first approach to the mentioned applications. The chapters are not a manual to the use of the applications, and even less to the technical development of Web 2.0 tools (which is practically left out as a topic in the book probably to keep the level accessible to non-experts in informatics), however permits the reader to form an opinion on the effectiveness of either application to its proper needs. The lessons learned, best practices, potential pitfalls and conclusions contain valuable information useful to save precious time.

The future is unknown, and starting from the complicated definition of what Web 2.0 really means, experts are already discussing on what Web 3.0 will be and even whether it will be. In the last part of the book, an interesting outline of what the internet is evolving into is attempted. The Semantic Web, a term coined by the W3C (World Wide Web Consortium, http://www.w3.org/2001/sw/) as a "Web of data" in addition to the classic "Web of documents" is discussed as well as the role of librarians in this project. The author states that librarians possess skills that are complementary to those of the semantic experts, they should both collaborate towards a better organization of knowledge. The paradigm of the internet should progress from searching to finding. Search engines should have an understanding of the meaning of data through the application of ontologies and the definition of standards. The final chapter wraps it all up and lists the most important themes discussed adding a concise remark on each of them with final recommendations against several potential difficulties.

Overall the book provides interesting recommendations and useful ideas for anyone approaching Web 2.0 either as a (healthcare information) professional or an end-user. It is not a manual with technical instructions on Web 2.0 tools but serves as a comprehensive guide on how to approach and make the best of them.