

Jose Luis Perez Velazquez

The Rise of the Scientist-Bureaucrat

Survival Guide for Researchers in the 21st Century



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Old age is like climbing a mountain. The higher you get, the more tired and breathless you become, but your views become more extensive.

Ingmar Bergman

Preface

When a hypothesis enters a scientist's mind, he checks it by calculation and experiment, that is, by the mimicry and the pantomime of truth. Its plausibility infects others, and the hypothesis is accepted as the true explanation for the given phenomenon, until someone finds its faults. I believe the whole of science consists of such exiled or retired ideas: and yet at one time each of them boasted high rank; now only a name or a pension is left

Vladimir Nabokov, Ultima Thule

The words of Nabokov expose a succinct summary of the scientific work. Science, while continues to have the same vision as in antiquity namely the understanding of natural phenomena, has changed substantially from what once was. It is the practice of science, the performance of scientific research and its academic environment that has been somewhat transformed due to current socio-economic circumstances. As an aspect of society, science and its practitioners are not beyond the realm of contemporary transformations taken place in society driven by numerous causes, of economic origin in the main.

What will be described in the present narrative will no doubt surprise many readers, especially those not directly connected to the world of scientific research. Current times have witnessed the emergence of a monstrous machinery constructed around science and academia —machinery of bureaucratic or administrative nature most of it— which, as it is becoming apparent, does not increase the quality of research nor makes it easier for the scholar to navigate around this academic realm to do what should be done: research to understand natural phenomena. It is always reasonable to perceive and receive things as they come without being too judgemental, for it is true that things evolve and one must adapt to the new situations, and the changes do not need to be qualified as better or worse —as we tend to do every minute of our lives, always judging and rating whatever comes to our senses. But, to be honest, I must admit that I have a reason, the only reason, why I would claim that the current situation in research is not as good as before; it is because scientists

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are not doing what they like to do, what they should be doing —research— rather, as it will become clear throughout this narrative, they spend much more time busy in administration and other chores. Nobody would complain if some bureaucracy occupies a little of our time, but the problem that I, and many others, see today is that these activities occupy most of our time as scientists, and we have little left for what we really like: to think, reflect on questions, perform experiments, analyse data and interpret results.

Some things that will be exposed may perturb or even upset some. Yet, all is true. All the specific events that appear in this volume really happened, and the only alterations have possibly been due to the fact that they are narrated after entering my subjective experience —we should never forget that books are personal objects— and as a result, they are presented after passing through a veil of comedy, as I have tried in many instances to emphasise their comic, many times absurd, nature. Because, even though these themes here treated are serious matter as they could direct many young people to turn one way or another, one can never forget the words that someone once pronounced: "do not take life too seriously because you will not get out of it alive". Nonetheless, I have tried to provide a fair view of the realm of the scientific enterprise in current times. As well, my purpose is not to criticise even though many things commented upon will sound like fierce criticism. But those comments are nothing but the description of the current status quo in academia and research. Nevertheless, and to be fair, throughout this volume we will explore some solutions to those apparent criticisms —in each section, there is a Possible Solutions subsection, where specific counsel for particular obstacles that researchers will find throughout their careers is given. Obviously, these recommendations are well known by professionals in the field, so it will not tell them anything new, but keep in mind this text is aimed at beginners and lay audiences who may not know these tricks we all have to perform to survive in academia.

It is not the purpose of this chronicle to distress readers or to discourage young students to proceed with a career in science. Not at all. In fact, it is just the opposite: these words have to be taken for what they are, a warning of what one will find in the execution of scientific research. Better to be informed than not informed or misinformed. The fulfilment of the vision of science —the understanding of natural phenomena—needs enthusiastic young students that, because of their keen interest in understanding nature, cannot do any other thing but to enrol themselves into the research population. We have to consider that, to some extent, the scientist and the artist have a crucial feature in common: the intense motivation. The artist expresses himself/herself through the artwork, the scientist via the investigation of problems and questions one thinks are important and should be resolved and found. Thus, the real scientist and the real artist are doomed to practice their trades, regardless of how difficult the situation may be, for such is their motivation. For them, neither art nor research is really a job. Naturally, there are others, not as motivated, that enter science more as though it were a job, for in the end it is a job: one is paid —although not much if you are in academia— and performs a service to society. Yet, those aforementioned extremely driven scientists will probably fleetingly hesitate the answer when asked what their job is, because to them research is not a Preface

job but rather a —how should we put it— sort of a hobby, what one does because the pleasure and satisfaction it brings are unsurpassed by other activities. It is for these reasons that one purpose of the book is the encouragement of the young to enter scientific research, despite what some sections of the volume may reveal. And here lies another purpose, perchance a hope: to spread the awareness such that the new recruits will realise the many times strange, paradoxical situations in the scientific endeavours and therefore will be brave enough to change it to what scientific research really should be, to what the scientist should do: research, experiments, reflect on problems. Because, as surprising as it may sound, these are things scientists do not perform in this day and age. Let's see why.

Oviedo, Spain

Jose Luis Perez Velazquez

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