

## Science and a Neglected Responsibility

José Francisco Sousa Bitencourt\*

Physics Institute of the University of Sao Paulo (Instituto de Física da Universidade de São Paulo), Brazil

### EDITORIAL

Received: 14/07/2017

Accepted: 17/07/2017

Published: 24/07/2017

#### \*For Correspondence

José Francisco S Bitencourt, Physics Institute of the University of Sao Paulo, Brazil, Tel: +55 11 970773804.

**Email:** jfsousab@yahoo.com.br

**Keywords:** Scientific awareness, Natural sciences, Ideology

### INTRODUCTION

It doesn't take a specialist, although it would help significantly, to realize that education is straying away from Science or, in other words, our society doesn't seem to be interested in teaching scientific awareness to children. Any actual knowledge on scientific method is usually taught in college and just enough practical information to get admitted into universities.

The childish curiosity is belittled and fades away as time passes. "Why the sky is blue?" or "why does it rain?" became just annoying questions that are avoided by handling over smartphones, tablets and other electronic devices. Although simple, questions like these are the entryway of the child to a conscious state, when they observe and try to understand natural or induced wonders that occur around them: a rainbow in the sky, a kite in the wind or an object tossed in the air, following a parabolic path. In summary, the decline of scientific propagation is not only an educational concern, but also a social matter.

The reason why I would write about this subject in a scientific journal is because Science has been a very difficult thing to do in the last decades. A few centuries ago, a significant part of the scientific development was in the hand of a few rich and courageous men and women and, also, religious figures, like Galileo, Newton, Kepler, Mendel, Darwin, among many others, who used to do science in their spare time or along with many other activities, changing the world as they knew it. Today's science is an all-time consuming activity, requiring time away from family and friends, long hours inside the laboratory or in the field, collecting data and writing reports and articles. Also, because of the complexity of the current technology in many areas, scientists are compelled to walk beyond their area of expertise in order to assure the quality of their research. Due to this straining responsibility, the scientific community doesn't seem to be interested on how science is taught to children. The absence of a critical thinking development in the early years stray children away from the natural sciences, considered too complicated and useless, and the monetary gains comes first in comparison to personal and professional fulfillment.

In emergent economy countries, the fate of physics students seems to be chained to teaching duties and only that, due to insufficient investment on research and development (data from UNESCO website). The direct consequence of this abandonment is the rapid (and rabid) spread of pseudo-thinking theories like autism caused by vaccination and flat-earth conspiracies. These trending "ideologies" are based on fear, ignorance and the resident apprehension that the government and the world powers are hiding information for profit and subjugation, something that is proved to be true in some cases. Taking the "flat-earth" as an example, it is a collection of different theories based on different points-of-views, and no actual evidence proving its legitimacy is presented. In general, the believers say that all the images and videos are doctored to show a "round" planet and, due to the USA interference, there are no images or footage showing the "actual" shape of the planet. Considered as fashion and progressist ideas, they spread through online social media on the world wide web.

Being a two-edged sword, the mass media also allowed a few characters, like professor Carl Sagan, Dr. Neil deGrasse Tyson, Bill Nye and others to step up and serve as bridges between teenagers and Science history, the scientific method and how deeply science is present in our daily lives. Not only that, but they tried, as it seems, to recreate or awaken that childish curiosity that was put away for so long. Complex natural events, like the birth and death cycle of stars, the origins of the atoms that compose

our own bodies, volcanic activities and how they are related to the presence of life on this planet, among other subjects, are presented in a very didactic, moving and compelling manner, using not only graphic material and simulations but also a poetic language, instead of the cold-hearted technical one we are so accustomed to, expressing the beauty in the apparent chaos of the universe. I believe that this method is capable of turning hearts and souls, allowing scientific daily accomplishments available and comprehensible to people from all the ages and, what is just as important, all the areas of knowledge and interest. Despite their undeniable success, the pseudo-science and mysticism is an ever-growing concern when allied to political pressure, resulting in retrogressive government policies and risking the lives of an unmeasurable amount of lives.

In this state of mind, I think it would be very beneficial if scientific researchers could devote a little of their time to attend science fairs of elementary schools or arrange visits from time to time, find out what children think about science related subjects and use this to better yourselves, there is a lot to give and a lot to learn.

Since skepticism is a requirement for the job, it is not expected that a few words will prevent a gruesome future. Nonetheless, it is brawled against on a daily basis when we, the scientific community, try to share our knowledge not only with our colleagues, but also with the younger generation...on their terms.