



NEED FOR POPULARIZATION IN GEOSCIENCE: NARRATIVE AND EDUCATION

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Abstract

Today, the scientific spirit is still little widespread in our society. We talk a lot, for multiple reasons, of the crisis in the teaching in Morocco, and the crisis of geosciences is not less serious. The university produces think models, and teachers. The course and the work of graduation (Bachelor or Master), is working in the direction to identify and better understand the popularization and valorization of heritage in general. Students, who choose primary or secondary education as their occupation, will have a key role to play in our society to bring close to the new generations the importance of the natural heritage and its preservation. This task would be achievable only through proper awareness and organizing educational tours or good geotourism, well documented and representative.

1. Introduction

In fact, the wide gap between the scientific popularization and education lies in their different contexts. Teaching takes place in a specific space, organized following a particular structure and clearly separated from everyday life, and everyday life, being its popularization, has no place there.

The purpose of the story is to include: clarity of style, scientific accuracy, logical rigor of the presentation, these are the imperatives. But these scientific and educational qualities are not everything. You cannot capture the reader's attention with a simplified version of a paper to the Academy of Sciences; there must suspense, dramatic intensity. A good article is first, like a novel, a good story. Paradoxically, the success depends as much, if not more, on its literary qualities as its scientific qualities.

The purpose of the story is that it must be much more powerful than the treatment of the raw information.

When it comes to circulate meaning, understanding and interpretation, it is necessary to tell as much as possible to inform. The article writer cannot be content to collect information; he must draw a coherent story, shareable. He is a novelist or short story writer by technical necessity. Unlike the teacher, the researcher can hope to get out of this difficult situation by an educational approach.

Following six questions to answer:

1. What is the popularization of science?
2. What is the science?
3. To whom should science be transmitted?
4. Who is to popularize science?
5. What to popularize?
6. How should science be popularized?

For popularization of science, in principle, forms of dissemination of science does not consist of systematic teaching crowned by a diploma or not to supplement the professional qualifications although it

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is, of course, not possible to draw a precise line. The popularization of science, in general, is the transmission of the results of scientific research to non-specialists.

The fundamental task of the popularization of science is to help the individual not to feel lost before the avalanche of discoveries of modern science. Today no area of daily life escapes the interference of science. How ordinary citizens can, for example, decide the fate of nuclear energy when it doesn't know what it is? How can it give its opinion on the protection of heritage (geology, rock art, biodiversity, etc.) when he does not know what it is? The individual should be clearly informed to make his choice.

The natural environment around us is being destroyed day by day: to the popular science rest the important social role to warn mankind, to oppose these harmful actions. Scientist must address both youth and adults, people of different educational levels, even to those who have acquired higher education, even to researchers outside of their specialty. Popular science provides an antidote against the adverse consequences of an inevitable specialization. Scientist can be treated as translators of scientific results of hermetic language of science into everyday language. The translator must master both languages well. The first, in popularization, is related to the scientific competence. The second is the ability of the oral communication skills, written or image.

Only a specialist can simply present the problems of a given subject, select materials, extract a host of details, simplify without making sprained scientific truth. Finally, in popularization, as indeed in any activity, we should not underestimate the emotional factor.

Without going into detail, I think that we must popularize more than any other the research that most affect our lives and therefore require constant renovation, incessant update.

To the question, how to popularize, answer: well, that is to say, rigorous but easy to understand and even attractive, taking into account the level of the recipient's education, his age, his mental predispositions, etc. A general procedure does not exist. But in any case, we must not forget that the task of popularization is not to provide a significant amount of knowledge but rather to encourage the interest of science.

THE FUTURE OF THE POPULAR SCIENCE:

A great pit between the popular science and education. The abyss is in defining the objectives. Teaching pursuing goals that are described in terms of observable behavior. The acquired knowledge (knowledge, methodology, decision making, analysis

...) must be operational know. In the absence of a clear conscience distinguish the boundaries between the two categories of acquisition of knowledge will always remain blurred and constantly pass from one form to another by landslides intermingling leading the student to failures unmerited and teacher to a feeling of helplessness. An important part of education can integrate extension, but this must be clearly defined, and the teacher should not expect that it was only treated as being controlled as if he had been taught.

COMMON KNOWLEDGE AND SCIENTIFIC KNOWLEDGE:

1- common knowledge

The transmission of scientific knowledge occurs in effect on individuals who have, in all their own content, methodologies and languages specific knowledge. As scientific knowledge, common knowledge is not limited to taking note of phenomena that occur in reality, but it acts on them, organize them according to certain rules and some models that are likely to consolidate, explain and allow predicting. However, the social context in which such a culture is valid is often very limited, models of the world that it merely adopts implicitly have an area of local applications and is characterized by the fragmentary nature.

2- Scientific knowledge

In seems to us against, that scientific knowledge is characterized primarily by rational and conscious reorganization of the world of experience. The latter, albeit from a first intuitive approach to reality, uses instruments and methodologies that allow it not to be limited at this stage (Fig.1).

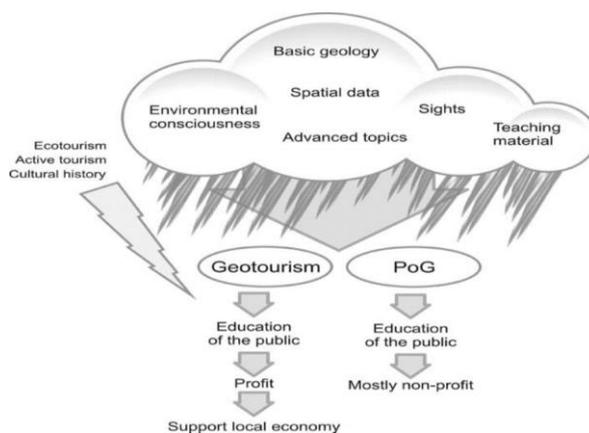


Fig.1: Geotourism and Popularization of Geology (PoG) (Xiang-jun, C., & Ying, Z., 2012).

POPULAR SCIENCE:

1- popularizing science

Scientific knowledge is not acquired spontaneously, by a simple rational restructuring of common knowledge but it must be given, transmitted.

The means of transmission of knowledge, which usually serves society, are numerous: the family, school, mass media, popular books, newspapers, etc. In this regard, we believe that the popular books properly say (not textbooks) should be currently most used in schools and in adult life, as pretexts for comparison and reflection on a route often more problematic and open scientific (and therefore challenging) than that offered every day in a standardized form in most cases by school programs.

2-popular books

Naturally, affirm the validity of the popularization of science is not to say, passively accept any method of written extension.

The first problem in this regard, may be the one who is to decide which the best person to write articles of questions is: the scientists themselves, philosophers, or good teachers?

A second problem is how to get people to read. In fact, there is some popular literature very diffuse, which seems to suggest answers to scientific curiosity. Problems in fashion are generally treated there without that no place is left for reflection on methodological and significant roles of science. This is an example of sub-culture.

The characteristics of a geological science popularization book should be such to provide a basis

image, culturally, by the treated discipline, which would appear critically, therefore the structure of the discipline, its movement growth and its essential concepts (Garofano, 2012).

CONCLUSION:

The need for scientific education is held for evidence in a world where science permeates all aspects of our lives. Everywhere, the scientific spirit is still very little known in our societies. In general, the part of scientific knowledge disseminated at school or by different means of popularizing science is little used and used to manage these transformations, both individually and socially.

We talk a lot, for multiple reasons of the crisis in education of geosciences. The popularize, meanwhile, defends and justifies this spectacular and wonderful to motivate and educate his audience, he considers mutilated by the teacher. For him, the teacher not only did not provide the means to understand the text, but also gave further so boring image of science that now flees whenever he hears the word.

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