

THE SCIENTIFIC SPIRIT

(الروح العلمية)

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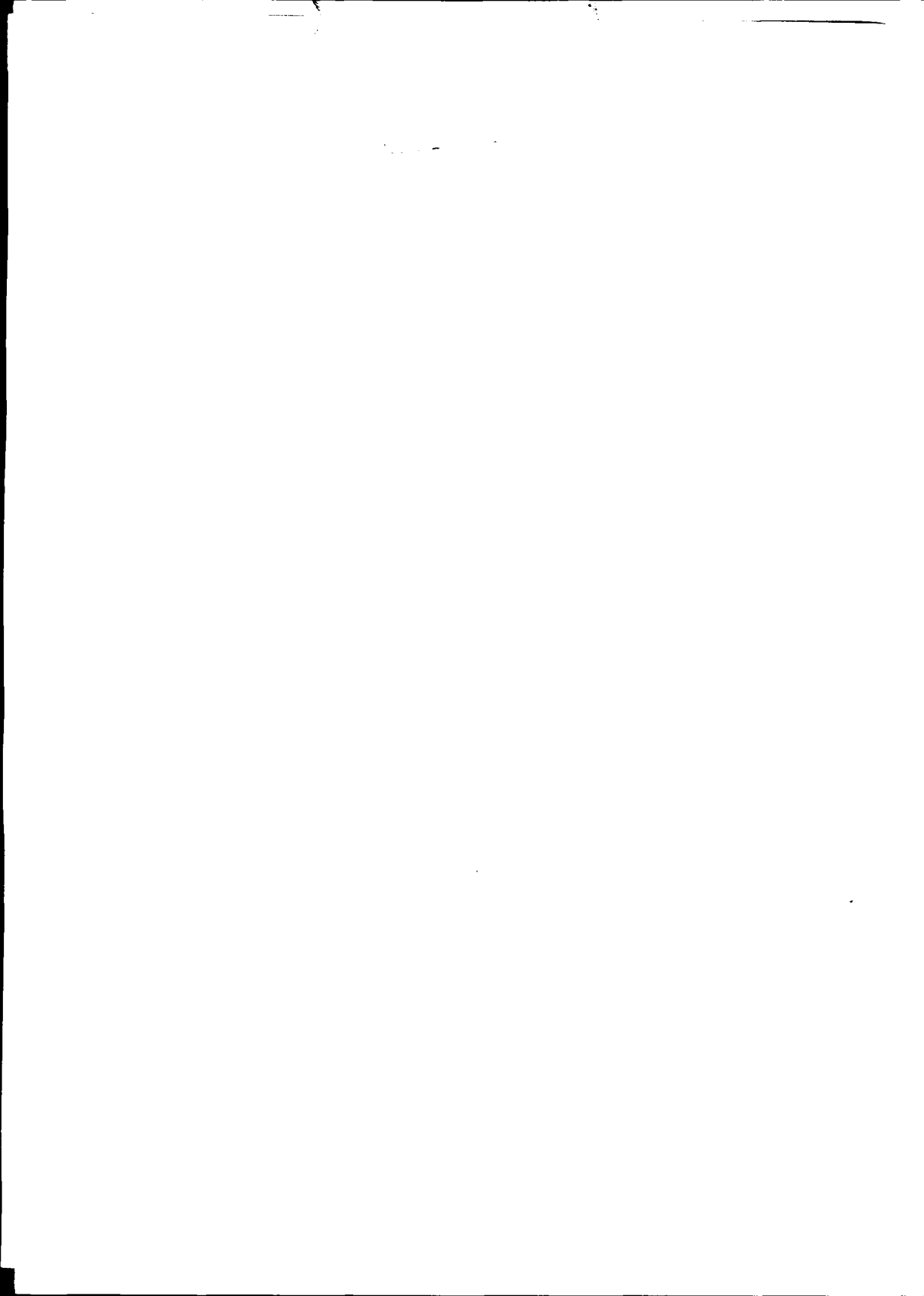
نهدف من خلال هذا المقال إلى إظهار أهمية الروح العلمية (The scientific spirit) في ميدان البحث العلمي . فهدف أي باحث هو التحصل على نتائج محددة و دقيقة، و السبيل إلى ذلك هو الارتكاز على مبادئ محددة تتمثل أساساً في اتباع المناهج العلمية، الابتعاد عن الذاتية، التخلي عن الآراء الشخصية، العقلانية ... و بالمقابل، إن لم يحترم الباحث هذه القواعد ولم يتشبث بمبادئ الروح العلمية تلك، فستكون النتيجة خطيرة على مستويين: الخروج بنتائج خاطئة و بعيدة عن الموضوعية؛ فتسبب بذلك في الإدلاء بمعلومات خاطئة لمجتمع أو للعالم برمته، أو يظلم غيره في حالة نقده لأعمال غيره عن طريق النقد العشوائي الذي لم يبين على أسس متينة. و بهذا يصبح البحث العلمي بعيداً عن الروح العلمية ومبادئها، وعنفاً ضد الإنسانية .

Because all academic students and teachers with their different specialties and levels are supposed to be researchers, they must acquire special and precise principles, these are what we call "**The Scientific Spirit**".

At first, let's define the word "spirit". Spirit is the person's mind or feelings as felt or distinct from his inside¹. It is also called the "soul"². It means that each human is divided into two main parts: the body and the spirit or the soul. Each of us has his own feelings, his own imaginations, his own opinions, his own beliefs, his own education ... all this differs from a person to another. So, when this human spirit (based especially on opinions, prejudices, imaginations, beliefs, subjectivity, inside feelings ...) is presented to the scientific culture (based especially on reality, objectivity, scientific experience, reason, modernity), the result is to return back to the age of prejudices i.e., the black ages when we explained phenomena according to the own imaginations or feelings or beliefs. In this case, I can give a good and simple example, that of volcano. Volcano nowadays, thanks to science is considered as a natural

¹ Oxford Advanced Learner's Dictionary Of Current English, chief editor :A.P Cowie, fourth edition, oxford university press, p1233.

Oxford Advanced Learner's Dictionary, p1233



phenomenon, but before the appearance of science, in the very old ages, in some very old civilizations we considered it as a God, why? Because those peoples used imagination and opinion, they weren't objective and reasonable, the result in this case is false, i.e. volcano is not a God, it is just a natural phenomenon explained and clarified scientifically.

To access to science is spiritually rejuvenate

It means if you are a researcher, you can use your humane spirit in your daily life, i.e. your own opinion, your own imagination, your own beliefs, your own feelings, you can also be subjective, but once in your domain you have to change this spirit with another one called "the scientific spirit".

The scientific spirit is strongly against opinion because in the scientific life we must think and think a lot, in this domain it exists a special way of thinking. At first, we have to put away our opinion, imagination, feelings, beliefs, prejudices. . . In addition to that, we have to be reasonable, objective, to use modern scientific methods and experiences, because the aim is to obtain exact and correct results.

So the scientific spirit prohibits us to have opinions on questions we don't understand.

But before all, we must know how to put down problems

The problem or the question in the scientific life plays a great and important role. Each knowledge is an answer of a question, i.e. each knowledge started as a question. For that, the researcher must know How to impose his question: he must limit and precise it, then he has to choose the corresponding method to obtain at last the exact and correct results he aimed to.

**It is the rationality and constructive efforts
That must hold the critic attention**

The function of researchers is not just to make scientific discoveries; it is also to have a look on the precedent discoveries and explanations, to see if they are true or false. In other words, to criticize works of others. In this case also, the researcher must be reasonable and objective, and he has to use precise scientific methods. In this kind of works we must be reasonable and constructive.

So, if you are a scientist or a researcher, you have to acquire and respect these principles, because your aim is to obtain exact and correct results and this is the only one way to realize this aim.

Principles of any researcher or any scientist

A. To put away the hum an spirit :

Opinion
Inside feelings
Imagination
Beliefs
Subjectivity
Prejudices

B. To replace it with the scientific spirit :

Objectivity
Reality
Reason
Scientific experience modern scientific methods constructive efforts

On the other hand, to neglect these principles equals violence in the scientific Domain on different levels. For example, to be violent against other researchers when criticizing their works badly (when using the own opinion and being subjective):

Acting so (to neglect the scientific principles), means also to be violent against the society or the universe as a whole, i.e., when as researchers we don't respect the precedent principles, the result of our research will be at 100% false. So to give false information to its society or its environment or the world, is a kind of violence against humanity.

So, to end, we can say that all researchers in any domain must respect blindly these principles included in what we call the scientific spirit, if they want realizing their aims (correct and exact results) if not it becomes one of the too much dangerous types of violence.

