



## Does the scientific recognition of the results published in social psychology follow necessarily the way of verification?

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### ABSTRACT

*The problem of verification is common to all sciences like social psychology. We observe that these attempts of verification are distinctive to a new type of researches in which the results are sensitive to vary according to the culture and the evolution of techniques used and above all the degree of mastering the use of new materials, and according to the different approaches (the streams of thoughts).*

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### Introduction

The belief in the verification of results comes from the capacity in which the repetition of an experience is used to certify theories which support this idea. It determines the scientific recognition of the results published by the scientific society. By replicating, searchers have tried to prove the utility and the possibility of testing the results. However, we think that the matter is just partially solved against a scientific community who is more exigent and also an audience who is claiming for demonstrable evidences.

- That is why the possibility to reproduce an experience is not an adequate criterion to be classified as scientific fact for two reasons:
- Repetition is not easy to realize, even if we succeed, it will not be so convincing.

Nowadays, many searchers consider that repetition is useless. This explains why they repeat few experiences. But, we think that to testify a former result is not limited to the only repetition of the first experience. We must justify it.

### 1 - Justification of a result

The permanent research of proof in scientific social psychology is not a threat to the scientific unity of this subject, but it aims to establish consent on what is admitted as scientific. We must find processes which permit to justify without verifying, and set a notion which could be summarized and justified scientifically, without using experimental result.

This notion might collect a consent which would come either from the accomplishment of a certain numbers of scientific principles, or from a discussion among searchers, without going through empirical verification. We are aware that this idea can look amazing, but we think the discussion can solve the difficulty and the almost impossibility to realize certain experiences.

In term of experimentation, certain questions direct positively the researches by stimulating the actors but others lead unfortunately to the complete deadlock. We can explain this abandonment by a simple lack of justification. The will to justify previous results has motivated searchers to lead experiences in similar experimental situations and obtain results. This is the fruit of the mind, matured by long reasoning and likely to justify by theoretical explanations and also by:

### 2 - The possibility to make inventory of theoretical justifications

There is another way for the experimenters to verify results. It comes from a curiosity of some searchers. They are only interested in the difference between the results of the initial experience and what happens during the repetition. That difference shows the wrongness of the first experience. However we notice that this approach may be positive and conversely, it makes us think that certain researches, whether they are true or false, go unnoticed because there are correspondence between the first results and the second one, but this interests none.

Knowing the necessity to test previous results, epistemological conceptions have been elaborated to discover the justifications of that

practice. Then, the neopositivism is claiming that science is progressing by justified wordings.

As Meyer quoted it (1979) : "are scientific, the wordings which have been validated, so that:

- The history of science is the history of accumulating justified propositions,
- The justification being characterized by the explanation according to the logical rules put in the service of the experimental verification when science comes within the experience, it is necessary common according to the method".

For the neopositivists, the true research resides in the justification and any research which is not justified is considered as false, this is what Popper calls "induction". This idea of induction was rejected by instrumentalist realism, which suggested that scientific theory is an excellent « inference tool to investigate the real ». This proposition has been soon questioned by the scientific community, on the one hand because of the impact of science on searchers' life and their works, and on the other hand, because it gives a mystical view to the development of science and this opposes clearly, the instrument of study and the studied reality. Looking for the epistemological justification of science, Popper emphasizes the possibility to falsify or refuting the experimental content. For him, refutation is the only scientifically valid procedure. This appealing idea of Popper becomes more accessible, when we know that according to him, what is interesting is not the theory which has been rejected but the one which we tried to refute but is the best.

There is in Popper, a clear will to validate the theory. It is among all these will to reach the justifications linked to the scientific activity that we want to bring a modest contribution.

Our approach consists of inventorying the theoretical justifications on a given experience which permits to testify a result. We think that the verification of a result is possible, even if it doesn't impose systematically an experimental procedure.

It permits to obtain a certain scientific progress of social psychology, and we agree partially on Popper's view point who claims that science doesn't really progress by checking otherwise we think that the idea in which the verification is made by trying to falsify the proposed theories is only inadequate.

We think that knowing the easiness in which people can falsify a theory, the systematic use of the falsification might cause the disappearance of the utilitarian social psychology which the experimental results can be testified. We must also notice that, there are cases where the verification of the result in social psychology is not possible because the conditions of the initial experience are not present again. It is also a chance for us to say that the specificity of the verification in social psychology is precisely its historic character.

The verification of experimental results marks at each time a step of the searcher reflection face to his own scientific practice but also a chance for him to criticize the works of his colleagues. This problem will be a challenge in the next years; that is why we estimate that the

social Psychologists must be able to list and master all the theoretical justifications which have permitted to get experimental results, according to the social context and thanks to the approval of the scientific community. It will be a further training and not to be ignored by the social psychologist if he wants his researches be applied to the problems of the society. Such approach is possible and will require great financial, temporal and human means. It is an additional task that some people will judge useless, but seems important for us. This would permit to reduce human differences on political view and eliminate the differences in education. This work would favor knowledge sharing to facilitate a better comprehension of the society. It would give a solid justification of means used during the experimentation and the verification of the results.

The creation of data bank of possible justifications of a given result grants a practical improvement of the system. From which the necessity, to conceptualize such practice if we want to pursue the reflection and obtain the whole scientific community support. Considering that:

### 3 - The justification by reproduction as scientific criterion

Why to make an inventory of theoretical justifications while they are likely to be modified or replaced by others, as we learnt from Kuhn in his work on the "scientific revolutions"?

In fact we notice that these revolutions are rare events, most of the scientists don't work in the perspective of a revolution, but on the occasion of theories which already exist. As Malaton says (1995), experimentation "has the goal to actualize the possible". This principle is accepted by the whole scientific community. But what remains difficult, is its practice due to the modifications of experimental context. We situate ourselves in the condition where we are able to produce the experience. By this practice, we get what Kuhn called « paradigm », a conception of the world with results accepted by the scientific community. For Kuhn, the paradigm is not produced by the searcher. He works with the paradigm and within it. The goal of the practice is then to enrich the paradigm which exists and not to produce a new one. It is an approach which appears as a reply to the second objective of explanation which, according to Malaton, « searches at the opposite to describe and analyze what exists and what is then situated ». This approach confirms the possibility to testify an experimental

result. This verification is not only looking as a synthesis or a reconstruction by its practice. We notice the apparition of new phenomena likely to lead to a modification of the results, what implicates then a new interpretation. This process leads "in fine" to a new knowledge. This practice may undergo modifications which are due either to the change of theories by the scientific revolutions, or the change of social context linked to the evolution of technology. We don't refute the first idea which says that the verification of a result resides in the reproduction of the latter but we think that we must pay attention to the possible apparition of new phenomena either, in the experimental approach or in the interpretation of results, from which we get the idea to elaborate a concept and the possibility to verify the result must be able to validate results and above all, to give a common interpretation of old and new results. This concept must be able to explain the new phenomena, through what we call an "integrating interpretation" or to give an explanation of the old ones by integrating the new ones in a new way. This point of view confirms that the scientific activity is a process of questioning. The outcome of the re-interpretation of the results can lead to new knowledge. This means, the scientific practice is based on proof and not on verification. Firstly, we suggest nothing which is not already proved, we make sure of the validity of the proof, the stability of result and we can then verify. We must distinguish the proof. When we try hard to verify an experimental result, we try to bring a new proof by having in mind that the previous results have already some proofs or an attempt of proof.

### Conclusion

To conceptualize the practice would mean that we describe this one in term of result verification. This criterion is accepted by the scientific community and we agree they are justified and the observation made can change (historical variability).

In social psychology, it is the phenomena which change. But, when Kuhn suggests the idea that science is progressing by « scientific revolution », by replacement of old paradigms with new ones, He doesn't consider that it is the phenomena which change but the way we analyze them. Is there here a way to recognize that, when we face the verification of an experimental result, we can reinterpret it. These new results come from questioning, which correspond to the scientific approaches.

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