

HYPOTHESIS WITH ONE VARIABLE? (An epistemological approach in the research methods theory)

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The paper tries to encourage a kind of epistemological debate concerning such an important problem for the research methods as the one of the nature and structure belonging to phrase proposed as works hypothesis. Generally speaking, one can find in the research methods books a consideration for hypothesis as a formal answer to research question. The last by itself demands an explanation about the reasons for the variation of the variable that will be chosen as dependent in a research procedure . Such a variation we find it or we own by the others findings. In both cases, if it represents interest or problem to be studied, it gives naissance to a research question aiming to explain the reasons of its production. I.e., it is needed an assertion pointing to give some causes which aid us to explain why occurs the event to be explained by the research question (increasing, decreasing or anyway changing of variable to be considered as dependent in our research). In this case, the explanation is given by the so called directional hypotheses, which determine the sense of “dependent” or “independent” variables variation . Especially, one can attempt to explain why it is happened something different from that it was logically preview by the actuals theories in the respective research field. As it is known from any scientific assertion one can deduce how much as he can implications, which constitute preview as conditional judgments, for the happening of determine events, if some conditions it will fulfill. In accordance with these

implications, it is possible to happen, if the conditions are accomplished (this is the case of astronomical observations), or we have to complete them (in the case of any experimental situation), the previewed event by them. If it is not happened this event, but something different, especially in opposite to them, here we are in a problematic situation on the respective scientific field. It is needed to choose between the conditional judgment which asserts a possible happening of an event and the judgment of fact which asserts the happening of something different (or in opposite) to it. Here we are two phrases which instantly give two different assertions about the same thing, in the same direction. This situation is unacceptable by the principle of logical non contradiction given by Aristotle. In addition to this principle it is needed to accept only one of these phrases. The question is: which of them. Usually, one may carefully check if there are fulfilled the conditions including in the assumption. In the case of not fulfilling all conditions, ordinarily you may consider the non-achieving of the theoretical assumption. Otherwise, if these conditions are all fulfilled (being included inside the exactness of achieved measurements), you have to accept that the assumption is not fulfilled and it is needed to consider as right the fact judgment raising from empirical observation (or experience). In this case it is needed to explain why did not realize the event previewed by theory. And so we arrived at so called “research

question". As an answer it is needed to assumption some (even only one) causes or reasons explaining why did not happen the event previewed by the theory. Here we are the needed elements for constructing an explanation structure: i.e. there are the cause(s), the effect (the event observed), and their "linking bridge" (causal linking). So here we are explanation factor (explanan/s), the event to be explicated (explanandum) and the explanation process (explicandum). If one joints these elements to construct the explanation structure, of course respecting some rules enabling its empirical testing (aiming in essence to avoid the influence of unconsidered factors), he will gain an assertion constituting an answer to research question. We may agree to call such a phrase as hypothesis. But in this case an implication will be imposed to the hypothesis: the realization of an explanation process and in addition to it the need to have an explanation structure. I.e., the need to have at least two variables.

So, in framework of a functional approach a hypothesis phrase has to accomplish an explanation function and this impose its structure different of an assumption phrase. As it is known an explanation structure necessarily needs at least two variables in a causal linking. This is the reason for giving the proposal to do not consider as hypothesis any one not having an explanation structure, i.e., especially whose having only one variable . Usually in research methods are considered as hypothesis the phrases having at least two variables . But it is possible to find some proposals considering as hypotheses also assertion with one variable. Sometime they are called as « existence hypotheses » and are used for the descriptive research procedure . In a formal generalizing point of view including any assertion with one variable, you may consider such a generalization as a good thing. But, if this suggestion is accepted it is needed to let aside the request for the hypothesis to accomplish an explanation function, because in this case it would be not possible to fulfill the conditions of an explanation structure. As you know we refer

to a hypothesis for helping us where we need to explain something. I.e., we ask to it to accomplish an explanation function which is impossible if the assertion proposed as hypothesis has only one variable. Of course such an assertion can achieve the other scienceness condition, which by K.R.Popper, is the acceptability toward empirical testing. That means one may deduce from it the implications which accept direct empirical testing. But such a condition can also be achieved by the assertions as conjecture which have only one variable and can explain the structure of an event. Even from such assertions one can logically deduce the implications which accept direct empirical testing. Nevertheless the achieving of this condition lets them only the being of scientific assertion, but not as hypothesis assertions which constitute the explanation function.

Even though do not explain, the conjecture assertions are important and sometimes very important. This is because of their ability to describe the situation or the structure relationships of a system or event. For example, the panel type experiments carried out at Political Sciences Department in Tirana University about the nature of value profile for social actors of Tirana city are based on the empirical testing of some implications deduced from a conjecture assertion. More concretely, these experiments, which results are exposed as paper on the sections of Alba-science conferences, aimed to empirically testing two implications suggesting the having or not of an unique value profile of "any color" (materialistic or post materialistic) for the mentioned social actors.

Also is the same for the case of experiments belonging to the fundamental type, that means which measure the error done during a determine procedure of measuring in social sciences, they are based on one or some conjecture assertions. For example, when it is needed to measure with ad hoc procedure the error putted by the systematic sampling without considering the anonymous of respondents, the

base conjecture asserts in the case of delicate questions the introducing of an added error produced by the absence of sincerity on the respondent's answers. Meanwhile in the case of the measuring error putted by the quota sampling, as the base conjecture is considered the assertion that the mentioned error's marge comes out from the differences on the answers of homologous questions (done following a systematic sampling and quota sampling), after avoiding the statistical error produced by the systematic sampling.

Based on a functional approach any hypothesis phrase has to accomplish an explanation function which makes difference with a conjecture phrase.

Our suggestion is to don't consider as hypothesis phrase any one not having an explanation structure, i.e. which possesses only one variable.

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