

## 4 Experience of Self and Scientific Objectivity

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Prior to 1968 our institute regularly observed the beginning of the new semester by holding a tea party. In an atmosphere of candlelight and biscuits, first-semester students were introduced to the faculty members and encouraged to feel at home with the study of psychology. On these occasions the director of the institute at the time made a humorous little speech, the quintessence of which was the following. Beginning students should forget everything they had previously heard or believed about psychology; from now on everything would be different. Especially they should abandon any hope that the study of psychology would have anything to do with them<sup>their</sup> personal experiences and problems, or be able to help them in overcoming individual difficulties or anxieties. Such expectations were prescientific and would prove, more likely than not, an obstruction to the acquisition of an acceptable motivation for study. Rather it was important to understand that psychology is a science like all others and, as such, concerned with *objective* knowledge, and that whoever wants to learn and practice this science must accordingly put aside *subjective opinions*, that is, what one thought one knew from one's own experience, in favor of what was now designated as the scientific **aspiration** for knowledge ... and so on and on in this vein.

Words like these by our former director still describe the\* methodological self-understanding of mainstream scientific psychology. But a great many students and an increasing number of psychologists can no longer reconcile themselves with the demand to deny the subjective as a necessary presupposition for scientific psychology. Indeed, whole branches of psychological research and practice must be put into doubt by such a conception of method, especially clinical psychology, which can less and less make do without drawing and reflecting upon self-experience, including that of the therapist. To pronounce such practices unscientific provides scientific-theoretical consecration to the de facto split between basic and specialized study and to the underlying

division between scientific and applied psychology. What's more, it asserts the split as necessary and immutable. So it is no wonder that in recent times distinct alternative conceptions of psychology that introduce subjectivity, everyday life, and spontaneity as objects of psychological investigation have emerged and become widespread.

What remains unclear, however, is how the inclusion of subjectivity in psychology as advocated by these conceptions squares with the demand for scientific objectivity. Does the assumption remain that subjectivity and objectivity are exclusive of one another, and is one thereby forced to reject or limit psychology's claim that it is scientific for the sake of subjectivity (as implied by the well-known dictum of humanistic psychology that American psychology exaggerates its scientific nature)? Or is it possible in psychology to develop a concept of scientific objectivity that does not require the elimination of subjective self-experience? We might even ask whether traditional psychology has actually achieved its aspiration to scientific status at the expense of subjectivity.

Questions like these are seldom precisely put, let alone adequately answered. It is therefore still necessary to consider subjectivity as a problem of psychological method. I hope that the following preliminary observations will help to achieve some clarity on this issue.

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First, the scientific postulate that objective knowledge in psychology requires the exclusion or control of subjectivity demands closer examination. How is this postulate justified in current experimental-statistical psychology? What conceptions of subjectivity are assumed? And to what extent is the claim actually warranted, that scientific rigor and certainty have been achieved in psychological research by the elimination of the subjective?

With the customary experimental-statistical method of investigation, there are supposed to be tests of theoretical assumptions about the connection between the conditions in which individuals are placed and particular forms of individual behavior. The experimental conditions are operationalized as independent variables; the forms of behavior, as dependent variables. The procedural precaution of experimental control of variables is intended to ensure as far as possible that the data regarding the behavior of the subject are not influenced by factors other than those experimentally introduced, that is, are not influenced by "disturbing variables," since the findings are actually interpretable as an empirical test of the respective theoretically assumed connection only when such influence is minimized. According to current understanding, adequate control requires the use of frequency distributions, usually obtained

by investigating several individuals under identical arrangements. Since control cannot eliminate extraneous factors completely, the experimental behavioral data (dependent variable) normally come out as a "scatter\*" distribution about a average value, such that it is impossible to judge by mere visual inspection the extent to which they are related to the experimental arrangements (independent variables). At this point another statistic enters the picture: the so-called inferential statistic, which interprets the scatter distribution in terms of the chance variability of independent elements and on this basis applies certain constructs from probability theory in order to ascertain the probability with which a confirmation of the test assumptions may be taken from the experimental data (or according to the traditional "null hypothesis\*" logic, the probability with which the opposing hypothesis that the distribution of experimental behavior data vary only in a chance way with respect to the introduced experimental arrangements can be rejected).

We have called this experimental-statistical procedural scheme **variable-psychology**. What is meant by this is the logic of psychological research just sketched. Variable-psychology arose historically as a consequence of functionalism-behaviorism, and although it hardly describes the methodology of all psychology, it still forms the core of academic psychology's conception of what constitutes its scientific nature. Variable-psychology, either as explicit or implicit research logic, is thus not characterized by a unitary conception of theory. On the contrary, the theories that fall under this rubric have been quite various. What is crucial, however, is that although the theories may range widely *in content* beyond the limits of variable-psychology, they are reduced by the variable-scheme in their empirical reference when they come to experimental testing, such that the distinctive theoretical content necessarily becomes "surplus meaning," lacking empirical support. Thus in methodological discussions it has been proposed that this surplus meaning be omitted, and this, in turn, has been opposed by those who understood that the substantive significance of psychological research would thereby be sacrificed. It is not possible here to discuss all the complex effects of the **variable-scheme** on the character and history of theory in psychology.

From this rather brief description of variable-psychology's research logic, should be able to formulate its methodic grounds for excluding subjectivity for the sake of scientific objectivity. Subjectivity, as it is understood here, is the main source of the extraneous variation that must be eliminated or neutralized if the experimental-statistical testing of theoretical assumptions is to be possible in the manner we have described.

With the improvement of variable-psychological procedures, it has become increasingly clear that even the subjectivity of the experimenter can in various ways become a source of extraneous variation. As a result, all sorts of

precautions have been introduced with the aim of controlling the influence of the experimenter and his or her expectations by standardizing or reducing contact with experimental subjects. But the ideas of variable-psychology about the subjectivity of the research subject as a source of error variance have been much more important.

Quite independent of how far a theory may appear to have gone beyond behaviorism, if it is governed by the variable-psychological **experimental-statistical** schema, the fundamental methodological assumption of behaviorism will be found concealed within it. This is the assumption that only stimulus conditions and externally observable behaviors are intersubjectively accessible. Subjective experiences and consciousness are accordingly treated as if they were private affairs of the individual, given only to the individual and therefore neither intersubjectively accessible nor scientifically **objectifiable** or generalizable.

Within the variable-schema the following picture emerges: Between the objective, scientifically accessible instances of stimulus conditions and behavior, that is, between independent and dependent variables, understood as measurement values in space and time, resides the subjective experience of consciousness of the experimental subject, about which, it is asserted, nothing immediate can be known or said, and which accordingly is designated by the lovely term “black box.”

The multifarious gaps and contradictions that have resulted from the discrepancy between theoretical proposals on subjective, experiential states such as anxiety, emotionality, motivation, and so forth, and the methodological denial of their immediate empirical comprehensibility (as a hypostatization of the black box), has led to extended and complex controversies around concepts like “hypothetical construct” and “intervening variable.” I need not elaborate on this here. In the present connection we are interested only in how the subjectivity of the experimental subject, thus understood, appears as an extraneous factor to be eliminated.

Subjective experience, consciousness, and so on, of the experimental subject generally do not appear within the conceptual world of **variable-psychology** as an error factor. They may even be accepted as an actual theme for theoretical development, **as long as** it is possible to assume that they are governed by the introduced independent variables. Indeed, one cannot peer immediately into the black box, but one can draw conclusions or guesses from what goes into the black box and how it comes out about what must have happened inside and then compose one’s theoretical verse from that. The matter becomes problematic only when one does not close one’s eyes to the fact that in psychological questions, except perhaps those concerned with automatic physiological responses, the conditions introduced by the experimenter

do not have their effect directly upon the subject, but rather only to the degree that, or in the manner determined by how, they are apprehended by the subject and then converted into activity. Consciousness includes the fact that subjects can consciously relate to the experiment and the experimental conditions. But if this is so, then the presumed objective stimulus conditions must, in a certain sense, **pass into the black box**. One does not know whether the subjects are really following instructions and reacting to the stimulus conditions or, instead of pressing the key when the left of the two “presented” lines appears longer, are orienting with their key pressing on some internally conjured state of affairs. One therefore also does not know whether the objectively observed behavioral data actually count as a test of the assumed connection **operationalized** by the experimenter or of a quite different, unrecognized hypothesis residing in the subject’s head. It is clear that subjectivity or consciousness, in the sense of individuals possibly relating spontaneously to the experimental arrangements, must be an error factor of the first magnitude for variable psychology. As such, subjectivity could be said to become *really* subjective, or the black box becomes *really* black.

So it is no wonder that an entire branch of research activity has emerged dedicated to solving the problem of how such an “extraneous” subjectivity can be eliminated or controlled. Within this branch of endeavor, known as the ‘social psychology of experiments,’ some researchers investigate experimentally the conditions under which experimental subjects develop their own hypotheses, which deviate from those intended by the experimenter. Others correctly conclude that this procedure is circular since the subjects can also formulate their own hypotheses in these new experiments. Some researchers appear to hope that they can get a grip on extraneous subjectivity gradually by means of increasingly refined manipulations and deception strategies and thus perpetuate the variable-psychological research logic. Others conclude correctly that what is involved here is a problem that, in principle, cannot be resolved by any immanent improvement in experimental technique. **The** contradictory nature of this dispute can be summarized as follows. On the one hand, penetrating analyses of the experimental situation bring us repeatedly to a questioning of the soundness of the variable-schema itself. On the other hand, one hesitates drawing the necessary conclusions owing to the absence of a visible alternative to the understanding of science contained in variable-psychology, and – against better judgment – the search for internal solutions continues. **I** will not pursue this further here.

Another aspect of the methodological necessity to eliminate subjectivity for the sake of scientific objectivity as required by variable-psychology emerges from the application of inferential statistics. Claims about the empirical verification of assumed connections are only possible according to this research

logic when the random distributions conform to the minimal assumptions required for statistical test procedures. Psychological hypotheses therefore concern not each individual's subjectivity, but rather the statistics (means, variances, and so forth) in which distributions are reductively described. Ordinarily **such values characterize distributions of data that several experimental subjects have produced under identical arrangements.** But even where the very same **subject has produced data** in the so-called single-subject design and these are presented in a distribution, it is not "I" as I experience myself and my world here and now that is represented; rather, values are calculated from my life situations and translated into distributional characteristics in order to make them amenable to statistical evaluation. From all this it is evident what was meant by our former institute director in his speech to the students: **I myself, in my concrete subjective life situation, in fact do not appear in the hypotheses of variable-psychology. Data about my person, my subjective experiences, my present situation, and so on, assume only the form of isolated particulars that appear as elements** in the distribution and disappear hopelessly and irretrievably as *experimental data* in the distributional statistics with which the hypotheses to be tested are concerned. A further aspect of the understanding of subjectivity that places it into opposition to scientific objectivity is the idea that subjectivity is the merely particular, the individual, which must be sacrificed for scientific generalization, conceived as statistical or frequency generalization.

In such conceptions, contradictions between the variable psychological view of scientific objectification and generalization, and the theory and practice of clinical therapeutic treatment, which obviously has to do not with statistical values, but with particular clients and their concrete life situations, become especially clear. It becomes understandable why, for example, the old idea that behavior therapy is simply an application of experimental learning research had to fail. **On the whole, controversies of the sort represented by the catchphrase "clinical versus statistical" are simply a new variant of the contradictory constellation we have described.** In fact, it is clear that the variable-psychological approach as a method cannot begin to grasp clinical practice **in spite of this, the presumed equation of variable-psychology with science has inspired all manner of direct and devious means to trim here, compromise there, and so on, all intended to legitimize therapy as a variable-psychological procedure.**

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As can be seen from the foregoing, variable-psychology, with its premise that objectivity can only be achieved by the exclusion of subjectivity, finds itself

faced with multifarious problems and contradictions. To be sure, this alone would not speak against it if one could at least move in the direction of the desired goal. Its advocates might be seen as conducting a courageous struggle for more rigorous science on difficult terrain. **But** whoever takes an unprejudiced look at research as it is guided by variable-psychology must conclude that **no such claim is justified.** The attempt has indeed been made to exclude **subjectivity, but in no way has objectivity,** in the sense of an unambiguous empirical reference of tested hypotheses, thereby been achieved. Rather, the *interpretation* of respective research results has obviously been to a large extent arbitrary. There are enormous quantities of experimentally produced and statistically tested findings, but one cannot 'claim to know what they really mean. Moreover, while in variable-psychology there are criteria regarding how to plan and evaluate experiments, there are absolutely no unambiguous criteria regarding the admissibility and adequacy of *interpretations* of the findings. Consequently, when, as is ordinarily the case, statistically secured findings are taken as verification of the experimentally operationalized theoretical hypothesis, this is done only because, from the start, no consideration is given to equally likely alternative explanations. Such an alternative may, however, be considered by the next experimenter, who will then find equally empirical verification for his or her explanation, which will prove to be just as arbitrary, and so forth. Accordingly, when a hypothesis cannot be verified empirically, one need not be disappointed; nothing stands in the way of citing numerous reasons why the hypothesis should come to nothing in these particular circumstances, and, too, it is only a matter of intellectual agility and imagination to represent apparently negative results as actually a tendency toward verification of the hypothesis. So the usual articles reporting experimental research are a mixture of presumably "hard," statistically tested data and more or less "soft" talk about what the data mean theoretically. The fact that for lack of firm evaluation criteria one theoretical explanation appears to be just as good or bad as another is surely one of the most important characteristics of the present state of affairs in psychology, as even those in the variable-psychology camp have repeatedly recognized. This is the state in which there exist row upon row of incommensurable minitheories without decisive empirical backing for their validity; fashionable changes in theoretical trends take the place of demonstrable scientific advance.

Why is it not possible in variable-psychological research to interpret results in a sufficiently reliable and unambiguous way; that is, why has scientific objectivity not yet been achieved? Is it because eliminating or controlling with adequate effectiveness the extraneous subjective factors has not been possible? Has the missing theoretical certainty nothing to do with the objectifying attempts of experimental-statistical planning? Or does there perhaps exist a

necessary connection between the means by which subjectivity is supposed to be eliminated and the extensive uninterpretability of research findings arrived at by these means? I believe this last suggestion to be the right one, and I shall now try to show why.

I assume it to be the case that in everyday life, too, people form hypotheses of some sort about other people's subjective situations, motives, and reasons. Such hypotheses are correct and empirically confirmed at least to the extent that we are able to conduct our lives in common. How can this be? In short, because our daily world consists of a generally accessible *social nexus of meanings* in the sense of *generalized action possibilities*. When other people realize such action possibilities, their actions and subjective situations also become meaningful for me, that is, understood as *grounded*. For example, if I see someone approaching with a hammer in hand, a nail between his teeth and a picture under his arm, it is normally clear to me from our common experience in life that he wants to hang the picture. His inwardness is thus for the most part no problem for me, since what he at the moment feels, thinks, and wants, externalizes itself in its practically relevant aspects for me out of his meaningful action. If he does something unexpected (contrary to hypothesis) puts the hammer away, spits out the nail, leans the picture against the wall, and walks quickly away – then he is still not really puzzling or incomprehensible. I assume that I am unaware of the particular *premises* of his new action, which nevertheless remains in principle understandable for me. I therefore ask him, in case he has not already offered some pertinent explanation, “What are you doing?” He will probably reply, “The milk’s boiling over,” or something of that sort, and with that, things are again clear to me. But even if he does not answer, although he must have heard me, there normally remains in everyday practice an easily testable hypothesis stemming from our common context of life and meaning. Perhaps he is not talking to me; he is still angry about yesterday. Even the extreme case of an inwardness that is shut off from me does not signify incomprehensibility or meaninglessness, but may even possibly have an especially serious and momentous meaning within the context of our shared life.

I need not describe this conception of intersubjective context of meaning and reasons more precisely. It has been developed elsewhere in great detail (Holzkamp, 1983). It already follows from what has been said here that the inaccessibility of the inwardness of the other person, which is designated by the term *black box*, is in no way a general characteristic of interpersonal relations, but is rather a deficiency of intersubjective understanding artificially produced in the variable-psychological experiment. It is this deficiency that includes directly within it the impossibility of unequivocal theoretical interpretation. Since, in keeping with the variable-psychological understanding sci-

entific objectivity, the experimenter may consider the behavior of the subject only insofar as it is understood as conditioned by the manipulated stimulus situation (independent variable), the framework for understanding intersubjective contexts of meanings and reasons that I have described will systematically and necessarily be overlooked. As the experimental reality, which in fact consists of meaningful generalized action possibilities for the subject, is only recorded in its numerically measurable characteristics, it is impossible for the experimenter to grasp the activities of the subject as grounded in such generalized (and thus, to the experimenter, accessible) meaning references. Given the experimenter's position, it is impossible for him or her to initiate *process of intersubjective understanding* such as I have described, which would clarify and render unambiguous the subjective situation of the other as an aspect of the experimenter's particular way of realizing meaning through action. One consequence of this is that the black box is constituted as the embodiment of the subject's subjective experiences and situations, which *must* become an inaccessible, private inwardness in the variable-psychological order of things because they are cut off from their objective, intersubjective reference of meaning. A second consequence is the impossibility of unequivocal interpretations of findings. All the mediating processes to which I have referred and through which my situation becomes intersubjectively accessible as an aspect of my socially meaningful actions are here excluded. There thus remains between the measured stimulus conditions and externally measurable behaviors of the subject a great empty space that can only be bridged “free-floatingly” with more or less unsupportable speculations about what may have been going on inside. The black box as supplier of uninterpretable data is therefore the result of procedural requirements in which the possibility of finding out anything about the subject and his subjective situation is deliberately and systematically removed from the experimenter.

This dilemma can be illuminated from another side if we consider the obvious protest that it is erroneous to assert, as we have *done*, that the experimenter is cut off from the intersubjective understanding\* process. He or she is able during the experiment or afterward to ask about the respective situations. In fact, such postexperimental questioning is often used in variable-psychological research, But what exactly is gained thereby? There are two possibilities here. In the first, the questioning occurs, so to speak, outside the official program, that is, outside the variable-psychological experimental design. In this case the results of the questioning are not under the control of the stimulus conditions and have therefore nothing at all to do with the testing of the hypothesis about the connection between independent and dependent variables. At best they are suited to the illustrative garnishing of the as ever – equivocal theoretical interpretations, or they fulfill merely an alibi

function, by which it is concealed that in the actual experiment the *subject* had nothing to say. In the second possibility, the questioning is introduced as a part of the experimental design and test of the hypothesis. This has to do with verbal responses as a dependent variable that, again, can only be interpreted in light of the independent variables as quantifiable stimulus conditions. The dilemma is therefore not overcome, but is rather reproduced. Owing to the variable-psychological reduction of humans acting in the contexts of intersubjective societal meanings to “conditioned” subjects, the interpersonal processes of understanding within which the reciprocal clarification of the subjective situation of the other person in the context of action can be achieved are fundamentally suspended.

In summary, if an experimenter would just give a little thought to the fact that he or she is a person and thus affected by personal hypotheses, and if this experimenter would ask the variable-psychological question, “Do people do this or that under these and those conditions?” then he or she would have to see immediately that the question in this form is unanswerable. What one does is determined by one’s real action possibilities within the concrete intersubjective life context and is accordingly, quantitatively and qualitatively, hopelessly underdetermined by what the hypothesis refers to as “stimulus conditions.” If this is so, then the actions of other people must, insofar as they are understood merely as dependent variables related to stimulus conditions, necessarily be uninterpretable. (By the way, concepts such as Skinner’s “operant conditioning” are not exempt from this judgment; in his case “operants” are indeed conceived of as spontaneous acts whose frequency of occurrence is, again, simply seen as conditioned by their experimentally arranged consequences – which I shall not discuss further here.)

The reasons for the scientific arbitrariness of theoretical interpretations of variable-psychological findings become evident on yet another level when the question of *statistical verification* is considered. It was alleged earlier that, in the interest of their testability and generalizability, theoretical hypotheses cannot refer to individuals or to concrete individual life situations, but only to values in statistical distributions. A statistical average, for instance, comes into existence when characteristics identifying various individuals or situations as similar elements in a distribution are taken from them and certain procedures are employed to calculate the central tendency of the quantitative expression of these characteristics. In this way, the respective particulars of the concrete historical life context are reduced to mere quantitative differences with respect to a homogeneous characteristic and are thus torn from the only context within which they are comprehensible as intersubjectively meaningful. What’s more, the average thus calculated is nothing more than a statistical artifact, a *fictional value*, immediately corresponding to nothing in psychic

reality. The characteristics of the real experience and subjective situation of a concrete subject represent, even in their quantitatively reduced form, only the distributional elements from which the statistic was calculated and which becomes the basis for the statistical judgment; they themselves have disappeared. Although the researchers may want to interpret the calculated statistical values (or their relation to one another) theoretically, they must nevertheless act and talk as if they were able to refer to the unity of subjective experience of the world and of self. Otherwise psychological interpretations would not be possible. It makes no sense, for example, to speak of anxiety without presupposing that a particular person in a particular situation *has* anxiety. Variable-psychology, then, creates an artificial nonperson by means of measurement-bound statements, a statistical ghost as the location in which the assumed psychic processes are actually supposed to be found. This statistical ghost is, like all ghosts, a totally abstract being; we do not relate to it in any life context. We do not know its concrete circumstances of existence, and we can say nothing about it that reflects reality. This is true not only for the interpretation of averages, but for the theoretical signification of all statistical values, including complex ones like factor loadings. The adventurous caprice with which factors are named is so obvious that even some factor analyzers have begun to see it. And so it is clear what has come of the attempt to overcome the presumed mere particularity and contingency of individual subjectivity by means of statistical objectification and generalization: One went out to search for what was general and found – or better, invented – the variable-psychological homunculus.

I hope that these considerations have helped to make it clear that my earlier claim about the arbitrariness and unfoundedness of variable-psychological theorizing was in no way a merely personal impression or a mean-spirited exaggeration. From various aspects of the variable-psychological research logic we are brought to the conclusion that the elimination of individual subjectivity, thought to be necessary for methodological reasons, entails **the uninterpretability**, and thus a lack of scientific objectivity, of the data **thereby** obtained. It would be interesting now to pursue further how one might try to reduce the interpretational uncertainty by means of recourse to a vulgar everyday consensus, disregarding the concrete living conditions of the subject, or how one might make an effort to reduce the theoretical equivocality by means of secondary rules of interpretation pertaining to closed artificial languages invented for this purpose on the occasion of any and every theoretical minitrend. But the terminological certainty sought in this way turns out to be “lifted by its own bootstraps,” because the superordinate interpretation rules themselves are not objectively grounded, but merely of traditional or conventional character, and so on and on.

I cannot, however, avoid the question about the consequences of my analysis. If it is correct that the variable-psychological street is a dead-end but **one wishes nevertheless to maintain a claim to the scientific nature of psychological practice (if only to prove the responsibility of one's practice to the subject), then it must be possible to establish a foundation for scientific objectivity and generalizability without the variable-psychological elimination of subjectivity. But what would such a foundation look like?**

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**This much should be clear: Nothing is accomplished by simply excluding the experiment and statistical analysis from psychology.** Our critique has been directed **only at the ways** in which the experiment and statistics are used in **variable-psychology, namely as methodological expression of the dogma of "people as conditioned."** If the arbitrariness and unfoundedness of psychological theorizing are to be **overcome, then the action of people in the intersubjective societal** nexus of meaning, and with it the subject's experience of self and world, **with individual consciousness as its location, may not be reduced** in any respect **for reasons of method. If psychological results are to be scientifically interpretable, the subjective self-experience as we have understood it must rather be presupposed as the absolute foundation of all methodic arrangements for achieving a scientific status** for psychology. Since self-experience or consciousness are always "my" experience or "my" consciousness and thus are, so to speak, first-person in their **givenness**, an alternative to **variable-psychology as psychology from an external standpoint would be a psychology from the standpoint of the generalized "me."** This, naturally, is not to speak of anything like solipsism, but rather of what is expressed in each and every "me," to emphasize that social relations at the human **level are intersubjective relations, that is, relations** in which different subjective "centers of intentionality" are related to one another. Thus at any given moment, in that **perceive the other** person from my standpoint, **I** perceive at the same time that he or she perceives me from his or her standpoint as someone who is perceiving him or her, and in this sense our perspectives cross over into each other.

Thus if one understands psychology as an intersubjective science, or (since subjectivity always implies intersubjectivity) more briefly as subject-science, this means that, as a researcher, one does not relate one's theories and procedures merely to others, keeping oneself out of it, but rather sees oneself as a subject fully involved in them. Since intersubjectivity is the specifically human level of relating, in a psychology that does not want to miss this level, not **only the subjectivity of the other, but also the overlapping subjectivity of the researcher, will belong to the empirical** that it is psychology's job to re-

search. This also means that subject-scientific theories and procedures are not "about people, but rather "for" people. They serve (in favorable cases) each "me" in clarifying and altering "my" own experience and life practice.

Out of the subject-scientific position comes what in this connection can alone be called *scientific objectivity and generalizability*. "Objectivity" and "subjectivity" are to be understood in their relation to one another, such that objectivity is not attained at the cost of subjectivity, but rather means "objectification of the subjective." And "**generalizability**" is to be understood in relation to me as a single individual and to my immediate experience, such that the "generalization" does not lead to the disappearance of the individual, but rather means the "generalization of the individual."

Surely many will be at a loss to imagine how a subject-scientific program that **sublates** the opposition between objective and subjective, between the individual and the general, can be realized. In order to overcome this helplessness, it is necessary, first, to take leave of the idea of a necessary solipsism, inaccessibility, and impenetrability of subjective self-experience and individual consciousness as it is expressed in variable-psychology by the black box. One should then examine more closely the earlier discussion in which **I** tried to show that human actions and the subjective situations in which they are grounded are realizations of general societal action possibilities that, insofar as they are meaningful for me, have in principle meaning for others as well, and that this intersubjective context of meanings and reasons cannot be seen in variable-psychology **because** it has been methodologically eliminated. When one thinks this through further, it becomes clear how under the presupposition of such intersubjective meaning contexts the **problem** of objectification and generalization should be approached. My subjective self-experience is indeed at the moment given only to "me," but it is nevertheless not exhausted by that, but rather, as an aspect of the subjective aspect of my action, only an individual variant of **experience**, which in its general characteristics is related to objective societal action possibilities and the concrete-historical obstacles and contradictions connected with them. Therefore, in **most** personal experiences **I** am, through the societal relations by which the **possibilities** and necessities of my action are determined, connected to other people who see themselves facing the same possibilities and necessities in their actions. Consequently, insofar as the manner and means of my personal assimilation and transformation of concrete social action possibilities and limitations are understood, my experiences are objectifiable and generalizable *as* subjective experiences within this context of intersubjective experience.

When we speak thus of generalization, it is certainly not to be understood as frequency generalization from samples to populations. *Generalization* here means recognizing and accounting for those mediational levels and aspects by

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which each particular case of subjective-intersubjective experience or situations is understandable as a special manifestation of a general case. This kind of generalization, which we distinguish from the statistical form (frequency generalization) by calling it *structural generalization*, is nothing exceptional in sciences other than psychology. For instance, a physicist who tests the law of falling bodies and obtains a measurement that deviates from the general formula  $v = (g/2)t^2$  can nevertheless understand it without much ado as a particular instance of a strictly valid general law by accounting for mediational factors like friction or atmospheric resistance. It would never occur to the physicist to let the object fall a hundred times just to be sure, to form a distribution of the obtained measurements, calculate an average and variance, and proceed further in this manner to test statistically the law of falling bodies. The universalization of that kind of procedure as the scientific procedure par excellence was reserved for variable-psychologists.

Now if we are to develop structural generalization as a subject-scientific procedure, we must proceed from the fact that it is not immediately apparent that, and at what levels, my everyday subjective situations are mediated by various levels of generalized, societally determined possibilities and limitations of action. Only because of this is a scientific analysis at this point necessary and possible. (According to Marx, science would be neither necessary nor possible if essence and appearance were identical.) In the everyday practice of life the generality that lies within my experience asserts itself there and in my thinking only sporadically and piecemeal. Thus I also recognize my connectedness in experience with other people in societal situations like my own and with resulting interests like mine only as a partial and occasional penetration into the seeming privateness of my subjective situation. The causes for this deficient clarity of the general societal connections of my subjective situation lie in the particular characteristics of individual life practice, especially in its "private existence" in bourgeois social relations.

The general aim of subject-scientific research is therefore to work out in a general way the *mediating levels* by which the experiences of subjects under particular contradictory social relations can be understood as special individual instances of certain objective possibilities and limitations of action. This is equivalent to working out the common action possibilities and necessities within respectively analyzed social constellations. The interest *knowing* for subject science thus proves to be a generalized form of the individual interest in expanding control over conditions of existence, thereby improving the subjective quality of life.

In order to realize the subject-scientific program, it is above all necessary to have carried out the historical-empirical derivation and grounding of *categories* with which subjects can adequately grasp the levels and aspects of the

mediation of their experiences with general social relations. (Similarly atmospheric resistance and friction as mediational levels between particular instances and the general law of falling bodies are not self-evident, but the outcome of a long scientific process.) The well-grounded elaboration of such a subject-scientific system of mediational categories has been the chief occupation of Critical Psychology for a long time. Centered around the fundamental categories of "societal meaning" and "subjective action potency" and working from the point of view of mediation between social and individual existence, new definitions of psychic functions like cognition, **emotionality**, and motivation have been developed as aspects of subjective-intersubjective action potency, and new foundations have been laid for understanding personal conflict, defense mechanisms, and the unconscious.

Recently the implications of the results of **category** analysis for an appropriate *system of subject-scientific research methods* have become increasingly clear to us. We have come to recognize, for instance, the important role that a scientific approach to practice plays in the testing and objectification of subject-scientific theories. For its part this has meant the possibility of overcoming the separation of basic scientific psychology and psychological practice, since research and practice prove to be only different emphases within a unitary scientific process. What we understand of this has been presented in the ninth chapter of my book *Grundlegung der Psychologie*. Newer aspects are being presented and discussed elsewhere (Holzkamp, 1983).

## 5

If we stand back to ascertain more precisely Critical Psychology's historical position, a position outside variable-psychology but within psychology, a number of interesting connections become evident. For example, one notes with interest that **Wundt** had specified immediate experience as the subject matter of psychology; are approaches to an understanding of **consciousness** as a medium of interpersonal world experience already to be found there and then buried by variable psychology's privatization of consciousness? Likewise, in regard to **Lewin's** old critique of thinking in terms of frequencies and averages and his idea of rising from the single case to the "pure case," could it be that possibilities of avoiding the variable-psychological dead-end might be found there, although **Lewin**, in emigration, had lost sight of them under the pressure of behaviorist ideology in the United States? One notes further that **Piaget** discovered obviously significant principles of lawful cognitive development without the least **statistical** finery simply by interacting with his own children. Does it perhaps have to do here with experimental arrangements that did not succumb to the variable-psychological reduction, but in the hands of the

subjects were able to yield important contributions to subject-scientific knowledge? One might even be tempted to look again more closely at the so-called *verstehende* or *geisteswissenschaftliche* psychology: Was it perhaps swept prematurely from the stage of scientific debate by a psychology that wanted to act as if it were a form of "natural science"?

Together with a review of this sort, one ought to analyze closely the contemporary parallel attempts to develop an alternative to variable-psychology, such as action research, ethnomethodology, phenomenological psychology, qualitative social research, biographical research, and critical hermeneutic: To what extent are these approaches making compromises with variable-psychology on purely eclectic grounds? To what extent are they moving in the same direction as our approach, such that a reciprocal promotion of scientific developmental work might be possible? And are there perhaps totally different yet well reasoned and promising alternatives to the variable-psychological dead-end that should be taken into account? We would be interested in getting clear answers to questions like these.