

## Common-sense and truth.

By

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### I.

The number of so-called »theories of truth» is — as all interested in philosophy know — very big. Less considerable is the number of theories concerned with the notion of truth among people, who are not (supposed to be) philosophers. I shall call these later theories »common-sense (cs-) theories». There are theories about a »Volks-wahrheit», »Wahrheit der grossen Haufen», »Wahrheit des Kindes» (Heinroth), »truth as viewed by all people» (Beattie), »the popular use of 'truth'» (Brandt), »'Wahrheit' in üblicher Bedeutung» (Carnap), »'Wahrheit' in der Umgangssprache» (Carnap, Tarski), »la notion commune que la conscience humaine se fait de la vérité» (Leroux) and of a group of other subject-matters. They may seem little connected with each other thus enumerated, but as a fact, the discussions centering around formulations of this kind are carried out *as if* they all were dealing with the same subject: the one is found »better» than the other, some are »refuted» by some others etc. It is further not uncommon to find references to »that which is limited by the bare meaning of the words true and false» (Husserl a. o.) to truth as revealed »wenn man einen Bauer fragen wollte» (Lossius) or to truth »if common sense had been asked to formulate» it (Marhenke). These references are observable in the discussions going on about »truth» and might give the impression that some sort of investigations have been carried out, for instance, systematical observations how the word »true» is used, or inquires into the type of answers got, if one's non-philosophic environment is requested to define »truth». This impression is, however, apt to fade away as soon as one reads some

too theories and observe how the authors contradict each other, how they fit their cs-theories into their general theories of cognition or of reality and how they seem to avoid any actual description of experiments what so ever. I think that even superficial questioning of non-philosophers make it hard for anyone to believe that the philosopher has got his »knowledge» about peasant's and other's use of the word »true» — or about the views of non-philosophers on the notion of truth — by asking any other person than himself. If they, for instance, have given their wives and their assistants the occasion to utter what think about the matter, or if they have asked a philologist, how could they write as they have done? This is a hard psychological problem and I shall not try to defend any special solution of it.

It is not the place here to describe the philosophical cs-theories. To aid the unexperienced reader we shall quote some at random:

»Every belief asserts that something (in the widest sense of something) possesses a quality, or is connected with something by a relation. If the belief is true, then that thing does possess the quality or is connected with something by the relation. The possession of such a quality, or the connection by such a relation is a fact, according to our definition. And if the belief is true it will correspond to the fact». »If common sense had been asked to formulate what is to be meant by the truth of a belief, this is probably what it would have written, just as it would have agreed to McTaggart's definition of the falsity of a belief».<sup>1)</sup>

«— — de beaucoup les plus nombreux traducteurs fidèles du sens commun, caractérisent la vérité comme un accord de l'idée et de la réalité, une relation de correspondance entre notre pensée et son objet, — ».<sup>2)</sup>

According to Richter<sup>3)</sup> there are some characteristics of truth which are fundamental and generally accepted. These are — among others — »Unveränderlichkeit der Wahrheit und deren Evidenz für alle Subjekte».

»Le sens commun appelle *vraie* toute idée conforme à la chose

<sup>1)</sup> Marhenke, Publ. Univ. Calif. 11, p. 169.

<sup>2)</sup> Leroux, Le pragmatisme américain et anglais, p. 302.

<sup>3)</sup> Der Skeptizismus, II, p. 16.

qu'elle représente. Le vrai de ce point de vue réaliste, c'est donc l'être même. La notion de vérité répond alors à la formule scolastique: *adequatio rei et intellectus*. Without saying how he has arrived at the conclusion, le Roy declares that this theory of the non-philosophers implies a »realistic ontology» and »the criterion of fact»<sup>1</sup>.)

Walker<sup>2</sup>) finds that objective evidence is the criterion of truth and »the only criterion which the ordinary man uses». Objective evidence he explains thus: »We assent because we are forced so to do by the object itself, because it is the object itself and not some other object or cause which seems to have manifested itself to our mind. We assent because that to which we assent is »obvious» and we cannot help assenting».

»In one respect, all nearly agree in regard to the definition of the term, for all admit that by truth is understood a harmony, — an agreement, a correspondence between our thought and that which we think about».<sup>3</sup>)

»Consider again too, in this connection, the scholastic definition of Truth, which is also the current definition, the definition of popular philosophy, being that of the direct mode of consciousness as distinguished from the reflective. That definition is — the agreement of our thought of things with the things themselves».<sup>4</sup>)

»Der Willensakt, welcher im Urtheil zu der Vorstellungstätigkeit hinzutritt, ist von den Stoikern als Zustimmung (*συγκαταθεσις*) bezeichnet worden, und es fragt sich nun, was diese Zustimmung bedeutet. Es ist begreiflich, dass das naive Denken an diese Frage mit der Voraussetzung herantritt, die Bedeutung der Zustimmung, d. h. der Sinn der Wahrheit müsse immer derselbe und ein für allemal bestimmbar sein. — — Das ist nun aber gerade nicht der Fall, sondern eine kurze Ueberlegung beweist, dass die Wahrheit in sehr verschiedenem Sinne gemeint sein kann. Die Wahrheit eines mathematischen Satzes, die Wahrheit einer historischen Hypothese, die Wahrheit eines Naturgesetzes — sind sie durch dieselben Merkmale zu bestimmen?

<sup>1</sup>) Roy, *La pensée intuitive*, II, 182.

<sup>2</sup>) Walker, *Theories of knowledge*, p. 641.

<sup>3</sup>) Hamilton, *Lectures*, IV, p. 63.

<sup>4</sup>) Hodgson: *Philosophic reflection*, Book III, Chap. X, § 5, s. 213.

Man wird von dem unbefangenen Denken vielleicht diese Frage dahin bejaht finden, dass die Wahrheit unter allen Umständen in der Uebereinstimmung zwischen der Vorstellung und der Wirklichkeit besteht. Aber man wird sich leicht überzeugen, dass das schon für jene drei Beispiele nur in sehr unvollkommener Weise zutrifft».<sup>1)</sup> »— — wir haben darin vielleicht den vollständigsten Ausdruck der naiven Weltansicht, welche den vorstellenden Geist in einer Umwelt befindlich annimmt, die sich in ihm irgendwie wiederholen soll, und alle die sinnlichen Tropen, mit denen die Sprache den Erkenntnisprozess bezeichnet — abbilden, spiegeln, erfassen, begreifen usf. — zeigen, aus der Tätigkeit der verschiedenen Sinne entnommen, nur die verschiedenen Arten, wie eine solche innere Wiederholung des aussen Wirklichen vorgestellt werden kann» — — »die transzendente Wahrheit» — so mag dieser erste und naive Wahrheitsbegriff genannt werden — ist in ihrer ursprünglichen Bedeutung nicht aufrecht zu erhalten».<sup>2)</sup> »Unbeirrt durch solche Erwägungen hält das naive Bewusstsein jenen ersten Wahrheitsbegriff fest, und soweit es darin nicht schwankend wird, sprechen wir nach Kants Vorgang vom Dogmatismus der Erkenntnislehre, welcher ohne weitere Kritik das Gelten seiner Vorstellungen als ein Erfassen oder Abbilden der Wirklichkeit behauptet».<sup>3)</sup>

I think that such formulations are interesting objects for psychological and sociological research and it is mainly as such I intend to deal with them in this connection. Looking at the truth-theories as a naturalist looks at some interesting flowers, one may ask: »How do truth-theories evolve?», »What determines the choice of theories among the professional philosophers?», »Which traits of philosophic culture favour the production of truth-theories?», »Is it possible to find laws which hold for the choice of theory?», »What distinguish truth-theories from an average theory of contemporary natural science?». »Is it possible to domesticate »truth-theories«, and if this is possible, which relations do then hold between variation under domestication, and variation under nature?». To get

<sup>1)</sup> Windelband: Einleitung in die Philosophie, p. 196.

<sup>2)</sup> Loc. cit p. 197.

<sup>3)</sup> Loc. cit p. 214.

some material with bearing on such and similar subjects, I decided to try to produce truth-theories »experimentally», asking persons without philosophic training all sorts of questions that would in a natural way lead them to speak about »truth». A lengthy monography now to be published discuss this and similar subjects. I shall in this article indicate how they are dealt with.

Without having any clear idea of what the philosophers aim at when they construct theories of truth it is very difficult to take a view of what they call the non-philosophers' opinion of the truth-notion. How is it possible to control what they say, ignoring this?

I have never heard a non-philosopher state something similar to a »view on the notion of truth» without being urged to it. It is therefore necessary to collect material for this subject by *constructing situations*, to which it is probable that the persons react with statements analogous with »opinions on the truth-notion». Of such reactions certain types are more valuable to purposes of comparison than others. The statement »one will never find the truth» is especially valuable if the person has also given a definition of truth. If he has not, we do not know, for instance, whether he by »truth» means »statements firmly believed by all persons», »agreement with reality» or »Reality» or anything else. Utterances as »true means agreement with reality», »the common characteristic of what is true is that it serves life» etc. are valuable too because of their close resemblance to basic formulation of philosophers: philosophic definitions of truth—the nuclei of truth-theories. It is of interest to know what things a person calls true once having heard how he defines it. The cs-theories do not, generally, mention this last subject, but I think it adviceable to know something about it controlling them. Considerations of this kind forced me to adopt some sort of questionnaire-method, trying to stimulate the persons with verbal utterances, for instance, of the type of »questions about the notion of truth». Actually, I used a questionnaire-method with the character of personal interviews assisted by standard lists of question functioning as starting-points for discussion.

Experiments show that the person thus stimulated, probably answers with »definitions» and that his reactions generally have no

*specific* non-verbal traits: He may run away, laugh, fall into stupor, look down on the floor, but these reactions also occur in situations when questions of the notion of truth are lacking as stimuli. *Verbalized* unities of behaviour should therefore form our first and most important subject. My first method to detect such unities was to put some direct questions as the following: »what is the common characteristic of what is true?» and then to examine carefully in which possible unities of verbalized-behaviour the testpersons' answers occurred. This was done by letting the persons talk without trying to lead the conversation by any questions concerned with truth. The subject touched upon by the persons were adopted as subjects for further questions. All »Einfälle» of the persons were written down to get a picture of the verbalized behaviour-unities thus connected with the reactions to the introductory question of the leader. Having used this method with about 60 persons I definitively gave it up, adopting a rigid questionnaire-method. The main reason for the change of method was to get valuable statistical material with bearing on all basic philosophic questions discussed in »truth-theories». The value of such statistical material is proportional to the stability of the conditions under which tests are carried out. I consequently tried to standardize the situations. This was done by standardizing the *questions* leaving less room for undirected explorations. During the collection and interpretation of the material supplementary schedules were constantly worked out to meet the need for information not previously desired. Not all questionnaires concern the notion of truth: in a great deal of truth-theories it is promiscuously spoken about »what is true, right, correct, certain, false, wrong, erroneous» etc. I therefore worked out questionnaires each concerned with one of these expressions. For the sake of brevity the different notions shall in the following be referred to as »S-notions» or as »truth and similar notions». 300 persons were examined according to the standardized questionnaires. The average duration of examining was about 1 hour. No one was examined less than 10 minutes and some more than 10 hours.

To give an impression of the questionnaires used I shall indicate the contents of an »average» questionnaire: 1) Request for example

of something true and questions whether the examples put forth have a common characteristic. Request to define »true». 2) Questions concerning the existence of something absolutely true. Requests for examples. 3) Question as regards the persons possible familiarity with the subjects under discussion.

All conclusions arrived at are based on the method of sampling: in the field subjected to investigation no other method is possible. It is impossible to ask *all* people about »truth», impossible to inspect *all* produced truth-theories. *None of my conclusions I think in any way secure* — I forecast that a considerable per cent of the statistically obtained correlations (say, 15 % of them) will prove deceptive if the number of test-persons is enlarged from 300 to 1000 or 5000. There are people who think that clear perception of this limited security must imply a very severe judgment of the scientific worth of the correlations. I cannot agree with them: our daily life knowledge and so much of our psychological and sociological knowledge is of the same type: the difference is often only in the formulations: absolutistic formulations are very often predominant in fields where careful statistical formulations should prevail. If 80 % of sociological predictions based on correlations found in a sample of 100 individuals are confirmed taking in account 1000 individuals, I think the predictions are of a high standard. In the last part of this article I have allowed myself to state very far reaching theories concerning truth-theories. It should be unnecessary to point out that one may accept the statistical results of my work without in any way to accept my theory on the »dynamics of truth-theories».

## II.

The protocols written by the examiner or (less often) by the test-person contained 500 »definitions» of the notion of truth (or similar notions) produced by 250 persons. As »definitions» I classed statements of a very general character resembling (or being identical with) what is called »definitions» by the »professionals» (the philosophers, who create and publish truth-theories).

The age of the persons varies from 12 to 65, the school-training

from none to that of baccalaureate. No person who studies or has studied philosophy at the university is included. Exceptions are persons, who have but read two or three books on philosophy and never have read or heard anything about truth-theories (according to their own account). The following list contains some of them together with the questions of the examiner. Many of the questions (q) of the list do not belong to the questionnaires, but are determined by previous answers (a) of the test-person.

- q: Is there anything absolutely true.
- a: (21 years, senior school; Norwegian »gymnasium») If it agrees with one's own feelings and sense-impressions.
- q: Common characteristic of things that are absolutely true.
- a: (17 years, senior school) What cannot be otherwise.
- q: What is the common characteristic of that which is true.
- a: (1) (21 years, baccalaureate) That it is real.
- a: (2) (16 years, senior school) That it is the absolutely logical.
- a: (3) (15 years, less than 10 years schooltraining) The common characteristic of all that is true is that it is in agreement with reality.
- a: (4) (17 years, senior school) It serves life.
- a: (5) (23 years senior school) Subjectively: by its effects on the individual is the characteristic of the true that it satisfies all parts of one's critical intelligence.
- q: What is the common property of that which is true.
- a: (15 years, less than 10 years schooltraining) That one can prove it.
- q: What is the common property of true statements.
- a: (19 years, less than 10 years schooltraining) That they are said with a certain strength.
- q: What is the common characteristic of that which is true.
- a: (16 years, senior school) That it really exists.
- q: Why do you use the word true.
- a: (16 years, senior school) It is something that we have been taught to believe.

This very small list (chosen at random) may already convince the reader that many different views of the truth-notion are represented.



One may classify the definitions into as many groups as one wishes: 480 of 500 definitions are different as regards formulation. Certain tests indicate that most formulations are viewed by the testpersons as having different and incompatible meanings. We shall here briefly mention 3 methods of grouping the definitions. The first type (G<sub>1</sub>) leads to groups comparable with the groups constructed by philosophers who classify truth-theories. (Correspondence, coherence theories etc.) A great percentage (c. 30) of definitions could not, however, be satisfactorily grouped into any philosophical groups. According to G<sub>1</sub> they are grouped into about 45 main groups. More than the half of the 500 definitions (of the »standard material») cannot easily be classified into any of these groups: they may be said equally well to belong to two or more of the groups or to belong to none of them.

Of the G<sub>1</sub>-groups some may be of interest to the reader: G<sub>1.1</sub> includes all definitions, according to which truth means agreement (accordance, Übereinstimmung) with reality (or »the real», »things», »the thing spoken of»). A considerable percentage of philosophers are of the opinion that this is the definition *adopted* by non-philosophers or that non-philosophers *implicitly accept* it. This group is fairly well represented among the »amateurs» (16 out of 500 definitions) — but there are types of definitions that are more common among them — and what is more important: No G<sub>1</sub>-group contains as much as 15 % of all definitions. It is waste of time to argue that when they say (for instance) »true is what is so», they *mean the same* as when they say, »true is what agrees with reality». Such identifications may in some cases be justifiable, but generally they are not. Consequently, no definition of truth can be said to express »the non-philosophers' view of truth.» There is no such view. One can just as well (or perhaps even better) speak of »*the philosopher's* view of the truth-notion» Statistical analysis of the *examples* of truths put forward by non-philosophers points to the same conclusion.

The most frequent G<sub>1</sub>-group of definition is the one according to which a S-notion is defined as something that can be proved or that actually has been proved. 57 out of 500 definitions can be said to belong to his group. It can be said to be a low-education group with

greatest frequency among persons with less than 10 years schooltraining. Only 1 out of 400 definitions adhered to by professionals could be grouped the »proof» group.

Next to the »proof»-group many other groups can be placed and among these the »agreement with reality»-group. Their relative frequency can only be distinguished from each other adopting rigid definitions of »frequency». There are several definitions of value: one may investigate the frequency distribution among test-persons of *all* classes of age and education or among certain of them thus distinguishing several types of non-philosophers. Or, one may calculate »frequency points» by which it is distinguished between persons who put forth several definitions as equally or nearly equally good, and persons who put forth but one definition.

According to a grouping principle called Gr<sub>4</sub>, the definitions are classed in 2 groups. The principle is founded on the difference between definitions with reference to »something human» (Gr<sub>4.2</sub>) and definitions without reference to »something human» (Gr<sub>4.1</sub>). The first group of definitions tends to place man in the centre of attention, the second evade mentioning anything connected with man and his activities. We accordingly call the formulations of the first group »homopetal» and the formulations of the latter »homofugal.» Examples of marked and obvious homopetal definitions are »(true is) what I perceive directly by my senses», »as a rule it sounds natural» and »no one is able to change it.» Examples of homofugal definitions are: »what is so», »the facts» and »what has happened.»

According to the sayings of most philosophers (50 cs-theories taken into account) Gr<sub>4.1</sub> should be most frequent. This is not the case, however. Only 16% belong to Gr<sub>4.1</sub> among amateurs whereas 32 % of 200 definitions put forward by philosophers belong to it. Curiously enough the Group Gr<sub>1. 1</sub> (»agreement with reality») — *also imputed the non-philosophers* — is the most frequent Gr<sub>11</sub>-group among the professionals (400 definitions of philosophic literature taken into account. Definitions of »formal truth», »mathematical truth» etc. are not included among the 400).

According to Gr<sub>6</sub> — the third principle to be mentioned here — definitions are classified according to the manner in which the ps, by

using their formulations in discussions, would be able to discern truths. How many factors have to be taken into account to identify them? If a person states that »agreement with reality» is the criterion of truth one may say that he, *according to his formulation*, must take two factors into account: There must be a relation of agreement and there must be a reality. It was found that the number of factors to be taken into account increases rapidly with the degree of education of the person, the correlation being much closer than in the case of GRI-groups of definitions. The average number of factors varies for each class of age and education from 1,5 (age less than 16) to 2,5. The corresponding average value of 200 definitions proposed by philosophers was 3,0.

The reader may ask whether one may look upon the definitions as *real opinions* of the test-persons or whether they are mere »Einfälle», mere »words» occurring to them during examinations. Various things point to the conclusions that in the majority of cases the definitions are opinions representative of the persons holding them. They are the »solutions» of the problem as viewed by the test-persons.

Some test-persons mean that »truth» and similar notions are ethical notions. Statements such as the following are not frequent among the professional truth-theories and they are consequently excluded from the lists of »definitions».

»(The common characteristic of what is right is) that conscience does not protest against it».

»True is what conscience says»

»Truth is the opposite of lie»

»What is untrue is always decorating itself with a circumstantial speech.»

The relative frequency of moral views on what is true decreases with increasing age and education, but there are ps who have received academic education in philosophy and nevertheless entertain such views.

## III.

Classifying the test-persons as regards to age and schooltraining («education») statistical analysis shows that younger and less educated test-persons are inclined (on the average) to prefer other types of definitions than those most frequently used by older or more educated persons. The preference is one of degrees. No type of definitions appears to be exclusively adhered to by a single class of persons. This holds good of the more frequent types of definitions.

There is no evidence to support the view that philosophic education radically changes a persons attitude towards definitions. This is seen when comparing the types of definitions chosen by ps without any philosophic schooltraining with those chosen by persons with philosophic schooltraining. Concluding formulations are retained, whereas arguments change.

Of the most frequent Gr I. groups (cf. p 47) Gr I.1 (agreement with reality) shows no marked correlation with age or education, the others are on the other hand decidedly low-education and (to a less degree) low-age-groups. This means that they are very much more frequent among testpersons of age 13-15 and 16-19 than among those of age 20—30 or 31—65 — or that they are much more frequent among ps with 0-10 years schooltraining than among ps with more training.

About 15 % of the persons, whose opinions on «truth» (and similar notions) are collected have not given any «definition». 33 persons who can with relative ease be classified and who belong to this group, can be placed in two categories: (1) Persons consistently denying or doubting the existence of any adequate definition or of any common characteristic of what is true. 6 ps belong to this class. (2) Ps who seem to try to find formulations of the type called «definitions» but who do not arrive at any. They are 27 in number. Most of them may perhaps be said not to «understand» the questions put forth by the examiner.

Test- persons who deny or doubt the possibility of any definition do this for much the same reasons as those found in philosophic literature. Examples:

Person No. 15 distinguishes between the existence of a common characteristic from an »objective» view and from other points of view. »They (statements I call true) have the common property that I accept them as true from my individual point of view. From an objective point of view certainly none.»

Person 32 rejects the possibility of a common characteristic, but states that »one cannot at all say: something *is* true.»

Person 214: »Every definition of truth must be more or less subtle. One can define mathematical truth. That is one thing. From the point of view of natural science another thing, and then come facts as: I am sitting here, There are many kinds of true things. But to find a word which covers all things I think is quite impossible — and if a man so ingenious as to discover such a word should exist, I would look upon his effort as perfectly aimless»

Other persons claimed that they had to »go round in circles» to define truth.

The questionnaire-method is particularly open to influence of suggestion. During the examination I sometimes had the impression that the ps might be lead to believe in the existence of a common characteristic of what is true by the fact that the first question read *»what is the common characteristic of that which is true.»* I therefore decided to use different versions of questionnaires, some of which included statements suggesting that there can be no common characteristics. Statistical analysis of the results shows that there is no evidence in favour of the assumption that test-persons are easily influenced to acknowledge or to deny the existence of a common characteristic.

If a philosopher defines true statements as »statements belonging to the class c» it is to be expected that if other statements (for instance, probable statements) also belong to class c, he declares the latter to have the same meaning as the former. If he does not, the definition is inadequate. It is found that test-persons define »true» in much the same manner as certain other expressions, for instance, »right». The frequency-distribution of definitions belonging to the different Gr1, Gr2, Gr6-groups is closely related, the standard deviations from the average distributions being small. This, in turn,

supports the view that their function («use») is similar. In philosophic literature there has been a tendency to neglect all notions closely related to that of truth, and to write as if statements such as »it is true» should have a function clearly distinguishable from all other statements, (for instance: »it is sure», »it is right», »it is known», »it is so»). Statistical analysis of the answers of the persons make it almost impossible to believe in a specific, observable difference of function in such cases. No specific trait which is held to belong to the truth-notion (unrelatedness to time etc) seems to belong to it otherwise than by philosophic tradition. This being the case, I think it necessary for the development of our knowledge about S-notions and »opinions» to neglect methodologically theories that do not have any other support than such tradition.

Most questionnaires included questions as the following »Do you distinguish between something true and something absolutely true?», »Is there anything absolutely true?», »Give some examples of absolutely true statements» etc. The correlation between belief in »something absolutely true» and »something absolutely right» etc. was so high that such notions («absolutes») need not be distinguished, formulating the main conclusions. These were for instance: The belief in »absolutes» is much more frequent than disbelief. Only two ps think the question of the existence of absolutes to be »meaningless». The relation between frequency of belief, disbelief and other standpoints is as 70: 20: 10. Very few ps change their views as regards the existence of absolutes during examination. The suggestibility is small. — There are close correlations between belief in absolutes and age, education, the disbelief increasing steadily with age and education. Even among persons less than 16 years old there are, however, so much as c. 15 per cent »sceptics.» How many there are in other countries or how many there will be in 10 years I leave to others to estimate.

There is much evidence in support of the view that feminine persons have a greater tendency to believe in absolutes than masculine. Lack of space makes it impossible here as in connection with other statistically obtained results to formulate our conclusions carefully.

Exact statements with quantitative values are meaningless as long as one cannot describe exactly how one has arrived at them.

Reading philosophic discussions on the notion of truth, one becomes accustomed to expect that advocates of this or that type of definition believe in absolute truth, whereas of advocates of a different type of definition one expects doubt or denial of the existence of absolutes. Statistical investigations support the assumption that there are correlations between types of definitions and the author's standpoint towards the existence of absolutes. It is apparent that one may with a certain amount of probability forecast that if a philosopher or a test person adheres to a certain (of the bigger) Gr-groups, he will favour a certain view of the existence of absolutes. In this as in other connections our prognoses are intended to be valid only in milieus with the same average properties as those of our philosophers and our test-persons of today.

The request for examples of something true (or of something absolutely true or of correct statements etc.) brought into existence 1000 »truths», which could be analyzed statistically. The type of examples vary slightly with age and education of the test-persons as well as with their definitions. Individual differences are considerable: the »things» relevant to the distinction true-false are conceived in a fundamentally different way by different persons. — That »truths» of one person would be considered »errors» by another was only to be expected. In spite of this one may say that persons giving apparently conflicting definitions of the notion of truth do not tend to choose conflicting types of examples.

What do test-persons think of the answers of other test-persons? Will they, for instance, think that the definitions of others »mean the same» as their own; will they accept the notions of others or will they behave as philosophers? To be able to solve such questions, the test-persons were confronted with definitions of other test-persons, of philosophers and with some of my own, the latter written down as »Einfälle.» More than 1300 verdicts were analyzed. On an average 77% of them were critical in cases of the definitions concerned being one put forwards by an other test-person. The standpoints towards the definitions of philosophers were on the whole slightly more fa-

avourable: 55—60% critical and 25—30% sympathetic. The 72 definitions written down as »Einfälle» were treated as those of the testpersons. Very few (out of 470) definitions were tolerated by more than 75% of the persons requested to consider them.

Having found the correlations between age, education and standpoint towards the »truth-problem», I thought it worthy of interest to try to find other correlations with such standpoints. During the examination of the test-persons one gets the impression that their argumentation gives a good picture of at least some of their inclinations. Quite another thing it is, however, to collect sufficient statistical material to support such impressions in a scientifically sound way. Because of certain practical difficulties only one characterological test — a test of »confidence» and »suggestibility» — was carried out. It can thus be schematically described: The test-person was invited to smell at 3 test-tubs containing different substances (A, B, C) with characteristic odors. He was then given 15 other test-tubs which were said to contain weak solutions of A or B or C, but which actually contained nothing but distilled water. For each tube, the testpersons was asked (1) »do you smell anything?» and (2) »how sure are you?». If he said he did smell something, he was asked (3) »what do you smell?» and (4) »how sure are you?». An »index of suggestibility» was worked out in the usual way. The degree of »confidence» was calculated thus: The test-person was requested to indicate how sure he was either by using his own words or a set of expressions written on a list including such as the following: »1. perfectly sure», »3. not quite sure», »5. as likely to have been mistaken as not» etc. A confidence-scale was worked out, 1. (perfectly sure) being fixed as 100 confidence points (c. p.) and 5. to 0 c. p. The correlation between confidence (as defined in this test) and standpoint towards absolutes was marked: disbelievers in absolutes avoided the expressions commonly held to indicate »great confidence.» The correlation between suggestibility and standpoint towards absolutes was less marked. Taking the general behaviour of each test-person into account one sees clearly how complicated and how many factors are operating and how extremely careful one has to be in interpreting of the material.



## IV.

The questionnaire method proved to be adequate to our purpose of creating truth-theories »experimentally». It is apparent that all aspects of truth-theories as they appear in philosophic literature can be reproduced. The debates of philosophers were copied by bringing some testpersons together and letting them discuss their own answers. To compare truth-theories put forth by amateurs with those of professionals I worked with a »standard material» consisting of truth-theories of c. 165 philosophers. This material I regard as a *fair sample* of truth-theories. Most results of the comparison are not stateable in a few words. Here I can only state some of the simple ones in a rather crude an inexact way:

No type of definition found among the philosophers is lacking among the test-persons — if one permits oneself to neglect 5 % of the professional definitions, which include exceedingly difficult words apparently untranslatable into the vocabulary of every-day speech. (Definitions of Driesch and others.) No type of standpoint towards the possibility of defining the truth-notion is lacking among the amateurs, nor do we find any type of standpoint lacking towards the existence of something absolutely true, towards verification and towards the principle of excluded middle. The philosophic cs-theories seem therefore to lack every empirical foundation. Only if one emphasizes minor differences and the bulky comments generally connected with statements of the conclusion can be otherwise. It is easy to say that the test-persons do not understand what they talk about, that they do not grasp the essence of philosophic questions. Observing their behaviour in cases in which examination and discussion lasted several hours or extended over 2 years, I came to the conclusion that their opinions are deepened and consolidated whenever they get the *time* to work them out. In such cases, the main features of the first answers are generally retained. How do we on the other hand, feel sure that philosophers know what they talk about? If test-persons put forth opinions similar to philosophers, if two opinions A and B most often found together among philosophers also are found together among test-persons, if arguments in philosophic literature in

favour of A occur as arguments in favour of A in discussions among test-persons, if, in short, the general behaviour with bearing on truth-theories is similar in both cases, how can we place the professionals in an exceptional position?

There are many profound things said in favour of truth-theories, there are also many definitions containing references to exceedingly subtle distinctions never (perhaps) to be found among test-persons: but how are these profundities treated by philosophers who do not adhere to its authors main views: It is brought down to very simple and prosaic things wholly within the reach of test-persons. It is worth while to study how of the truth-theory of one philosopher is described by other philosophers and to note how the truth-theory is simplified and how discussion of it deals only with its most coarse and simple features: the nucleus of the discussion, the statements which really invite the others to debate are simple and easily found among test-persons of age 14 to 17.

Such considerations inevitably lead to the question: Does the philosophic discussion about truth develop as scientific discussions, is there any progress due to accumulated knowledge and experience? The question has to be answered with »no», I think. Already the discovery of all the basic types of formulations among test-persons of age 14—17 indicates that they undergo none or but very unimportant development: basic formulations are retained during all classes of age and education and ultimately made center of philosophic discussions as, for instance, a »definition of truth». The clumsiness of many of the test-person's saying is replaced by the profound ear of philosophic style, and arguments are brought from more distinguished quarters, from contemporary scientific or ideological currents — but the concluding statements are the same.

How is it possible, one might object, that one definition is found more *reasonable* than any other, if there is no development due to insight? I think one factor is very strong: habit. Probably very few people growing philosophers and authors of truth-theories are at the startingpoint acquainted with many truth-theories. They get used to state and argue in favour of a certain view. When they later on grow acquainted with new theories, these are found less rea-

sonable because they offend some already established habit of thought or expression. This process is clearly seen among test-persons who are examined several times or who discuss their definitions with others. The following experiment was especially interesting: three test-persons were each confronted with three definitions of truth. None of them accepted the definitions, but in spite of this each person was instructed to *defend* one of the definitions against attacks of the other persons. All the three persons were invited to attack the definitions of each other. They did this very unwillingly, professing that they did not understand the definitions etc. In the following discussion, however, the arguments in favour of definition No. 1 »true is what serves life» were of the kind found in pragmatic literature, the arguments in favour of No. 2, »true is what is in agreement with reality» and of No. 3, »true is what can be controlled by one's senses» were of just the kind found in philosophic discussion of just these kinds of definitions. It was interesting to note that the test-persons consciously or unconsciously tried to assimilate the definition they were forced (by pride etc.) to defend in a clever way, making the expressions of it in some way or other relevant to such opinions of their own, which they entertained with much temperament and tenacity. By this mechanism I think it is possible for everyone to defend a statement he once by chance or at least without acute reasoning happened to adopt: it grows more and more »reasonable», more and more »obvious.» It should be superfluous to admit that there are many exceptions to this law of development.

There are subjects under philosophic discussion which in many cases seem to flourish because of opinions functioning as the opinions referred to above. Such are, for instance, opinions about the »ultimate nature of reality», »the possibility of man to live without illusions», »the objectivity of moral Truths», »the possibility of arriving at something that cannot be attacked by any sceptic» etc. They seem to determine in an indirect way basic views by which the detailed opinions on the notion of truth are inspired. (Cf. for instance the discussions between F. C. S. Schiller and B. Russell in *Journal of Philos., Psych. and Sc. method*).

It is not my intention to state that *all* published theories of truth

are inspired by some vividly affective opinions concerned with subjects foreign to the »truth-problem». But just as in the case of religious systems with long traditions, there are always discussions going on about opinions once being a symbol of deep affective tendencies of their advocates which later on simply are discussed because it is a good tradition to discuss them. The affective contents and symbolic character are no more recognized.

## V.

The comparison between truth-theories of test-persons and published ones leads to results which cannot possibly stimulate the scientific interest in new theories: the whole matter does not seem to be worth while. Such a conclusion is justifiable, I think, as long as one speaks about the basic formulations, the definitions of truth and similar notions and not of the discussions found in papers on the truth notion, which are but loosely connected with the nucleus of the philosophic »truth-problem». There are problems and disciplines of great scientific interest which only the force of tradition has connected with the philosophic »truth-problem»:

(1) Problems as regards the development of hypotheses in science. Why this or that theory was accepted, etc. The function of scientific discussion, as revealed in this or that science in this or that period.

(2) Problems involved in the study of how opinions of groups come into existence and how they die out. Public opinions, ideologies etc.

(3) Logistic problems related to expressions of opinions on opinions: formalization of axiomatization of expressions as »prove», »imply» etc.

(4) Practical proposals with the purpose to standardize and sharpen the expressions of opinions on opinions where greater accuracy is thought desirable. Proposals to avoid this or that expression or to use the expressions  $e_1$  and  $e_2$  as synonyms in certain discussion etc. Such proposals can be justified without any reference to the philosophic »truth-problem»: the later »problem» is reduced to questions belonging to (1), (2), (3), or (4) as soon as it is tried to state it clearly.