

Toward a theory
of interpretation and preciseness

by

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Introduction.

The present article intends to give a survey of the attempts which the author and his collaborators have made to work out a system of basic concepts suitable for a theory of interpretation and preciseness that is confirmable by means of systematic observation under standardized conditions. In spite of much valuable work, there is so far little done to arrive at sufficiently precise delimitations of such observations. Thus, there is little done to construct tools by which to decide whether two persons misinterpret each other or not. There are no standardized procedures or observations by means of which different interpretations can be distinguished. The theories are therefore apt to degenerate into vague vocabularies, or reduced to furnish classifications without solid observational basis, but often filled up with methodological magic words of the time, as »behavioral» or »operational». The author believes that he has at least been aware of the dangers inherent in this situation.¹

The work was originally motivated by a feeling that so-called

¹ The work has as yet not been printed, but parts of it has been published in mimeographed form under the title *Interpretation and Preciseness*, I—II Survey of Basic Concepts, III. »To Define» and To Make Precise, IV. Misinterpretation and Pseudodisagreement. Oslo, Universitetets Studentkontor 1947—1948.

analytical trends in contemporary philosophy, with which the author has much sympathy, will either give birth to scientific disciplines covering their activities, or will have to give up the basic aspirations which distinguish them from other trends in philosophy. So far, the analytical trends have given birth to new scientific disciplines in the borderline zone between logic and methodology. As regards what has been called semantics, or more generally, semiotics, only investigations of artificial, very simple languages have reached scientific status. The more empirically laden questions have mainly been dealt with by attempts at working out more or less vague research programs, not by research proceeding from testable working hypotheses to systematic observation and using such observation as the basis of new hypotheses.

The work has also been motivated by the conviction that many fields of psychology, sociology, political science, public opinion research, law and literary criticism, may directly profit by investigations within the broad limits of a theory of interpretation and preciseness as conceived here.

Writers within the semantics and significs movements and analytical philosophers have contributed to theories of interpretation. But there is at present a discord between the broad claims and aspirations and the narrow scientific basis of their claims.

Underlying our methodological approach is a belief in hypothetical-deductive methods as they are used in the theory of heredity, in econometrics, in some theories of learning (Hull *et al.*) and, with the greatest success, in physics and chemistry. We are interested in empirical research guided by fairly precise hypotheses which are constructed on the basis of a small number of operationally defined concepts.

The basic concepts are introduced by making more precise — especially from an operational viewpoint — some old and rather vague concepts. As the designations for these old concepts may be used as a starting point for interpretations in various directions, several of which give fruitful concepts, it is convenient

to introduce some schemes which by proper specification can be turned into specific operationally defined concepts.

Synonymity.

One such scheme is the following:

The sentence (or designation) »a» is for the person p_i in the kind of situation s_j *synonymous* with the sentence (or designation) »b» for the person p_m in the kind of situation s_n .

The word »synonymous» is used for sentences as well as designations instead of the more common use of »equipollent» for sentences and »synonymous» for designations.²

For short representation, the scheme is written in symbols thus:

$S(ap_i s_j, bp_m s_n)$.

Roughly the basic kind of relation indicated by this scheme is that of a part of a speech or a text »a» being observed and related to a person p_i who tentatively is supposed to be the assertor of »a». The verbal or non-verbal context of »a» is symbolized by s_j . It may be described more or less completely, the selection of described characteristics being picked out for particular purposes. In case no definite p_i is found, or it is deemed irrelevant to find such a person, or the interpretation is referred to indirectly by use of a system of sentences, e. g. a system said to express the rules for »correct» use, in all such cases it is convenient to use a more simple scheme where person and situation are symbolized by one letter.

S is only defined for the case that a and b are both formulations or both designations.

In case of p_i and p_m being the same person, we shall speak of »intrapersonal» synonymity. Its definition, discovery and description are, when a moderate level of accuracy and preciseness

² It is not possible to go into further terminological clarifications, as our present purpose is to give an introductory outline, not a condensed technical description.

is aimed at, somewhat less problematical than the »interpersonal» synonymy. By that expression we refer to cases where p_i and p_j are different persons. If the level of aspiration is more exacting, much the same problems are encountered in both cases.

In case of s_j and s_n being the same, we shall occasionally speak of »intrasituational», otherwise of »intersituational» synonymy. The difference is of little importance because, unlike in the case of persons, the delimitation of individual situations is rather arbitrary. As a limiting case, we shall by a »situation» refer to a single historical event, an historical instance of »a»'s occurrence. Normally, however, it will be synonymous with »type of situation».

»a» (or »b») is not except in very special cases to be identified with any single occurrence (specimen) of sentence »a», but with the class of occurrences of »a». Thus, if »a» is said to be »Theorists of interpretation are pedantic», this does not limit the symbol »a» to just this occurrence on this page, but to the class of occurrences of that sentence, f. inst. including those in previous drafts of this manuscript. Due to the possibility of repetition of situations s_n , or to the occurrence of »a» 100 times within s_n , we cannot assert that »any sentence is synonymous with itself». This would amount to a denial of homonymy (ambiguity).

We have so far only introduced a conceptual scheme, no individual operationally defined concept. To make sentences (hypotheses) about synonymy testable and to be able to delimit which are the kinds of observations that are relevant to the hypotheses, fairly precise concepts must be worked out. Some kinds, (1), may be constituted by introducing standardized questionnaires on synonymy. Certain kinds of positive answers are by definition said to be a confirmation of an hypothesis of synonymy. Others, (2), may be introduced by methods of text analysis, certain regularities of occurrences being considered by definition to confirm synonymy hypotheses. Others, (3), may be introduced by a set of decisions that certain regularities of behavior, verbal or non-verbal, are definitorial criteria of certain

sentences or designations being synonymous (for certain persons in certain situations). Lastly, (4), definitional criteria may be introduced which are combinations of the previous ones.

By being connected with definite kinds of procedure the sentences on synonymity and such concepts reducible to synonymity get a chance of being tested in a way acceptable to scientific methodology. Otherwise we shall continue to have a literature involving endless disputes on »the meaning» of this or that.

There is no space here for full description of procedures, only the most superficial ones can be referred to. Qs1 and Qs5 are two questionnaires which can be described as follows:

Qs1

A person — the tester or »analyst» — invites an other person to read carefully a text containing the formulation T. An other formulation, U, is held in reserve.³

Having read the text, the analyst says: This text was offered you as an example of a text containing the formulation — (here, T is mentioned). What I should like to know is the following:

Suppose the formulation U (here, U is mentioned) had occurred in the text instead of T, and in T's place. Would U have expressed the same proposition to you as T did when you read T?»

The wording is sometimes modified, (creating subclasses of questionnaires), thus other words are introduced instead of the vague and controversial word »proposition».

Qs5

The analyst presents a formulation T within a context C. He then presents the same context, but now with a formulation U in the place of T, and asks:

»Are you able to imagine circumstances (conditions, situations) in or by which you would accept T and reject U or vice versa?

³ In non-symbolic texts we write T for »a» and U for »b».

Or, would you either accept both or reject both under any conceivable circumstances?»

— If the subject answers positively on the first question, this is taken (1) either by definition to mean that, or (2) taken as confirmation that T and U are not always, perhaps never, synonymous for him. If the subject answers negatively this is related to a corresponding non-synonymy (heteronymy).

— The two questionnaires are only adapted to cases of intra-personal synonymy. One may confront 100 persons with the same formulations T and U in different contexts, but one cannot decide with reasonable certainty whether T for p_1 in s_1 means the same as U for p_2 in s_1 . If 100 persons answer Qs1 with the same answer, this indicates that there is a high degree of constancy as regards the relation of T to U within the system of speech habits of different persons. It cannot, however, without further assumptions be taken as a confirmation that T (or U) means the same to all 100, or that T means for any one the same as U means to some other. Questionnaires on interpersonal synonymy are much more complex.

Attempts to use behavioral approaches to questions of cognitive meaning have not been very encouraging so far. It sounds so easy, reading e. g. Malinowski's enthusiastic account of how the meaning of words is »seen» from the activities of people engaged in work requiring cooperation. But he should try to delimit the meaning of »The distance to the sun is 92.000.000 miles» by that method! Even the analysis of Bridgman of sentences about length does not give any description of the operations corresponding to measurements of length, by means of which such measurements can be distinguished from any other. Bridgman *speaks* about such operations, he *says* he observes what the physicists »do» with the concepts, but he does not go into the details of descriptions of the units or clusters of behavior patterns corresponding to any concept or proposition. The whole molar behavioral avenue of attack is so far a *planned* avenue, not one that is opened up anywhere. The theories are mostly disguised programs.

This does not mean that we have given up the molar behavioral point of view, but that we have cooled down after enjoying the first beautiful vistas of future sciences that some time will be opened up by molar behavioristic research. What is now needed is the establishment of methods of observation, rather than elaboration of behavioristic terminology. And even if we shall succeed in describing identities of molar behavioral units, there will still be demand for short cut methods which can lead to fairly reliable hypotheses of synonymy as regards a pair of formulations T and U, by some weeks or even days of work. The investigation of non-verbal habits within a population, e. g., of physicists, necessarily involves extensive observation, if we are not going to rely on their own descriptions of usage, i. e. go back to verbal level methods, especially questionnaires distributed among highly qualified physicists.

Ambiguity.

A conceptual scheme of ambiguity concepts is introduced by the negation of a synonymy relation involving one sentence (or designation). In symbols: $\bar{S}(ap_i s_j, ap_m s_n)$. In words: »a for p_i in s_j is not synonymous with a for p_m in s_n «. One of the standard questionnaires on intrapersonal synonymy reads as follows:

Qb1

A person — the analyst — invites another person P to read carefully two texts both containing the formulation T.

Having read the texts, the analyst says: »You were confronted with these texts because they both contain the sentence T. What we should like to know is whether T in the two cases expressed the same proposition to you, or T to you expressed in the first text a proposition different from the one it expressed to you in the second text«.

By means of special questionnaires, the »meta questionnaires«, we try to find out how our questions are interpreted. As regards the term »same«, e. g., there are important differences of inter-

pretation, some taking it in more absolutistic and rigoristic connotations, others in more »latitudinarian« senses.

More precise than.

If two sentences T and U are synonymous (equipollent) for at least some persons in some situations, T will be said to be a possible interpretation of U and U a possible interpretation of T. If all interpretations of T are also interpretations of U, whereas some interpretations of U are not interpretations of T for some persons in some situations, we say that T is more precise than U for those persons in those situations.

In the vernacular we sometimes say that mathematical sentences are more precise than psychological ones. If T is a formulation in mathematics and U one in psychology, they may be interpretations of each other, or have some interpretations in common, but the normal would be that they have none. Even if they have none, we may in the vernacular say that T is more precise than U. Not so according to the terminology here introduced. According to the definition they must have at least one interpretation in common.

The definition is constructed in this way to facilitate inferences from formulations of the type »T is more precise than U« to those of the kinds »T may with profit be substituted for U« and »T is apt to provoke less misunderstanding and deeper understanding than U«. We cannot substitute mathematical for psychological theorems. If » $2 + 2 = 4$ « is found to be more precise than »When habit strength is zero, reaction-evocation potential is zero« (Hull), we cannot infer that » $2 + 2 = 4$ « may with profit be placed in Hull's text to replace the psychological sentences. Thus the vernacular term »precise« is too broad for our purposes.

One of the reasons why »less ambiguous than« is not used instead of »more precise than« is that the differences of interpretation we are usually interested in here, are very much smaller than those said to cause ambiguity (in the vernacular or in linguistic books on »words and their meaning«). There is a

negative valence attached to »ambiguous» which is misleading in our discussions.

If »a is more precise than b» is symbolized by $P(ab)$, »x and y are synonymous for z in t» by $S(xyzt)$, and »e» stands for definitional identity, the definition of 'more precise than' may be formulated in terms of synonymy relations as follows:

$$P(a b)e(Ey).(Ez)(Et)S(b y z t) \ \& \text{---} \ (Ez)(Et)S(a y z t) \\ \&: \text{---} \ (Ey).(Ez)(Et)S(a y z t) \ \& \text{---} \ (Ez)(Et)S(b y z t)$$

From the definition of 'more precise than' it follows that if »a» is more precise than »b» within a context, »a» will be more precise than »b» within the same limit of application. When the schemas of synonymy are given empirical sense by operational definition, some of the theorems on relations of preciseness are turned into empirical hypotheses testable by questionnaires, procedures of textual analysis or behavioral observation and inference. Some of the theorems have been tested, but only in the case of the questionnaire methods. As subjects we used students taking part in courses in interpretation and logical analysis. Numerous purely practical and didactical difficulties are involved. But on the whole the students have answered as predicted when testing theorems on, e. g., symmetry of concepts of interpretation and transitivity of concepts of preciseness.

Definiteness of intention.

If one tries to measure preciseness of certain terms or sentences within groups of readers or listeners, what seems most striking is not so much the lack of preciseness, as the lack of having considered even the possibility of distinctions. This has made us put more and more stress on the possibility of measuring what we call »definiteness (or vagueness) of intention (or delimitation)». Concepts with this designation are introduced by procedures roughly as follows.

In some text or speech the analyst makes use of a certain

sentence, e. g. » . . . The ship was of 5.000 tons . . . », or » . . . This would mean a step towards democracy . . . ». Suddenly the context is broken and the audience is invited to answer detailed questionnaires as regards their interpretation of the sentence as it occurred in the text. It is stressed that their hypotheses on how they interpreted the sentence should not be conceived as confirmable only (or mainly) by retrospective introspection, but by inferences from past verbal and non-verbal behavior.

If the sentence is that involving measure of ships, each individual of the audience is confronted by lists of interpretations (precizations) where the niceties of ship measurements are introduced. Thus the distinction between »ton» as measure of weight and as measure of volume.

If volume of displacement of water was meant, it is asked whether saltwater or freshwater was intended — there being a difference in volume because of difference in weight. Sooner or later a situation arises where the subject must admit, if honest, that (1) if he made a definite interpretation of the sentence at all, he either must have intended a or non-a (a certain distinction). Further, (2) that he neither intended a nor non-a, being unaware of the possibility of making the distinction at issue (e. g. between ton as measure of volume and ton a measure of weight). In such cases the subject is given a minus in definiteness of intention.

Scores are constructed in relation to definite sets of discrimination possibilities. So far, the practical difficulties of formulating such sets of discrimination possibilities have hindered the quantification of results.

Much critique of present discussions in politics, in art, in the various fields of contemporary problems of society, should be directed against indefiniteness of intention rather than against ambiguity of formulations.

Interpersonal preciseness.

The problems involved in constructing precise and fruitful concepts of interpersonal synonymity are grave and mansided.

The discussions about intersubjectivity of knowledge and other questions of philosophy are involved, and pseudo-questions of solipsism are lurking in the background.

There is no reason to believe that we have other kinds of methods to find out our own usage than those used when investigating that of others. The introspectional »feeling» of understanding has never proved an adequate clue to find out just what is »understood». We have, however, a much more extended and reliable knowledge of our own speech habits.

Roughly speaking, the concepts of interpersonal synonymity to be introduced will be closely adapted to one of the usual ways in which we in scientific debate try to make others understand what we mean by a sentence in a certain text. Suppose the text is the introductory treatise on theoretical mechanics by A. E. H. Love, published 1897, and that the formulation, »a», to be discussed is the following: »Every body, and every individual part of a body, has a constant mass, and the mass of the body is the sum of the masses of its parts». Let us suppose the two readers p and q are post-graduate students of physics, and that they upon reading the formulation »a» within the time-interval t, agree to make an attempt to find out whether, or to what degree, they understood »a» in the same way within the time interval t. We suppose that they during t established a hypothesis of interpretation, explicitly or implicitly, we suppose that they understood what Love intended by the formulation »a».

One of the ways by which p and q would try to explore each other's interpretations of »a», consists in expressing what they understood by it in other words, after having observed each other apply the sentence to concrete cases. (However closely they study applications, instances, subsumptions, procedures of confirmations, the reports of such studies cannot, however, replace general formulation of the sentence »a» within the text under consideration.) Suppose they reformulate »a» and say: »I understood »b» by »a», did you do that, or did you interpret »a» otherwise?» In »b», they have, for inst., replaced the word »mass» by some definition of mass. (More correctly formulated: »by a

definiens in some definition of »mass«). Then they might replace the definiens of the definition of mass by an expression in which some terms of the definiens are replaced by some definienses of definitions of those terms. Thus, they might discuss how they interpret Love's introduction of 'mass': If we associate the number 1 with any particular material figure A, then we can associate a definite positive number m with any other material figure B, this number is the mass-ratio of the two figures A and B. We call it »the mass of B« (p. 87). Using this text to construct a definiens formulation of 'mass', the interpretation of the formulation will depend very much on the interpretation of the expressions »mass-ratio« and »material figure«. Both are explicitly defined by Love, and the investigation of interpretations of »a« naturally leads to the definiens formulations of those expressions, and so forth.

Maybe p would have understood the same as q understood by »a«, within t , if the text had contained a strong popularization of »a«. If p says to q that he by »a« understands the same as by »b«, and q answers that he does not, this difference may more naturally be attributed to ambiguities of the popularization, than to a difference of interpretation of »a«. Thus, in replacing »a« by other formulations, p and q ought not to replace it by any synonymous formulations, arbitrarily selected. But just which synonymities should be selected is the great question.

Briefly, p ought to select precizations of »a« which are apt to disclose possible differences in interpretation of »a«, thereby that they themselves only permit some of the interpretations which »a« permits. Asking q whether he thinks »a« synonymous with these formulations, p may hope that in case q answers positively in relation to a formulation »b« and negatively to a formulation »c«, *the difference in meaning between these two formulations will be approximately the same for q as for p* . He cannot be sure of this approximate identity, but he may from general considerations of the similarity of education and training, etc., have reasons to suppose that »b« and »c« are able to disclose the difference intended by p , or one closely similar.

This procedure of reformulation does not lead to anything else than to establish two maps of synonymity and heteronymity relations, one map showing relations within the usage of p, the other showing relations within the usage of q.

If there is a one to one correspondence of points of the two intrapersonal synonymity maps, and the points are selected with due consideration of relations of preciseness and ambiguity *within each map*, we shall say that there is *maximum confirmation of interpersonal synonymity* of »a» in relation to p and q in s, and in relation to the reference class of formulations defined by the maps, i. e. by the reformulations used.

Comparing two maximum confirmations, the one in relation to a reference class which is part of the other class, that confirmation will by definition be called strongest which is maximal in relation to the most comprehensive reference class most comprehensively tested.

The introduced concept of interpersonal synonymity may be said to be equivalent to a concept of identical structure of intrapersonal synonymity and heteronymity relations within a system of formulations making up highly qualified reference classes of the formulation investigated. This is, vaguely speaking, in agreement with tendencies to define intersubjective characteristics of scientific knowledge by means of identity of structure of systems.

Suppose the persons p and q try to find out their interpretations of »a» by means of a list r_1 , of reformulations of »a». The members of the list are reformulations which p and q tentatively suppose to be more precise than »a». The reformulations make up a preliminary class of precisizations of »a», a »first order reference class».

Applying tests of preciseness to the members of r_1 , we shall usually find out that the working hypotheses that they are more precise than »a» is not completely confirmed, and by reformulating each member of r_1 , we construct a »second order reference class», r_2 . The members of this class may in turn be tested, and so on.

Let us call the number of members of a reference class r , $|r|$,

and $/v/$ the ordinal number of the order of the highest order r . Let $S(a p s, a q s)$ stand for » a for p in s is interpersonally synonymous with a for q in s «. Further, let N be agreements and M disagreements in replies on questions about synonymy answered by the persons p and q in relation to reformulations of » a «, adopted in a reference class. We may introduce a concept »degree of interpersonal synonymy«, DS , in the following way:

$$DS \text{ eD Degree of } S(a p s, a q s)$$

$$eD \lim \frac{N}{N + M} \begin{matrix} /r/ \rightarrow \infty \\ /v/ \rightarrow \infty \end{matrix}$$

It is not our purpose to maintain that just this quantitative concept is fruitful, and we shall therefore leave undiscussed the many practical and theoretical difficulties we should meet if we try to apply it. We mention the concept because fruitful quantitative concepts can be worked out with it as a crude starting point.

At the present stage of preliminary research, we have found it more fruitful to give *condensed descriptions* of the outcome of questionnaires on first and second order reference classes. It seems premature to try to work out fruitful quantification as long as methods of systematic observation are still rather undeveloped.

Synonymity and preciseness of imperatives.

Suppose » $T!$ « is a sentence which does not for p in s express any assertion, but a command or request (an »imperative«), made by the person pronouncing $T!$ or imagined to be the command or request by some other person or personalized institution.

Two sentences $T_1!$ and $T_2!$ are in this work said to express the same imperative for a person p in a situation s , if and only if every designation » d « which to p in s designates a satisfaction of $T_1!$ also designates a satisfaction of $T_2!$, and vice versa; and every designation » d' « which to p in s designates a non-satisfaction of $T_1!$ also designates a non-satisfaction of $T_2!$, and vice versa.

Two sentences satisfying these demands we call synonymous sentences for p in s .

By the expression »a designation » d « expresses for p in s a state of satisfaction of the imperative $T!$ » we mean the same as »if p considers the state characterized by » d « to be realized, he considers $T!$ to have been followed«.

To illustrate the definitional formulation we may select the following »constants«:

$T_1!$ — In this paper the word »formulation« shall be used as indicated in »Interpretation and Preciseness« I.

$T_2!$ — In the article in which this sentence occurs, the word »formulation« shall be used as indicated in part I of »Interpretation and Preciseness«.

p — Arne Naess.

s — This page.

I guess there is no designation which weakens the requirements stated above. As an example of a pair of confirmatory formulas we select the following:

d_1 — In this work the word »formulation« is used as indicated in part I of »Interpretation and Preciseness«.

d_2 — In the work in which this sentence occurs, the word »formulation« is used as indicated in part I of »Interpretation and Preciseness«.

On the basis of this concept scheme of normative synonymy, concepts of preciseness may be introduced as follows:

The formulation » $U!$ « is more precise than » $T!$ « means in this work the same as »there is an interpretation of an expression of complete conditions of realization of » $T!$ «, which is not an interpretation of any expression of complete conditions of realization of » $U!$ «, whereas there is no expression of complete conditions of realization of » $U!$ « which is not also an expression of complete conditions of realization of » $T!$ «.

The above introduction of workable concepts does of course not pretend to treat or solve any of the foundation problems regarding validity of norms.

Pseudoagreement and pseudodisagreement.

It is a common observation that people at one moment may believe they disagree on something they suppose they both express by a sentence S, then they may drop their initial hypothesis and believe they agree on the proposition expressed by S, and explain their »disagreement» as only terminological. Still later they may find out that after all they disagreed on the proposition, but that some disagreement was due to terminological differences. If the sentence is an imperative more complicated possibilities arise.

Which are the criteria of confirmation and disconfirmation of hypotheses stating that there at a certain stage of a discussion, say among philosophers, politicians, mathematicians or what else, is a misinterpretation or a terminological disagreement covering a »real» agreement? So far, no criteria are worked out which are testable by systematic observation.

As in the case of synonymy and of preciseness, we favor a triple approach to the problem of developing a science of misinterpretation and disagreement:

(1) An approach on the verbal level involving direct participation of the communicating persons and with concepts operationally defined by questionnaires.

(2) An approach on the verbal level but centring around analysis of texts. (In many cases the direct participation is impossible, e. g. in case we are discussing the following question: »Which are the criteria and symptoms justifying statements that Kant misinterpreted Hume on the question of causality — as judged from the texts available?»)

(3) An approach on a mixed verbal and non-verbal, molar behavioral level, connecting criteria of misinterpretation with certain situations of frustration, disruption of means-end sequences of behavioral patterns, etc.

At a future highly developed stage of research, the third approach may be most fruitful even in studies of research-behavior itself (involving, e. g., misinterpretation among mathematicians,

theoreticians of æsthetics and of other complicated fields of controversy).

The approach involving questionnaires is the simplest and will probably continue to be of importance even in the remote future — especially with experts as respondents to the questions posed. In this paper only the questionnaire approach will be mentioned.

By »acts of assenting» we refer to verbal and non-verbal actions such as saying »yes», »sure», »agreed», »that is so», and to noddings and socially accepted gestures of assenting. If a person A asserts a sentence »a» with B as the audience, and B assents, we shall say there is verbal agreement between A and B in relation to »a» and to the situation at hand. If it can by means of procedures outlined above be confirmed that »a» for A means the same as »a» for B, that is, that there is an interpersonal synonymy $S(aAs, aBs)$ we shall say there is a communicated proposition agreement between A and B as regards »a» in the situation s . Any conclusion of this kind is apt to be highly tentative because of the tentativeness of hypotheses on interpersonal synonymy.

If interpersonal non-synonymy is confirmed, at least two cases should be distinguished: (1) What A unsuccessfully tried to convey to B, is a proposition agreed to by B. In this case, we talk of »pseudoexpressed propositional agreement». (2) What A did not succeed in conveying to B is a proposition not agreed to by B. In this case, we talk of pseudoagreement.

We shall give a schematical example of pseudodisagreement:

- | | |
|---|----------|
| 1) A: Nothing exists (T_0) | Step (1) |
| B: No. Your foolish assertion exists. | (2) |
| A: I meant: Nothing exists in the sense in which
Parmenides used »to exist» | (3) |
| B: I agree, but why did you not say that at once
instead of saying something quasi-profound? | (4) |

At step (2) we have a case of verbal disagreement. At stage (3) A introduces a » T_1 » presumably chosen among precizations

of T_0 for A, and with the hope that T_1 means the same for B as it does for A.

At step (4) we may say that in relation to the succession ((1)—(4)) there was at step (2) a misinterpretation on the part of B. There was at that stage of the discussion a pseudo-disagreement. If the aim of A to make more precise what he at step (1) intended to express is presumed to be successful at step (4), there is at that stage propositional agreement. We may, however, say that there are symptoms of propositional agreement at (4) and pseudodisagreement at (2).

One of the main purposes of introducing concepts of pseudo-agreement on the previously introduced concepts of synonymy is to link together vast fields of observation by a small group of basic concepts operationally introduced. One of these fields of observation is made up of the acts of assent followed by various kinds of discussional confusion, e. g., the acts of assenting to sentences on »democracy» in Yalta or Potsdam declarations and subsequent discussion on misinterpretation, pseudoagreement, misuse of the word »democracy», etc. What are the observational basis and exact meaning, if there are any, of hypotheses on misinterpretation? Which are the assumptions (e. g. about certain interpersonal synonymities) made when people say they agree or disagree?

By means of the already mentioned concepts of synonymy of imperatives, corresponding concepts of pseudoagreements involving imperatives can be introduced, *mutatis mutandis*.

»To define» and to make precise.

The use of the word »definition» among experts offers a confused picture. There are still groups competing with each other to monopolize this vague and ambiguous word as a concept designation. What we contend is only that some of the sentences called »definitions» are equipollent with hypotheses about past or present use of certain words or sentences or sentence schemes. If sufficiently precise, such so-called definitions can be re-

formulated into synonymy hypotheses. We therefore introduce the following (roughly indicated) concept of »descriptive definition of usage«:

»A formulation shall in the MS of A.N. be called a formulation expressing a descriptive definition of usage, if and only if it states that a certain expression, the so-called definiendum expression, is used strictly synonymous with a certain other expression, the so-called definiens expression, within a certain class of situations, the so-called intended field of application of the descriptive definition of usage.»

With this and related concepts as tools of clarifying discussions on definitions, it is of importance to stress the complex character of the hypotheses involved.

Using previous symbols a descriptive definition may be symbolized by

$$S(a p_i s_j, b p_m s_n)$$

where

- a — definiendum expression
- b — definiens expression
- $p_i s_j$ — intended field of application
- p_m — person whose interpretation of »b« shall determine the interpretation of »a«
- s_n — »standard« situation in which the person p_m shall be when making the »standard« interpretation of »b«.

Judging the extensive and violent discussion on the »correct«, »proper«, »true«, »main«, »traditional«, »old«, etc., etc., definition of, e. g. »democracy« on the basis of the requirements of a description of past or present usage, heavy shortcomings are revealed and easily formulated.

Thus, looking up statements on »democracy« which seem to be intended to be descriptions of usage, the factors symbolized in $S(a p_i s_j, b p_m s_n)$ are very seldom expressed, and if they are, then only rather vaguely, making it difficult or impossible to test the hypotheses. Thus, for p_i »we« may be found, for s_j »when used correctly« or »hitherto«, for »b«, the definiens expression,

some expressions the preciseness of which seems very questionable. Explicit indications about p_m and s_n are seldom found. More often, only »a» and »b» are indicated, e. g. as in formulas »a means b». The widely held contempt for »definitions» seems well motivated if it were turned against formulations intended to give descriptive definitions which have the defects indicated above and are not based on empirical research.

Analysis of hypotheses involved in subsuming instances under ways of use.

In the writings of authors belonging to analytical movements in present day philosophy, we find a great number of hypotheses stating that such and such philosopher or scientist is using such and such a word in such and such a sense. Sometimes instances of use (occurrences of the word) are quoted in support of the hypothesis at issue. »Subsumption analysis» aims to find out what kind of assumptions are implicitly made when an author subsumes an instance in this way. Not only presumptions of synonymy and preciseness are often involved, but also hypotheses within the field of science to which the analyzed text refers. Thus, an analytic philosopher may be found to reason as follows: if the scientist A by his sentence »a» means »a₁», then he says something stupid, which is improbable; if he means »a₂» he says something which is intelligent and suits the context, therefore A means »a₂» by »a». A great number and variety of assumptions are here made, for instance, that A means either »a₁» or »a₂». If »a₁» and »a₂» seem very imprecise it is of interest to find out how the analytical philosopher can subsume anything at all under »a₁» or »a₂».

Of the empirical findings in subsumption analysis the finding of H. Tønnessen ought to be mentioned: subjects interrogated as to how they managed to perform a certain subsumption revealed a tendency to interpret a descriptive definition on the basis of instances given of subsumption under the definition, and then to judge subsumptions on the basis of the interpretation

»found». This involves a kind of vicious circle which may be in part responsible for the low level of reliability and stability of hypotheses on the usage or usages exemplified by certain occurrences of certain words, e. g. hypotheses on inconsistency or contradiction.

Slogan analysis and slogan character.

Many designations considered to express concepts of central importance in philosophy (including political philosophy) are what has been called slogans in the social sciences (in content-analysis, propaganda-analysis, public opinion analysis, ideology analysis, etc.). Thus, »liberty», »justice», »democracy», »truth», »scientific attitude», »spiritual», »material».

There are vast theories of great political importance which depict the function of slogans in ideological conflicts to be that of confusing and hiding »real», non-ideological issues (Marx, Nordau, Nietzsche, Pareto, Sorel, Veblen, Beard *et al*). If an author belongs to an ideological camp, it is normal that he at least uses such theories to explain the verbal behavior of those of the opposite camps.

Theories about the slogan function of basic terms in political and philosophical discussion have never been worked out sufficiently clearly to permit of systematic testing. There are, however, a large number of approaches developing. (Cf. e. g., the bibliography of Smith, Lasswell and Casey, »Propaganda, Communication and Public Opinion»). One of the approaches is that of linking the slogan analysis to the previous kinds of investigation. A study on »private enterprise»⁴ has been a pilot study in the field.

Concluding word.

From time to time critical and empirical movements in philosophy and the border-line of the sciences have developed out of questioning the foundations of some older movements. There

⁴ H. Tønnessen, *Det private initiativ*, Universitetets studentkontor, Oslo 1948.

seems to be no bottom to be reached, rather some kinds of *circularity of chains of arguments*.

The enormous speculative edifices of Kant are considered critical and sceptical in relation to metaphysicians such as Wolff. Logical empiricism and related analytic trends have undermined the belief in such speculative edifices by questioning their meaning. It is time to study the assumptions inherent in the analytical approaches. But such studies cannot bring positive results without linking them up with contemporary methods of psychology and social science and especially with the requirements of testability roughly indicated by the slogan »operational». The approach surveyed in this article is an attempt to work out some tools of wide applicability within the problem situation indicated.
