

## ON OCCASIONAL EXPRESSIONS

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1. The term "occasional expressions" is supposed to have been introduced by Husserl. And Husserl, it seems, has distinguished them as a separate group of expressions. (1) Somehow or other, it is since his time and, no doubt, thanks to him that the notion of occasionality made itself at home in logical literature. Until recently, however, the general concern with the issue was rather small. Usually, occasional expressions used to be mentioned merely as a particular instance of multi-vocal expressions and were considered as a logical evil to be eliminated if possible. It was only during the last twenty five years that more attention was focussed on them. And presently, the view is advanced more and more widely that occasional expressions are an indispensable component of any empirical language and that they have there an important rôle to play. Hence the growth of interest in the issue. (2)

The task which one intends to undertake — and this is the task of this study, too — has two aspects: both the substantial aspect and the conventional or lexical one. The task is, namely, on the one hand, to grasp the specific particularities of occasional expressions whose extension has been previously, though only partially, distinguished on the basis of certain preliminary assumptions, and, on the other hand, to establish, in the form of definition and on the ground of the obtained results, the criteria of applicability of the term in question, criteria which, moreover, should not be too remote from the current terminological practice. The task is not an easy one: it deals with expressions having some enigmatic semiotic properties and functioning, it seems, in a way violating all principles of logic, all rules and habits sanctified by this discipline. Then, it is not surprising that the discussions on the issue testify to divergencies, sometimes far-reaching, of attitudes.

The initial assumptions are usually common. It is, indeed,

almost generally admitted — and I am presenting these assumptions in my own name, too — that occasional expressions are such as "I", "this", "today", "here", "yes", "no" (these standard examples reappear with a peculiar obstinacy), opposed to such ones as "Stockholm", "red", "ring", "or", and so on; there is also somewhat general agreement in that the semiotic properties of occasional expressions — all or some of them — depend not only upon the form of the expressions but upon the circumstances of their use as well. Differences of opinions begin when an attempt is made to determine more precisely what these semiotic properties are, what is the kind of circumstances upon which they depend, and what is the kind of dependence which holds in this case.

2. The most current definition attributes an occasional character to all such, and only such, expressions the meaning of which depend on the speaker or on the time or place of the act of speech.<sup>(3)</sup> However, this way of conceiving the issue results in attributing to the term under consideration the limits of applicability too narrow in relation to the commonly adopted ones. Let us only point to the fact that within these limits there is no place for such words as, for example, "this", "yes", "no" which, however, are generally considered as typical examples of occasional expressions. The meaning of the word "this" is known to be independent of the speaker as well as of the time and place of its occurrence, but it depends on the gesture accompanying the utterance or — in the case of its being used in a different sense — on the verbal context immediately preceding the word. Similarly, the meaning of both the words "yes" and "no" depends upon the preceding context, namely upon the question in the form "is it true that  $p$ ?" to which this word is an answer.

The definition could be, no doubt, enlarged by expanding, accordingly, the list of the circumstances of the use, contained in its *definiens*, i.e. by adding to it the direction of the demonstrative gesture accompanying the utterance, and of the verbal context, thus yielding another version of the definition, broader than the first. But the question is whether the refer-

ence to some determined, such-and-such circumstances of use, with the exclusion of all other factors, can sufficiently be justified. There are no reasons, it seems, why the semiotic functions of a given expression should depend upon some circumstances of use — for example the place or time of the utterance — and thus determine its occasional nature, whereas other circumstances — such as the colour of an inscription in the case of a certain special convention, or the intonation of the voice — should not play this rôle. If this is so, would it not be more natural to make just one step more and to extend the notion of occasionality so as to cover all the cases where the dependence of meaning upon the circumstances of use occurs?

These intuitions lead to the third version of the definition which establishes, for the notion in question, the criteria of applicability determined in such a manner. (4) But this can be objected, too. True, it eliminates superfluous limitations but it has the defect — just as the previous, second definition — of expanding the extension of the term being defined, and thus outstepping the demarcation line previously determined by the initial assumptions. This follows from the fact that in both the second and the third definitions the dependence of meaning upon the verbal context is one of the sufficient conditions of occasionality: now, this condition is satisfied not only by expressions generally admitted to be occasional, but also by expressions which should be distinguished from the occasional ones, as being simply the ordinary — thus, exactly, non-occasional — multivocal expressions. It is generally known, for instance, that the meaning of the functor "or" changes accordingly to the syntactical category of expressions placed on both its sides in the rôle of arguments; we know that the word "ring" means something different when occurring in the context: "she has a beautiful diamond ring", and something quite different when being a component of the sentence: "two men are fighting on the ring", or else of the sentence: "they dance in a ring", and so on. It is also clear that, from the point of view of existing terminological habits, the word "ring" is not an occasional expression.

We have thus analysed three versions of the definition, different from each other in respect to the breadth of their extensions. The first one proved evidently too narrow, the third — too broad, and the second — both too narrow and too broad. Therefore, none of them fully satisfies our demands. But one can search the way in some different manner. One can, namely, admit in trying to narrow the third definition, by a different method from the one previously applied both to the first and the second definitions, that occasionality of expressions is not determined by the kind of circumstances upon which depend their meanings but by the nature of the dependence which holds in this case. I think that such is the direction of investigations pointed to by Husserl. <sup>(5)</sup> It is then worth while to inspect more closely his analyses.

3. There are expressions, Husserl says, which change their meaning, as the case may be, but in so peculiar a manner that the phenomenon is beyond simple multivocality. Thus, for example, the word "I" has different meanings when used by various persons. And yet, it is multivocal in somewhat other sense than, for instance, the multivocal word "Hund", the multivocality of the latter being purely accidental as it follows merely from the fact that two different meanings have been associated with the same sound. <sup>(6)</sup> This fact enables us to limit these meanings only to one of them. It is quite different with expressions such as "I", "this", "here", "today", and so on. Their multivocal nature is not accidental: it has its source in their very meanings and in the way their meanings are linked with them. Hence, their multivocality cannot be eliminated on conventional grounds.

Another essential point, as Husserl remarks, is that in the case of such expressions the changes in their meanings occur in accordance with an evident regularity consisting in a certain constant connection between those meanings and the circumstances of the use of the expressions; whereas in the case of the ordinary multivocal expressions the changes of their meanings are irregular and do not show any strict connection with the situational context accompanying their use.

Husserl also points to the fact that in the case of the latter expressions it is generally possible to understand a given expression used in any of its various meanings irrespective of whether the circumstances of its use are known or unknown, whereas the meaning of an expression such as "I", or "here", or "this", can be grasped only in the act of speech and of the perceptive circumstances belonging to it. But it does not follow, Husserl says, that in such a case we are inclined to consider a given word as meaningless arabesque. We know, at least, that the sound or the inscription "I" is a linguistic expression by which the speaker refers to himself. But, on the other hand, we know as well that our understanding of the word is but partial: its meaning remains uncomplete, indeterminate, it involves, as it were, a certain gap which cannot be filled unless we have the knowledge of these "perceptive circumstances" accompanying the act of speech.

As Husserl underlines, occasional expressions have one more particularity which he considers to be especially characteristic: their meanings are somehow constituted by two component elements, i.e. by their general semiotic function or else by the demonstrative function, commonly shared by all the expressions of the same form, and by the semiotic function which is a particular instance of the former or the demonstrated function. This particular function is co-determined in each occasion by the changing circumstances of use and modifying itself in a regular manner together with any change in the circumstances. For example: the general semiotic function of the word "I" consists in that a person using it refers always to himself; and the particular function, belonging to this word in a given case of its use, consists in that the word "I", then pronounced, points to the speaker, and not to any other persons.

Husserl accordingly distinguished two kinds of expressions — objective expressions, on the one hand, and, on the other, "essentially subjective and occasional expressions", in short: "essentially occasional", or still more briefly — may I add — simply "occasional". Husserl defines them as follows: "An expression is objective if its meaning is fixed or can be fixed

exclusively through its mere sound-sensory appearance, so that its understanding, requires our taking into consideration neither the speaker nor the circumstances of the act of speech. On the other hand, an expression is called essentially subjective and occasional or, in short: essentially occasional, if it has a conceptually uniform group of possible meanings in such a manner that this *actual* meaning in any particular case is *essentially dependent* on the person using it and on the circumstances of its use. And it is only after taking into account the actual circumstances in which the utterance has been made that, in general, some definite meaning can be formed (?).

So much for Husserl. I have devoted so much place and time to present his analyses because, it seems, his ideas point directly to the heart of the problem I have chosen as an object of this study. These ideas, however, require certain elucidations and reconstructions. Let us then, without going into details, focus our attention on the following points.

To begin with, it is evident that Husserl, when opposing subjective, or essentially occasional, expressions to objective expressions, takes as the basis the way in which these two kinds of expressions "bind" their meanings. At the face of it, it would then appear that the question is to distinguish expressions to which their meanings are ascribed exclusively with respect to their shape or sound, i.e. with respect to some of their syntactical properties, from the expressions bound with their meanings not only with respect to their syntactical properties, but also with respect to the circumstances of their use, or a certain pragmatic context. This interpretation can be justified by the very definition of both objective and subjective expressions. However, it can easily be seen that the notion of occasional expressions, resulting from this assumption, takes into account only some of the properties attributed to those expressions by Husserl: it warrants changes in their meanings, the dependence of these meanings on the situational context and their partial, if any, intelligibility, in the case of an unknown situational context; but it by no means warrants the two layers of meanings, which Husserl stressed on many occasions with

particular emphasis. Consequently, one cannot help to be under the impression that the true intention of Husserl is somewhat different: when referring, in his definition of occasional expressions, to the manner in which their meanings are bound, he is concerned with such an assignment of meanings, which not only refers them to the circumstances of use, but also establishes a special dependence between these meanings and the circumstances of use. We will not be mistaken, it seems, when we say that this relationship is in any case characterized by the fact that it holds between the types of certain factors, or, in other words, between so-called variable factors, and not between concrete factors. It is also marked by the fact that a particular value of the second factor corresponds univocally to each value of these variable factors. In current terminology, we could say that the question is here of a functional dependence between variable factors, which, at the same time, is of a nature proper to semiotic relationships.

To clarify the issue let us consider for a moment the properties of statements fit for description of the dependences in question, or, in other words, the statements which are suitable for definitions of occasional expressions in the narrower sense distinguished above (to be called briefly "possible definitions"). In the light of the analysis carried so far, the characteristic of these statements is outlined clearly enough. First, they must be in the form of conditional sentences stating that if an expression is of a given form and is used under given circumstances, then it has given semiotic properties (for example, it means the same as an expression of a given form, designates specified objects, denotes this-and-this, and so on). Moreover, it is clear that since these definitional sentences have to establish functional relationships between variable factors, these factors must be represented in them by variable symbols, linked so that the value obtained, as result of a substitution, from the first of the two symbols (namely, the symbol occurring in the antecedent), determines the value of the second symbol. This can be achieved in two ways, but in each case according to the assumptions adopted to the kind of these semiotic properties determined by the circumstances of use.



The issue was not uniformly presented, neither in Husserl's texts nor in the writings of other authors. The issue is either that of (A) the sense, the meaning — the definitions are then given the form of sentences stating the synonymy of the *definiendum* and the *definiens* (this case seems to be much more frequent); or that of (B) the designating or denoting — then, the definitional statements become semantic rules which associate with the terms being defined their ontological commitments. Let us consider a few simple examples:

Ad (A), (x, y) If x is an expression in the form "I" and x is spoken by the person y, then the meaning of x is the same as the meaning of the 'person y'.

(x, y) If x is an expression in the form "today" and x is spoken on the day y, then the meaning of x is the same as the meaning of 'the day y'.

(x, y) if x is an expression in the form "here" and x is spoken in the place y, then the meaning of x is the same as the meaning of 'in the place y'. (\*)

Ad (B), (x, y) If x is an expression in the form "I" and x is spoken by the person y, then x denotes the person y.

(x, y) If x is an expression in the form "today" and x is spoken on the day y, then y denotes the day y.

(x, y) If x is an expression in the form "here" and x is spoken in the place y, then x denotes the place y.

And so on.

Now, in the case of the sentences of the type (B), the univocality of the relation between the semiotic properties of occasional expressions and the circumstances of their use is warranted by the ordinary rule or substitution. The reason for



this is that in any such sentence the expression which characterizes the semiotic properties of the defined term includes the same variable which occurs in the antecedent and characterizes the circumstances of use, whereas the rule of substitution allows only to substitute the same expressions for one and the same variable in a given formula.

The issue becomes more complicated when it comes to definitional sentences of type (A). The circumstantial variable occurs here only once, namely in the antecedent. The symbol equiform with it, which occurs in the consequent, is placed in the quasi-quotation: it thus plays the rôle of a "quasi-variable" — as might be said in Quine's style — and not of an ordinary variable. Hence the univocality of the relation between the circumstances of use and the semiotic properties of occasional expressions is warranted not by the rule of substitution, but by a different rule, which — to refer once more to the terminology worked out by Quine — could be called the rule of "quasi-substitution". As regards the cases under consideration this rule allows for the following procedure: when any fixed expression is substituted for the circumstantial variable that occurs in the antecedent of a given sentence, then the same expression is always to be substituted for the quasi-variable contained in the consequent, and, at the same time, the quasi-quotation-marks are to be replaced by ordinary inverted commas. Thus, one and only one "quasi-substitution" of the consequent corresponds to each substitution of the antecedent.

The question then arises as to which of the two variants should be chosen and what should be the criteria of choice. Now, it is not difficult to see that with respect to the conditions above stated (see page 95) it makes no difference whether the definitional sentences be formulated as in point (A) or as in point (B), since the conditions in question are satisfied in both cases. But, on the other hand, our choice will not be irrelevant with respect to some other implications when taken into account. Variant (A) is less advantageous since it leads to certain consequences which are difficult to accept. In order to see how it works we may simply bear in mind that various terms

denoting the same situational context can be substituted for the circumstantial variable contained in the antecedent of such a sentence, and any such substitution results in a different synonym of the term being defined. For example, the synonyms of the word "I" pronounced by Napoleon Bonaparte may be such expressions as "the first Emperor of France", "the victor at Iena", "the loser at Waterloo" and so on. It follows that with respect to the transitive character of the relation of synonymy the mutual synonymy of all these expressions would have to be accepted — and it does not seem plausible that we would generally feel inclined to agree with such a conclusion. In order to avoid these consequences, the definitional sentences of type (A) will have to be modified: the synonymy of the *definiendum* and the *definiens* is to be eliminated, and it is merely to be said that their extensions are equal (let such modified definitional sentences be called "sentences of type (A<sup>1</sup>)"). It seems, therefore, that if synonymy has to be something more than merely the equality of extensions, then the above described method is not well adapted for the establishing of the semiotic rôle of the defined terms on the basis of the relation of synonymy. This method enables us to assign these terms the extension of their applications, but does not allow to assign their definitional synonyms.

There is, it seems, sufficient ground for advancing the opinion that within the framework of the theory under consideration definability by type (A<sup>1</sup>) or type (B) is one of the particularities of the occasional sentences in the narrower sense of the term. Occasional expressions, in their narrower sense, will have to be considered as a group of such and only such expressions which either have been introduced into a given language by definitions of the type just mentioned, or else are being used in that language so that with respect to their very use, the type (A<sup>1</sup>) or type (B) sentences are well suited to provide their adequate definitions. (\*)

It might be added that these definitions — actually adopted or just possible — can be considered as a particular case of partial (or conditional) definitions introduced by Carnap. The difference here is that the definitions in question are formulated

in metalanguage and not in object-language as the partial definitions; and that the criteria of applicability they lay down are not limited in the sense that they permit to decide about some objects only whether these do, or do not, fall under the defined term but in the sense that they are applicable only to some tokens of the defined term, namely to those which are used in the situational context indicated in a given definition. It seems that definitions of this kind have not been so far distinguished in spite of their being useful in defining occasional expressions.

4. Let us now consider the main controversial issues. Some of them have already been discussed above and thus need only a short recollection. As we shall remember, they are concerned with (i) the kind of the circumstances of use on which the semiotic functions of expressions in question depend, (ii) the kind of semiotic functions which depend on these circumstances, and (iii) the kind of dependence in a given case.

Now, the nature of that dependence is functional. Its first member is, as a rule, some fixed kind of the circumstances of use. In principle, these may be of any kind whatever, provided they are well suited to this particular rôle. (<sup>10</sup>)

As regards the second member of this dependence, here we have always to do with some semantic function, namely the function of denoting or designating.

Such is the case with the occasional expressions in the narrower sense. But the situation becomes different with the occasional expressions in the broader sense: then, the dependence between the semiotic functions of these expressions, on the one hand, and the circumstances of their use, on the second, consists in referring these functions to circumstances of use — and this is the unique essential feature of this relationship. These circumstances, moreover, are not necessarily limited by any previously fixed condition. They can be either some determined constant factors or merely some kinds of them, and thus some variable factors. The same applies to the semiotic functions: if their dependence upon the situational

context is not univocal, then the function ascribed to the occasional expressions with respect to such or other circumstances of use may consist not only in denoting or designating, but in the sense, the meaning, as well. This kind of dependence does not give rise to difficulties emphasized above (see p. 98).

It should also be borne in mind that the need for stating the difference between the two types of approach arose when Husserl's analyses were examined. It seems, however, that this difference might be useful in a much broader field and that many controversies are due to disregard of the fact that two different intentions are linked with the notion of occasionality: one of them conceives this notion in its broader sense, and the other, in the narrower sense. Presently, we are chiefly concerned with occasional expressions in the narrower sense.

Let us then come back to further controversial problems. As I have said at the beginning, occasional expressions are, by and large, considered as a particular case of multivocal expressions. Now I should like to stress the expression "by and large". For there is a view which holds that occasionality does not entail multivocality of those expressions to which it is attributed, but that, on the contrary, it leads, in principle, to their being univocal. This follows, it is argued, from the fact that each occasional expression functions, in all cases of its use, in accordance with the same convention (this term being, it seems, applied both to the definition itself and to linguistic habits); now, since the convention is always the same, then the sense in which a given word occurs is always the same, too. The argument does not seem convincing, however. True, the convention *is* the same. But its particularities should be well borne in mind. For we cannot overlook the fact that it establishes the criteria of applicability of expressions in a way determined to some extent only, thus in the multivocal manner, and that these criteria do not become univocal unless applied to definite circumstances of use — at least, to the situational context. Now, it is clear that if the convention is the same it does not follow that the meaning must be the same. Thus the question remains open. But is there any answer? My personal view previously advanced (see pp. 99-103) does not

lead to settle the issue in either way: it allows both for the possibility that with a change in denotations of occasional expressions a change in their respective meanings does occur, as well as the possibility that in spite of a change in denotations the meanings remain the same. I am inclined, however, to assert what has been suggested first, and that for the following reasons: (i) in making such a choice we avoid a conflict with the opinion long established in logic, which excludes the possibility of synonymy of expressions that have different criteria of applicability; (ii) also, we need not reject the principle handed down by the logical tradition and stating that any change in denotation is always accompanied with a change in meaning; and finally (iii), on the ground of the theory advanced, the respective meanings can be assigned to the occasional expressions only by the assignment of denotations (see p. 98); this being so, it seems more natural to claim that a change in denotation entails a change in the respective meaning, than to claim that one and the same meaning corresponds to different denotations.

By the way, from the fact that occasional expressions have no definitional synonyms it does not follow, of course, that they have no synonyms at all: certainly, for the relation of synonymy between any two expressions to occur, it suffices that their criteria of applicability be alike. Thus, if to two non-equiform occasional expressions their respective denotations are assigned because of the same dependence on the same circumstances of use, then these expressions have to be considered as mutually synonymous. Such is, for instance, the case with the expressions "the day before yesterday" and "the day before last". The definitional sentences corresponding to the above two expressions differ only in that the first one contains the expression "the day before yesterday" and the second — "the day before last". Accordingly, all the specimens of the word "today" are mutually synonymous when spoken on the same day, and such are also all the specimens of the word "yes", when used as an answer to a question put and understood in exactly the same way.

But let us return to the problem of multivocality. It may have

one more aspect different from this which we have so far taken into consideration. The question here is not whether different specimens of one and the same expression have different denotations, and accordingly, different meanings, but whether one and the same expressional specimen may have more than one denotation and more than one meaning. To this question, too, I am inclined to answer in the affirmative. The multivocality conceived in this way occurs when a specimen of a given occasional expression is used several times but, in each case, in different circumstances of a kind essential to that particular specimen. Thus, when, for instance, the same poster bearing the propagandistic inscription "I hate Hitler" is held by turns by different persons, then the word "I" it contains have several denotations and, accordingly, several different meanings. Analogically, when the word "today" occurring in a letter which bears a certain date is cut out of that letter and stuck into a letter written on one of the following days, then the word "today" becomes multivocal and, in the same time, multi-denotative. (")

There is, however, a different opinion that should be mentioned here. According to this opinion and to the definitional assumptions adopted on its ground, the issue of the multivocality of occasional expressions is solved in the negative both for the first and for the second way of interpreting the issue, as stated above. These assumptions concern chiefly the notion of expression and hence they deserve to be looked into for a while.

In both logical and linguistic literature the usage is to give the name "expression" either to definite inscriptions or sounds (*tokens*) — i.e. to physical objects of a determined shape or sound — or to classes (*types*) of such objects, distinguished with respect to their graphical or phonic shape. Now, because of the peculiar character of occasional expressions, some authors are inclined to revise this purely syntactical notion of the expression. That syntactical theory, it is argued, is justified if and only if the form of expressions is their unique feature with respect to which their semiotic properties are ascribed to them. Such is the case of non-occasional expres-

sions. But when it comes to occasional expressions, an important rôle is played, besides the form, by the circumstances of their use. With regard to these expressions, therefore, the necessity arises to modify the notion of expression and to adapt it to their specific particularities. It would seem that this way of conceiving the issue aims at stressing the necessity of relativisation of the notion of expression to the circumstances of use. But the true intention is not that. It is actually concerned with such a notion of expression which would consider as an expression (the adjective "occasional" should probably be added) not a linguistic token itself, i.e. not an inscription, or a sound, itself but a certain complex whole composed of the elements of two kinds: of an inscription or a sound, and of certain circumstances of use. This theory allows for two versions of interpretation. First, an expression would be a concrete whole which is composed of its elements conceived as parts in the mereological sense (a very strange whole and very strange parts!); the second version advances the concept of the whole conceived as a set in the sense adopted in set theory i.e. as a certain abstract object. The first theory is, it seems, to be attributed to Ajdukiewicz, though not with absolute certainty (as it is contained in his manuscripts, not yet published), and to Black as well; the second view has been developed by Bar-Hillel who defines an expression as an ordered pair composed of a definite inscription or sound, and the accompanying pragmatic context. <sup>(12)</sup>

On the ground of this theory occasional expressions are univocal by definition. If different tokens of a given occasional expression are accompanied by different circumstances of use, then we have to do with several expressions which differ from one another as to their component elements, and not with several tokens of the same expression which differ from one another in their semiotic functions. For example: in each time when different persons use a token of the form "I", a series of different expressions come into being, and each of them is composed, as its parts, *resp.* as its elements, of a given occasional token and the person which used that particular token. The token "I" does not change its denotation simply



because it has no denotation at all: it is not an expression. And the *expression*, or the *type*, "I" does not change its denotation either, because occasional expressions which differ from one another by their denotations have, by this very fact, different component elements and, therefore, they are not particular cases of the same expression "I". Now, if multivocality is understood in the first of the two senses (i.e. if it consists in that that different specimens of the same expression acquire different semiotic functions) then the multivocality of occasional expressions in the sense now under consideration is *a priori* excluded. Analogically, when it comes to multivocality in the second sense, a particular occasional expression cannot have several denotations at a time, because even when the same specimen of a certain occasional token is used several times and, each time, in a different situational context, we have to do not with the same individual expression, but with several different expressions which — all of them — have one common element.

The fact that this theory preserves the univocality of occasional expressions is often considered as its advantage, for the established ways of understanding the term "meaning" are considered to be an argument in its favour (such is, for example, the view advanced by Maria Kokoszyńska in the cited paper. I am inclined to think, however, that even if this argument is right, the conformity with the traditional ways of interpreting meaning is here achieved at the cost of a far-reaching lack of conformity with the well established use of the term "expression" and many other related terms, so that, all in all, the price to be paid seems exorbitant. Take a few examples they attach to (Bar-Hillel only, as the view of Ajdukiewicz in his matter is known only from the above mentioned paper by Maria Kokoszyńska, and is thus second-hand, while Black made merely a general remark on this point).

The expressions conceived as ordered pairs, are, of course, abstract entities. This concerns not only expressional types, but also the particular individual expressions (tokens).<sup>(13)</sup> Hence, no expression can be spoken, read or heard, or used in any way. And, on the other hand, the occasional tokens used

for the purpose of communication through speech or writing do not denote and do not mean anything at all. Sentence-shaped statements in which such tokens occur are, accordingly, neither true nor false, and so on. These and other consequences certainly do not encourage us to adopt the opinion which results in them.

One more point should still be stressed. The definition of an occasion expression conceived as an ordered pair composed of a definite token and the accompanying circumstances of use gives no indications at all as to the kind of circumstances which are the second element of such a pair, when its element is of such-and-such a form. Nor does it say anything about the semiotic properties of the expressions so conceived and about the ways of assigning them these properties. Hence, the need arises for some complementary assumptions to be made. These, it seems, should be approximately of the following form (when applied, for example, to the expression I):

- (1)  $(x, y, Z)$  [if  $x$  is the token of the form "I", and  $y$  is the person which pronounces  $x$ , then ( $Z$  is the expression of the type "I" if and only if  $Z = \langle x, y \rangle$ ].
- (2)  $(x, y, Z)$  (if  $x$  is the token of the form "I" and  $y$  is the person who pronounces  $x$ , and  $Z = \langle y, x \rangle$ , then  $x$  denotes  $y$ ).

Only just such definitions assign to the expression its occasional character. It can easily be seen that they are constructed according to the same principles as the definitional sentences to which I referred above (see p. 96). Still, the differences in this case result in the fact that, on the ground of the suggestions put forward by Bar-Hillel, the whole issue becomes much more complicated than it actually is when approached in the way I advocated in my own analysis. It does not seem, moreover, that any remarkable theoretical advantage can be obtained by complicating the

problem and allowing for a greater inconformity with the established terminological habits.

Sometimes, the problem of occasionality is discussed from still another point of view. Thus, for instance, the question of the relation of occasional expressions to proper names has been dealt with. Some authors maintain that proper names differ essentially from occasional expressions and, as a rule, have no occasional character (such is the view of Sørensen); others, on the contrary, believe that there are no proper proper names, or rather: proper names in the logical sense, besides the particular specimens of the pronoun "this" in each of its actual applications. The relation of occasional expressions to variable symbols is also a controversial issue. There is a view that, in some cases at least, the rôle of these expressions in natural languages is the same as the rôle of variable symbols in artificial languages, and that, consequently, they are simply disguised variables (Koj); the opposing view (advanced by Quine) reduces the rôle of variables to the rôle of demonstrative pronouns.

Besides, the differences of attitudes appear in the answers to the following questions:

— Does occasionality of natural languages exclude the possibility of applying the laws and rules of logic in them?

— Is it possible to apply semiotic notions — such as the notions of name, sentence, equivalence, truth, falsehood, etc. — to occasional expressions and to statements in which they occur, in their ordinary meanings, or do they need to be re-defined and, in each particular instance, referred to the same circumstances of use as required in the case of the tokens to which they relate?

— Is it possible to eliminate the occasional expressions altogether and would it be advantageous if it proved possible?

It is not my intention here to discuss all these controversial issues, because it would require an expansion of our analyses in many ways, and the taking into account of other problems beyond the scope of this study.

5. Let us pass now to the conclusions by pointing, in the first place, to the main topics. This study was intended chiefly to find out these properties of occasional expressions which account for their specific particularities. The main stress has been laid, on the one hand, on the relative character of the semiotic functions of these expressions with regard to the circumstances of use of a certain distinguished kind, as well as on the univocal dependence of the denotations of these expressions on such circumstances; and, on the other hand, on the kind of sentences that can well serve as definitions of occasional expressions. As we have seen, such definitions are conditional sentences, formulated in metalanguage and, moreover, singled out by having the form of semantic rules and by containing, each of them, in the antecedent and the consequent, a "circumstantial" variable which, in both cases, covers the same set of the circumstances of use. These fundamental features result in various derivative characteristics. It follows, for example, that the semiotic functions are not ascribed to all expressions of the same form, but to such only which satisfy certain specified conditions (stated in the antecedent of the respective definitional sentence); that the denotations of occasional expressions change according to a certain constant principle, common to all the specimens of the same form; and that, under the assumption that all changes of denotations are always reflected by modifications of the respective meanings, these expressions are essentially multivocal, but that multivocality, though unavoidable, is harmless enough, for each particular case of use the expressions have but one meaning univocally determined by the circumstances accompanying their use.

As I have already said, in connection with some different question, the opinion I have tried to present here is based, as to its fundamental idea, on the observations made by Husserl. It brings them out and submits them to a logical reconstruction. Moreover, it seems to grasp, with a considerable approximation, the true intention of Husserl and — which is still more important — it conceives, I think, correctly these properties of occasional expressions which are their most significant features

and result in their being distinguished as a separate group.

Occasionality is one of the essential properties of natural language. If for no other reasons, the problem of occasionality should be included in the theory of natural language as one of the main issues.

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#### NOTES

(<sup>1</sup>) By the way, this term has been adopted in Polish and, partly, German literature. In English-language publications other terms were more commonly used, such as: "indexical expressions" (by Peirce), "egocentric particulars" (by Russell), or "token-reflexive words" (by Reichenbach).

(<sup>2</sup>) One has to mention that an empirical character is attributed only to languages containing the terms which have been introduced to them by the so-called ostensive method requiring the use of definitional sentences of the form "This is *N*" or "This is identical with *N*", with the demonstrative pronoun as a subject. Now, the demonstrative pronoun is a typical example of an occasional expression.

It is also worth while to note that, besides the above aspect, the importance of these expressions is sometimes being emphasized as regards the communicative functions of language. This was stressed, for example, by BURKS in his paper on "Icon, Index and Symbol" (*Ph. a. Phen. Research*, vol. XIX, 1949), and by BAR-HILLEL in his article on "Indexical Expressions" (*Mind*, v. 63, 1954). According to this view, a complete elimination of such expressions, even if possible, would by no means be useful, since it would necessarily result in a considerable reduction of the amount of information that a given language may prove to be well fitted to transmit.

(<sup>3</sup>) Such are, for instance, the determinations given by Tadeusz KOTARBIŃSKI in his text-book *Elementy teorii poznania, logiki formalnej i metodologii nauk*, Warsaw, 1929, p. 24 (second edition — Warsaw, 1961, p. 35; in the English translation, published under the title *Gnosiology*, London, 1966, p. 22); similar definitions are given by Bertrand RUSSELL in his *Human Knowledge. Its Scope and Limits*, London, 1948, p. 100, and by Rudolf CARNAP in *Logische Syntax der Sprache*, Wien, 1934, pp. 120-1.

(<sup>4</sup>) Such determinations are given by Kazimierz AJDUKIEWICZ in *Logika pragmatyczna* (Pragmatic Logic), Warsaw, 1965, pp. 54-5, and by Henryk GRENIIEWSKI in *Elementy logiki formalnej* (Elements of Formal Logic), Warsaw, 1955, p. 33.

(<sup>5</sup>) E. HUSSERL, *Logische Untersuchungen*, vol. II, § I, § 28, Halle a, 1928.

(6) The word "Hund" being used in the German language either as the "dog", the "hound", in English, or else in the sense of a special vehicle adapted to the mountain routes.

(7) Op. cit., p. 81.

(8) In similar situations, when quotation marks are needed, inverted commas, and not corners, are generally used. But in doing so, one changes their principal function which, by the way, is double. Namely, inverted commas indicate either that what is written between them is an individual name of itself, or else that any inscription equiform with this particular inscription is a general name of each inscription equiform with. Now, in the cases in question the role of the quotation marks is somewhat different. They occur as such only when the expression they embrace contains variable symbols and when they indicate that that expressions is a schema of quotation-mark-names of all expressions which are the substitutions of these expressions. For this reason, QUINE (W. Van Orman QUINE, *Mathematical Logic*, Cambridge, Harvard University Press, 1955, pp. 35-7) instead of using inverted commas, introduced corners and called them "quasi-quotations". This is from him that the sign and the term itself is borrowed in this study.

(9) It is to be noted that Polish logician Koj, in his paper "On Definitions of Occasional Expressions" (*Annales Universitatis Mariae Curie-Skłodowska*, Lublin, 1964), also defines that kind of expressions by referring to the specific properties of their definitions. On the other hand, however, he formulates schemata of such definitions in a different manner, though with equal concern for making them state univocal semiotic relationships, and, when discussing the issue, he does not refer to Husserl's analyses; see also J. KOTARBIŃSKA, "Spór o granice stosowalności metod logicznych" (Controversy over the Limits of Applicability of Logical Methods), *Studia Filozoficzne*, 1964, pp. 30-1; the English translation is published in *Logique et Analyse*, vol. 8, 1965.

(10) By the way, it seems plausible that this condition entails the same extensional limitations which were introduced with the second of the above definitions of occasional expressions. But even if it be so, there would still be a difference: first, because on the ground of the theory presently being advanced these limitations would be no more arbitrary, but would follow from certain more general assumptions, based, as it seems, on satisfactory justification (and concerning, of course, the kind of the relationship under consideration and the conditions entailed with regard to the members of this relationship); and, secondly, because these assumptions could meet the objections to which the above mentioned definition was open (see above, p. 90-1).

(11) This problem was stressed by J. KRECZMAR in his article "Równoznaczność, wieloznaczność, znaczenie" (Equality, Multivocality, Meaning), *Fragmenty Filozoficzne. Book in honour of Tadeusz Kotarbiński*, Warsaw 1934, pp. 45-6, and by Nelson GOODMAN in his *Structure of Appearance*

(Cambridge, 1954, p. 295). The first of the above examples is borrowed from Kreczmar, and the second from Goodman.

(12) Y. BAR-HILLEL, "Indexical Expressions", *Mind*, 1954, p. 364 sq; M. BLACK, *Language and Philosophy*, New York, 1949, pp. 155-6. The view of Ajdukiewicz is presented by M. Kokoszyńska in the paper "Rodzaje zdań" (Kinds of Sentences), *Przegląd Filozoficzny*, 1947, p. 10, where she refers to his unpublished lectures. Since the theory under consideration distinguishes occasional types from occasional tokens, I shall use, if need be, two kinds of quotation marks: crooked double corners (« ») for names of expressions in the sense of types, and ordinary inverted commas for names of tokens (" ").

(13) The term "type" is used here against the objection of Bar-Hillel who believes that within the framework of his terminology the talk about expressional types is meaningless. It is correct when the term "expressional type" is traditionally applied to the set of all inscriptions, or sounds, of the same form. But if we apply here a somewhat modified notion of the expressional type, adjusted to the notion of the expression as adopted here, then the expressional type «I» is a set of all ordered pairs, each of them being composed of a certain particular token "I" as its first element and of the person which pronounces exactly this token and is thus the second element of a given ordered pair.