

Andrzej Bogusławski ON SEMANTIC ANALYSIS

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Loosely speaking, semantics is supposed to deal with meaning — the sense of expressions. Sense, in turn, according to the most general understanding of the word, falls under the concept of connection, relation. Hence it is clear that semantic analysis should consist in revealing, in one way or another, the relations that hold between expressions. Some relations can be brought out by drawing attention to certain objects while uttering such and such expressions at the same time; in this way we 'ostensively', or 'deictically', learn the sense of the expression, or rather some aspect of its sense. Without this aspect of their connections, expressions could be useful for nothing but games.

Yet apart from such connections there are relations between expressions themselves. Some of them are associated with relation to objects, in that they mirror, as it were, the connections between expressions and objects. This is precisely the domain of semantics. Clearly then, in semantics, the fundamental formula or schema of an expression must take the form of a RELATION between two expressions that holds by virtue of their reference to the objects besides them. But the most general, most basic and most commonly used schema of relation is implication, that is, the expression *if... then...*, or symbolically: $p \rightarrow q$. This schema, therefore, suggests itself as the primary tool of semantics.

And indeed, a phrase such as *If something is a dog, then it is an animal* can be regarded as a suitable and natural way of presenting a particular semantic property of the word *dog*, viz. its relation to the word *animal* (alternative formulations would include *All dogs are animals* and *The word "dog" denotes an animal species*).

This, however, leads to a fundamental difficulty. The point is that, the sentence *If something is a dog, it is an animal*, according to the NORMAL UNDERSTANDING of the words involved, cannot be contrasted with the sentence *It is not the case that if something is a dog, then it is an animal* as describing a conceivable situation. And it is only such contrast that allows us to understand expressions.

It is also in light of this opposition that we usually account for implication, e.g. *If Peter was at the meeting, then he knows who has been chosen*, *The one who asks doesn't get lost (If you ask, you won't get lost)*, *If something is a living being, then it came to existence from a similar living being* (the contrary would be the thesis about autogeny), etc.

Implications such as the examples given above cannot, and usually do not, aspire to the role of semantic statements. Such a role can only be played by implications of the previous kind. Yet telling those implications apart is not always an easy task, and, more importantly, we do not always care about the distinction. So, for instance, the example about a living being can raise serious doubts and — on a less critical approach — could deserve the title of a semantic statement. The reason for such confusion is the uniformity of the external form of those implications, though in fact they are quite different.

That is why in a correct semantic analysis we should go beyond the general concept of implication; there is only room for analytic implication, like in logic, whereas synthetic sentences and further implications based on them should belong to science and ordinary knowledge or opinions.

Thus it is necessary to describe the nature of implication and its various kinds in a more precise way; we need their semantic interpretation. We have to do here with a typical case of 'building a ship in the sea': semantic analysis as a tool for making tools for semantic analysis. Nevertheless, there is no other way out, and given sufficiently clear and certain basic claims, there should be no danger of internal conflict within the whole.

The first thing we assume is the postulate that it is a necessary component of a COMPLETE interpretation (understanding) of an (minimal) utterance that it be referred to some object, a fragment of reality, a part of the world, i.e., that it should pick out such a part and draw one's attention to it in connection with the utterance. It must be emphasized that we are talking about an object in the extensional sense, a part or 'portion' of reality, i.e., an object in the ordinary sense (yet including living creatures, as well as concrete sets). The notion of object as an 'object of thought', 'object in the abstract sense', which is supposed to include — in addition to normal objects — creations of imagination (e.g. fictional characters), properties, actions, psy-

chological states, etc. lacks the known (operational) criteria of application of the ordinary term *object* and is intended as something that would correspond to some mean, as it were, between those criteria and the lack of them. But this is a total nothingness, like something which is supposed to be neither white, nor not white, and to keep a bit of both properties at the same time. We reject such a notion of object. The claim that by endorsing the ordinary understanding of *object*, we encroach on the field of ontological discussion, allegedly alien to semantics, is based on a misconception. In fact, we just wish to use terms with well-known applications, in order to avoid creating some special semantic metaphysics. And the term *object* is absolutely crucial in SEMANTIC analysis.

Still, the application of the above postulate to implication by referring it to a particular object is fraught with difficulties. And yet implications, or at least those not involving fictional characters etc., that is, implications that are regularly communicative, above all those occurring in science, should have their concrete object — an object which could be referred to not only by the speaker, but also by the hearer.

There is only one way out of this situation: we need to assume that, in general, it is the expressions themselves that constitute the object talked about in a given implication; expressions taken not as bare sounds or inscriptions, but as sounds or inscriptions understood in a certain way, so not in *suppositio materialis* in the narrower sense, but in a supposition that could be called, following William Ockham (after a slight change of its extension), *suppositio simplex*.

We interpret the basic type of synthetic implication by making use of the well-known matrix of truth values. We will regard the distinguished configuration ($V F — F$) as the proper characterization used in an implicational sentence and applied to sentences in *suppositio simplex*. So we will accept the predicate *untrue* in the case of conjunction of the antecedent and the contradictory of the consequent, taken as a set of expressions-objects. In order to bring out the difference between implication and simple negation of conjunction, in the case of implication we introduce a hierarchy of expressions-objects.

By marking an expression-object with brackets (), and a relevant set with { }, we will replace the ordinary implicational formula with the following formula of a more fundamental type:²

²Translator's note: the variable with a bar over the letter q stands either for the contradictory of q , or — less plausibly — for (q) *untrue* (accordingly, some minor modifications were necessary in the following formulas).

(1) $p \Rightarrow q = (p): \{(p), (\bar{q})\}$ untrue; cf. $\sim (p \wedge \sim \bar{q}) = \{(p), (q)\}$

Examples:

If it rains (p), then it will be wet (q) = (p): \{(p), (\bar{q})\} untrue;

It will be wet (q), if it rains (p) = (q): \{(q), (p)\} untrue;

We will interpret general sentences in an analogous way, so that the sentence *Whoever asks doesn't get lost* will be rendered in the following manner:

(2) $(xpy): \{(xpy), (xq)\}$ untrue

where p corresponds to *asks*, and q to *gets lost*.

The latter interpretation, however, requires some clarifications. The first one concerns the term *untrue* next to expressions not referring to any concrete object: we usually speak of truth when we are talking about a sentence or sentences 'attached' to some object. Here, the application of the predicate *untrue* stems from the belief that this predicate carries the information of ABNORMALITY OF USING A PREDICATE (PREDICATES) OR ITS (THEIR) NEGATION in an expression-object; such an expression can either contain indexes referring to particular objects or fail to do so. Their absence (if there are no other descriptions limiting the reference of a predicate) amounts to a 'generalized' use of a predicate. Still, the affirmative or negative use of a predicate is enough for applying the metapredicate *untrue*. The metapredicate *untrue* has its contextual version — *does not exist*; it is applied to expressions-objects and to sets of expressions without the hierarchy made explicit in the notation introduced above; e.g. *Fairies don't exist = (x fairy) untrue*, *There are no people who ask and get lost = \{(xpy), (xq)\} untrue*. We interpret the corresponding existential sentences with *exists* as a metapredicate *untrue* next to expressions-objects of the type $(p \text{ untrue})$, where p is substituted with the expressions from the sentences about 'nonexistence'.

The second comment concerns variables x , y , etc. Contrary to appearances, they should not be regarded as distinct components of a semantic structure. Reference to an object is an integral property of a predicate (a property that can, but need not, be — wholly or partially — indicated and/or actualized by the hearer), while the object can be a concrete particular or a set with given cardinality. In other words, a predicate is in itself either monadic or binary, ternary, etc., and these argument-slots have their particular features. All this is inherent in the predicate. The expression *traded*, normally understood, is no different from the expression *Someone traded something for something else with someone* (unless it has been used with such and such concrete objects in mind). This situation can be com-

pared to the case of a pipe: its wall does not exist in it separately from the hollow space or from the inlet and outlet. Just as you cannot have a pipe without an inlet or vice versa, so you cannot have the verb *to trade* as such without one of its four 'slots'. So if symbols of variables are used to denote possible arguments of a relation, it is not done in order to mark some mysterious, distinct semantic parameters (there are no such things in language), but to specify important properties of a predicate (which, in part, constitute the predicate) and, even more importantly, to mark the identity or nonidentity of the arguments which could fill in the respective slots. For it is an empirical fact that language allows for determining the identity—nonidentity of arguments despite the failure to indicate the objects the predicate refers to, or despite taking the predicate in *suppositio simplex*, without thinking of any object. This is the case of *Whoever asks doesn't get lost*, where the lack of object arguments does not get in the way of the clear understanding that we have a unique, hypothetical object in mind. This significant feature of the language needs to be modelled somehow: x, y, \dots are a convenient device in this case (as long as one keeps in mind that they do not stand NEXT TO p, q , etc., but are inseparable from p, q , etc. — they, so to speak, inhere in them).

Let us now move to the kind of implication which can be plausibly considered semantic, e.g. *Dogs are animals*, and more precisely — *If something is a dog, then it is an animal*. By transforming this implication into the primary form that has just been presented, we get:

$$(3) (x \text{ is a dog}) : \{(x \text{ is a dog}), ((x \text{ is an animal}) \text{ untrue})\} \text{ untrue.}$$

This formulation gives rise to a major difficulty. Namely, the opposite formulation would be:

$$(x \text{ is a dog}) : \{(x \text{ is a dog}), ((x \text{ is an animal}) \text{ untrue})\} \text{ true.}$$

That is to say, *If something is a dog, then it is not an animal*, on the normal understanding of the terms involved is a contradiction in the strictest sense, since, on the normal understanding of the words used here, this sentence entails that it is possible to be an animal and a non-animal at the same time. But if we agree that we understand all sentences only by way of opposition between predicates and their negations, i.e., as a choice between these two alternatives, then we will be forced to regard (3) as

meaningless. It is so because falsity can be predicated only if one knows what the corresponding hypothetical truth would consist in, and that cannot be said about contradiction or about something which involves a contradiction. The point is that truth is the correct or normal choice of an affirmation and/or negation, whereas such correctness cannot be attributed or denied if both the affirmation and the negation can be applied to the same thing, that is, if no choice has been made between them. Sentence (3) does not say that there are no 'dogs—non-animals', because in order to claim that, it would be necessary to understand this description, in the same way in which we understand, say, the description *centaur*. Sentence (3) does not say that dogs-non-animals is a description that lacks reference, but rather that it is not a description at all. Accordingly, it is impossible to deny that the sentence *If something is a dog, then it is an animal* has a perfectly definite sense and, in fact, it is true. Consequently, since — on the one hand — it is necessary to acknowledge what has been said above about the peculiarity of the sentence in question, and — on the other — to count this sentence as meaningful and true, we must choose a special interpretation for it, which differs from the one we have just tried and which meets the requirements that have been specified as a result of this attempt with respect to the affirmation—negation opposition.

In such an interpretation a crucial role should be played by the notion of contradiction. It not only follows from the observations suggested by considering the previous example. It is also made clear by the following truism: if an expression has a meaning, then the reverse of that expression, obtained simply by changing the affirmation into negation or the negation into affirmation, is in contradiction to it, while expressions which differ in meaning are not automatically contradictory, even if they also differ with respect to affirmation—negation; in fact, it is all the more so when they differ in this way (cf. *black* — African-American, and *not black* — about colour; *is a dog* and *is not a cat*). By reversing this observation, we draw the conclusion that the presence of (even indirect) contradiction between expressions that are opposite with respect to affirmation—negation must reflect the fact that one of them represents at least such and such semantic properties of the other, and in some cases they would just have the same meaning (disregarding the affirmation—negation difference).

However, we cannot be dealing here with a straightforward, strict contradiction, because the latter is a relation between expressions that differ exclusively with respect to affirmation—negation, which in addition are declarative in character, e.g. $(A) \text{ is asleep} - (A) ((A) \text{ is asleep}) \text{ untrue}$,

while we are concerned not so much with substitutions of the so-called logical truths as with relations between expressions differing in form — including both declarative and non-declarative ones.

Apparently, a proper rendering of implication that holds in the case of expressions whose meanings overlap or one of which represents some part of the meaning of the other, can take the following form:

$$(E_1) : \{(E_1), (E_2)\} : \textit{if } x \textit{ knows and is ready to use } (E_1), (E_2),$$

then } x \textit{ is ready to use } (E_1), \textit{ given that } x \textit{ is not ready to use } (\bar{E}_2).

In this formulation, (E) stands for an expression in *suppositio simplex* with an implicit or explicit indication of the 'code' it belongs to (e.g. the English language), and x — for an arbitrary person at a particular moment together with all pertinent circumstances, the same in all applications of x in the formula. The bar over E_2 signals the change from affirmation to negation or vice versa. The substitutions of E_1 and E_2 could be, e.g., *dog* and *animal*, respectively.

An example of a pair of expressions that cannot be substituted for E_1 and E_2 is: *dog* and *quadruped*; a dog with three legs would be, like a calf with two heads from old reports, an oddity of nature, not of semantics.

The association of the relation between E_1 and \bar{E}_2 with contradiction in the discussed formula is revealed by the fact that readiness to use \bar{E}_2 leads to the *lack* of readiness to use E_1 , and this lack is already in direct contradiction to readiness to use E_1 (just as readiness to use \bar{E} rules out readiness to use E).

We can introduce here a set of relations potentially inherent in this schema, followed by suitable terminological conventions.

The relation E_1 — E_2 — semantic CONDITIONING, e.g. *dog* — *animal*, *dog* — *not cat*; in the case of identity with respect to affirmation—negation — COMPATIBILITY, e.g. *dog* — *animal*, otherwise — ALTERNATION; E_1 is a semantically conditioned expression, with respect to E_2 , while E_2 is a semantically conditioning expression, with respect to E_1 ; in the case of symmetry of the relation between E_1 and E_2 , i.e., if E_2 — E_1 is an analogous relation, we could speak of TRANSFORMATION, e.g. *a is longer than b* — *b is shorter than a*, and the arguments of the relation of transformation could be called mutual transforms; a transformation preserving the object

reference is SYNONYMY, e.g. *a married b* — *a got married to b* (as opposed to non-synonymous transformation, e.g. *a married b* — *b married a*; *b got married to a*: in the two latter cases we were talking about *b* instead of *a*).

The relation $E_1 - \bar{E}_2$ — semantic INTOLERANCE, e.g. *dog* — *not animal*, *dog* — *cat*; in the case of opposition with respect to affirmation—negation — INCOMPATIBILITY or exclusion, e.g. *dog* — *non-animal*, otherwise — COMPETITION, e.g. *dog* — *cat*; if E_2 in \bar{E}_2 is a transform of E_1 , the relation $E_1 - \bar{E}_2$ could be called ANTI-TRANSFORMATION, and if E_2 in \bar{E}_2 is synonymous with E_1 , the relation $E_1 - \bar{E}_2$ could be called (derivative) OPPOSITION or contradiction.

In addition, we need to consider a situation in which E , due to certain properties, lacks its strict counterpart \bar{E} . Such an expression can only appear as E_1 (and not as E_2) in the schema. Nevertheless, in some cases it can strongly resemble E_1 from its transformation (or mutual incompatibility). Such a situation takes place when apart from the E_2 that semantically conditions E_1 , there are no competing E_2 's, conditioned by the former E_2 , that would be excluded by E_1 . In such cases, the relation $E_1 - E_2$ could be labelled a nonsymmetric transformation (nonsymmetric synonymy; and for $E_1 - \bar{E}_2$ — nonsymmetric anti-transformation and nonsymmetric opposition). An example might be the relation between an imperative (in some uses) and *I want you to*; e.g. *Read it to me* and *I want you to read it to me*. The sentence *Read it to me* has no strict counterpart \bar{E} , since *Don't read it to me* is an affirmative sentence with prohibition (apart from command and prohibition there is also permission, which is the absence of either of them, and prohibition requires its own negation), whereas *By no means do I want you to read it to me* is a direct negation of *I want you to read it to me*. At the same time, *I want you to read it to me* is a conditioning expression with respect to *Read it to me* because readiness to use *By no means do I want you to read it to me* rules out the readiness to use *Read it to me*. Furthermore, the expression *I want you to read it to me* cannot be associated with any other expression that would exclude readiness to use *Read it to me*, provided the expression itself meets the condition of speaker's readiness to use it (where the same reference is assumed). In this respect, the situation is the same as in the case of *a is longer than b*, *b is shorter than a*. The difference consists in certain distinctive pragmatic properties of the imperative, which are superimposed on the assertoric content of *I want* and are absent from the negation of this content.

A relation between two E 's, which is neither semantic conditioning, nor semantic intolerance, could be called semantic tolerance, e.g. *yellow* —

heavy.

Finally, we may distinguish a relation between E_x and E_y such that either E_y in its own right — in a given form or in a form opposite with respect to affirmation—negation — conditions E_x , or E_y is conditioned by an expression E_z , which also conditions E_x . The latter type can be illustrated by the pair *artist* and *doctor*: they share *man* as a conditioning term. Expressions satisfying the above condition may be called (semantically) connected, others — (semantically) unconnected or separate; the corresponding relation is semantic CONNECTION (vs. semantic separation). Of course, semantically separate expressions always stand in the relation of tolerance; whereas expressions standing in the relation of tolerance can be semantically connected.

Considering the schema of semantic implication, it is easy to notice that finding anything like an acid test of semantic analysis is impossible; that is to say, no operation is applicable here that would be external to the issues in question, independent of them, and at the same time would settle them in an unequivocal, simple, and intersubjectively certain way. The point is that a complete or partial overlap of meanings, analyticity of a sentence, contradiction between an expression and the negation of its synonym, and other related notions are just different accounts of the same phenomenon.³

Thus one might plausibly suspect that semantic conditioning, and in its basic and most extreme case — the sameness of meaning, must be in some way known or assumed beforehand, in order for the formula involving contradiction to be satisfied; or it must be rejected in advance, so that the formula could have a negative result, as in the case of the expression *quadruped* coupled with *dog*. Nevertheless, from the heuristic point of view, employing the discussed formula involving contradiction has — probably thanks to the limiting, contrastive effect of negation — an undeniable value as a means of elucidating intuitions and restraining a loose flow of associations. Even less questionable should be the need for a radical and explicit separation of semantic conditioning from implication in general; failure to draw a sharp boundary between them threatens to mix up things that are fundamentally distinct (since normal implications become intelligible

³Cf. Poznański 1966: 386: "The concept of analyticity is a member of a whole family of related notions — meaning, synonymity, contradiction, necessity, definition, semantic rule [...], these notions overlap one another in such a way that any attempt at defining one of them by means of another sooner or later leads to the starting point. In other words, all these concepts are more or less on the same level of intelligibility, or unintelligibility."

only after we have a functioning linguistic apparatus, which — being a logically more fundamental network of conditionals of a special type — must be independent from these implications); it also threatens with the prospect of unending and hopeless disputes. Still, even this delimitation cannot be achieved, apparently, by means of independent formulas. The formula of semantic conditioning presented here presupposes that there is no synthetic implication $E_1 \rightarrow E_2$; so if we do not apply the proposed formula to certain expressions E_x and E_y , we often do it by assuming that $E_x \rightarrow E_y$ holds as a synthetic implication (e.g. *dog* \rightarrow *quadruped*); but then it follows that in order to conclude that E_x and E_y fail to meet the conditions for E_1 , E_2 , we indeed must assume that in advance.

Let us now analyze the content structure of a locution, considering only properties which belong to the used expressions insofar as they are invariants (as discrete elements of code) rather than utterances; that is to say, we will set aside the actual use of expressions together with the accompanying circumstances belonging to the domain of the speaker's characteristics, ways of actualizing expressions, etc. For we are interested in analysis of language, not of human behaviour.

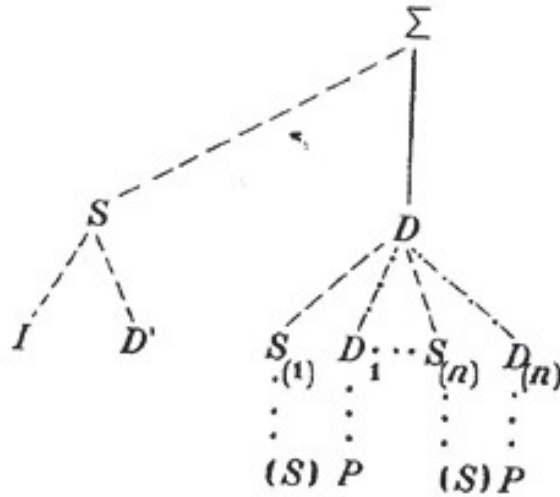
Semantic properties of expressions can only be indicated or described by way of using certain other expressions. It seems only natural to regard conditioning expressions as suitable for this task; even more suitable would be transforms; a complete presentation of content, however, is not attained until we have determined SYNONYMS of the analysed expression, maximally intricate, whenever possible.

By following this path and by taking into account even the most complicated and rich locutions, we reach the following general schema which contains components of both the simplest of locutions and — by way of potential successive branchings — the most complex ones.

The symbol of a locution as a whole is Σ .⁴ A continuous line denotes the obligatory occurrence of component D ; a dotted line — branching of D into any finite number of D 's (from 1 to n) or the lack of branching with obligatory occurrence of P (Praedicatum) in each case; a broken line — optionality of a constituent. Three dots signify a possibility of an arbitrary,

⁴ Σ as a symbol of a sentence or locution had been used by Lyons (1971: 149) but with a different motivation. Here, the intention was to reserve the symbol S for "Subiectum" in accordance with the established and wide-spread tradition, without suggesting any fundamental category difference between a sentence and a word, which in some cases should be, in fact, neglected (the predicative expressions in the complete form).

though finite, extension of the situation presented above them.



The symbol D , Dictum, denotes the whole locution excluding optional expressions such as: (a) the expression which is talked about, if the locution is about an expression, (b) expressions mentioned or quoted in a different way, (c) expressions or properties of expressions unconnected to the affirmation—negation opposition, which are designed to help the hearer focus on an object and refer the whole locution or its part to that object, or identify such a (possible) object, (d) expressions or properties of expressions connected with the affirmation—negation opposition, but taking positions which should only be filled by expressions or properties of expressions specified in point (c) and referring to the corresponding object. The symbol S (Subiectum) signifies expressions specified above under (c) and (d), while I — index — stands for (c) and D' — Dictum' — for (d); the prime symbol ' simply means that D' is not identical with D but other than that shares all its properties with D ; the position of S could be taken by I as well as by I and D' ; this also applies to other S 's in the diagram. Symbols (1) and (n) mean that the corresponding S 's can, but need not, be distinct from the S next to D and from one another. The symbol (S) indicates optionality and arbitrariness of S next to P , if the latter does not exhaust D . Finally, P stands for a predicate (arbitrary in each case) in the sense of an expression (a set of properties of an expression) that falls under the affirmation—negation opposition; P is best illustrated by simple dictionary entries such as *white*, *dog*. Let us illustrate the diagram with example sentences:

$D = P$: *Is asleep!* [*Śpi!*]⁵
 $S = I$ — $D = P$: *It is yellow.*
 $S = I + D'$ — $D = P$: *This apple is green.*
 $S = D'$ — $D = P$: *(A) doctor is asleep.* [*Lekarz śpi*]⁶
 S — $D = S_1$ D_1 : *Read* (*You* — *I want you to read*).
 S — $D = S_1$ D_1, S_2 D_2 : *He drank milk* (*{he, x} drank, x milk*).
 $S = D'$ — $D = P$: *He drank milk* (answer to the question *What did he drink?* — $x(\{he, x\} drank, x)$ — *milk*).

The diagram presented above includes only one obligatory component of a locution, namely — a predicate. A predicate can be referred to an object: this potentiality is its fundamental property. It need not, however, be actualized, and no part of the locution has to facilitate the process. The reference to a certain object can be default, can be entailed by various circumstances of the speech act. Furthermore, actualization of such a reference could be precluded from the start. This is the case of literary fiction, it happens in anecdotes, jokes. Still, the identity of potential reference tends to be marked by specific means (the standard devices being fictional names of fictional characters, places, etc.); in fact, this is the main point of literary fiction: displaying or pointing out the possibility of a given combination of predicates as having the same reference.

Doubtless, the key concept of the presented system is the affirmation—negation opposition. We exploited this opposition as the basic tool in characterizing semantic implication, and recently — in distinguishing the elements of the content structure of a locution.

Let us further elucidate this notion.

Its simplest examples are pairs of sentences differing solely with respect to the presence of the particle *not* (or a corresponding expression from another language) in one of the sentences; e.g. *Johnny is asleep: Johnny is not asleep*. Reducing this difference to the relation between an indicative sentence and a sentence formed from it by means of a sentential operator (negation), that is, a metalinguistic sentence (which may be sufficient for logic), fails to account for the uniqueness of the relation between the sentences in question. For in this way we lose sight of the fundamental and undeniable fact that both sentences say something about the same object — in this case about Johnny, instead of saying something about Johnny in one sentence and about some sentence in the second. It is also necessary to distinguish the relation p : *not p* from *it is true that p*: *it is not true that p*.

⁵Translator's note: in Polish, a subject term is grammatically optional.

⁶Translator's note: Polish lacks articles.

The following model is intended to account for these conditions by using as few elements as possible. We adopt the predicate *untrue* as applicable to sentences. Although this predicate refers to a sentence, it can refer — together with this sentence — to yet another object, according to the structure $D = S_1 D_1$ with S as in the diagram. So, for example, *(Johnny is asleep) untrue* is the representation of a simple predication regarding a sentence; still, the entire representation can be referred to S — *Johnny*, hence we get: *Johnny: (Johnny is asleep) untrue*. It is precisely this formula that conveys the uniqueness of negation in the ordinary sentence *Johnny is not asleep*. In general, the affirmation—negation opposition can be now described as a relation $AP_x — A[(AP_x) untrue]$, where by A means we understand the object to which the locutions are being referred. At the same time we must make it clear that an expression at the position of (AP_x) can differ from P_x in the case of nonsymmetric transformation (cf. above).

It is precisely against the backdrop of such a relation that all predicates in a locution are perceived, and it is this relation that makes their understanding possible at all. It also holds in the case of sentences with the predicate *untrue*: here the corresponding negation is given by $(x untrue)untrue$, that is, the so-called double negation, which is often marked by the expression *true* (*it is the case*) or other means, above all by emphasis (logical stress) (cf. Wierzbicka 1969: 109—111); a sentence with *true* can be distinguished from an ordinary double negation by assuming that we are talking about a double negation next to a sentence-object, e.g. *It is true that Johnny is asleep = (Johnny is asleep): (it is not true that Johnny is asleep) untrue*.

The inseparable connection between a predicate and the affirmation—negation opposition consists in the fact that a predicate divides a particular universe of objects into two parts: objects that exemplify a given property, and all others. Hence the possibility of the unique sort of defective use of a predicate, which is denoted by the expression *untrue*; this expression, in turn, divides sentences into two classes and can also be used defectively in one way only; stating this defect amounts to asserting the truth of the original sentence.

On this account, it is necessary, of course, to regard expressions such as *it is true that p* as conditioning expressions with respect to p (in the sense of a semantic implication described above). Since *it is true that p* equals *it is not true that it is not true that p*, its reverse with regard to the affirmation—negation opposition is *it is not true that p*; readiness to use this expression precludes readiness to use p . In fact, *it is true that p* is also conditioned by p ; so we are dealing with transforms. However, they are not

synonymous, because *p* and *it is true that p* have different referents (in the latter case it is an expression).

It means that the semantic structure of a locution containing *p*, such that *p* does not contain the predicate *untrue*, does not include this predicate even implicitly, that is, it does not contain *true* either.

At the same time, however, the implication holding between *p* and *it is true that p* forces the hearer of *p* — provided there are no circumstances inclining her to believe that it is not the case that *p* — to reject *it is untrue that it is true that p* as inconsistent with that implication, and thereby to accept *it is true that p*.

This fact reveals the special connection between *p* and true sentences, on the one hand, and between *p* in *it is untrue that p* with false sentences; it also corresponds to the normal reactions of the hearers.

Everything we have accepted so far, together with the diagram of the content structure of a locution, paves the way for rejection of any other components of that structure — alleged elements that may suggest themselves and were actually postulated. What I have in mind is, above all, the so-called modality, modal frame, modal attitude, or propositional attitude of the speaker, understood — by many — as a constant, necessary constituent of the structure of content that is distinct from *P*. Of course, we are not talking about rejecting the obvious fact that any utterance, i.e. a controlled use of a locution, involves a specific motivation on the part of the speaker and a particular attitude towards that locution, that is, things such as the will to inform, the intention to mislead, the will to make the hearer imagine something, to prompt her to do something, irony, playfulness, judgement, conjecture, belief in the truth of a sentence, conviction, certainty, etc. Neither do we mean that the speaker is unable to talk about all this — as if language offered no means of presenting those phenomena, or as though they were not actually used. Speakers naturally present their mental states, which constitute contents of some *P*, by means of various features of expressions — either in the form of distinct words or particles, or by exploiting differences in word forms, or, finally, by means of SPECIFIC prosodic (intonational) properties. The point is, however, that it is not necessary in the sense of THE PRESENCE OF CORRESPONDING LINGUISTIC INVARIANTS IN THE LOCUTION, while whenever such invariants are present, they appear in the Dictum, just as all the other ones.

In order to prove that, it is enough to point to suitable example sentences. The most suitable for this purpose are ordinary declarative sentences. If any modal attitudes of the speaker were represented in them by such and such

properties, e.g. by intonation or by the verb form, then the corresponding expressions such as *I want to inform you*, *I believe that* would have to function as conditioning expressions for these sentences. This, in turn, would require that readiness to use these sentences should be precluded by readiness to use corresponding negations, e.g. *By no means do I want to inform you...*, *I don't think that...*, etc. Yet this is not the case. Take for example a historical anecdote, say: *Lord Cavendish spoke only once during his time in the House of Lords — he asked if he could open the window*. Uttering this sentence in a particular situation perfectly agrees with the sentence *I don't want to inform you that Lord Cavendish...* The same sentence in a serious biography of Cavendish could, in a way, clash with the sentence *I don't want to inform you...* Then perhaps in the latter case the sentence about Cavendish implies *I want to inform you...*, whereas in the former it implies something different, say: *I want you to imagine...* or something like this? But even if we followed this path, the claim that modal attitudes correspond to some properties of utterances (sentences) themselves does not hold water: in both cases we are talking about THE SAME locution; what varies is the utterance, i.e. the speaker, the hearer, context, and so forth.

In fact, it is not only in the case of anecdotes, jokes, etc. that the sentence *I don't want to inform you...* fails to preclude the use of the corresponding locution (in the sense of "precluding" assumed in this article). Even in ordinary situations of everyday communication, adding the expression *I don't want to inform you that p* to the sentence *p*, e.g. *Johnny is asleep* — while referring to the same objects, hearers, etc., and given the same mental state of the speaker — does not create a situation such as in the case of the utterance $p \wedge \sim p$ or *This is not an animal, this is a dog*. Uttering 'in one go' something like *I don't want to inform you that Johnny is asleep; Johnny is asleep* will elicit the following response from the hearer: "the speaker behaved at odds with what she had said in the first sentence," "the speaker behaved strangely, oddly," "by uttering the second sentence the speaker gave a reason to consider the first sentence false," etc. It will be, however, a strangeness close to a deviation from a norm, represented by the following utterance: *I hate Mozart. Play Mozart for me, please*. It would be wrong to say about the utterance *I don't want to inform you that Johnny is asleep; Johnny is asleep* that in the second sentence the speaker said something different from (opposed to) what had been said in the first one, and so that we are dealing with an altered speaker — not with precisely the same *x*, as required by the formula of semantic implication. This is a decisive factor. For we can juxtapose contradictory sentences and also obtain the utterance *Johnny is*

asleep; Johnny is not asleep or *This is not an animal, this is a dog*; but if it is to be a *use* of expressions, not a reproduction of sounds or inscriptions, then we cannot regard the speaker as internally unaltered with respect to what she is talking about — unlike the x from the formula. This situation is entirely different, for instance, from expressing approval for two conflicting sides, even with respect to the same object of conflict.

Thus we shall not regard the corresponding belief or desire, or a (true or false) representation of such a belief or desire, as a necessary condition for the use of a locution. On the other hand, there is indeed some peculiar connection between expressions and certain beliefs and desires: it is attested by customary inferences from utterances about such beliefs and desires, observed in linguistic practice, as well as by a quasi-contradiction occurring in utterances of the type: p , *but I think that not p* ; p , *but think that not p* ; p , *but I don't want to inform you that p* , etc. It has to be accounted for in some way.

The matter is solved by an implication in which certain beliefs and desires constitute the antecedent (rather than the consequent, that is, a necessary condition for using certain sentences); while the role of the consequent is played by the very use of sentences. It can be formulated in the following manner:

$$\{a, b, c\} \rightarrow \text{the use of } E_1 \text{ or } E_2 \dots \text{ or } E_n,$$

where by a we shall understand a mental state of an arbitrary speaker, e.g. a belief that p ; by b — her will to use E (where E corresponds to p in the language L) in order to elicit the belief that p in the hearer; by c — the speaker's behaviour in accordance with b ; and by $E_1, E_2 \dots E_n$ — the use of one of alternative expressions meeting the conditions posited in b .

From such an implication, obviously true, from the presence of $E_1, E_2 \dots$ or E_n , and from the dismissal of the disjunctive antecedent of that particular E , we confidently infer something about, e.g., a or b .

This sufficiently accounts for the possibility of reaching mutual understanding, as well as for treating locutions such as p , *but I don't think that p* as paradoxical. Given a uniform application of this implication to the whole locution and an ordinary acceptance (occurring most often in everyday life) of the proper antecedent as the only one worth considering, the hearer first comes to believe that: "the speaker thinks that p ," and then: "the speaker does not think that p ," which gives a contradiction. We need to admit, however, that the contradiction holds between two beliefs which suggest themselves to the hearer, and not between the speaker's sentences.

The hearer arrives at this contradiction not through the analysis of the LOCUTION used by the speaker, but by considering the very USE of the locution (which does not belong to the language) and the dominant way of using locutions.

Let us now consider the proposal put forward by Irena Bellert (1972: esp. 85—87). She introduces the following implication:

A used a sentence *Z* with a structural description *D* which satisfies conditions $C \rightarrow A$ behaved linguistically as if *A* believed or intended to inform, or wanted ... *Z'*

In this implication the actual antecedent is constituted by the properties of the sentence, and the real consequent starts with "as if. . .," because "to use a sentence" and "to behave linguistically" are the same thing; likewise, the implication *John drank water* \rightarrow *John drank a H₂O liquid* does not differ from the implication *x is water* \rightarrow *x is a H₂O liquid*. Thus we can say that, in contrast to our diagram, Bellert's implication envisages three constituents of content intrinsic to the locution itself, to its very structure: a 'modal attitude' ("as if. . ."), *S*, and *P* (*Z'*).

Let us analyze the phrase *p as if q*, which is crucial for this analysis.

The first interpretation that suggests itself here is: (1) *p*, (2) $q \rightarrow p$, (3) it is possible that *q* (= the contradictory of *q* is not known to be true, while *q* is not logically necessary). For instance, *John was fidgeting (p) as if he was expecting something (q)*: "John's expectation of something in a given situation is impossible without *p*," "I do not know if *q*, but perhaps *q*, nothing prevents *q*." Notice that if the speaker assumes that not *q* (which contradicts "I do not know if *q*, but perhaps *q*"), the use of the phrase *p as if q* in the present sense is obviously unacceptable in standard English, given the assumption of truthfulness. So, for instance, we cannot honestly say *Wojski behaved as if he wanted to play a joke on Telimena and Tadeusz*, when talking about the scene with the fly-swat,⁷ if we intend to report what we know from the text of *Pan Tadeusz*, namely, that Wojski bumped into the couple who were lost in conversation while he was chasing the 'gentry' (a sort of fly)⁸ and intended nothing but to catch it.

⁷"When, between their two mouths, unexpectedly shot / First a fly and, soon after, the Tribune's fly-swat." (Adam Mickiewicz, *Pan Tadeusz or The Last Foray in Lithuania: A Tale of the Gentry During 1811—1812*, book 2, trans. M. Weyland)

⁸"Litwa has flies aplenty. Among these, there hum / A species quite distinct and called 'gentry' by some, / Which in colour and shape do resemble the others, / But broader, bigger bellied, than their vulgar brothers: / They drone dreadfully, flying, and vilely buzz too, / And so strong, they a spider's web often pierce through, / If caught, one of these will for three days thrash about: / For the spider himself it can wrestle

On this interpretation of the phrase *p as if q*, it is easy to find counterexamples refuting Bellert's implication. These are texts of literary fiction, openly presented as such, anecdotal texts, humorous texts intended to be taken in this vein by the hearer (e.g. *Have a drink, you're terribly thirsty*, uttered just after the speaker saw the hearer excessively quench her thirst). It would be weird to say — in the sense of *as if* presented above — that, e.g., Mickiewicz linguistically behaved as if he intended to inform us that the Chamberlain had led the polonaise.⁹

The second reading of the phrase *behaved as if...* is the following one: *he behaved in a way he would have behaved if he had (thought...)*. On this interpretation, one implies the falsity of what follows after *if*. Clearly, on this reading the vast majority of examples would be counterexamples to Bellert's implication: normally, the beliefs, desires, etc. that accompany everyday utterances are, at the very least, not rejected, but instead their presence is firmly accepted. Undoubtedly, Bellert did not understand the phrase *as if* in this way.

The third interpretation is given by the disjunction of the two previous ones. Yet this interpretation leads to bare tautologies — *The speaker believed... or didn't believe...* etc., which are, of course, consequents of arbitrary sentences and thereby are completely uninformative.

The fourth interpretation of the phrase *as if* is achieved by comparing it with expressions designed to pick out a quality which we are unable to define satisfactorily, that is to say, to expressions such as *something like a syrup, he performed jumps of sorts, the dog sort of danced*, etc. — expressions which are metaphorical or close to being metaphorical. It is obvious that such formulations are worthless in scientific discourse, since the decidability of the truth value of the corresponding sentences is fundamentally ruled out due to the lack of fixed patterns. It is also clear that Bellert's implication presupposes normal belief, will, etc., and not some mysterious analogues thereof.

The fifth interpretation which we can apply to the phrase *as if* in the discussed implication would state that we are talking about a behaviour which is customary or most often observed in people who believe ... *Z'*. The

and rout. / This the Tribune researched, and the thesis defended, / That from these 'gentry' lesser fly plebs are descended; / That to flies these as bees are to mother queen bee, / And that when they're extinct, of these pests we'll be free." (*ibidem*, book 2).

⁹"For the polonaise now — so the Chamberlain leaves / His seat, tossing back lightly his kontusz's sleeves,

And, twirling his moustache, he to Zosia advanced; / With a fine bow, invites her to lead off the dance." (*ibidem*, book 12)

problem with this interpretation is that there might be no actual belief etc. that Z' or no actual utterance that Z .

The sixth interpretation, which escapes the said difficulty, would be the thesis that the implication in question speaks of a behaviour that would be most probable in anybody who would believe ... Z' . Still, even this reading is unacceptable, because it becomes flatly false without relativizing it to a particular language (conditions D , C of a given sentence Z are satisfied by a smaller number of locutions than the number of potential counterparts Z' in all other languages). Furthermore, by appealing to the notion of probability and referring to the pattern represented by an 'ordinary' speaker, we introduce ambiguity, uncertainty, and randomness to the purported 'necessary condition'.

The seventh interpretation, which would evade the notion of probability, would speak of a behaviour such as we observe in a person who, say, believes that p and wants to use appropriate expressions of the language L (if there was such a person). Even this reading, however, is insufficient: the said properties of the person NEED NOT lead to the linguistic behaviour in question, or to any behaviour at all.

In order to avoid the above inconveniences, we can avail ourselves of another, eighth interpretation. Let us formulate it this way: " N behaved linguistically in one of the ways such that one of those ways would be employed by an arbitrary x , if a , b , c ," where a , b , c stand for the same thing they denoted previously, that is the belief, the will to use a suitable E , and the appropriate behaviour, while by "one of those ways would be employed by an arbitrary x , if. . ." we mean the implication " $\{a, b, c\} \rightarrow$ " (rather than a counterfactual conditional). It is easy to see that, in effect, we have introduced to the consequent of the whole implication the implication we had endorsed before.

Apparently, we can accept Bellert's implication in this form, just as we had accepted the implication $\{a, b, c\} \rightarrow E_1, E_2 \dots$ or E_n .

A question can be posed, however, whether such an implication could be said to genuinely inform about properties of an arbitrary locution taken in its own right, and in particular, whether it represents a real ANALYSIS of an arbitrary locution (understood as a sentence which is analytic with respect to the structure of the locution)?

This question must be answered in the negative. For we are dealing with a situation which could be schematically put this way: two structures, ab and ac occur, so what appears next to c is what appears next to b ; since, however, a also occurs without b , one cannot see in b anything that could

expound the essence of *a*, that would, so to speak, inhere in that *a*. This is a situation that might be illustrated by the following example: *x is dancing a mazurka* → *x is moving like someone who takes part in the final scene of "The Haunted Manor;"* it is true, because a mazurka indeed appears there too; but can we seriously claim that the consequent is a result of the analysis of the antecedent? No, the truth of the antecedent follows from the accidental fact of including a mazurka in that opera. By the same token, being a horse involves being a kind of object fondly painted by a Kossak.

Of course, there is a significant difference here: linguistic expressions were brought to existence by human beliefs and by human will to reveal them; the cases missing these phenomena are secondary, derivative and in a sense unnecessary for the language to function. Nevertheless, neither those phenomena nor their, as it were, shadows ("as if...") inhere in the expressions themselves.

There is one more striking fact about the implicational scheme proposed by Bellert and about its applications in her work. Namely, will has been classified as a 'modal attitude' in imperative and interrogative sentences. While it is indeed included in the semantic structure of those sentences, it is there in the same way as the content which is the subject matter of an utterance in other cases, like, say, feeling in sentences such as *I'm in pain*, *I'm cold*, etc.; yet it cannot be put at the same level as the will to inform in declarative utterances. The speaker's will is linguistically represented in a quite distinct manner, e.g. through the imperative form (through the way it differs from the indicative forms). So that *You're careful* amounts to $S(\textit{you}) - D = P$ (*to be careful*), and *Be careful* amounts to $S(\textit{you}) - D - S_1(\textit{me}) - D_1$ (*I want you to be careful*). By contrast, the will to inform in the case of declarative sentences is INFERRED from the whole situation (incidentally, the same could be said about an imperative sentence). Evidence that 'the speaker's will that the hearer be careful' is the subject matter of the locution *Be careful*, just as 'the hearer being careful' is the subject matter of *You're careful*, can be found in normal and correct accounts of their contents (given the assumption of truthfulness) provided by the hearer in response to the question "what have you learnt?": in the case of the locution *You're careful* — *That I'm careful*, and in the case of *Be careful* — *That she* (the speaker) *wants me to be careful*. Of course, if we take into account various inferences that are not linguistically analytic, the hearer might well reply in the former case — *That she wants to inform me, that I'm careful*, but an analogous formula would be possible in the latter case, too — *That she wants to inform me that she wants me to be careful*.

In order to avoid confusion, it is necessary to emphasize that imperative sentences are not freely interchangeable with declarative sentences of the type *I want you to* (next to a predicate denoting action). Setting aside the fact that *I want you to* can have — and usually does have as *S* — "me" instead of "you," the effect of the expression *I want you to...* (even referred to the hearer as the main *S*) differs from the effect of the imperative. It is so because the task of the sentence with *I want you to...* is accomplished once the predicate has been supplied to the hearer's mind in a suitable actualization, whereas the imperative, while achieving the same goal (that is why we can speak of informing the hearer about the speaker's will also by means of the imperative), additionally establishes a formalized social situation — the situation of a certain commitment to react (even if negatively). Of course, some consequences of a practical nature also follow from the purely cognitive communicate *I want you to...*, but they are informal: their antecedent contains a variety of presumptions about the relations between people, content conventions, etc.

This way of viewing the imperative locates the difference between commands and declarative sentences at the pragmatic level. It means that in the strict sense the semantic content of the imperative is reduced to *you* — *I want you to...* (accordingly, Bellert's formula "the speakers wants" should appear, to use her terminology, in *Z'*), while a thorough description of pragmatic properties of the imperative is still in order. Bellert's formula "the speaker behaves as if she wanted," in contrast to the formula involving 'the will to inform', meets this pragmatic need. Yet not only does it wrongly exclude the will from the communicated content, from the subject matter of the locution, but it also mistakenly suggests that there is no communicative intention in the imperative. The pragmatic constituent of the imperative requires further description, for which there is no room here.

It can be added though that the pragmatic character of the difference between the imperative and *you* — *I want...* is reflected by a well-known property of the imperative, *viz.* the impossibility of negating it (*it is not the case that*). Although it is true that sentences with *I*, without certain adjustments, can be negated only by the person uttering a given sentence, the imperative cannot be negated even by the person who used it. This inability is not caused by a specific morphological form — unlike in the case of words such as *perhaps*, which cannot be negated because they do not constitute a personal form (**it is not the case that perhaps he came* is impossible because the expression *it is not the case* is liable to be combined with the form *came* and thus diverges from the subject of the intended negation, that is, from

the speaker's presumption about someone's arrival). Therefore, the lack of negation of the imperative is an entirely unique phenomenon. It seems that the only explanation can be given by ascribing to the imperative (as opposed to the assertoric forms) a certain function added to its representational relation to a certain state of affairs (namely, to the will) — the impressive function. For expressions are subject to negation only with respect to their representational relation, the communicated content. Everything else, that is, semantically opaque objects, as well as facts, including facts about using signs, are not subject to negation. Thus, it can be said: *It is not the case (not true) that it rains*, but not: *The use of the expression "it rains" is not true*; there was an occurrence of the use or there was no such occurrence (only a sentence about someone using the expression *it rains* could be untrue). By the same token, one cannot deny the use of a particular form, namely the imperative form, and the presence of something *over and above its semantic function* precludes treating the command as a simple image of a fact (such an image can be challenged, dismissed, i.e. negated).

Yet by no means can we appeal to the lack of simple negation in order to infer a purportedly unique character of will in the imperative. For, after all, such a will can be negated in a certain way, namely, by means of the expression *By no means do I want... / It is not the case that I want...*; this expression rules out the imperative, contradicts it, which proves the presence of will in the semantic, communicative structure of the imperative, and not in 'the speaker's attitude' towards the communicated content (the imperative does not communicate the presence of the relevant property of the object to which the desire pertains).

When we talk about 'modal attitudes', it is worth noting that just as it is by virtue of inference which takes into account various aspects of the situation that we can claim that the speaker wants to inform someone about this or that, so we are able — by considering certain circumstances of the utterance — to arrive at conclusions about the state of affairs itself, and in some cases we can proceed more radically than in others. For instance, the transition from the conclusion that the speaker wishes to inform someone about the colour of an object to the conclusion about that colour requires, among other things, accepting that the speaker is not colour-blind, while the spontaneous cry *I'm in pain!* can lead us to the conclusion that "the speaker is behaving as if she felt pain," perhaps even more so than to the conclusion that "she wants to inform us about the pain." Still, none of them is a purely linguistic analysis. Drawing the conclusion "she is in pain" can be accelerated, e.g., by a specific emotional intonation of the utterance. Since,

however, such intonations are not codified and thereby not associated with a fixed list of invariants, we cannot regard them as linguistic elements which would imply something in a semantic way, in the sense clarified above. It is worth noting that such a position about intonation (cf. Martinet 1964)¹⁰ is based on the fact that there is no point in speaking of a mistake about emotional intonation, unlike in the case of invariants, e.g. words, the place of so-called logical accent, the opposition of interrogative and declarative intonation, etc. By feigning pain, one can simulate, for better or worse, the whole spectrum of intonations exhibited by people who are genuinely in pain, but it is impossible to switch between them by mistake, precisely because we are talking about a continuous scale, without invariants or discreteness.

Yet another category of cases where the notion of the modal attitude 'will to inform' gives rise to difficulties, are sentences about the hearer, i.e., sentences with *S* — "you." For a great number of such cases it is rather the conjecture about "the will to inform you about the KNOWLEDGE (BELIEF) of the speaker about the hearer" that suggests itself; cf. *You know that this suits you*, *You went to a concert yesterday*, etc.; it would be unnatural to speak of "a sort of (as-if) will to inform the hearer about herself."

Yet introducing a separate modal attitude for second-person sentences would amount to a direct acknowledgment that it is inferred from extralinguistic accidents of certain speech acts. On the other hand, not all second-person utterances have the unique character sketched above: in many cases they do not differ at all from other sentences; cf. *You've soiled the back of your coat*.

This point further underscores the difficulty of finding a formula that would encompass all cases while resting solely on linguistic features and the bare fact of their being reproduced by the speaker. Of course, one might appeal to the phrase *as if* and claim that 'something' of the 'will to inform' is always present here. Yet this would boil down, in turn, to an excessive 'pinch of salt' in one's approach to formulas and the terms used in them. Finally, we might appeal to the analogy between declarative sentences with *you* and declarative sentences with *he* etc. and contend that, since linguistic features do not entitle us to anything else, a formula which is valid in the case of sentences with *he* must be equally valid, in semantic analysis, for sentences with *you*. That, however, would openly beg the question; when we set about analysing locutions according to a schema, we are not allowed to fix in advance the variables whose explication is supposed to be the result

¹⁰We should add a qualification to Martinet's otherwise accurate observations on intonation: the difference between interrogative and declarative sentences which he is talking about (Martinet 1964: 30) is in fact discrete in character.

of the analysis. It is true that a sentence with *you* and a sentence with *he* differ in nothing but *S* — the object they refer to; what is different (though inconsistently!) is the practice of using them — for instance, the mental phenomena accompanying them. This, however, is exactly the fact that leads to the absence of a universal formula corroborated in a purely linguistic manner.

Presumably, the most serious grounds for the idea of 'modal attitudes' are given by the difference which has been pinpointed above as the difference between *D* and *D'* and which can be illustrated by the traditional example *The king of France (D') is bald (D)*. The necessary rejection of Russell's analysis — in the light of obvious dissimilarity to the sentence *There is a unique bald king of France* — leads us to grant the peculiarity of the expression *the king of France* in this sentence in juxtaposition with *is bald*: these things "are not said *in the same way*." It is at this point that the notion of modal attitude might seem to be useful. Namely, Bellert exploits the pair: "the behaviour as if the speaker believed" (for the nominal subject phrase, NP, or 'datum') — "the behaviour as if the speaker intended to inform" (for the rest).

Assigning two different formulas amounts IN ITSELF only to pinpointing the difference which was grasped beforehand; if we are to go on, we must go into details of those formulas. The point is that on normal understanding of "believe" and "want to inform about" Bellert's formulas do not differentiate between phenomena which we have in mind. "As though believing" can be perfectly applied to phrases such as *is bald*; but it also happens, though less often, that we are able to recognize, in an entirely natural way, someone's will to inform about some feature by means of a nominal phrase; cf. *This multiple Olympic champion...*, *That fraud...*, *John, who always knows better...* etc. Furthermore, specific properties of the discussed parts of a sentence are absolutely certain: a full actualization of the 'modal attitude' in some cases and just a similarity to one in others is out of the question.

Apparently, what is vital and general in the discussed phenomena has been captured by our distinctions introduced above. True, only a portion of a sentence carries the 'proper', 'principal' communicate. Still, this fact reflects the concept of *D* as the concept of a part corresponding to the WHOLE locutions (or just being one of them). By contrast, the special character of *D'* is reflected by the fact that its position could be taken by a pure name, an index, that is, an element that is not subject to the affirmation—negation opposition, an element which does not 'inform' in the sense of choosing one of two possibilities offered by the predicate, but serves an ancillary

function by helping in finding the object to which the locution should be referred and which is given absolutely — cannot be subject to hesitation or controversy. Nevertheless, placing ordinary predicates in *S*, via *D'*, is responsible for the fact that *D'* exhibits normal properties of *P*, including the affirmation—negation opposition and the problem of truth value (as Russell insisted), and is not some mysterious intermediary parameter between an index and a predicate but a well-known characteristic of an object. Such treatment of *D'* allows us to account for the fact that what the speaker does with *D'* is described, in a natural and non-figurative manner, by the same verb "to say" which is applied to *D*; cf. *N*₁: *That long-legged one won...* — — — *N*₂: *But you said that the winner had long legs.*

Let us emphasize in this connection that on this picture we are not being sent the speaker's intentions, beliefs, etc., which can vary to a large extent without changing any objective, linguistic facts, such as the forms being used (e.g. the nominative, phrases with *which*, etc.), the word order, the relation to logical accent, which force a particular mode of perceiving the predicates in *D'* and *D* — absolutely, not relatively or tentatively.

Let us sum up our thoughts regarding 'modal attitudes'. Just as one is absolutely right to resist the legitimacy of drawing conclusions about the objective state of affairs from the very analysis of a locution, disregarding other features of the speech act (especially those pertaining to the speaker), so one must reject analogous inference about 'modal attitudes' of the speaker.

The conceptual apparatus deployed by Bellert has a very clear source: meaning has to be described, one way or another, by means of implicational formulas; then, since no imperative or interrogative sentences, or 'raw' sentences with empty arguments, fit into the schema *if... then...*, one must look for a configuration in which there would be room for them too; the easy solution is the implicational treatment of utterances, instead of sentences, disregarding their individual, or non-universal, features: utterances ensure the non-emptiness of arguments and — described in declarative sentences — fit into the schema *if... then...*

Nevertheless, as we have seen, the extended schema with the antecedent *A used...* is fraught with serious difficulties, insofar as we seek proper, generalized consequents. In its simple form, which does not explicitly separate (despite the appropriate intention) the so-called analytic propositions, which should be intended here, from synthetic ones, which depend on our knowledge about the world, not about the language, such a schema does not sufficiently protect us against confusing those two domains; which, in semantics, is unacceptable.

So there is a need for further attempts to encapsulate semantic analysis. We have made such an attempt in this article.

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