TRANSLATION AND LOGICAL SENSE IN THE DICTIONARY OF PROVERBS

László GÁL
Faculty of Philosophy
"Babeş-Bolyai" University, Cluj

1. Introduction

The intention of this study is to find out the extent to which translation is affected by identities or differences in the logical sense of linguistic expressions belonging to the source and target language. Dealing with translation inevitably poses the problem of the contextual nature of natural linguistic manifestations. This is an essential disturbing factor in our focusing on the role of logical sense in translation. All the more so as we do not possess a logical instrument which can analyse and describe all that belongs to the natural linguistic context of certain expressions.

Situations created more or less artificially by decontextualisation[1] might prove to be an exception. Or, if we could control the context to the maximum degree and find at the same time those linguistic expressions which are *relevant* from the perspective of human experience, then we would be able to focus on logical sense and its impact on translation. Obtaining thus a *decontextualisation* within both the source language and the target language, we would be able to search identities and differences within a logical sense.

We have succeeded therefore to define two clear criteria, that of relevance and a-contextuality which creates a useful semi-experimental situation. The linguistic expressions whose logical sense is analysed must be at the convergence of these criteria. As the criteria are clear, it is easy to identify the natural linguistic expressions which correspond to them. These are the *proverbs*. Therefore in the following we will focus on identity and difference of logical sense based on the *Romanian-Hungarian Dictionary of Proverbs* edited by István Vöö (1978). Romanian and Latin is the starting point of translation in this dictionary and Hungarian (a Finno-Ugric language) is the target language. These are languages which differ in many points.

---

[1] For example, sentences which are independent of each other, as they are uttered in a psycholinguistic experiment, or "meaningless" sentences in an absurd play.

2. The social status of proverbs

As a first approach proverbs can be related to the history of human knowledge, as they are bearers of human experience deposited in a linguistic form. However, they did not receive hardly any attention. Only after the production of knowledge, did the way of their preservation and organisation began to stir interest in language and through this in the social dissemination of knowledge; thus certain points of view (mainly sociological and then anthropological) regarding proverbs began to appear.

This was how a branch of the sociology of knowledge came into being: one which by studying the daily life, drew attention to proverbs. This sociology of phenomenological origin and consequently of interpretive nature, could be called common or quotidian. Its famous representatives such as A. Schütz, P. Berger, T. Luckmann, H. Garfinkel and A. Cicourel (Karácsony S, 1995; Stănciulescu E, 1996) dealt with proverbs as instruments of communication and interpretation in their privileged place, the social-human quotidian.

We will not detail the phenomenological orientation and its variants in the sociology of knowledge. However, there is a clear conclusion: socially distributed knowledge, whatever its level of theorization (the simple level of acquiring the language, the level of common or quotidian knowledge or the level of scientific theories, Cf. Stănciulescu E, 1996) is taken into account exclusively from the perspective of their content, coherence and consistence, their adequateness to reality and their role in the social construction of this reality. The approach regarding *the logical form of organisation of knowledge* misses altogether. We will deal with this very issue in this paper.

We will therefore consider the proverbs linguistic expressions in which human experiences of nature and society are crystallised. This global assertion can be concretised. Using the keywords by which they are identified in the above mentioned dictionary, keywords around which the experience in question is thematised and which creates the situation of validation of the assertion, as a criterion, we will have a very large span containing truth, time, the neighbour, hand, rabbit, children, woman, drink, God, knowledge, head, etc. All proverbs originate in the quotidian of traditional societies (Gál L, 1994); he who knows and applies them gains a surplus of understanding and wisdom, has a "guide" which helps him and offers him moral support, calls his attention to certain facts, phenomena, characteristics and attitudes. It is most important perhaps that proverbs offer solutions, sometimes resignation. They offer solutions and not efficiency. It is only the post-traditional society that needs this concept in order to grasp its essence.

The importance of proverbs diminishes with the disappearance of traditional society. Other forms of thematisation take its place and the means of communicating experience undergo radical change. The experience of the modern and postmodern man is based on successive generalisations and a very abstract

concept of the individual which is submitted to certain criteria of scientificalness and of macrogroup-type social validation.

Traditional orality as a mode of communication is substituted by printing and then mass media. Proverbs no more offer guidance and solutions. Socially disseminated scientific results offer efficiency, advertisement slogans direct consuming and Murphy's laws offer criteria of interpretation, as an alternative of proverbs.

3. The concept of logical sense

The difficulties of sense analysis consist in the fact that at present we do not have a model adequate from all points of view for the semantic analysis of natural language. Such attempts had in view only partially the field in question and there is no unanimity of concepts or theories regarding natural languages. Theoretical constructs in this field which dealt with the language of theoretical constructs or formal languages proved to be most successfull. Thus our uncertainty rises from the lack of a relatively complete semantic theory which could be successfully applied to natural language. Although the ideas of certain logicians (G. Frege, L. von Wittgenstein, A. Tarski, R. Carnap, etc.) or linguists (F. de Saussure, R. Jakobson, S. Petöfi, E. Vasiliu, etc.) are often not unitary, divergent or ambiguous, they called attention to at least two essential characteristics of the meaning of natural language. First of all, meaning is a composite the significant elements of which are linked to meaning and reference. Secondly, the meaning of the constructs of natural languages cannot be treated without taking into account the context in which it appears.

Mario Bunge's work is one of the few attempts to synthetise the diverse semantic theories (Cf. M. Balaiş, 1975). We will draw upon this notable attempt in our analysis. The difficulty of applying this theory consists in the fact that it is based on the analysis of the language of scientific theories and does not offer a complete solution for natural language. However, Bunge's synthetic theory of meaning tries to valorise all that is positive in the tradition of semantics in our century.

We will start from the general definition of meaning:

"Df_1: Let Ω be the set of all objects and $C \in \Omega$ the set of constructs with a defined meaning. We call S and R the function of meaning and reference. Then the bijection

$$M: C \to P_{(C)} \times P_{(\Omega)}, \text{ so that } M_{(x)} < S_{(c)}, R_{(c)} >,$$

for $c \in C$ is called *function of meaning*, and its value $M_{(c)}$ at c is called the meaning of c." (M. Balaiş, 1975, p.6.)

According to this definition we must define the *sense* and *reference* of our elementary sentences in order to define their meaning. Here are the definitions given by M. Bunge:

"The sense of a construct in general is the biunivocal function from the set of constructs to the class of constructs which contain P:

$$S : C \rightarrow P(C).\text{" (M. Balaiş, 1975, p.6)}$$

where P is the symbol of predicate or predicates contained by the construct in question. Given the fact that Bunge distinguishes on the one hand between logical and factual (extralogical) sense and, on the other, conceives the sense referring to the context, we must also specify them. Therefore the integral logical sense of constructs will contain "the set of implicants" ("sense up") as pre-meanings and "the set of implied" ("sense down") as post-meanings. (loc.cit.)

The generalised definition of reference is the following:

"...the *reference* of a construct in general (be it a predicate or a sentence) is:

$$R: C \rightarrow P(\Omega),$$

where C is the set of constructs, Ω the set of objects to which the constructs refer, and $P(\Omega)$ the class of objects which satisfies the predicate P. Therefore the reference of a construct is the biunivocal function from the set of constructs to their class of reference." (M. Balaiş, 1975, p.5)

Let us give an example from the dictionary of proverbs:

394. Câinii latră, caravana trece.

     A kutya ugat, a karaván halad.[2] (Dogs bark, the caravan passes.)

The elementary propositions which make up this proverb in Romanian are:

     câinii latră (p) (the dogs bark)

     caravana trece (q) (the caravan passes).

In Hungarian, the proverb has the following components:

     a kutya ugat (p) (the dog barks)

     a karaván halad (q) (the caravan passes.)

We see that the two proverbs have the same structure in the logic of propositional calculus and it can be described by the p&q formula.

According to the theory of M. Bunge, the *sense* of propositional functions can only be defined within a context. But our propositions have a natural void context. Therefore we must define their logical context. The integral logical sense of our compound proposition can be defined by reuniting its pre-senses and post-

---

[2] The numbers before the proverbs are their identifying numbers in the Romanian-Hungarian Dictionary of Proverbs of István Vöő.

senses. From the perspective of the logic of propositions this means that we treat it from the point of view of the relation of deducibility as a consequence of a possible premise and the premise of a possible consequence. We will use the matrix procedure of perfect normalisation. (Cf. M. Balaiș, 1978, pp.118-123).

Applying the above-mentioned procedure, we obtain the following matrix of truth for our conjunctive proposition:

<u>p q &</u>
1 1 1
1 0 0
0 1 0
0 0 0

In order to obtain the normal disjunctive form we select from this chart those assignments of the compound proposition for which it is true. This is in the first line of the chart:

<u>p q &</u>
1 1 1

Replacing now the values of truth with propositional variables and keeping the disjunction (v) as the main logical operator and (&) as secondary logical operator, we obtain the p&q formula which represents the perfect normal disjunctive form corresponding to our initial compound proposition. Implicitly it will be the only possible premise of the initial compound proposition. In other words, the initial conjunctive proposition does not have other premise than itself. Thus we have obtained its ante-sense.

In order to define the perfect normal disjunctive form we choose from the matrix of the compound proposition those values for which it takes the 0 value. From the initial chart these are the following:

<u>p q &</u>
1 0 0
0 1 0
0 0 0

Replacing this time the values of 1 with the negative of the variable and the values of 0 with the variable, linking the variables with the disjuncts and the terms obtained this way with conjunctions we obtain the perfect normal conjunctive form. This is the following: ~p v q, p v ~ q, p v q, (~p v q) & (p v ~ q), (~ p v q) & (p v q), (p v ~ q) & (p v q), as well as the combinations formed of more than two

142

elementary disjunctive terms (which are no more interesting from our point of view.)

The integral sense of our compound proposition will be formed by the reunion of the pre-senses and post-senses of the conjunctive proposition:

$$S \ C \ (p \ \& \ q) = \text{Pre} \ (p \ \& \ q) \cup \text{Post} \ (p \ \& \ q)$$

In our case the logical ante-sense (or the implicants) of the compound proposition will be **p & q**, whereas its logical post-sense (implications) will contain the formulas ~ p v q, p v ~q as well as p v q. Therefore the integral logical sense will be:

$$S \ C \ (p \ \& \ q) = \quad (p \ \& \ q) \cup [(\sim p \ v \ q) \ \& \ (p \ v \sim q) \ \& \ (p \ v \ q)]$$

Let us formulate in the natural language the pre-senses (implicants) and post-senses (implications) of the compound proposition. As we have seen it does not have another ante-sense than itself. Therefore its ante-sense will be:

Câinii latră, caravana trece. (Dogs bark, the caravan passes.)

It is the same in Hungarian language.

The post-senses of the compound proposition transcribed in natural language will be:

Unii câini nu latră sau unele caravane trec. (Some dogs do not bark or some caravans pass.)

Unii câini latră sau unele caravane nu trec. (Some dogs bark or some caravans do not pass.)

Unii câini latră sau unele caravane trec. (Some dogs bark or some caravans pass.)

It is the same in Hungarian.

In order to define the *reference* of our compound proposition we must determine its structure in the language of the logic of predicates based on the list of predicates contained by it.

We apply the following three conditions to define the reference:

"i) $R_s \ (P(a_1, ..., a_n)) = \quad \{a_1, ..., a_n\}$, (the class of reference of an *elementary proposition* is the class of reference of the predicate which it contains)

ii) $Rs \ . \ (S_1, ..., S_n) = \ _{1 \leq} U \ _{k \leq n} \ R_s \ (S_k)$, (the class of reference *of a compound proposition* with the help of a "." operator is equal with the reunion of the classes of reference of the elementary component propositions).

iii) $Rs \ ((Q \ x_1)...(Q x_n) \ (Px_1)...(Px_n)) = Rp(P)$, (the class of reference of a *quantified formula* is equal with the class of reference of the predicate in which it appears."

(M. Balaiș, 1975, p.4)

Taking into account the language of the logic of predicates, our elementary propositions are formed by four predicates: câine (C) (dog), latră (L) (barks), caravană (A) (caravan) and trece (T) (passes). The classes of reference of these predicates are the dogs $(c_1,...,c_n)$, barkers $(l_1,...,l_n)$, caravans $(a_1,...,a_n)$ and the passers $(t_1,...,t_n)$. In the language of the logic of predicates, compound propositions can be transcribed like

$[\exists(c_1,...,c_n)\ \exists(l_1,...,l_n)\ ((\ C(c_1,\ ...,c_n)\ \&\ L(l_1,...,l_n))]\ \&$
$[\exists(a_1,...,a_n)\ \exists\ (t_1,...,t_n)\ (A((a_1,...,a_n)\ \&\ T(t_1,...,t_n))].$

If we observe conditions i) - iii) the class of reference of the compound proposition is:

$R_{(p\&q)} = (c_1,...,c_n) \cup (l_1,...,l_n) \cup (a_1,...,a_n) \cup (t_1,...,t_n).$

We must now synthetise the integral sense and reference of the proverb to find out its *meaning*. This is the following:

$M (p\&q) = <\{(p\&q) \cup [(\sim p\ v\ q)\ \&\ (p\ v\ \sim q)\ \&\ (p\ v\ Q)]\},$
$[(c_1,...,c_n) \cup (l_1,...,l_n) \cup (a_1,...,a_n) \cup (t_1,...,t_n)]>$

We can see therefore that the logical meaning of proverbs analysed with the instruments of propositional calculus is nothing else than logical connections between certain logical structures described by the adjacent formulas. We can assert therefore that the language of the logic of propositions offers the necessary instruments for dealing with certain issues of the sociology of knowledge or even issues linked to the theory and practice of translation.

4. Logical symbolisation

In order to deal with proverbs in the language of the logic of propositions, we must tanscribe them from their natural language into this language. This operation is called *symbolisation*. The algorythm used in this operation is the following:

"(i) We define the connective or the main connectives and divide the compound proposition into its relative distinct parts (sub-propositions) in function of this.

(ii) We define the other connectives in the sub- propositions and the elementary propositions in function of these.

(iii) If the compound proposition is equivocal, we define the univocal logical sense by the process of logical ordering

(iv) We replace the elementary propositions in the logically ordered compound proposition by the adequate propositional variables and the connectives by the corresponding logical operators

(v) We define the power of operators by auxiliary signs (parantheses)."
(M. Balaiș, 1978, p.55)
For example, in the proverb

654. Făgăduiește și nu da, și nicicum nu-i scăpăta.
    Ígérd meg, ne add meg, nem szegényedsz meg.
    (Promise and do not give, you will not become poor.)

The main connective of the compound proposition is *și* (*and*). Its elementary propositions are:
    1. făgăduiește, whereas in Hungarian: ígérd meg -p
    2. nu da, whereas in Hungarian: ne add meg -q
    3. nu-i scăpăta, whereas in Hungarian: nem szegényedsz meg - ~ r.
The connective of the compound proposition (apart from the main connective) is: și - conjunction (&), in Romanian, whereas the commas express also conjunction in Hungarian. The proposition is not equivocal, so we can give its symbolic form, that is, the transcription in the language of the logic of propositions:
    $(p \& \sim q) \& \sim r$, identical in both languages.
    The symbols used for designating the main types of truth functions are: & - conjunction, V - disjunction, + - exclusion, $\rightarrow$ - implication, $\leftarrow$ - converse implication, $\leftrightarrow$ - equivalence, ~ - negation, $\lceil$ - postpondence, $\rceil$ - prepondence, $\downarrow$ - rejection and / - incompatibility.
    The weakness of this procedure consists of the fact that the linguisitc expression of logical operators is polisemic. On account of polisemy, the exact identification of the present operator in linguistic expressions poses difficulties. Thus, one and the same linguistic expression can express a whole series of propositional logical operators, and vice versa, more linguistic expressions can cover a single operator. This polisemy has been made univocal by propositional calculus, by defining exactly the sense of logical operators by their charts of defining truth. However, we go the opposite way in the algorythm of symbolisation: from the binary truth functions to their identification in natural language. The exact logical sense of operators helps us identify them in natural language. In contextual situations it is the context which can suggest an exact identification. As the context is missing in our case, we can only use our intuition.
    G. Enescu analysed the expression of logical operators in the Romanian language. He took into consideration 58 functions of determined truth. These contain 99 operators. (G. Enescu, 1969) The proportion of different operators is: & = 27%, v = 6%, $\rightarrow$ = 19%,
$\leftarrow$ = 2%, $\downarrow$ = 1%, ~ = 29%.
    G.Enescu's study shows that conjunction and implication are the most polisemic operators. In other words, these operators can be expressed in most

ways. This diversity implies their very subtle varying. This varying of operators is lost in natural language by defining their logical meaning.

5. Results and their analysis

Given the fact that the symbolisation of all the proverbs in the *Romanian-Hungarian Dictionary of Proverbs* would have required a great amount of work and on the other hand, it would not have led to results different from those obtained, we delimited a *sample of proverbs*. The criteria for choosing this sample was that there should be at least 5 proverbs with the same keyword and we dealt with those proverbs which were made up of at least two propositions. When the Romanian version of the proverb contained only one proposition, the Hungarian version made up of two propositions was taken into account and symbolised. The same happened if the Romanian proverb containing two propositions had its Hungarian correspondent made up of only one proposition.

The sample contains 576 Romanian proverbs and their 711 corresponding Hungarian proverbs. We have therefore a total of 1287 proverbs in both languages. The difference is due to the fact that the author of the dictionary offered more Hungarian variants for the Romanian proverb in order to achieve their most proper translation. When he did not find a Hungarian proverb corresponding to the Romanian one, he translated it.

Our first observation regards the scarcity of proverbs made up of three or more elementary propositions. In Romanian there are only 19 (3,2%) and 11 (1,55) in Hungarian. This is due to the fact that truth in proverbs is expressed implicitly and without any doubt. Truth expressed this way has a sententios nature and does not need the linguistic context of the proverb in question. The context is somewhere outside, in the place and situation in which it has been uttered.

These are the frequences of appearance of logical operators in the 1287 proverbs analysed:

Chart nr 1. The frequence of appearance of logical operators in 1287 proverbs analysed:

Nr.	Operators without negation (1102)			Operators with negation (1482)
1.	&	649	58,89%	43,72%
2.	→	228	20,68%	15,38%
3.	←	96	8,71%	6,47%
4.	⌐q (postpendence)	17	1,54%	1,14%
5.	p⌐ (prependence)	63	5,71%	4,25%
6.	↔	43	3,90%	2,90%
7.	+	4	0,36%	0,26%

146

8.	↓	2	0,18%	0,13%
Total		1102	99,97%	
9.	~	380		25,64%
Total		1482		99,89%

Chart nr.1. shows that conjunctions are most often used as operators in proverbs. This holds goood for both calculi, related to a total with and without negation. Implication and converse implication are on the second place, which together have a share of 29,39% referring to a total without negation and a share of 21,85% referring to a total together with negation. Negation is on the third place with a share of 25,64%. Postpondence and prependence are on the fourth place: their share together is 7,25% without negation and 5,39% with negation. Equivalence is in the next place with a share of 3,90% without negation and 2,90% with negation. Exclusion and rejection have a less than 1% share in both cases.

The chart also shows that 4 or 5 logical operators are used in proverbs. How can we explain this? We think that in the world of everyday life *it is sufficient to use these operators, whereas their variation takes place "within" the frame of their use*, as A. Schütz says. There is a typology of these operators in function of certain proverbs, and proverbs are typical of a certain comprehensive-actual situation.

Let us compare now the distribution of logical operators in Romanian and Hungarian:

Chart nr.2. The frequence of appearance of logical operators in Romanian proverbs

Nr.	Operators without negation			Operators with negation
1.	&	320	59,04%	43,76%
2.	→	124	22,87%	16,95%
3.	←	34	6,27%	4,64%
4.	⌐q (postpendence)	13	2,39%	1,76%
5.	p⌐ (prependence)	28	5,16%	3,82%
6.	↔	20	3,69%	2,72%
7.	+	1	0,18%	0,13%
8.	↓	2	0,36%	0,27%
Total (without negation)		542	99,96%	
9.	~	189		25,85%
Total (with negation)		731		100%

Chart nr.3. The frequence of appearance of logical operators in Hungarian proverbs

Nr.	Operators without negation			Operators with negation
1.	&	329	58,73%	43,80%
2.	→	104	18,57%	13,84%
3.	←	62	11,05%	8,25%
4.	⌐q (postpendence)	4	0,71%	0,53%
5.	p⌐ (prependence)	35	6,25%	4,66%
6.	↔	23	4,07%	3,06%
7.	+	3	0,53%	0,39%
8.	↓	-	-	-
Total (without negation)		560	100%	
9.	~	191		25,43%
Total (with negation)		751		99,96%

Our first observation is that there is a *striking similarity between the distribution of logical operators in the two languages.* The statistically shown differences between the logical structures of proverbs in these two languages are negligible. This means that globally the logical sense of proverbs in these two languages are practically identical. In other words, *linked to the social distribution of knowledge, the logical structures or logical senses are distributed in an identic way in a relatively homogeneous medium such as the quotidian.* This assertion is valid even in the case of two very different languages such as Romanian and Hungarian. Once the quotidian is similar, theorising in the form of proverbs is also necessarily similar from the point of view of the logical sense.

. Nevertheless we know that compiling a dictionary of proverbs does not mean to translate proverbs but to find those cultural equivalents which ensure that a Romanian proverb has one or more corresponding Hungarian proverbs. In other words, István Vöö tried to link an assertion with a discursive universe in Romanian with a similar one in Hungarian when he compiled the dictionary. Thus the dictionary was not based on an intention of translation. It is characterised by spontaneity and reflects that which is given from a social point of view. However, there are some exceptions: 83 proverbs in our sample do not have a correspondent in Hungarian. This is why the author translated them. Logical operators are distributed as follows:

Chart nr.4. The frequence of appearance of logical operators in proverbs translated by István Vöö:

Nr.	Logical operators	Absolute frequence Romanian language	Relative frequence Romanian language	Absolute frequence Hungarian language	Relative frequence Hungarian language
1.	&	54	47,78%	49	45,37%
2.	→	20	17,76%	22	20,37%
3.	←	4	3,53%	4	3,70%
4.	⌐q (postpendence)	5	4,42%	4	3,70%
5.	p⌐ (prependence)	4	3,53%	6	5,55%
6.	↔	1	0,88%	1	0,92%
7.	~	25	22,12%	25	20,37%
Total		113	99,99%	113	99,98%

Chart nr. 4. shows that in this case there are differences regarding the similitude of the logical sense of Romanian and Hungarian proverbs. More precisely, if we take into account the differences of logical sense between Romanian proverbs and their corresponding Hungarian proverbs based on chart 2 and 3, we find a total difference of only 3,03%. Making the same calculi based on chart nr 4, we find a total difference of 9,68% between Romanian proverbs and their translation into Hungarian by István Vöö. This marks more than three times a greater difference. This means that the intervention of the translator modified to a greater extent the similarity of logical sense than the process of finding correspondents in the two languages.

6. The typology of conjunction and implication

According to A. Schütz the acquiring of language is the first level of theorisation characteristic to the quotidian. Proverbs and sayings represent the second level, which is also asserted in the second paragraph of this paper. Proverbs as theorisations offer an image of the world, the everyday world especially; they are part of this world which is inhabited by a variety of elements. Proverbs which are in fact diverse linguistic expressions have some common elements.

The results of the application of the metalanguage of the logic of propositions to the natural object language of proverbs help us with our analysis. However, the former "atomic" level analysis is replaced by a "molecular" level one. Besides the constant relations between propositions which make up proverbs we will also focus on propositions which have become part of a certain logical structure. We will also try to identify on a general level the common sense of

contents which make up proverbs. We will take into consideration the conjunction and the implication as the most frequent logical operators.

We must state at the very beginning that every proverb or every assertion acting as a component proposition of a proverb has the logical value of *truth*. Wherever and whenever the proverb was worded or uttered, this was not done with the intention of asserting something untrue. Nevertheless there are situations in which they contradict themselves; that is, they do not obey the principle of the excluded third and the principle of contradiction in terms of logic. Apart from this it is indisputable that the utterance of a proverb in any of the comprehensive-actional situations implies truth and only truth. Therefore every proverb has the logical value of truth, no matter if it asserts or denies.

Are there no false proverbs? We did not come across such proverbs in our analysis. However, the everyday world is not exempt from the false, because truth has no sense without the logical value of false. Therefore we must say that there is no use in formulating a false statement, moreover with the indubitable status of truth formulated in proverbs. Although the logic of proverbs is bivalent, operationally it is true in the adjacent comprehensive-actional situations.

In case of our sample proverbs this explains the almost complete lack of expressions which would not confirm to the frame of a bivalent logic, be it in the form of a modal expression. We came across a single exception to bivalence.

1191. A mânca şi din barbă a nu mişca, nu se poate. (Romanian)
Orrot fújni, levest is hörpinteni lehetetlen. (Hungarian)
(To eat and not move your chin is impossible.)

symbolically: ~M (p&~q)

(~M is used to mark the impossible in modal logic.)
Even in this case, although the first interpretation of the expression "impossible" implies a trivalent logic, we think that this is erroneous. We consider that it is closer to reality to interprete the expression as false. In other words, this is not about the fact that it is impossible "to eat and not move your chin", but that the conjunctive proposition obtained by juxtaposing the assertion "to eat" and "move your chin" is false. *False* is attributed to the conjunctive assertion as the unique alternative to the *truth* of proverbs and it is not about the *impossible* attributed to the assertion as an alternative to *true* and *false*.

6.1. *The typology of conjunctions*
We are interested in the typical logical structure of conjunctions and their synthesis linked to the content of propositions.

The most frequent logical structure is that of simple juxtaposition of two propositions. Symbolically: p & q. The possibilities offered by negation are also widely used. We can find therefore all the negated logical structures, those variants

when negation is present besides affirmation (p & ~ q, ~p & q), or both terms of the conjunction are negated. Three proposition conjunctions are very rare. The negation of the conjunctive proposition as a whole also appears rarely. We have found only three such examples, all in Hungarian: 545. Nincs olyan hosszú nap, hogy estéje ne volna. (Even the longest days have their evening.) 946. Nincs senki akinek tanulnia ne kellene és senki akitől tanulni ne lehetne. (There is no man who should not learn and no man who could not teach you something.) 1409. Halat szálka nélkül, embert hiba nélkül nem lehet találni. (There is no fish without bones and no man without flaws.) The adjacent logical structures are: ~ (p & ~q) for proverb nr.545 and

~(~p & ~q) for proverb nr.946 and 1409.

Proverb nr.545 is linked to the following logic of propositions:

$$\sim (p \;\&\; \sim q) \Leftrightarrow (p \to q).$$

If we would reformulate the proverb in natural language according to the logical sense on the right side of the equation we would come to a familiar natural expression.

The other two proverbs are linked to the De Morgan laws of the logic of propositions:

$$\sim (\sim p \;\&\; \sim q) \Leftrightarrow (p \lor q).$$

Reformulating them in natural language according to this logical sense would be very unusual.

As to the second aspect of our interest, the synthesis of the content of propositions, their extreme diversity creates difficulties. Therefore we reverted to a grid of *ad hoc* concepts. Thus we have the following categories:

a) Proverbs in which there is a *simple juxtaposition* of two assertions. For example: 394. *Câinii* latră, caravana trece. A kutya ugat, a karaván halad. (Dogs bark, the caravan passes.) or 731. Din afară *frumos* și înăuntru găunos. Kívül fényes, belül férges. (Outside beautiful, inside ugly.) Proverb nr. 394 is probably the most significant in this respect. The juxtaposition of the assertion about the barking of dogs and that about the passing of the caravan is irrelevant, which leads to the natural meaning of futility, of the impossibility of interfering with a certain order of things, expressed by a conjunctive juxtaposition. Irrelevance is not so explicit in case of proverb nr.731. It is based on the pattern "inside-outside", "interior-exterior", that is. But the relation between these is at least doubtful, because the interior is hidden.

The formulations of these two proverbs in Hungarian and Romanian have the same logical and natural structure and are therefore almost identical.

b) Other proverbs express conjunctively certain *situations*. For example; 560. Au scăpat de *dracu*, au dat peste tată-său. (They escaped the lion but came across her father.) A kakastól elfut, oroszlánra talál. (Running away from the cock, coming across the lion.) or 1388. Cine nu deschide *ochii*, deschide punga. (He who does not open his eyes must open his purse.) Aki nem vigyáz, ráfizet. (He who is reckless, pays for it.) These conjunctural situations are often introduced by the pronoun "he who". Its role is exactly to introduce a situation, to create the circumstances in which the truth of the assertion is valid. Substituting "he who" with any name we obtain a clearer form of the proverb. John does not open his eyes, he opens his purse. Thus we made the situation more concrete, we moved a truth from the superindividual to the given comprehensive-actual circumstances.

c) Another category of proverbs is that which points out the characteristic of a state (situation). For example: 1370. Tunde oaia, dar nu-i lua și pielea. Juhot nyírni, nem nyúzi kell. (Sheep must be sheared, not skinned). or 1166. *Cap* mare, minte puțină. Feje mint egy hordó, esze mint egy dió. (Big head, small mind). An element of the situation (state) is the basis of truth in these proverbs. The chosen feature is significant in relation with the situation, and its negation warns us about · the possibility of provoking an irreparable damage.

d) Some of the proverbs refer to space. For example: 1162. *Minciuna* umblă prin lume, iar dreptatea stă pe loc. A hazugság világot kerül, az igazság egy helyben ül. (Lies walk a long distance while truth stays.) or 2090. *Vorba* de rău se duce ca glonțul, iar cea de bine înnămolește. A rossz hír szárnyon jár, a jó hír alig kullog. (Bad news travels fast, good news slowly.) Some proverbs refer to covering a distance.

e) Temporality is expressed as *simultaneity* or *succession* in the proverbs analysed. For example: 1079. Vorbește de *lup* și lupul la ușă. Farkast emlegettünk, a kert alatt jár. (He speaks of the wolf and the wolf is at the door.), or 2037. Să bei *vinul*, dar să nu te bea. Ki a bort megissza, ura legyen. (Drink wine, but be in control of it.)

. Proverbs more often refer to successions, that is, time in its dynamics. It is interesting to see the temporal dimensions they refer to. We can therefore identify proverbs which refer to physical temporal cycles such as morning - evening, day - night, summer - winter, yesterday - today. Another category refers to man in relation with physical time: going to bed - sleeping - getting up, living - dying, working - eating, sowing - harvesting, father - son, youth - oldness. And finally, the temporal cycles linked to certain activities, mainly social: to sell - to buy, give - take, promise - fulfil, love - marriage, once - never. All these cycles show that the temporal horizon expressed in the quotidian is closed, repeatable and constant. In such a world there are no grandiose plans which have in view years and formidable resources. The resources of the quotidian are limited to the individual and his ability to act and understand. This resembles traditional society. Modern rationality has no place here, world wars or all-encompassing economic crises are impossible.

However, from the point of view of the logical sense, this world possesses all the instruments which, used in another context and moving the accents on different logical operators, make the evolution towards a modern society possible.

6.2. *The typology of implications*

We will analyse the imlications in function of the two criteria asserted, as the implication is on the second place from the point of view of frequency. (Chart nr.1.)

The observation regarding the use of expressions offered by the logical structures which contain negations is valid for implications as well. Thus we could find all possible combinations of negating the members of both types of implication. Logical sense is distributed according to the following structures: $p \rightarrow$ ~q, ~p $\rightarrow$ q, ~p $\rightarrow$ ~q, p $\leftarrow$ ~q, ~p $\leftarrow$ q, ~p $\leftarrow$ ~q. This distribution does not mean that implications without negation would not be present. On the contrary. If we would like to identify a privileged logical structure, we could choose the following three: p $\rightarrow$ q, p $\leftarrow$ q, ~p $\rightarrow$ ~q.

- The categories in which proverbs can be listed are:

a) Proverbs which express *causality*. For example: 26. *Apa* când se umflă şi pe munţii scufundă. Özönvíz ha tombol, hegyeket lerombol. (Raging waters can mountains destroy.) 269. *Capul* până nu se sparge, creierii nu se văd. Míg a fő be nem törik, az agy ki nem látszik. (The brains cannot be seen until the head is not broken.)

b) Proverbs which refer to *place*. For example: 1203. Unde mănâncă doi, mai poate mânca şi al treilea. Ahol ketten jóllaknak, ott a harmadik sem marad éhen (Where two people eat their fill, the third one will not remain hungry.) or, 1516. Când ai o *pisică* blândă, şoarecii-n casă fac stână. Ha nincs otthon a macska, táncolnak az egerek. (When the cat is not at home, the mice are dancing.)

c) We anticipated that most proverbs referring to *temporality* are formulated in an implicative logical structure, but this is not the case. Conjunction is primordial in expressing temporality. This can only be explained by the fact that proverbs are theorisations linked to the traditional quotidian and the essential dimension of temporality is expressed by the logical sense of the conjunction.

d) A great number of proverbs with implicative structure express a large span of *circumstances*. For example: 119. Bărbatul zice din fluier, muierea plânge de foame. Hol az ember egész nap csak furulyál, az asszony csak éhesen sírdogál. (Where the man plays the flute, the woman cries hungry.), or 404. Nu-i vinovat câinele, el intră unde vede uşa deschisă. Nem jön be a kutya a pitvarba, ha beteszik az ajtót. (The dog does not enter the house if the door is closed.) The role of the word "if" which introduces the antecedent of the implication even implicitly, is to introduce the circumstances which validate the utterance of the proverb. Given their circumstantiality, these proverbs do not deal with descriptions but mainly actions.

7. Conclusions

1. The logical operators taken atomically as well as the molecular logical structures are distributed differently. The non-homogeneity of the social distribution of logical sense justifies such an analysis in the sociology of knowledge. We consider this distribution as given, without being able to trace certain relations of causal nature.

2. We observed that the global differences of logical sense between Romanian and Hungarian language are minimal in the homogeneous medium of manifestation of the quotidian. This holds good for the finding of cultural correspondents for proverbs. The intervention of the translator modified logical senses otherwise very similar.

3. Negation plays an important role in proverbs, but it never asserts the false. Proverbs are not linked to the world which gives birth to paradoxes such as the paradox of the liar.

4. Only the logical value of truth is present. False is accepted as logical value but it is not worth expressing it. ●

Bibliography

Balaiş, M, *Logică simbolică (Symbolic Logic)* , Cluj, 1978

Balaiş, M, *Teoria sintetică a semnificaţiei (The Synthetic Theory of Meaning)*, in: *Studia Universitatis "Babeş-Bolyai" Cluj, Series Philosophia*, 1975

Enescu, G, *Analiza logică a conjuncţiilor din limba română (The Logical Analysis of Conjunctions in Romanian)*, in: *Revista de Filosofie*, nr.7, 1969

Gál, L, *Ways of Thinking*, in: Gál, L (ed.), *Dimensiunea europeană*, Cluj, 1994

Karácsony, S, *Bevezetés a tudásszociológiába (Introduction to the Sociology of Knowledge)*, Osiris-Századvég, Budapest, 1995

Pólos, L, *Bevezetés a logikába (Introduction to Logic)*, Tankönyvkiadó, Budapest, 1988

Ruzsa, I, Stănciulescu, E, *Teorii sociologice ale educaţiei (Sociological Theories of Education)*, Polirom, Iaşi, 1996

Vöő, I, *Dicţionar de proverbe român-maghiar (Romanian-Hungarian Dictionary of Proverbs)*, Editura Ştiinţifică şi enciclopedică, Bucureşti, 1978.