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Evolution of the Pattern of Pronouns and Pronominal Adverbs in Artificial Language

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Abstract

Changes in the usage of the inanimate personal pronoun *ĝi* in real Esperanto, and some peculiarities in the usage of the generic pronoun *oni*, are addressed. The a-priori and a-posteriori principles in the correlative table of pronouns and pronominal adverbs are touched upon. Some changes in the usage of the particle of proximity *ĉi* have been reported, especially in relation to syntagmatics/paradigmatics interaction. Cases of combining tabular and non-tabular morphemes into one word are examined. Esperanto is compared to other natural and artificial languages. The strong and weak points of Esperanto are analyzed. Suggestions for a new artificial language are given. The conclusion is that the pattern of pronouns and pronominal adverbs has developed into an open system. All the changes described in the article provide evidence of Esperanto as a living language.

Keywords: a-priori, a-posteriori, pronominal adverbs, artificial language

1. Introduction

This is a study of the pattern of personal pronouns, the generic pronoun *oni*, and of the constituents in the pattern of the correlated pronouns and pronominal adverbs. The personal pronouns are: *mi* ‘I’, *ni* ‘we’, *ĉi* ‘thou’, *vi* ‘you’ (sg. and pl.), *ĝi* ‘it’, *li* ‘he’, *ŝi* ‘she’, *ili* ‘they’.

1.1. Personal pronouns

One can see that the Esperanto system of personal and possessive pronouns is slightly more complicated than that of Unish (Lee 2002: 64-65): Esperanto has three different words for ‘he’, ‘she’ and ‘it’. However, there is no distinction between the singular and the plural ‘you’, clearly and logically differentiated in Unish: *de–des*, cf. *me* ‘I’–*mes* ‘we’, *le* ‘he /she/ it’–*les* ‘they’. Even so, a learner of Unish may be confused by the question of how to differentiate between *mes* ‘we’ from *me*’s ‘my’ in speaking. Nevertheless, the systems of personal and possessive pronouns of both Esperanto and Unish are by far simpler than those of some other artificial languages, like e.g. Ido, which has, inter alia, 12 logically formed words for ‘they’, differentiating gender (male/female/neuter), and proximity/remoteness/neutrality (Jacob 1934b: 5-6).

In the pattern of personal pronouns, there have been obvious changes in the usage of *ĝi*. Originally it was used not only as the pronoun of the 3d person, singular, inanimate, but also as a reduction of a subordinate clause:

- (1) *Mi konsideras, ke la materialo por la vortaro devas esti romano-ĝermana, ŝanĝita nur tiom, kiom ĝin postulas la kondiĉoj de la lingvo.*
 “My opinion is that material for the language must be romance and Germanic, changed as little as is required by the

conditions of the language.” (Zamenhof)

This example is quoted in the article on ‘ĝi’ in PIV (1970: 366).

Nowadays, the demonstrative pronoun *tio* is being used in this meaning, rather than the personal pronoun *ĝi*. So, in the above clause *tion* appear instead of *ĝin* (*-n* being the marker of the accusative case—Sanskrit *dviṭīyā vibhakti*). This grammatical change was first remarked by E. Drezen as early as 1931 (Drezen 1931: 61 (in Esperanto), 64 (in Russian)).

This is just the case Dr. V. Tikhomirov suggested the pronoun *es* borrowed from German (Tikhomirov 1910: 3). He also suggested the use of *es* as an impersonal subject: *es pluvas* for ‘it rains/it is raining’ instead of *pluvas* as in real Esperanto (the *-t* is the verbal ending for the 3d person, singular, in his project) (Ibid.: 11). He proposed several changes making Esperanto grammar less simple. His booklet was published in his own version of Esperanto (and probably remains the only evidence thereof).

For criticism of the omission of the subject in Esperanto see also (Lee 2002: 67-69, 72): “the use of the meaningful content word as the subject of a sentence describing natural phenomena in Unish enables people to understand the sentence more quickly and clearly than the omission of the subject in Esperanto” (Ibid.: 72).

Originally the pronoun *ĝi* was also used when the semantic gender of the noun it replaced was unknown or irrelevant, cf. the singular ‘they’ in the so called inclusive language in the English of recent decades, or the English *it* as applied to animals or babies. Nowadays, the masculine pronoun of the 3d person, singular, *li* is being used in these cases. Attempts have been made to introduce personal animate pronouns of the indefinite gender into Esperanto: the *zi*—as in M.Landmark’s book *Infanpsikologio* ‘Child psychology’ (Landmark 1978: 178) (with a reference to Jonathan Pool who had proposed that pronoun in his speech delivered at the International Summer University during the 1966 Universal Esperanto Congress in Athens) and

the *ri*, but they have failed, as did attempts to differentiate grammatical gender with the pronoun of the 3d person, plural, *ili*, *iŝi*, *iĝi* as plurals for *li* ‘he’, *ŝi* ‘she’, and *ĝi* ‘it’. The plural of the 3d person is only *ili*, as originally designated by Dr. Zamenhof the creator of Esperanto.

Use of the generic pronoun *oni* demonstrates certain peculiarities relating to the categories of case and number. Words grammatically agreeing with it are always in the singular, irrespective of the semantic number:

- (2) Ĉi tie oni devas esti kalma.
 ‘One has to be calm here.’

The pronoun *oni* is never used in the accusative case, though not a single description contains a rule to restrict its declension. This de-facto constriction is probably to be accounted for by the influence of French, which is known to have been very strong during the initial period of the existence of Esperanto. The grammatical number of the French generic pronoun *on* is singular, irrespective of the semantic number: cf. English *one* and German *Man* used as generic pronouns. However, ‘they’ and ‘people’ can also be used in English in the generic meaning—much wider than *oni* in Esperanto or *on* in French. In these cases Russian normally uses a personal verb form (*verbum finitum*) in the plural, without any surface subject:

- (3) a. Russian: Jego zdes’ chasto vid’at.
 him here often see-3sg
 b. English: They (can) often see him here.
 One can often see him here.
 c. French: On l’ y voit souvent.
 they/one him here see-3sg often

d. Esperanto: Oni	ofte	<u>vidas</u>	lin	ĉi
they/one	often	see	him	proximity
tie.				
there.				

2. The System of Correlative Pronouns and Pronominal Adverbs

2.1. Correlational Words

Words and morphemes set out in the following table are to be hereinafter referred to as *tabular*, while all the others are *non-tabular* ones.

The pattern of tabular words has been originally designed as two-dimensional, and tabular words themselves were generated at the intersections of rows and columns (table 1).

One can see that the morpheme *i* is common to all tabular words, and it is preceded by *k-* in interrogative words, by zero in indefinite ones, by *t-* in demonstratives, by *nen-* in negatives, and by *ĉ-* in generalizing words. The *i* is followed by *-o* in inanimate pronouns, by *-u* in animate ones, by *-a* in attributives, by *-el* in proper adverbials, by *-al* in causals, by *-am* in temporals, by *-om* in quantitatives, by *-es* in possessives, and by *-e* in locatives. When a locative pronoun or pronominal adverb takes the *-n* ending, which is the regular marker of the Accusative case, it expresses direction (which is one of the meanings of the Esperanto Accusative).

The meanings of the tabular words are clear from the table itself, so we shall confine ourselves to translating a few examples: *io ajn* ‘whatever’, *iu* ‘somebody’, *kia* ‘which; what kind of’, *neniel* ‘by no means, in no way, in no manner’, *ĉiam* ‘always’, *tial* ‘therefore’, *kiom* ‘how many, how much’, *ĉies* ‘everybody’s’, *ĉi tie* ‘here’.

Brackets indicate that the word automatically generated in the cell

is used very seldom. The asterisk at the intersection of the temporal and demonstrative (proximity) column means that the word *ĉi tiam* expected to automatically emerge in the cell is potentially admissible, but in practice only the non-tabular word *nun* ‘now’ is used. However, *ĉi tiam* could well be expected in a context activating syntagmatic correlations along with paradigmatic ones, e.g.,:

- (4) Tio okazas kaj tie, kaj ĉi tie,
 that happen and there and proximity there,
 kaj tiel, kaj ĉi tiel,
 and that way and proximity that way,
 kaj tiam, kaj ĉi tiam.
 and then and proximity then.
 ‘That happens here as well as there, this way as well as that way, now as well as then.’

But even in this case *ĉi tiam* is felt to be more or less artificial.

2.2. A-priori and A-posteriori Elements in the System of Correlative Words

At first glance, the table might seem an a-priori pattern. However, a linguist will see strong a-posteriori elements in this admirably logical pattern. The *ajn* is borrowed from German, the *ĉi*—from French, and the *t*- and *k*- for demonstrative and interrogative / relative pronouns are apparently Indo-European. Yet the early Indo-European distinction between the interrogative and relative ones has been omitted. For example:

- (5) a. Esperanto:
 Kies panon oni manĝas,
 whose bread they/one eat,

ties vortojn oni parolas.
 their words they/one say.

‘Whose food they eat, the words of those they tell.’

b. Sanskrit:

yasyānnam (= yasya + annam) khadati
 whose (rel.) rice eat-3sg

tasya vacanam vadati.
 his speech say-3sg.

‘Whose food they eat, the words of those they tell.’

c. Esperanto:

Kies panon oni manĝas?
 whose bread they/one eat?

‘Whose food are they eating?’

d. Sanskrit:

kasyānnam (= kasya + annam) khadati
 whose (interrog.) rice eat-3sg ?

‘Whose food are they eating?’

In Sanskrit, *yasya* ‘whose’ is not a question, and *kasya* ‘whose?’ is not a conjunction.

The distinction between a-priori versus a-posteriori elements in artificial languages is probably the most relevant among all possible bases of their classification. For an analysis of this dichotomy see: (Drezen 1928: 29-30, Drezen 1932: 42-58, Dulichenko 1976: 115, Kuznetsov 1976: 61-62).

2.3. The Earliest Critique and Zamenhof’s Reaction

It is rather strange to note that the pattern of pronouns and pronominal adverbs, arguably the most admirable part of Esperanto grammar, evoked most criticism. But it is even more strange to discover that Zamenhof agreed with the critique (Zamenhof 1907: 8-9): “The table of interrelated pronouns and adverbs was constructed with

the intention to mathematically facilitate their acquisition. While creating that interrelating table, which does not exist in any language, I certainly had to invent words, and this gave several friends a reason for endless criticism and dispute. To eliminate this subject of constant dispute, I suggested abandoning the reciprocal arrangement of the table and to consider the members of the table as simple words without reciprocal interrelation. Because there are not many of those words, we may do this decisively, the more so because the small loss of easiness would be compensated by increase in naturalness. So I suggest e. g., *omni, kom, sic, semper* instead of *ĉiu, kiel, tiel, ĉiam*, and so on. Therefore I do not need to speak any longer about these words and I shall give them just in the vocabulary, like simple words.” This reform was never implemented in the practical use of Esperanto.

2.4. Advantages and Shortcomings of the Esperanto System of Correlative Words

2.4.1. Why This is So Important

Prof. L. Shcherba, who founded the Department of Phonetics and Foreign Language Teaching at the University of St. Petersburg used to say that command of a language is in fact a complete command of the entire system of its pronouns. The author of this paper has extensive experience of teaching foreign languages and has repeatedly observed the truth of Prof. Shcherba’s dictum. The system of pronouns and pronominal adverbs is indeed the most important part of the structure of any language. Hence in making that system easy to learn, an artificial language developer enormously simplifies process of language acquisition. Several of the tabular words are not very frequent and might have been forgotten by a non-native speaker if their internal structure is not related to that of the other tabular words. The semantically motivated algorithm for their formation and understanding makes this part of Esperanto really international. Generally speaking,

the system of correlative words (pronouns and pronominal adverbs) of an artificial language has to be more a-priori (more logical, more mathematical) than the artificial language as a whole.

2.4.2. Correlational Words in Esperanto and Ido

This is a comparative table of correlational words (pronouns and pronominal adverbs) of Esperanto and Ido (Jacobca 1934a: 8-9, Jacob 1934b: 15), and one can immediately see that it is easier to memorize several of the Ido words at a glance, on discovering them to be familiar from the reader's command of Romance languages, but with regard to the overall sets of the correlative words, the several dozen Esperanto pronouns and pronominal adverbs turn out to be easier to remember than the list of those words in Ido. For example, in Ido there is no morphological manifestation of the semantic correlation between *quale* 'how' and *nulamaniere* '(in) no way', or between *ube* 'where' and *omnaloke* 'everywhere' (Table 2).

2.4.3. Pronouns and Pronominal Adverbs of 5 Artificial Languages

Not only in Ido, but in most of the a-priori artificial languages, pronouns and pronominal adverbs are less interrelated than in Esperanto. The advantage, as mentioned above, is that someone who is wondering whether to learn a given artificial language will easily recognize words they already know due to their command of English (in the case of VIVA and Unish) or Romance languages (in the case of Intal, Ido, Interlingue—also known as Occidental—and Interlingua - also known as Interlingua-IALA). The disadvantage is that it will take a long time to master the whole set of several dozen mostly unrelated words, given that most of them are not used very often.

There is a comparative table of pronouns and pronominal adverbs of 5 artificial languages—Intal, Esperanto, Ido, Interlingue and Inter-

lingua (Weferling 1973: 11-12), merely translated from Intal into English (Table 3) without any attempt to comment on it or make any kind of critique on its structure (which would lead us too far away from the topic announced in the title of this paper). One can see that all the five patterns are Romance-based; that their structures are different and so several cells of the table are filled with more than one word, while some others are empty; and that the Esperanto pattern is the most semantically structured of all the five.

2.4.4. Phonetically Motivated Inconvenience and Some Related Alternatives

The advantage of this system has a concomitant disadvantage. The stress always falls on the 'i' of the correlative words, so this most predictable part sounds most clearly, while the remainder, which is less predictable and therefore more informative, is phonetically weakened. This is practically the most important shortcoming of the table. This problem was removed from the table of pronouns and pronominal adverbs in Ido (see Table 2), but there are some other disadvantages there, already referred to in Subsections 2.4.1, 2.4.2 and 2.4.3. An alternative for a new artificial language could be an equally logical, transparently structured, and semantically motivated table of pronouns and adverbs, but having an unstressed segment (or even a consonant or a semi-vowel) labeling the word as a tabular one, and having a stress on that part of the tabular word which is normally the most relevant in the context, and which distinguishes a given tabular word from all other.

A booklet published early last century (Vengerov 1910: 44-45) describes a linguistic project (which however never became a real language) with a table of pronouns and pronominal adverbs rather close to this idea. In Table 4, one can see that the pattern is well structured and semantically motivated, and there is no evidence of the phonetically motivated inconvenience discussed above.

Nevertheless, one cannot assess this system without any reference to the whole language—this is particularly relevant for the problem of homonymy,—but I failed to find any reference in any source indicating that Vengerov had brought his project to the stage of real use for communication.

2.5. Changes to the System of Correlative Words

2.5.1. Changes Involving the Category of Proximity

Originally, the abscissa and the ordinate of the table formed a closed system (a closed loop, if one may say so), comprising a limited number of elements. Later on, though, changes took place to question the closed loop nature of the system as well as the limitation to the number of its elements.

First, there was an optional reduction like $\hat{c}iuj \hat{c}i tiuj \rightarrow \hat{c}iuj \hat{c}i$ ‘all these’ (cf. $\hat{c}iuj tiuj$ ‘all those’, $\hat{c}i tiuj$ ‘these’; j is the plural ending), so the particle $\hat{c}i$ is now directly compatible with the pronouns and the pronominal adverbs of the \hat{c} - column, and the link of this particle with the t - column is no longer exclusive. As the second step, $\hat{c}i$ appeared to match the nen - column:

(6) La		konversacion		audis		neniu.
	the	conversation-Acc.		hear-past		nobody
	Ĝuste	$\hat{c}i$	neniu	ĝin	al	mi rerakontis.
	just	proximity	nobody	it-Acc.	to	me retell-past
						‘Nobody heard the conversation. Just that nobody re-told it to me.’

These changes added ‘depth’ to the table, making it three-dimensional. The abscissa and the ordinate have been joined by the applicate with its two values—0 and ‘ $\hat{c}i$ ’, later joined by a third—‘ ajn ’ (see below).

The next item in the history of the *ĉi* particle is its ability to directly form combinations with nouns, without entering the compounds *ĉi tiu / tiu ĉi* (sg.), *ĉi tiuj / tiuj ĉi* (pl.):

- (7) En ĉi- letero mi sendas la invitilon.
 In proximity letter I send the invitation-Acc
 ‘Please find the invitation enclosed.’ (lit. ‘In this letter I am
 sending the invitation.’)

So we can see that the particle *ĉi* broke loose from the table and became almost freely combinable, like any other Esperanto morpheme. However, *ĉi* cannot function as a root, because e.g. *ĉio* will not be understood as ‘proximity, this-ness’ (as opposed to ‘that-ness’), but only as ‘everything’, because of the original existence of the *ĉ-* column in the table. Hence it is quite unambiguous that there are three morphemes in *ĉio*: the ‘empty’ root *-i-* labeling a tabular word, the generalizing morpheme *ĉ-* ‘all, every’, and the nominal ending *-o*.

2.5.2. Alternatives for a New Artificial Language Arising out of Changes to the Category of Proximity

An alternative for a new artificial language could be elimination of even potential homonymy of morphemes comprising the tabular words.

An attempt to remove this kind of homonymy was undertaken by T. Hagner in his ‘Modern Esperanto’ project (Hagner 1960: 7-12). The ‘ĉ’ of the collective pronouns and pronominal adverbs was replaced with an ‘s’, and the reflexive pronoun is ‘sin’. Demonstrative pronouns and pronominal adverbs of proximity are considered to be antonyms of demonstrative pronouns and pronominal adverbs of remoteness, and therefore they have the prefix ‘mal’. This information on pronouns and pronominal adverbs is set in Table 5.

In this connection, the Viva language project is also worth mentioning (Nesmejanov 1914). According to the creator of the

tioning (Nesmejanov 1914). According to the creator of the project, there were two main weak points in Esperanto: its focus on Latin and French instead of English and German (Ibid.: 388-391) and the scant attention paid by Zamenhof to conciseness (Ibid.: 391-396). The fact that English is the main source of VIVA vocabulary and of some of its endings, e.g., *-ed*, makes it relatively similar to Unish. As far as the principle of conciseness is concerned, there is no specific morpheme to mark all the ‘tabular’ words in VIVA. Consequently, one can fail to immediately recognize an unknown word as a pronoun or a pronominal adverb, and at the same time, one can mistake a non-tabular word for a tabular one. For example, in the sentence

- (8) Regyun direkted ad la so okuls, blak as kol, zo ke la mused
louen li so.
‘The prince directed his eyes to her (literally ‘to her his eyes’),
as black as coal, so she had to look down (lit. ‘to lower
hers’).’

According to Nesmejanov (1914: 350), the word *kol* means ‘coal’, but *kol* is also the standard formation of the relative and interrogative pronominal adverb which means ‘how big’ (Ibid.: 351).

2.5.3. Changes Involving the Particle *ajn*

The changes which have occurred with the *ĉi* morpheme, are also taking place with the *ajn* morpheme, although slowly. Originally it only formed combinations with indefinite and interrogative tabular pronouns, like *iam ajn* ‘any time’, *kiam ajn* ‘whenever’ etc. (Combinations with interrogative words have also been used as conjunctions to add a subordinate case.) Nowadays, in expressive speech, *ajn* can also join generalizing pronouns:

- (9) Sed ja ĉiu ajn

but	as_it_is_known	everyone <who>ever
tion	al	vi
that-Acc.	to	you
		diros!
		tell-future <tense>.

‘But everybody and everyone will tell you that!’

The morpheme *ajn* functions as a root to form the adjective *ajna* ‘any kind you like’, the noun *ajno* ‘whatever (you like)’, and the emphatic double conjunction *ajne... ajne...* ‘either... or...’. Potentially, a secondary adverb *ajne* ‘any manner (you like), ‘any way (you like)’ could be expected, but the author has never come across either the usage or a reference to the usage of *ajne* as an adverb. The derivatives *ajna* and *ajno* distinguish the *ajn* morpheme from the *ĉi* morpheme, because, as mentioned above, *ĉia* and *ĉio* simply mean ‘all, every, each’ and ‘all, everything’.

2.5.4. N. Danovsky’s Observations on the Evolution of Real Esperanto

The conversion of the originally closed table into an open one has already been remarked by N. Danovsky in his brief note: ‘The table of correlative words appeared to be so productive that new morphemes became included in it ... *ali-* ‘other, else’; *kelk-* ‘some, several’; *sam-* ‘(the) same’. The particle *ajn* is showing the same tendency’ (Danovskij 1976: 108). It is noteworthy that the evolution of the system of Esperanto pronouns and pronominal adverbs matches Danovsky’s definition of internally motivated evolution (Ibid.: 99) which is opposed to externally motivated (loan-words; elimination of the voiceless guttural fricative consonant and its replacement by the *k* sound, which is more international, etc.)

2.5.5. Other Changes to the Correlative Words and their Consequences

Also *mult-* ‘many, much’ can be added to Danovsky’s list quoted above. It is notable that the semantic of all morphemes included or becoming included in the table is likely to be either pronominal or close to pronominal. The ongoing process of involving new morphemes into the pattern made its abscissa open, whereas originally it had been closed.

This process has resulted in homonymy. Initially, there only was homonymy of morphemes, which were constituents of the tabular words. For example, the root, *i* identifying a word to be tabular, coincides with 1) *-i* the infinitive marker, 2) *-i-* a suffix of land names, 3) *-i* identifier of the generic pronoun *oni* and of personal pronouns: *mi* ‘I’, *ni* ‘we’, *ci* ‘thou’, *vi* ‘you’ (sg. and pl.), *ĝi* ‘it’, *li* ‘he’, *ŝi* ‘she’, *ili* ‘they’, *si* (the reflexive pronoun of the 3d person, sg. and pl.)

The indicator *-u*, which labels tabular words replacing semantically animate nouns, coincides with the ending of the imperative mood. These cases of morpheme homonymy do not result in semantic ambiguity because of the different positions within the word, and different combinations. However, the extension of the pattern as described above several cases of real, pragmatically-relevant homonymy. Within the table, the *-e* stands for adverbs of place: *tie* ‘there’, *kie* ‘where’, *ie* ‘somewhere’ etc. Outside the table, the *-e* is the ending of secondary adverbs: *bone* ‘well’ as derived from the root *bon*, cf. *bona* ‘good’; *frate* ‘fraternally, in a brother way’, cf. *frato* ‘brother’, etc. As long as the *ali-* root ‘other, else’ stayed outside the table, the word *alie* only meant ‘in another/the other way’, ‘in another/the other manner’, according to the general rule of Esperanto grammar. But in this very special part of Esperanto’s structure,—the correlative table of pronouns and pronominal adverbs—the *-e* conveys the notion of place, so *alie* means ‘somewhere else’, while the meaning of ‘in another/the other way/manner’ is to be denoted by the

word *aliel*. The ambiguity of *alie* in this new diachronic stage of Esperanto lead to its removal from the language, and it is becoming more frequently replaced by *aliel*, *alimaniere* ‘in another/the other way/manner’ and *en alia loko*, *aliloke* ‘somewhere else’.

This homonymy, resulting in a kind of ambiguity, is a weak point of Esperanto. An alternative for a new artificial language could be the avoidance of homonymy between any *tabular* ending (probably more generally—any grammatical modifier used *within* the system of correlative words—pronouns and pronominal adverbs) and any non-tabular one.

A further piece of evidence, yet a less obvious one, that the abscissa of the table has become open, is the newly-emerged capacity of personal pronouns to combine in informal speech with the *-es*—the tabular indicator of possessiveness. Those words which occasionally appear when this happens, are synonymous with the regular possessive pronouns formed by adding an *-a*, which is the adjectives marker.

- (10) Kies estas la libro? Kies?! Ki-es?! — Nu, mies. (‘Mies’ instead of the normal ‘mia’)
 ‘Whose is the book? Whose?! Whose?! — Well, mine.’

Here, as in the case of *ĉi tiam* referred to above, paradigmatic relations are strongly influenced by syntagmatics.

The ordinate of the table is also tending to become open; new words occasionally generated (brought about) by this tendency are not guaranteed immediate recognition or understanding. A famous Esperanto writer of Hungarian origin, S. Szathmári, used this fact to create a comic effect in his short story *Budapeŝta ekzameno* ‘A Budapest exam’ (Szathmári 1977: 255). During a linguistic examination, Zamenhof, erroneously mistaken for a student by a professor of Esperanto, and the professor himself are discussing which morphological form to use in a certain context—the one with the *-at-* suffix or with the *-it-*. Zamenhof says:

(11) Mi estis nask- a- t- a
 I was bear- present passive participle
 je dek kvin- a decembro ...
 on ten- fif- th December ...
 ‘I was born on December 15...’

The professor corrects:

(12) Mi estis nask- i- t- a ...
 I was bear- past passive participle
 ‘I was born ...’

Zamenhof insists:

(13) Nask- a- t- a.
 bear- present passive participle
 Literally: ‘Being born.’

The professor asks then:

(14) Ĉu vi estas atisto?
 whether you are ‘at-ist’
 ‘Are you an ‘at’-ist?’

Zamenhof asks:

(15) Ki...isto?
 wh-ist
 ‘What kind of -ist?’

The ‘student’ wants to know, showing his ignorance of the Esperanto grammar problem vividly discussed by Esperantists. In the occasional neologism *kiisto* ‘what kind of -ist’ in (15), tabular morphemes are combined with non-tabular.

3. Conclusion

The processes described here are only trends and tendencies in real Esperanto usage. Nevertheless, they display good evidence of the evolution of the pattern in question from a closed towards an open state. Tabular morphemes which originally were only compatible with each other, and constituted a very special pattern standing apart from the general language pattern, are becoming more similar to other Esperanto morphemes through acquiring part of their most astonishing attribute peculiarity—unlimited compatibility. Although this structural shift is still very slight, the pattern of pronouns and pronominal adverbs in modern real Esperanto can no longer be described in a finite list.

The very fact of the changes described above constitutes clear evidence that Esperanto is a living and really functioning language, probably the only one among the numerous artificial auxiliary languages.

For a new artificial language, one may suggest the following. There must be a special pronoun to substitute for an entire sentence and to be used as an impersonal subject.

The system of correlative words should be logical (and consequently less a-posteriori than the language as a whole), transparently structured, and semantically motivated. It must have an unstressed segment (a consonant or a semi-vowel) to label the word as a tabular one (belonging to the correlative system of pronouns and pronominal adverbs). The structure of those words must exclude any cases of homonymy between them and with other words.

Table 1

Pronouns and pronominal adverbs	Insistently indefinite (conditional)	Indefinite	Interrogative and correlative	Negative	Generalizing	Demonstrative	Demonstrative (indicating proximity)
Inanimate	io ajn	io	kio	nenio	ĉio	tio	ĉi tio
Animate	iu ajn	iu	kiu	neniu	ĉiu	tiu	ĉi tiu
Attributive	ia ajn	ia	kia	nenia	ĉia	tia	ĉi tia
Properly adverbial (of manner)	iel ajn	iel	kiel	neniel	(ĉiel)	tiel	(ĉi tiel)
Causal	(ial ajn)	ial	kial	(nenial)	(ĉial)	tial	ĉi tial
Temporal	iam ajn	iam	kiam	neniam	ĉiam	tiam	*ĉi tiam (see note)
Quantitative	iom ajn	iom	kiom	neniom	(ĉiom)	tiom	(ĉi tiom)
Possessive	ies ajn	ies	kies	nenies	ĉies	ties	(ĉi ties)
Locative	ie ajn	ie	kie	nenie	ĉie	tie	ĉi tie

The pattern of pronouns and pronominal adverbs in Esperanto

Table 2

Pronouns and pronominal adverbs	Indefinite	Inter-rogative and correlative	Negative	Generalizing (collective)	Demonstrative
Inanimate	io ulo	kio quo	nenio nulo	ĉio omno	tio ito
Animate	iu ulu ula	kiu qua	neniu nulu nula	ĉiu omnu, omna	tiu ita
Attributive	ia ula-speca	kia quala	nenia nula-speca	ĉia omna-speca	tia tala
Properly adverbial (of manner)	iel ula-maniere	kiel quale	neniel nula-maniere	ĉiel omna-maniere	tiel tale
Causal	ial pro ulo	kial pro quo	nenial pro nulo	ĉial pro omno	tial pro to
Temporal	iam ula-tempe	kiam kande	neniam nula-tempe	ĉiam sempre	tiam lore
Quantitative	iom kelke	kiom quante	neniom nulo	ĉiom omno	tiom tante
Posses-sive	ies di ulu di ulo	kies di qua di quo	nenies di nulu di nulo	ĉies di omnu di omno	ties di ita di ito
Locative	ie ula-loke	kie ube	nenie nula-loke	ĉie omna-loke	tie ibe

A comparative table of pronouns and pronominal adverbs in **Esperanto** (**bold**) and Ido.

Table 3

	Intal	Esperanto	Ido	Interlingue	Interlingua
Personal	me	mi	me	yo	io
	tu, vu	vi	tu, vu	tu, vu	tu, vos
	il	li	il(u)	il	ille
	el	ŝi	el(u)	ella	illa
	ol	ĝi	lu		
	it	ĝi	ol(u)	it	illo
	nos	ni	ni	noi	nos
	vus	vi	vi	vu	vos
	les	ili	li, oli	ili	illos
	(iles)	-	ili	illos	illes
	(eles)	-	eli	ellas	illas
objective forms	-	-		me	me
	optional accusative marker -em if necessary: tu-em vu-em etc.	obligatory accusative marker -n min vin etc.	optional accusative marker -n tun vun etc.	me te le la it nos vos les	me te le la lo nos vos los

	Intal	Esperanto	Ido	Interlingue	Interlingua
				los las	les las
Reflexive	se	si	su	se	se
Generic (German 'man')	on	oni	on(u)	on	on
Possessive	mi tui, vui su, il-su su, el-su su, ol-su su, it-su nor vur ler	mia via lia ŝia ĝia ĝia nia via ilia	mea tua, vua sua, ilua sua, elua sua, olua sua, olua nia via lia ilia elia	mi tui su su su su nor vor lor	mi tu su su su su nostre vostre lor
Demonstrative					
adjective	ti	tiu	ca, ica ta, ita	ti	iste ille
substantive	ti = tie	tiu	olca, olta	ti	

	Intal	Esperanto	Ido	Interlingue	Interlingua
male	tio		ilca, ilta	tio	iste, ille
female	tia		elca, elta	tia	ista, illa
thing	to	tio	co, to	to	isto, illo
proximity	tsi = hir	ĉi tie	hike	ci	hik
remoteness	ta = dar	tie	ibe	ta	ibi
quality	tal	tia	tala	tal	tal
quantity	tanti	tiom	tanta	tant	tante
Interrogative					
adjective	kel kval	kiu kia	qua quala	quel qual	que qual
substantive	ki	kiu	qua	qui	qui
male	(kio)				
female	(kia)				
thing	ko	kio	quo	quo	que
quality	kval	kia		qual	qual
quantity	kvanti	kiom		quant	quante
Relative					
person	ki, kel	kiu	qua	qui	qui
things	kel	kiu	qua	quel	que, le qual
plural	keles	kiuj	qui	queles	quales
general: thing	ko	kio	quo	quo	que

	Intal	Esperanto	Ido	Interlingue	Interlingua
Indefinite adjectives	som eni mani serten altri omni cak nul mult pok plur sam singul ambi séteri	iu ia iuj iu, certa alia ĉiuj ĉiu neniu multa malmulta plurajsama sama unuopa ambaŭ ceteraj	ula irga - (plura) - (ula) altra omna omna nula multa poka plura sama singla - (la du) cetera	alcun quelcunc mani alcun cert altri omni chascun nequel mult poc pluri sam singul ambi ceteri	alicun qualcunque - (plure) alicun certe altere omne cata, omne nulle, necun multe pauc plure mesme singul ambe cetere
Pronoun or article to replace the whole sentence	lo	-	lo	lu	-

Pronominal and possessive pronouns and correlative words of 5 artificial languages, on the basis of (Weferling 1973: 11-12).

Table 4

PRONOUNS	Substantive		Adjective	Adverbial	Time	Place	Quantity	Cause	Goal	Possession	Direction
	Animate	Inanimate									
Relative	ki	ko	kea	key	kiu	keo	kio	dekuzi	porkui	kie 'belonging to whom' koe 'belonging to what'	keon
Interrogative	Interrogative pronouns are preceded by 'çu' or accompanied by the <interrogative> intonation and the question mark: 'çu ki?' or 'ki?'										
Demonstrative (proximity)	Personal pronouns can be used as demonstrative ones, or 'la' for 'this', 'ta' for 'that'		lea	ley	liu	leo	lio	deluzi	porlui	lae	leon
Demonstrative (remoteness)				tey	tiu	teo	tio	detuzi	portui	tae	teon
Collective	vi	vo	vea	vey	viu	veo	vio	devuzi	porvui	vie 'belonging to everyone' voe 'belonging to everything'	veon

PRONOUNS	Substantive		Adjective	Adverbial	Time	Place	Quantity	Cause	Goal	Possession	Direction
	Animate	Inanimate									
Indefinite	bi	bo	bea	bey	biu	beo	bio	debuzi	porbui	bie 'belonging to someone' boe 'belonging to something'	beon
Conditional (‘whatever’ etc.)	kis	kos	keas	keyus	kius	keos	kios	dekuzis	porkuis	kies 'belonging to whosoever' koes 'belonging to whatsoever'	keons
Negative	nekii	nekoi	nekea	nekeyi	nekiu	nekeo	nekio	nede- kuzi	ne- porkui	nekie 'belonging to no one' nekoe 'belonging to nothing'	nekeon

Table of correlative words in Vengerov’s proposed language

Table 5

Pronouns and pronominal adverbs	Indefinite	Interrogative and correlated	Negative	Generalizing	Demonstrative	Demonstrative (indicating proximity)
Inanimate	io	kio	nio	sio	tio	mal-tio
Animate	iu	kiu	niu	siu	tiu	mal-tiu
Attributive	ia	kia	nia	sia	tia	mal-tia
Properly adverbial (of manner)	iel	kiel	niel	siel	tiel	mal-tiel (?)
Causal	ial	kial	nial	sial	tial	mal-tial
Temporal	iam	kiam	niam	siam	tiam	mal-tiam (?)
Quantitative	iom	kiom	niom	siom	tiom	mal-tiom (?)
Possessive	ies	kies	nies	sies	ties	mal-ties (?)
Locative	ie	kie	nie	sie	tie	mal-tie

The table of correlative words in T. Hagner's 'Modern Esperanto'

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