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Tom VIII

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ECOLI[S]²

**Essays and notes on ecolinguistic synergy
and synthesis**

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The wired world as
the global site for all the hybrid transcommunicators

(source: http://simonchristy.com/uploaded_images/digital_competition-743888.jpg)



The figure of Atlas serving here as a metaphor of the transcommunicator
(source: https://www.broadinstitute.org/files/news/stories/full/2006-07_eigenstrat.jpg)

MATRIX FOR THE HYBRID TRANSCOMMUNICATOR:

**GLOBAL, SOCIAL, CULTURAL, TRANSCONNECTED,
KNOWLEDGEABLE,
OUTSPOKEN,
FLEXIBLE, MOBILE,
EFFECTIVE,
SUCCESSFUL,
COMFORTABLE,
CONCERNED,
WIRED**

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Multiple (and necessary) mottos

Habent sua fata linguae

"If language is not correct, then what is said is not what is meant, if what is said is not what is meant, then what must be done remains undone; if this remains undone, morals and art will deteriorate; if justice goes astray, the people will stand about in helpless confusion. Hence there must be no arbitrariness in what is said. This matters above everything"

(Confucius, 551-479 B.C.)

"Each language reflects a unique world-view and culture complex, mirroring the manner in which a speech community has resolved its problems in dealing with the world, and has formulated its thinking, its system of philosophy and understanding of the world around it. In this, each language is the means of expression of the intangible cultural heritage of people, and it remains a reflection of this culture for some time even after the culture which underlies it decays and crumbles, often under the impact of an intrusive, powerful, usually metropolitan, different culture. However, with the death and disappearance of such a language, an irreplaceable unit in our knowledge and understanding of human thought and world-view is lost for ever"

(Stephen A. Wurm, 1922-2001)

"Language exists only in the mind of its users, and it only functions in relating these users to one another, and to nature, their social and natural environment"

(Einar Haugen, 1906-1994)

"Languages were born and died, like living organisms. They had their life spans, they grew and changed like men and animals, they had their little ills which could be cured by appropriate remedies prescribed by good grammarians"

(Einar Haugen)

"Part of its (i.e. language – SP) ecology is therefore psychological: its interactions with other languages in the minds of bi- and multilingual speakers. Another part of its ecology is sociological: its interaction with the society in which it functions as a medium of communication"

(Einar Haugen, 1906-1994)

"As languages disappear, cultures die. The world becomes inherently a less interesting place, but we must also sacrifice raw knowledge and the intellectual achievements of millennia"

(Kenneth Hale, 1934-2001)

"(...) each language is like a soaring cathedral: a thing of beauty, the product of immense creative effort, filled with rich tapestries of knowledge"

(Gareth Cook, 2000. "Vanishing tongues")

The world's many cultures promote transcultural, transethnic, transnational, and translanguistic communication, that is, the one which is accomplished without the loss of distinctiveness and personal identity of the individual human transcommunicators.

"In a cultural perspective, the goal of rendering the worldwide communications space compatible with the equitable participation of all peoples, language communities and individuals in the development process"

(Universal Declaration of Linguistic Rights)

"The world faces new challenges in keeping its languages alive and meaningful. It is time for the peoples of the world to pool their resources and to build on the strengths of their linguistic and cultural diversity"

(Language Vitality and Endangerment,
UNESCO ad hoc expert group on endangered languages)

Linking language, knowledge, and the environment, as well as protecting biocultural diversity, are the constituents of the true web of life.

We all thrive on interacting with other people, with local communities and with society as a whole.

It should be understood that communication is at the heart of every interaction.

"Human communication is grounded in fundamentally cooperative, even shared, intentions"

(Michael Tomasello)

Linguistically-mediated communication strongly embeds biological, social and cultural aspects in everyday interpersonal/institutional exchanges. As such, it is subject to constant validation (or clarification) by the communicating partners so that communicative alignments are properly shaped.

"Ecolinguistics is an 'umbrella term' which covers a rich diversity of theoretical approaches"

(Bundsgaard and Steffensen)

NATURE ABHORS THE GARDEN

"Much as we might like to deny it, nature abhors the garden. The minute we stop maintaining our gardens, the ravages of wind, snow, ice, droughts, floods, weeds, pests and diseases transform them into something we never imagined. Basically, there's no such thing as a 'natural' garden, even one that consists entirely of native species...We cannot mimic nature in our gardens because nature is a process, not a product"

(Peter Del Tredici, The Arnold Arboretum, Harvard University)

AND DOES NATURE ABHOR NATURAL LANGUAGES?

Is there anything like a completely isolated natural language, perfectly devoid of any influences generated by various other contacting natural languages, like a garden warded off from all the external influences of wild Nature?

On the one hand, much as we would try to keep it in its isolated form, we cannot prevent any natural language from being constantly influenced, this way or another, by other contacting natural languages.

But, on the other hand, we, as users of the still existing rich diversity of natural languages, can at least go on trying to make every effort possible in order to keep the particular natural language alive as a flourishing and distinct sign of our national/ethnic identity and pride, for every single natural language inadvertently and most naturally reflects the continuous efforts of many past generations to preserve it, paradoxically, always in its garden-like, i.e. structured shape. Therefore, any natural language is both a gift/product and a process occurring in Nature.

Ad societatem cum translingua et transcultura.

Lingua mea, amicus meus.

A better knowledge of language should contribute to a better peaceful coexistence of the human kind.

Communicamus, ergo sumus.



Fig. 1. Hans Zatzka (1859-1945), *Dancing fairies*. This beautiful painting may be viewed as symbolizing the ecocratic harmony existing between/among all the natural living languages (for details concerning the said harmony, see the content of the book. Source: <https://goo.gl/images/rNKfum>)

An outline of the book

Ecolinguistics is celebrating its forty fifth anniversary in 2017 without any noisy and excessively triumphant bell tolling, having taken as its formal starting point the publication of Einar Haugen's famous book *The ecology of language* (1972). However, between 1972 and now there has been enough time for the 'ecology of language' (here used interchangeably with 'ecolinguistics') to grow and to become quite a robust and distinct subdiscipline of linguistics, very clearly defined in terms of its autonomous goals and overall perspectives concerning the place of language as an 'organismal entity' in Nature.

In its classical shape, ecolinguistics is based on organismal biology, and, in particular, concerning the problems connected with placing any natural language in both natural language diversity and human communicator diversity it has followed the biological path. The subdiscipline of ecolinguistics is now ripe enough to be portrayed by means of a more or less complete ecocomposition of cultural-linguistic-communicative themes thus showing the many shades and subtleties of the ecological approach to language, most notably to natural language. In what follows, such a picture – as a supplement to similar attempts currently taking place in various academic centres all over the world – is ventured through assembling a mosaic composed of an array of problems discussed in a non-linear fashion in a number of separate more or less sizable chapters and notes followed by appropriate bibliographies. They may, therefore, all be treated by the reader as separate larger or smaller essay-like 'plateaus'. Thus, the reader is invited to move freely among the chapters.

The picture which is sketched in the present book is based on the general assumption that ecolinguistics (or the ecological perspective on language) is a part of a more general pattern of 'ecological thinking' (or 'ecolinguistic mindset') and which has, by virtue of its width and depth, finally managed to assume a nontrivial position vis-a-vis other linguistic subdisciplines. Indeed, it is the conviction of the present author that ecolinguistics owes this non-supplementary position to having become an autonomous subdiscipline

which has managed to focus very strongly on the dyad of 'natural language-environment' relations. That is, it has managed to move away from the limiting tightness of the purely phonological-semantic-syntactic tanglements toward the positioning of natural language as a very central phenomenon in the midst of 'life' on Earth of which 'the life of language' in any ecolinguistic community appears to be a crucial (if not the most important) manifestation.

In this way, it has managed to place major emphasis on the underlying, deepest and thus most primeval relationship between Man as a complex organismal (biological)-social-cultural entity and Nature as Man's inevitable, exclusive/inclusive and most nourishing external environment which is at the same time an integral part of the human ecosystem. This 'natural language-environment' relationship – apart from forming the inevitable and necessary synergy which ecolinguistics has been demonstrating while dwelling on it so consistently as a part of both underlying deep and shallow ecology – is indeed pivotal for the ecolinguistic perspective which has been adopted here.

One may also dare say at this point that ecolinguistics has become a cover (or 'umbrella') term for a diversity of approaches to language and communication, exercised vigorously in this very general and rich natural language-environment perspective.

In particular, ecolinguistics has done so by merging and focusing on the intra-linguistic, inter-linguistic, as well as extra-linguistic issues (inextricably connected with human society and human culture) showing, in general, correlations between natural language defined as a very powerful, resourceful, ecological and basically three-domain phenomenon, namely, biological, social, and cultural, which have been collaborating synergistically to produce the most complex expressive-performative-communicative potential on Earth, that is, the human-centred performative/expressive cultural-linguistic-communicative potential.

Last but not least, ecolinguistics has also turned out to be very successful in focusing on the presence, production and ecological viability of such diversified linguistic-communicative practices as demonstrated by all the individual human (trans)communicators. They have been shown as being most deeply connected with the phenomenon of diversified and volatile linguistic resources which, as Darwin would say (**On the origin of species**, 1859: 9) "are bound together by a web of complex relations", and their both collective (i.e. social/cultural) and individual transcommunicator management and equally diversified transcommunicator use in countless acts of communicative exchanges.

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An ecolinguistic profiling of a linguistic community

1. INTRODUCTION

Any natural language may be approached from the holistic-ecolinguistic perspective which involves the following four domains of analysis in what may be called 'the four-domain tetragon of language and communication' (hence 'the LaC tetragon'):

- structure and function (hence S and F) of any natural language (hence NL)
- content of the message to be conveyed (C)
- modality and medium (or media) in which the message is expressed (M/M)
- degrees of robustness of a natural language (or 'natural language robustness', NLR)
- expression dynamism (ED) placed in the centre of the tetragon, that is, at the intersection of the four domains and as resulting from and representing their interplay in any act of human communication by means of natural language.

The above four domains of analysis are regarded as closely connected (i.e. as acting synergistically) and thus as co-determining the nature of any natural language. This fact may be represented by means of the following diagram (Fig. 2).

By its very nature, the above tetragon entails the kind of an integrated linguistic-communicative design. It should be emphasized that an analysis which resorts to the above set of domains is necessarily holistic in nature since it allows one to approach any natural language in terms of the above mentioned four interlocked (thus synergistic) domains. In this way, the holistic approach is also ecolinguistic in nature for the simple reason that the quadripartite holism, postulated above, is at the same time required to en-

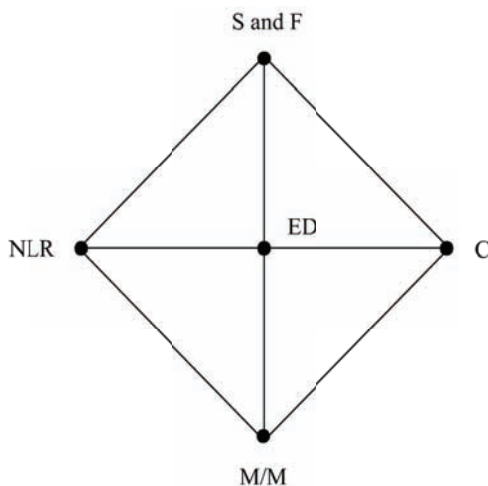


Fig. 2. The LaC Tetragon representing the four domains of language analysis (see text above)

sure the sustainability of both language as a system (i.e. the verbal code) and language as communication accomplished by means of the verbal code.

The approach does not, however, allow one to determine precisely the degree of the so-called 'robustness' of a given natural language (or 'natural language robustness') in terms of its external strength based on such an important factor as 'linguomass' (or demography, that is, the size of the population which uses a given language natively as well as the size of the territorial range/habitat which it occupies). Needless to say, the demographic factor is absolutely essential in co-defining the concept of 'natural language robustness' together with a host of other factors discussed elsewhere in the book (see chapter XIV for more details).

Thus, it is postulated that the external strength of a given natural language, as opposed to any other natural language co-occurring in the 'Natural Language Global Arena' (hence NaLGA), may be determined by examining the size of the population which uses a given natural language natively (i.e. the size of the population who has learned it in the natural process of intergenerational parent-offspring language transmission expressed by the process of 'first language acquisition' and which is presently using it as a 'mother tongue') in the sense that it is the sheer number of communicators, both mature and those who are in various stages of first language acquisition, and who use that language in the oral order of communication which is of the essence here.

In most cases, the so-called 'native speakers', whom it would be more appropriate to refer to as the 'native communicators', due to the fact that the

vocal-auditory modality which is required for speech as a result of the primary use of the audio-vocal modality and the visual-tactile modality which is required for the non-verbal and graphic renditions of a language are not used separately, but instead they are most naturally used jointly in everyday communication. In addition, it has been shown time and again that spoken communication also very much depends on the supplementary and supporting non-verbal forms of communication. In this sense, it appears more appropriate to refer to the human communicators as 'hybrid communicators', i.e. those who necessarily and naturally mix the two modalities in their daily communicative practices, additionally supported by the use of technological media.

The notion of the native communicator coincides with the culturally more restricted notion of the 'nation-state', although the two terms may not be (and frequently are not) entirely equivalent with each other, for in most cases the 'nation' does not overlap completely with the notion of the 'habitat'. Rather, the overlap is most naturally partial and the 'nation' which is composed of individuals bonded by a common heritage of a particular ethnic-national culture and language, usually happens to share the same geographical territory with another ethnic community or a set of communities. Thus, the nation-state may be either linguistically homogenous (which is rather difficult to attest) or linguistically heterogenous (which is what happens in the overwhelming majority of cases of natural languages co-occurring in the open space of the NaLGA).

Nevertheless, in both of these cases, it is essential from the ecological point of view to be able to assess the 'robustness' of a given natural language, that is, its overall degree of vitality and survivability (also referred to as 'health/power/sustainability') vis-à-vis other natural languages, such that predictions can be made concerning its 'conduct' among other natural languages in the NaLGA, where they all co-occur and where their fates are held and determined due to natural inequalities existing among all the living languages. In order to satisfy that requirement, ecologically oriented language researchers should be able to monitor and thus profile natural languages by means of an established number of parameters postulated within the 'monitoring and profiling procedure' (abbreviated as MPP, see also point II below).

The MPP may be defined as consisting of the following general requirements:

- data collection that refers to the ongoing changes in a given natural language,
- data collection that refers to the ongoing changes in a given cultural milieu in which a given natural language is immersed,

- organization of the data into manageable and easily accessible databases such that their researchers are able to effectively acquaint themselves with these changes, identify them, review them and assess the latest trends which are taking place in the language under scrutiny as a result of ongoing cultural/linguistic contacts,
- implementation of the existing databases for the purposes of delivering the services of: (a) planning the particular steps to be taken in the protection of a given natural language as well as (b) outlining the current language policy,
- implementation of the existing databases in the development of a proper philosophy of first/second language material design through the provisioning of instruction as well as a proper construction of first/second/foreign language teaching materials,
- provisioning of competent and satisfactory services to various individual communicators from a whole range of cultural-ethnic, professional and linguistic backgrounds,
- disseminating in as a wide as possible way any information pertaining to the ways of preservation of local cultures and languages (see also Chapter III and Chapter XXXIII).

Below, some practical steps in the monitoring and profiling of natural languages and communication by means of language have been enumerated. The MPP applied to language and non-language resources may include the following steps:

I. Monitoring the spoken/oral natural language resources:

1. Listening to individual communicators and recording them.
2. Interviewing the individual communicators, recording the interviews and archiving them.
3. Participating in formal and informal conversations in order to obtain the necessary preliminary information on the current state of communicative milieus.
4. Analyzing the spoken material in order to attain information on the regional and social dialects.
5. Analyzing the recorded material in order to establish the individual communicators' spoken/oral behavior patterns and practices.
6. Monitoring the linguistic policies implemented in a given nation-state.

II. Monitoring the written/graphic natural language resources:

1. Collecting and archiving all kinds of documents printed in a local cultural-ethnic-linguistic community.

2. Reviewing these documents from the language resource point of view of.
3. Making surveys.
4. Analyzing the written/graphic resources.

III. Profiling a given natural language:

1. Identifying the problem of language status among other languages as a language awareness problem.
2. Asking the individual communicators to fill in questionnaires in order to check the various aspects of their language awareness by means of selected (sets of) indicators.
3. Determining whether a particular natural language belongs to either of the three categories: (a) substratal (i.e. it is dominated by (an)other language(s)), (a) adstratal (i.e. demonstrating ecocratic equity vis-à-vis (an)other language(s) in the NaLGA, and (c) superstratal (i.e. demonstrating a dominant/hegemonic/imperial relationship with (an)other language(s) in the NaLGA.
4. Determining the conditions of language contact for different natural languages. These may include a number of contact-induced outcomes (i.e. changes), such as: code-switching, code alternation, passive familiarity with a given foreign (borrowed) form, deliberate decisions of the communicators to include the borrowed forms into their linguistic resources, the interplay of external and internal linguopressure in establishing the L1 - L2 symbiosis under contact conditions, both for the particular communities and the individual communicators.

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CHAPTER TWO

Natural language and its protection

1. DEFINITION OF NATURAL LANGUAGE

‘Natural languages’ are those languages which have come to being and which have been established via complex evolutionary processes, are socially (i.e. intergenerationally) inheritable and are culturally transmitted and which thus constitute the uniquely human systems of communication. They are socially inheritable because at least two generations of human communicators are required for the process to ensue, the descending generations of parents and grandparents, and the ascending generation of children who together form a basic social unit within which the socio-cultural transmission of a given natural language is possible. Natural languages are culturally transmitted because the above mentioned generations and the entire social milieu in which a particular human being is immersed get involved in a complex process of communicative interactions by means of a particular ethnic language and its resources.

An altruistic attitude of the descending generations of parents and grandparents towards the ascending generation in terms of securing the ascending generation’s ability to use a given natural language to its fullest, that is, successfully and comfortably in the communication process is a very strong element of the entire process of intergenerational natural language transmission. The phenomenon may be generally referred to as ‘language gifting’ which takes place in the critical period of the process of ‘first language acquisition’ (or ‘first language germination’). In addition, the ascending generation usually participates in a rigid (i.e. disciplined and coercive) and clearly non-altruistic transmission of natural languages, usually by way of a compulsory participation in various educational schooling programs, whereby juvenile members of the society are formally instructed in a given ethnic (especially major and official) language by professionally trained

teachers. The two forms of social transmission, altruistic and non-altruistic, are therefore regarded as fundamental components of natural language cultural-social transmission.

2. NATURAL LANGUAGE PROTECTION

Natural languages are subject to the natural and on-going processes of disintegration and degradation (degeneration) which may either be the result of the biological processes, such as, for example, a sudden massive death of members of a given ethnic community, where no ascending generation of children is given the opportunity of taking over the language, or be the result of various negative influences (or negative byproducts) of language contact. In the former case, which usually involves many small indigenous languages spoken by small communities with predominantly older communicator-speakers, no direct and swift remedy can be found and the language is usually and inevitably on the course to its death.

In the latter case, language contact may result in weakening one of the contacting languages and in strengthening the other, even to the point of abandoning one of the languages and instead switching entirely to another contacting language (see the phenomenon of 'language shift'). In such cases, one may postulate recourse to be made to a rescue program consisting of a set of administrative and socially acceptable measures leading to the protection of the contacting languages, especially with regard to the weaker ones. Usually, these measures, as a part of language planning and language policy procedures, involve an introduction of legal acts on varying levels of generality, thus ranging from most global documents to more regional to national and local levels (see e.g. Nahir, 1984/2003; Puppel, 2007, also cited in Chapter III below).

Useful references:

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Ecological monitoring and ecological profiling of natural languages

1. INTRODUCTION

Within the ecolinguistic approach to language, the monitoring and profiling activities undertaken within the MPP are regarded as being of utmost importance to the general tasks of identification and description of the current state of a given natural language. These activities are especially critical to the aforementioned tasks, as they are assumed to assist in:

- assessing the ecological values of natural diversity (abbreviated as 'AS'),
- helping the individuals and institutions in managing the language resources (abbreviated as 'H'), and
- advising the individuals and institutions on the best and most efficient ways of protection of linguistic diversity (abbreviated as 'AD').

The three activities are jointly referred to here as the 'ASHAD monitoring-profiling complex' within the MPP.

One should emphasize at this point the fact that an important branch of ecology, namely **monitoring ecology**, is the most suitable domain, both theoretical and practical, for the realization of the above activities (cf., for example, Goldsmith, 1991).

In connection with the above, it should also be emphasized that the ASHAD monitoring-profiling complex constitutes the core of the monitoring and profiling activities directed towards the sustainability of any natural language. That is why the monitoring and profiling activities are, overall, regarded as essential for the ecolinguistic approach to natural languages. It is further assumed here that the range of the areas subject to the monitoring and profiling of natural languages, which are most sensitive to the problem of natural language sustainability, should in particular include the following ones:

- (1) monitoring the present-day globalizing (i.e. world population-wise and therefore use-wise heaviest languages (i.e. those natural languages which are characterized by the biggest linguomass), such as English, Mandarin Chinese, Hindi, Spanish, French, German, Russian) and their regional varieties, with the mandatory monitoring of the English language as a major globalizing natural language of today,
- (2) monitoring the language planning, language policy and language preservation activities which are effected in various nation-states and regions of the world,
- (3) monitoring the geopolitics of natural languages and their resources,
- (4) monitoring the forms of dissemination, supply, and maintenance of natural language resources applied in a given nation-state based linguistic community.

2. THE CONTENT OF THE ASHAD MONITORING-PROFILING COMPLEX

The purpose of this section is to offer a mini guide whose purpose is that of acquainting the reader with a selected number of published resources as well as points of focus indicated in the areas which have been signaled in the above mentioned areas (points (1) – (4) and which are assumed to be responsible for a proper functioning of the ASHAD monitoring-profiling complex.

2a. MONITORING THE PRESENT-DAY GLOBALIZING LANGUAGES (GL): THE CASE OF ENGLISH AS A GLOBALIZING LANGUAGE (EGL): REGIONAL VARIETIES OF ENGLISH (RVE) AND WORLD ENGLISHES (WE)

The term ‘a globalizing language’ is used here consistently to denote a status of a natural language which has gained a dominant (i.e. hegemonic) position vis-à-vis other natural languages in the NaLGA, however, without being the only language acquired and used world-wide. If that were the case, such a language would simply have to be referred to as ‘a global language/mono language’, that is, a language in which all first language acquisition and all linguistic activities of a given human individual would have to be accomplished. Since for the time being no such status can be assigned to any existing natural language, especially to the heaviest languages as those mentioned above, a division into ‘a globalizing language’ and ‘a global language’ is postulated as a more plausible one, with the latter category being vacant.

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2b. LANGUAGE PLANNING, LANGUAGE POLICY AND LANGUAGE PRESERVATION (LPPP)

It has been commonplace to say that any natural language develops naturally, as it were, that is, through descending from an older generation (i.e. the parents and grandparents as the primary caretakers) to a younger generation (i.e. children and grandchildren) via a complex process of first language acquisition in which the first language is 'donated', as it were, to the child by the primary caretakers through countless many daily communicator interactions. Thus, it is first language acquisition and its availability to children which should be regarded as a primary and most distinct marker of the 'naturalness' of any natural language. However, it is also equally true to say that natural languages, especially those which have developed their written forms, are shaped and even manipulated more or less successfully by different individuals and different social groups (e.g. national, ethnic and professional) to suit a plethora of interests of these individuals and groups. Much has been written on the question of the so-called 'standard languages' as opposed to non-standard regional/social varieties (i.e. the general problem of the relevance and survivability of dialects and sociolects). This division has been traditionally used as a basis for the validation of the claim that any natural language can be planned most demonstrably by the institution of the nation-state.

In fact, this has been a universal practice which has encompassed all human individuals in such important matters of personal survivability as power, wealth, and prestige. Obviously, language has also been considered an important constituent of individual power, wealth, and prestige, all of which can be gained and maintained while an individual remains a member of a social structure of any kind. As Weinstein has amply stated (1983:3):

If it is possible to show that language is the subject of policy decisions as well as a possession conferring advantages, a case can be made for the study of language as one of the variables pushing open or closed the door to power, wealth, and prestige within societies.

Subsequently, language planning and language policy should be constantly monitored and profiled. In this connection, it is only natural to assume that the presence of the ASHAD monitoring-profiling complex within the ecolinguistic approach to language should contribute significantly to the sustainability (maintenance) of any natural language in the NaLGA. Subsequently, the importance of the above complex within the domain of ecolinguistic studies should also become quite obvious. We may add at this point that securing the power, wealth, and prestige of the biggest possible number of the existing natural languages may also be at stake, as these parameters taken together, may be used efficiently as an equally important index of any 'natural language sustainability' (NLS).

In turn, language policies and language preservation, including natural language diversity, are assumed to directly reflect language planning in the sense that they are dependent on a more or less coherent body of assumptions which may be collectively referred to as 'language planning'. As Tollefson has rightly stated (1991:2):

Language is built into the economic and social structure of society so deeply that its fundamental importance seems only natural. For this reason, language policies are often seen as expressions of natural, common-sense assumptions about language in society.

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2c. THE GEOPOLITICS OF NATURAL LANGUAGE RESOURCES (GNLRe)

Within geopolitical ontology which may be regarded as a part of the 'NaLGA ontology' (see above), language, and most of all, a selection of any particular natural language(s) which may happen to belong to the group of the heaviest languages (i.e. those with the biggest linguomass simply expressed by the biggest number of native communicators) by international institutions as well as by individuals, whether coincidental or planned, to serve as the most international means of communication, matters the most for any institution and, in particular, for any human individual in relation to the world, as well as to his/her individual professional career. This pertains especially in the following general domains: personal education, economy and geopolitics, self expression, and social justice. Obviously, it also matters significantly in the ecologically most sensitive area, that is, in the area of the sustainability of linguistic diversity. That is why it appears pertinent to keep the ASHAD monitoring-profiling complex busy with respect to matters relating to GNLRe, especially with regard to the use of professional (therefore highly specialized) language resources whose presence matters so significantly in international spoken and graphic (i. both written and printed) communication.

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- International Journal of Advanced Media and Communication.**
- International Journal of Applied Linguistics.**
- International Journal of Bilingual Education and Bilingualism.**
- International Journal of Information Technology and Management.**
- International Journal of Mobile Communications.**
- International Journal of Networking and Virtual Organisations.**
- International Journal of Energy Technology and Policy.**
- International Journal of Global Energy Issues.**
- International Journal of Environmental Technology and Management.**
- International Journal of Environment and Pollution.**
- International Journal of Global Environmental Issues.**
- International Journal of Sustainable Development.**
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2d. FORMS OF DISSEMINATION AND MAINTENANCE (DAM) OF NATURAL LANGUAGE RESOURCES USED IN A GIVEN LINGUISTIC COMMUNITY

Any natural language may be disseminated (or, as one may also say, it may 'flow') in society in a number of ways. They are strictly related to the communication orders in which modern humans are immersed and which

are, therefore, used in their daily communicative practice. The three orders comprise the following:

- the oral (audio-vocal, spoken/oral) order of communication
- the graphic (visual-tactile, written/printed) order of communication, and
- the hybrid (spoken-graphic-electronic/multimedia/digital) order of communication.

The fact that the orders are used, also with what intensity they are used, and in what volume in a given linguistic-communicative milieu, has a direct bearing on the problem of natural language sustainability and natural language robustness. Thus, if it so happens that the three are used jointly, which is usually the case with most natural languages which have succeeded in developing written grammars, such languages tend to show a relatively greater degree of robustness (cf. Puppel, 2007; Puppel, 2011; Puppel, 2013, chapter XIV below). On the other hand, languages which do not happen to have codified and written grammars may demonstrate a much weaker degree of robustness (cf. Lewis, 2009), as opposed to the languages with written grammars and rich written legacy. This fact may thus affect their standing more efficiently in the NaLGA vis-à-vis other more robust languages.

That is why the functioning of the afore mentioned orders in the DAM complex with respect to the particular natural languages, especially with respect to the weaker ones, should also be of primary concern to the experts working within the ASHAD monitoring-profiling complex. Finally, it is essential to recognize the crucial presence of natural language resources in the DAM complex in considering and prognosticating the fates of the particular natural languages.

The following types of dissemination of natural language resources are recognized as most basic, and therefore most relevant, to the problem of natural language sustainability:

- a) dissemination of natural language resources in the oral order of communication:
 - the presence of social stratification
 - the presence and size of urban areas:
 - the presence and size of rural areas
 - the presence of professional stratification
 - the presence and number of regional dialects
 - contact (and its intensity) with members of other cultural-ethnic-linguistic communities.
- b) dissemination of natural language resources in the graphic order of communication:
 - the presence of national literature

- the presence of daily national press
 - the presence of daily regional press
 - the presence of daily urban press
 - the presence of weekly national press
 - the presence of weekly regional press
 - the presence of weekly urban press
 - the presence of national monthly journals
 - the presence of regional monthly journals
 - the presence of urban/local monthly journals
 - the presence of widespread popular science publications
 - the presence of specialist publications
 - the availability of books which include:
 - translations from other languages which include:
 - literature (*belles lettres*)
 - popular science publications
 - specialist publications.
- c) dissemination of natural language resources in the hybrid order of communication:
- the presence of the formal schooling system
 - the presence of national, regional, and local TV programs
 - the presence of cinemas
 - the presence of concert halls
 - the presence of theatres
 - the presence of conference halls
 - the presence of places of worship
 - the presence of other places of public gathering (e.g. sports arenas, parks, bus and train depots, shopping centres, etc.).

In the light of what has been stated above, it appears legitimate to ask the following simple question: What is language/HCA monitoring? Possible answers include the following:

1. language monitoring is a regular observation and recording of language use and communication taking place in a particular natural language.
2. it is a process of routinely gathering information on all aspects of language use and communication practices in that language.
3. it is an activity which enables a person to characterize a natural language in terms of:
 - its vitality, its power, its standing among all the natural languages,
 - its relationship with other languages in a contact situation.
4. it is an activity which enables a person to characterize all the human communicating agents (HCA) in terms of:

- the overall 'robustness' versus 'meagerness' of their language and non-language resources as evidenced by the publically attested use of these resources,
- their preferred styles of communication and language awareness,
- their readiness to adapt to constantly changing environmental (i.e. external) conditions.

3. CONCLUSIONS

We owe to Terentianus Maurus, a Latin grammarian, the famous phrase: *Habent sua fata libelli* (expressed in his *De litteris, de syllabis et metris*). Those of us who are concerned with the fates of natural languages may easily rephrase the dictum by stating the following: *Habent sua fata linguae*. However, we may at this point also add that it is us, the native communicators, and our planning/policy/preservation activities, including the natural language monitoring and natural language profiling activities described above, which may directly influence the fates of all the ethnic/national languages, and thus prevent the worst fate of all languages, that is, the fate of annihilation. That is why, both in the case of printed artefacts (e.g. books) and various natural languages as the basic tools of human cultural interactivity and communication practices, our efforts to sustain these languages and the scale of our efforts may be (and definitely are) of utmost importance.

The present section of the synthesis has been undertaken with the intent of showing that all over the world, both the particular human individuals, large groups of individuals and institutions are (have been and should be) directly involved in various preservation tasks coupled with a growing conviction that we should all care about the common and most precious heritage of the presently existing linguistic diversity. Or else, as envisaged by Friedman (2005), the world may indeed fall into the abyss of hopeless and regrettable 'linguistic flatness', or absolute domination of English, in the (untamable?) processes of globalization and standardization dictated by the overwhelming presence of English as a major globalizing language of today's civilization.

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Linguonomics and linguolabourese

‘Linguonomics’ is a collective and general term which is proposed here in order to be used in applied linguistics to capture the phenomenon of relating to the ways in which every ‘human communicating agent’ (hence HCA) manages his/her linguistic and non-linguistic resources in various acts of communication via the synergy of the phenomena of performativity, expressivity, and communicability. The term is composed of the Latin word ‘*lingua*’ (meaning ‘language’) and the Greek work ‘*nomos*’ (meaning ‘possession’, and coming from the verb ‘*nemein*’, meaning ‘to distribute, to give what is due, to feed, to manage the household’). The term is thus proposed to be used in the sense of referring to the activity of ‘language and non-language resource management’ precisely via the three phenomena mentioned above. This central and generic activity is the care of every individual HCA, both as an activity performed solely by an individual HCAs and by groups of HCAs. In the latter case, one may refer to the use of language and non-language resources in a larger context of the social-cultural network.

Therefore, the term ‘linguonomics’ is the one which may conveniently define the most general framework for sustainable language and non-language resource management in a linguistically sustainable community. The term most naturally allies with the term ‘economics’ which is also present in language resource use. In this respect, the pair ‘linguonomics-economics’ is the proper framework for analyzing all human linguistic-communicative practices (i.e. communicative performances) and their diversified statuses.

It is at this point that one may bring to the fore the problem of ‘natural language management’ (NLM) in a more specific and elaborated way. In fact, it would not be entirely without justification to rely on a set of principles of natural language management which should most naturally be based on general principles of management which constitute a part of linguonomics. Such general principles were proposed by Henri Fayol (1841-1925), a French

mining engineer, who worked out his famous 14 principles of management (see also selected references below). In the present analysis, these principles are regarded as elements of 'linguolabourese' as properly contained within linguonomics (see Puppel, 2016).

According to Fayol, the following general principles of management are in order:

1. Division of work
2. Authority and responsibility
3. Discipline
4. Unity of command
5. Unity of direction
6. Subordination of individual interest to general interest
7. Remuneration to employees (compensation of personnel)
8. Centralization and decentralization
9. Scalar chain (line of authority)
10. Order
11. Equity
12. Stability of (tenure of) personnel
13. Initiative
14. Esprit de corps.

It is assumed that each of the general principles may be easily employed with reference to linguistic-communicative behavior of the individual communicators. Below, an attempt to define the linguistic-communicative applications of Fayol's principles has been undertaken.

Division of work: in most standard terms, the notion refers to the communicator's awareness concerning the presence of specialized registers with regard to the linguistic resources (see also the chapter 'Natural language as a resource' presented below).

Authority and responsibility: the notion refers to the fact that every communicator has the power to activate whatever fragment of his/her linguistic resources is momentarily required in order to sustain ongoing communication. On the other hand, responsibility as a corollary to authority refers to the communicator's awareness concerning the social responsibility s/he automatically takes in developing and preserving the quality of the linguistic resources as well as activating the respective segments of the resources.

Discipline: the notion refers to the fundamental requirement for securing a smooth administration of ongoing communication. One may easily imagine that without discipline, a particular communicative act may suffer from randomness and chaos and may thus be a grave source of misunderstanding between/among the communicators.

Unity of command: the notion refers to the fact that the communicator is a sole 'owner' and author of the communiques s/he is manufacturing and sending to the public space to be further processed. It is most naturally contingent upon the principle of discipline outlined above.

Unity of direction: this principle refers to the communicator's linguistic-communicative activities which are undertaken in alignment with the current environmental pressures (the so-called 'context') exerted on the communicator. In other words, the communicative behavior of a given communicator is not out of phase with the dictates of the more or less direct environment but, instead, is in phase with it.

Subordination of individual interest to general interest: this principle is central to the phenomenon of communication understood as 'interactivity' and it basically emphasizes the fact that if communication takes place, or is commissioned to take place, in a larger social context (e.g. a group, institution), it is subordinated to the prevailing interest(s) of that context. In this case, one may talk of the so-called 'visible' or 'invisible hand' of the context. The principle is connected with the previous principle.

Renumeration to employees (compensation of personnel): this principle applies to every communicator in the sense that any act of communication should be staged within the general scheme of immediate/distant satisfaction to the communicator. With this principle in operation, every communicator necessarily gets involved in some kind of a profit-sharing communicative activity rather than in a non-profit one. In other words, the communicative activity is more or less purposeful and communicator-centred.

Centralization: the principle basically refers to the question of how much the communicator agrees on 'being in charge' of his/her communicative activities while performing a particular act of communication. We may easily imagine that not all participants of a particular communicative act would be willing to participate in it with equal strength and involvement as well as with equal communicative load in terms of the number of turns and volume of the linguistic resources used. This natural lack of proportion may lead to noticeable variations concerning the centralization of the communicators' individual contributions in the particular act of communication.

Scalar chain (line of authority): this principle applies in the context of the 'superior - inferior' rank among the communicators involved in the communication process. The principle is, generally, in line with the pragmatic principles proposed earlier, among others, by Paul Grice (see Grice, P. 1975. "Logic and conversation". In Cole, P. and J. Morgan. (eds.). **Syntax and semantics**. New York: Academic Press. 41-58) and Geoffrey Leech (see Leech, G. 1983. **Principles of pragmatics**. London: Longman Group Ltd).

Order: this principle applies to language-resource and non-language-resource use which is based on a proper organization and proper selection (i.e. retrieval) of these resources. They are, next, assembled into a message and are subsequently executed in an act of communication. A proper communicative order is the one which rests upon a balance between the requirements of the context and the size and quality of language- and non-language resources activated by a particular communicator.

Equity: this principle emphasizes the vital importance of treating the NLs involved in dyadic communication as well as the HCAs as equal. In this respect, equity may also be equaled with Grice's and Leech's conversational and politeness maxims (see references above) applied more narrowly to the communicators' behaviours. Equity does, however, have a broader ecolinguistic meaning in the sense that it also focuses on the equal treatment of all the NLs occurring in the NaLGA).

Stability of (tenure of) personnel: this principle basically focuses on the fact that in any concrete act of communication the number of participants should be more or less stable if the communication process, based on a more or less smooth exchange of information between/among the participants, is to succeed. If, however, the number of participants changes rapidly, the communication process may be disrupted and severely handicapped in terms of its overall communicative efficiency.

Initiative: this principle smoothly dovetails with the previous principles. It emphasizes the fact that in any act of communication the initiative to commence it always requires the presence of a communicator and his/her willingness to do so.

Espirit de corps: this principle is confined to the phenomenon of group/team communication and basically controls the team spirit among its members. It may also be applicable and become effective when a group of communicators decides to conform to the desire of integrating online their communicative activities around a common topic (or a set of topics).

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‘Ecoparole’ – a necessary extension of Ferdinand de Saussure’s classical concept of ‘la parole’

By bestowing upon us the *Cours de linguistique générale*, Ferdinand de Saussure has left an outstanding legacy in modern linguistics, sometimes referred to as ‘the Saussurean legacy’, the legacy which has most generally enriched linguistics with a distinction between two classical concepts, ‘*la langue*’, and ‘*la parole*’. This distinction, among others, has turned out to be of utmost importance for the development of modern linguistics in its numerous dimensions and venues. Despite the time which has elapsed since the moment of publication of de Saussure’s Geneva lectures by Bally, Sechehaye and Riedlinger (1916), the distinction had also appeared unimpeachable. More precisely, with the nascent of the sociolinguistic and pragmalinguistic guises, the immediate and very fruitful successors of the concepts, that is, with the development of modern linguists’ interests in both group (i.e. social) and individual uses of language for the purpose of communication, coupled with Chomsky’s introduction of and heavy reliance on the dualism of ‘competence – performance’ (that is, in the psycholinguistic/biolinguistic perspectives), it has become obvious that de Saussure’s original idea of ‘*la parole*’, indicating the individual uses of language as a code occurring under various and changing physical contingencies, has always been and will remain a prolific area of linguistic study.

However, an inspection of the content of de Saussure’s original and straightforward (and also very elegant at that) concept of ‘*la parole*’, as it has been analyzed and reviewed in various linguistic contributions published to date (for more recent ones, see Conville and Duck, 1994; Kronenfeld, 1996; Ellis, 1999; Littlejohn, 2002), seems to indicate that a certain gap exists in its structure and that, subsequently, an extension of the concept’s content seems in order. In the present considerations, we may, as a starting point, consider

Ellis' assumption that in order to communicate, a human communicator (in the present section as well as through the entire work, reference is made to the 'human communicating agent', hence HCA) produces a goal-oriented message while necessarily orchestrating the following available resources and constraints: linguistic (with language meant as a narrow communicative resource), conversational (or dialogic/discursive), psychological-physiological, and social-cultural.

A closer look at these resources and constraints prompts a major division into the following comprehensive categories as characterizing the HCAs along the language-communication (traditionally 'langue-parole') dimension: (a) language and non-language resources, and (b) various environmental constraints (both communicator-internal and communicator-external). The language resources comprise the language code proper, while the non-language resources comprise all non-verbal means, such as paralinguage, gestures, facial expressions and the so-called 'body language' potential.

In turn, environmental constraints may be divided into 'external constraints' (also referred to as exo-environmental pressures, comprising social class markers, situational markers, chance factors and other exo-environmental pressures), and 'internal constraints' (also referred to as endo-environmental pressures, which comprise psychological factors such as: communicative intents, cognitive and memory limitations, and physiological factors, such as: speech production mechanism limitations (also referred to as 'spm limitations'), auditory perception limitations, and tactile-visual limitations). The table below illustrates the above typology.

In this extended framework, de Saussure's '*la parole*', more properly defined here as '*ecoparole*', is now better suited to handle the use of language and non-language resources under a variety of ever changing (endo- and exo-) environmental constraints.

Table 1

| Language Resources | Non-language Resources | Environmental constraints | | |
|-----------------------------|---|--|--|--|
| | | External constraints (exo-environmental pressures) | Internal constraints (endo-environmental pressures) | |
| | | | psychological | Physiological |
| 1. the language code proper | 1. paralinguage 2. gestures and 'body language' 3. facial expressions | 1. social class markers 2. situational markers 3. other exo-environmental pressures (e.g. the pressures of various institutions) | 1. communicative intents 2. cognitive and emotional | 1. speech production mechanism limitations 2. auditors' perception limitations 3. tactile-visual limitations |

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The agent-based approach to human communication

The Human Communicating Agents (hence HCA) may be viewed in a principled way, that is, as constrained by a number of principles which are interwoven in the determination of the nature of communication taking place between/among them. The following two categories of principles may be distinguished in this regard:

1. **HCA identity principles**, and
2. **HCA interaction principles**.

Among the identity principles, one should distinguish the following:

- 1a. **The principle of longevity**: all (or the statistically predominant population of) HCAs are assumed to have a long life which follows a clear pattern of three biological phases: growth, steady-state (plateau), and decline.
- 1b. **The needs principle**: all HCAs are capable of defining and implementing personal communicative needs, such as:
 - (a) the need to convey intentionality to other communicators,
 - (b) the need to get involved in multi-modal social interactions,
 - (c) the need to detect and use clues from context and communicator personality to involve a plethora of emotions in any communication act,
 - (d) the need to manage (i.e. control) one's own emotions in social interactions so that emotions are elicited in other HCAs and are used by the particular communicators in order to influence each other,
 - (e) the need to employ emotions in the so-called 'machievellian manner' (i. e. through the so-called 'honest' versus 'fake' emotional displays).
- 1c. **The principle of autonomy**: all HCAs are highly autonomous (i.e. independent) such that every individual agent is generally capable of demonstrating the possibility to decide:

- (a) how to achieve a communicative goal,
- (b) which goals are to be preferred,
- (c) how to choose among alternative goals,
- (d) how to choose among alternative courses of action leading to the implementation of a particular communicative goal.

1d. **The principle of rationality:** all HCAs are capable of rationalizing their current state as an end product of the application of selected resources and are capable of changing their preferences accordingly. In other words, all HCAs are capable not only of considering (i.e. reviewing and assessing) the current costs connected with achieving a given goal, but are also capable of reviewing and assessing the costs connected with choosing an alternative goal or a set of goals (see the principle of autonomy defined above).

In turn, among the interaction principles, one should distinguish the following:

- 2a. **The principle of the environment:** apart from being biological entities, all HCAs are environment-focused entities in that they are both sustained in the environment (in the sense of being under its pressure) and are aware of:
 - a) being constitutive elements of the entire biotic and abiotic environment of the Earth, where they function by way of interacting with all the other biotic and abiotic elements,
 - b) being elements of the uniquely human social-cultural milieu as part of the biotic milieu, where they function by way of interacting with (all) the other members of that milieu.
- 2b. **The resource principle:** all HCAs have at their disposal language and non-language communicative resources which they have developed in their individual lives, to which they have direct access, and which they can activate according to their individual and context-determined needs.
- 2c. **The network principle:** all HCAs enter different-sized social-cultural-linguistic-communicative networks, ranging from the smallest to the biggest.
- 2d. **The tradeoff principle:** all HCAs, irrespective of the social-cultural distance (or the degree of intimacy of their interactions), are capable of performing communicative interactions by way of two types of communicative tradeoffs:
 - a) intentional (i.e. socially commissioned and planned) tradeoffs,
 - b) non-intentional (i. e. random and unplanned) tradeoffs.
- 2e. **The principle of being socially adept (social adeptness):** all mature and properly socialized HCAs are regarded as socially intelligent

agents and are thus assumed to be generally capable of purposefully and consciously harmonizing their goals and actions with other HCAs in the public space (both open and closed). The principle may also involve the harmonization of communicative activities of any HCA within a particular speech act.

- 2f. **The principle of intimacy (the principle of social distance):** all mature and properly socialized HCAs are regarded as socially intelligent agents and are thus assumed to be capable of performing basically two kinds of interactions:

- a) peer level agent interactions
- b) non-peer level agent interactions,

where the term 'peer' indicates the fuzzy criteria of 'sameness' and 'equality', and which may be additionally defined against the following parameters: age, social and economic status, education, profession, and interests. Thus, one may also refer to all the HCAs as peers with respect to age, peers with respect to social/economic status, peers with respect to profession, etc. On the other hand, non-peers may be defined along the fuzzy and opposing criteria of 'non-sameness' and 'non-equality' with respect to the afore mentioned parameters.

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Natural language as a resource

Natural language may be considered within a more economical orientation which focuses on economical performances of every transcommunicator, that is, as a structurally complex and self-organizing 'resource' (a source or supply which is both developmental and available and which is possibly renewable). Therefore, if it is properly managed by the individual transcommunicators, the language resource may remain either unchanged or may grow and change (even to the point of noticeable loss) in any communicator's competence, and may successfully serve the various communicative purposes.

Subsequently, natural language resource management as a part of human resource management potential appears fundamental in natural language sustainability. Some of the major behaviours concerning language and non-language resource management (see Chapter IV which discusses the notions of 'linguonomics' and 'linguolabourese') include the following (they are organized here as a set of ten postulates):

1. Consider carefully the external environment in which a given natural language is to be used.
2. Be aware of and apply the planning and organizing process in individual language use.
3. Incorporate ethics and social responsibility in individual language use.
4. Build your personal commitment in individual language use.
5. Be effective in language resource planning and language use (see the 'Oskar Syndrome' discussed below).
6. Be successful in language resource planning and language use (see the 'Gulliver Syndrome' discussed below).
7. Be comfortable in language resource planning and language use (see the 'Petronius Syndrome' discussed below).
8. Appreciate the importance of individual communicator language and non-language resource management.

9. Constantly monitor the size and quality of your language resources and your language and non-language performance.
10. Gain the overall skills of exercising full control over your language and non-language resources as a transnational/trans-ethnic and trans-cultural communicator: that is, strive towards full cultural-linguistic-communicative competence.

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CHAPTER EIGHT

Overall effects in the use of language and non-language resources by the human communicating agents (HCAs)

Three types of effects in the use of language and non-language resources by the particular HCAs have been distinguished. They are briefly characterized below.

1. **The basic (core) effect in the use of language and non-language resources:**



effectiveness (i.e. a certain degree of inertia in interpersonal communication consisting in reacting to the interlocutor's message)

Description: the sender of the message is not very much aware of the quality of his/her and the receiver's language and non-language resources and communicates spontaneously, while basically remaining within the lower and medium language resources.

This is the Oskar Syndrome.

2. **The trans-resource effect in the use of language and non-language resources:**



successfulness (the HCA demonstrates the highest degree of adaptation and flexibility as to the use of the linguistic and non-linguistic resources in interpersonal communication)

Description: the sender of the message is aware of his/her and the receiver's quality of language and non-language resources, both lower, medium, and higher, and activates them in a proper mix, that is, according to a current communicative context.

This is the Gulliver Syndrome.

3. The steady wealth effect in the use of language and non-language resources:



comfortability (the HCA demonstrates the highest degree of awareness for aesthetics in the use of the language and non-language resources in interpersonal communication)

Description: the sender of message is very strongly aware of his/her and the receiver's language and communication resources, their volume, above all of their quality, and thus concentrates solely on the activation of only the higher (and possibly the highest) language resources to satisfy his/her internal drive towards achieving exclusively his/her own higher/highest aesthetic standards, usually irrespective of the direct context of the message.

This is the Petronius Syndrome.

4. The presence of the affective resource in human communication

Apart from the use of linguistic and non-linguistic resources, determined by the size and quality of the resources owned by the particular HCAs (see also Chapter XI below), one should also remember about the constant presence of affect in every communication act. In fact, we should say that every mature HCA has at his/her disposal a well developed personalized emotional profile and that all human communication practices are immersed in emotions. That is, they are affect-imbued and affect-induced. We can also say that the emotions which pervade human communication in fact very strongly serve the maintenance of language as a major communicative resource, as well as they are decisive in maintaining a particular NL. This task is accomplished by the individual communicators through their use of language and non-language means while expressing a rich plethora of emotional states and intentions that the HCAs are willingly as well as tacitly and unavoidingly 'loading' into their messages.

Thus, apart from the purely informative, instructive, educating and guiding functions of any communicative acts, they may also be structured and saturated with affective content in such a way that they may have the following affective communicator outcomes: alienating, appeasing, cajoling, causing disgust, causing delight and satisfaction, chastising, confusing, consoling, dissuading, entertaining and causing laughter (humourizing), flattering, humiliating, impressing, inflaming, influencing, insulting, irritating, patronizing, persuading, smoothing, stigmatizing, sympathizing. Indeed, as

can be seen, affects provide an inescapable and rich resource which has a direct bearing on the preservation of language and non-language resources. That is why it is so essential that the particular HCA has a more or less conscious hold on the 'affective resource' as part of the linguistic-communicative competence. It, therefore, should be concluded at this point that 'affectology' or, the science of affect in human communication, should indeed become an important element of communicology, the science of communication.

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Gift economy and first language acquisition

INTRODUCTION

Human organisms are above all subject to the grace of the initial functioning of gift economy most naturally ‘sponsored’, as it were, by the biological caretakers. This type of economy is understood not only as a particularly distinctive trait of humanity but also as a set of activities on the part of those individuals (e.g. the primary caretakers and children) who are involved in exchanging any commodities and values, where the entire process is not subject to immediate rewards. In this respect, gift economy, as an important ingredient of ‘non-market society’, especially with its noble gifting of the child with the social-cultural gains provided by the primary caregivers, should be opposed to ‘product economy’ which is subject to the interplay of rigorously measured market gains (i.e. profits) and market costs within the ‘market society’.

In strictly biological terms, the presence of ‘gift economy’ and its generally advantageous effects in human life starts in the uterus. The uterus is in this respect functioning as a biological and pre-social space where the ‘zygote’, being the most fundamental form of synthesis of vital organic material (from Greek *ζυγωτός*, ‘joined’), is offered the initial, immensely rich and unconditionally free cosm of the physical resources of the female body (i.e. the maternal organism) needed for a proper nourishment and development of a newly forming organism.

Subsequently, we may say that the said resources are summoned in the service of complex processes of cell division, cell multiplication and tissue differentiation, thus leading to the formation of a new organism, a new human being. This is done through the processes of gestation in which the processes of ‘mitosis’, ‘meiosis’, and ‘gametogenesis’ are of utmost importance.

According to Jackson and Gower (1992/2007), mitosis is the process “by which growth of the organism occurs and cells repair and replace themselves. Their process maintains the diploid number of 46 chromosomes, forming two daughter cells that are exact replicas of the parent (unless a mutation occurs)” (p. 5). In turn, meiosis may be defined as “the process of germ cell division that is designed to reduce the number of chromosomes from the diploid ($2n$, or 46) to haploid (n , or 23) number. In this process, there occur two sequential divisions. The first meiotic division is a reduction division, the second is an equational one”. (p. 6). Finally, gametogenesis “is the process by which the primordial germ cells develop into gametes. These processes are known as *oogenesis* (female) and *spermatogenesis* (male)” (p. 7). All this, and much more, which jointly belongs to the prenatal growth of every human organism, can take place under the conditions of unreserved access of this new form of life to the physical resources of the female body which may therefore be regarded as a primary gift of a very special kind, namely a purely biological life-generating and life-supporting gift of the mother to her unborn child.

Thus, the most important aspect of the presence of gift economy as an important constituent of life in general, and of human life in particular, is the formation of the primary gifting milieu (or the ‘primary gifting environment’) whose presence, both in terms of space, time and energy potential, makes it possible to secure the safety of the aforementioned fundamental processes of life (including, of course, human life) taking place in the biologically fundamental – pre-social and primordial – space of the uterus. That is why in this section, gift economy, especially applied to the human species, will also be referred to as the ‘safety economy’ within which the various inevitable supply processes are applied lavishly and unconditionally (i.e. altruistically) by the mothers and fathers as natural ‘gifters’, with a great degree of empathy and charitability. These processes are, in addition, allowed to run in a statistically unperturbed fashion, as well as they are regarded as applied holistically. That is, they embrace the entire organism of an (un)born child. It is therefore obvious that the presence of gift economy in human life from the moment of inception on is assumed to be of utmost significance for whatever happens to the human organism in its later extrauterine life and under the varied pressure of the extrauterine environment.

It is important in the light of what has been said so far to define more precisely what the newly forming human organism receives as the gifts while staying in the uterine condition. The gift reception is assumed to be based on two types of gifts: the primary biological ‘gifts’, and secondary social-cultural ‘gifts’. Their characteristics are given below.

The primary biological gifts:

- the human genetic makeup of the parents,
- the uterus (the uterine space) as the life-generating and life-supporting space of the female body allowing for zygotic-embryonic-fetal survival and growth in preparation for the later extra-uterine life of the entire organism,
- the energetic-metabolic and feeding capacity of the female body,
- the derived genetic makeup of a new human being.



Fig. 3. An instance of gifting (the box on the right may well represent a metaphor of a natural language donated to the child by the primary caretakers supported by the child's desire to possess it. Source: [/www.google.pl/search?q=parental+gifting&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjoisGYtM3WAhWBQJoKHZdWCjAQ_AUICigB&biw=1540&bih=819&dpr=1.09#imgrc=YKJinMJ9Vq2X7M;](http://www.google.pl/search?q=parental+gifting&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjoisGYtM3WAhWBQJoKHZdWCjAQ_AUICigB&biw=1540&bih=819&dpr=1.09#imgrc=YKJinMJ9Vq2X7M;))

The secondary social-cultural gifts supplied in the uterine and extra-uterine environments:

- maintaining positive expectations of the future caregivers towards the unborn child as a new member of the genus *Homo sapiens*,
- maintaining positive expectations of the future caregivers towards the child's future social-cultural-linguistic conduct,
- placing the child in the social 'safety net of the caregivers' as members of the reproductive non-market society, as opposed to placing the child in the socially more 'hazardous nets' of socially imposed instructors (e.g. teachers as language officers) of the market society,
- the caregivers' collective efforts towards supplying the child with the initial social-cultural-linguistic potential, most importantly including

the natural gifting of the child with a NL, as opposed to the formal instruction in 'rigoured language' (also referred to here as 'didactically modified natural language', DMNL) which is addressed to the child (or any foreign language learner) while s/he is placed in the formal institution of the school in the market-oriented, task-oriented and over technologized society.

More specifically, the safety net of the caregivers may be characterized in the following way:

- the gifters' supervisory responsibility for donating the first language to the child, both in terms of its volume and quality, is decisive in establishing a sufficient protective (e.g. emotional/empathetic) layer of any NL,
- emotionally positive engagement of the caregivers/gifters definitely strengthens a further growth of NL resources and native language awareness,
- although the caregiver/gifter support for first language acquisition is often fragmented (i.e. it may quite naturally lack the rigour and systematicity present in formal school instructions based on syllabi of various kinds), in its totality and continuous occurrence and application it does lead to the generation and establishment of sufficient primary NL resources which may turn out to become most effective in providing a vital and sufficient basis for first language preservation.

On the other hand, the hazardous net of the official (i.e. formal/rigorous) language suppliers (also referred to here as 'language officers') who are involved in the didactic modification of natural languages may be characterized in the following way:

- the language officers' rigorous supervisory responsibility for further establishing a given NL in terms of its volume and quality, especially in the professional niche, is co-decisive in establishing a sufficiently protective layer of the NL,
- the emotionally positive (i.e. empathy-driven) engagement on the part of the language officers definitely strengthens a further growth of the transcommunicator's NL resources, especially in the professional niche. On the other hand, the emotionally negative (i.e. not based on empathy) engagement on the part of the language officers may have a generally detrimental influence on a further growth of NL resources and further development of NL awareness in the child,
- language officer professional support for making further advances in first language acquisition is, by definition, rigoured and systematic. In its totality and continuous occurrence and application in the formal setting of the school, it does lead to a significant further NL resource de-

velopment and communicative skill accretion which may turn out to be vital in the first (i.e. native) language preservation, this time, however, on a much larger scale which involves the entire ethnic-national language community.

The altruistic, empathetic and completely charitable gifting of a first (native) language to future first language users takes place in what may be termed the 'technology of total immersion' in first language acquisition. This is the technology which involves massive first language supply offered naturally to the child by the primary caregivers in their 'holding environment' (i.e. supportive, facilitating and caring). In it, the language supply is accompanied by intimate caregiver-child contact during which the complex process of transmission to the child of the content of the entire domain of empathy contained in bodily and psychological interactions takes place.

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CHAPTER TEN

The ecolinguistic double mall: (a) maintaining all linguistic life (Mall-1) and (b) maintaining all living languages (Mall-2)

(Origins of the DOUBLE MALL may best be illustrated by means of two very expressive paintings by William Blake (1757-1827))



Fig. 4. (the metaphor which may be implied by the painting is the following: maintaining and preserving all linguistic life is a part of the grand design of life, GDL)



Fig. 5. (the metaphor which may be implied by the painting is the following: maintaining and preserving all living languages, especially the smaller (lesser) ones, requires conscious efforts against the odds)

The present Chapter is organized around the following questions:

1. What is life?
2. What is linguistic life?
3. How is linguistic life maintained?
4. How are natural languages maintained?

1. WHAT IS LIFE?

Answers to this paramount question abound in literature. Apart from contributions made by any one of us, countless many philosophers, scientists and artists have been perennially, sometimes very passionately and indeed busily involved in finding out and providing answers while criss-crossing various scientific subdisciplines, individual intuitions and artistic expressions of all kinds and thus being engaged over the entire span of human recorded history in attempting to build a really expressly immense edifice of human cognitive endeavour in this respect. One should perhaps as a caveat state at the beginning of the Chapter that this particular question is

simply unanswerable, and luckily so, for its obvious and stubborn presence in accompanying the human species as a cultural-symbolic-linguistic-communicative species has simply provided an endless impetus for the coming generations. Therefore, should the question weaken its original impetus and lose its impact on the human mind, we may start expressing our unrest and discontent over the future of mankind.

Thus, this question simply constitutes the gist of humanness and the ultimate compass governing all of our present and future navigations through the expanse of the cosm. What we can say for sure now is that life is both a form of flow and movement with flow. And it never ebbs! In the framework of this very general ontological/epistemic question, one may consider providing an answer to a more narrow question which is formulated below.

2. WHAT IS LINGUISTIC LIFE?

This question, which may also be rephrased as ‘what is the life of language?’, is more down to earth, as all of us, the human communicators, are equipped, both biologically as a species-specific disposition and culturally as a result of socially- and culturally-focused existence, with some kind of communicative resources, that is, the linguistic resources, characterized by volume, quality, and semiotic/semantic completeness. These attributes have been so succinctly expressed by the Latin phrase: *lingua: nervus rerum humanarum*. Thus, language appears as indeed the most distinctive manifestation and measure of our ‘human predicament’ (*conditio humana*).

Put simply, we may say that ‘we all live in language’ (see Heidegger’s famous words: *Die Sprache ist das Haus des Seins*, 1949) which may also be regarded as a splinter of cosm. And the way we live in language, in turn, co-determines, together with our biological predicament, the biological/ontological completeness of our existence. Therefore, what we do with language, or what language allows us to do with respect to ourselves and the rest of the world of which we are a part, are extremely relevant questions. We are able to answer these questions, building on the available overabundance of contributions world wide and across countless many human generations exactly within these domains, both ontologically and epistemologically.

Below is a list of activities in which our (i.e. human) language as the most complex communication system on Earth participates in making us what we are as complex biological, social, and cultural entities.

The biological dimension (*Homo sapiens sapiens*):

- a. The human body (human embodiment as a biological design) as a strategic and resource-carrying container.
- b. The biological environment.
- c. The biological impact (i.e. biological management via performance/ expression coupled with the biological monitoring and profiling of our bodies; the so-called 'biological auto-focus').
- d. Growth and protection (i.e. flexibility of biological outcomes and species-determined focus).
- e. First language acquisition:
 - organismal inputs understood as the biological determinants of language (i.e. the biologically/genetically determined language capacity of the genus *Homo sapiens*),
 - transmission of language as a donation (i.e. gift) offered to the next generation by the primary caretakers in order to secure the survival of the offspring via language as a symbolic code,
 - reception of a particular natural language by the next (i.e. ascending) generation as an instance of utmost species-specific and intergenerational learning,
 - transmission of communication abilities to the next generation in order to secure the survival of the offspring via species-determined communicative practices,
 - learning communication in a hybrid way, that is, by means of a combination of language and non-language resources based on the natural synergy of the audio-vocal and visual-tactile modalities,
 - time as the central player in the ontogenetic and phylogenetic emergence, development and sustainability of language.
- f. Possible dangers:
 - the occurrence of various congenital and acquired language impairments (language disorders).

The social dimension (*Homo socialis*):

- a. Society as a strategic environment and resource.
- b. The social environment in which all human activities are immersed.
- c. Growth and protection (i.e. developing flexibility and focus).
- d. Social inputs (the social design of communication).
- e. Cohabitation within and across all the existing species.
- f. Bonding with other human communicators via language and non-language resources (linguistic interactivity).
- g. Interacting with other human communicators via language.

- h. Clustering (i.e. developing the sense of the group/membership).
- i. Interaction dynamics inside the group.
- j. Maintaining social language capacity and language sharability.
- k. Performing social management (i.e. developing the skills of social monitoring and profiling).
- l. Possible dangers: as formulated in the biological dimension above.

The cultural dimension (*Homo culturans*):

- a. Culture as a strategic human environment and resource.
- b. The cultural environment in which all humans are unconditionally immersed.
- c. Growth and protection (i.e. developing flexibility and focus).
- d. Being aware of cultural inputs (i.e. developing an awareness of the cultural significance of communication).
- e. Acting within the 'institution' as the ultimate environment for every human being, which is most fully expressed through the interplay of:
 - individual identity which, in turn, is the result of the interplay of the following parameters:
 - militancy (aggressiveness, use of communicative warfare and weaponry)
 - trade-offs
 - utility
 - display
- f. Dangers in the intra-institutional and inter-institutional dimensions: clear dominance of one of the parameters.
- g. The human being as an institution may also be expressed through the interplay of:
 - all the necessary adaptations to the environment
 - economy (i.e. through exercising efficiency in the use of the available resources)
 - power and politics (i.e. through exercising warfare, oppression, coercion, peace, hierarchy, victory, surrender, etc.)
 - numbers (the size of the population)
 - waste
 - loss (poverty)
 - gains (wealth).
- h. The human being as an institution is involved in the manufacture of 'techne' (technology) which has thus become a part of human resources. The manufacture is accomplished through:

- constructivism (cultural design which allows for the manufacture of the cultural (i.e. intangible) system of artefacts such as belief systems, value systems, expressive-performing systems, etc.)
- the use of tangible tools
- avoidance of dangers (e.g. such as overtechnologization and all kinds of collisions which may occur within the intangible system as defined above).
- i. Cultural-linguistic-communicative capacities of the particular HCAs.
- j. Cultural management and performance (i.e. cultural monitoring and profiling).

3. HOW IS LINGUISTIC LIFE MAINTAINED?

Every natural language which enjoys the status of a 'living language' is maintained on a daily basis by the transcommunicators who are busy using it in their daily encounters with other communicators and in the discourses placed within the following three communicative niches: the 'daily routine and general culture niche', the 'professional niche', and the 'citizenship niche' (see Chapter XI for further details).

Every NL is, therefore, maintained in the varied social-cultural environments, either in the physical dimension or in the virtual environment provided by the electronic media. The social-cultural environments comprise: the family, the community (local, national, regional, global), the workplace. And the purposes which are involved in maintaining linguistic life are connected with the human life-supporting activities which, in turn, comprise: education, exchange of information, entertainment and leisure, and various highly changeable social networking purposes, both real and virtual.

4. HOW ARE NATURAL LANGUAGES MAINTAINED?

The question of the maintenance of linguistic life which is so much influencing the vitality of a given NL, is directly connected with the ecologically most valid question of natural language maintenance (NLM). It is also known as the problem of 'natural language sustainability' (NLS), that is, its survival vis-à-vis other NLs in the NaLGA. It is assumed that any NL may be maintained (i.e. sustained) as a result of the collective efforts on the part of the individual communicators who use it natively in their daily communicative encounters and communicative behaviours (see Chapter III,

section 2d above) as well as owing to the transcommunicators' cultural-linguistic awareness.

The essence of linguistic awareness, especially with regard to the native language, lies in performing the following general and specific activities by the transcommunicators:

- recognition of the importance of a NL by installing and improving the 'native language awareness' (NLA) among its youngest users and thus developing a generally positive attitude towards the language in question,
- promotion of the recognition of a given NL with respect to its use in all the social-cultural environments (the family, the community, the workplace) so that the particular national/ethnic language as a major 'bulwark of ethnicity' is respected and generally strengthened in the NaLGA. In this way, a more 'ecocratic interconnectedness' between/among the NLs may be achieved,
- demonstration of good practices with regard to the NL in the workplace,
- promotion of the benefits of native language use in all the social-cultural environments and on all levels of formal education.
- consideration of native language awareness as a key notion in a given NL sustainability.

4A. A PRACTICAL INSTANCE OF NATURAL LANGUAGE MAINTENANCE: NATURAL LANGUAGE 'IN THE HANDS' OF A STREET LEAFLET (FLYER) DISTRIBUTOR

A very special instance of natural language maintenance takes place in the streets of our cities and towns. While visiting the down town areas we are frequently approached by silent (and not always smiling) and mostly young persons who hurriedly take a single flyer off a stack of flyers kept in another hand and try to hand it over to the passing pedestrians (in what may be called the service of flyer delivery). Whether we accept the leaflet or not is our choice, but the most important point of it is that a language used in the local area is distributed, as it were, in some iconic/graphic form in many places at the same time. This hand-to-hand distribution of printed language manifestations is definitely a very clear practical manifestation of natural language maintenance and of language display and is thus more than worth mentioning here, for it may be regarded as a special instance of language maintenance and language display practices which have been developed nowadays (see Fig. 6 below).



Fig. 6. An example of hand-to-hand leaflet distribution in the city environs

It remains a matter of taking serious interest in the consequences of such a practice for natural language maintenance. In this respect, and as an important ecolinguistic consequence, we should focus more carefully on the linguistic/graphic nature of the leaflets which are distributed in our cities. In so doing, ecolinguists in particular may get an idea of how a given natural language is, among other ways, 'distributed' in the urban environments by the very simple technique of direct 'leaflet hand-to-hand delivery', as well as get an idea in what ritualized (and obviously highly stylistically and grammatically abridged) graphic/iconic forms the particular natural language(s) is/are distributed to the urban population all over the world.

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The human communicating agent as a transcommunicator, or a global, social, cultural, transconnected, knowledgeable, outspoken, flexible, mobile, effective, successful, comfortable and wired participant of the universal communication space (UCS): a communication panopticon view of man

In this book, a human being is portrayed as a 'transcommunicator' (hence TC) who is further defined as a 'human communicating agent' (hence HCA). The latter is assumed to be able to develop and maintain an appropriately rich volume of linguistic and non-linguistic resources and who is, therefore, assumed to be capable of communicating with impact, while also being aware of the fact that the ability to communicate with impact indicates personal power in attaining success in the social-cultural-linguistic-communicative dimensions of one's personal life. Furthermore, the TC is assumed to be capable of using all the available modalities and technological media. That is, s/he may also be referred to as the 'hybrid transcommunicator' (hence HTC). The transcommunicator's hybridity indicates the most comprehensive status of the HCA.

The HTC is also able to function in a number of 'communication orders' that have been developed in the course of human communicative conduct, that is, s/he is able to use the major human communication modalities, such as the audio-vocal and the visual-tactile modalities either separately or in synergy, in order to express him/herself (i.e. perform communicative acts) in the public space. That is why s/he may also be referred to as the multi-

media HTC, especially being able to function in the capacity of the 'trans-signer' (i.e. being able to move freely across the entire semiosphere with its indexical, iconic and symbolic ramifications, see Peirce's well-known typology, 1982).

Moreover, every HTC is assumed to function as the 'supertalker' (i.e. being able to function in all possible oral/spoken manifestations of a given NL), and the 'superwriter' (i.e. as being able to function in all possible graphic (i.e. written/printed) manifestations of a given NL which happens to have reached the graphic phase of its development). In purely ecological terms, we may simply refer to the TC as a 'keystone species' in human communication, thus indicating his/her central position in the entire communication process.

With regard to the more technical side of the phenomenon and processes of transcommunication, it is assumed that the HTC may serve in the following capacities:

- (a) a general participant of the universal communication space (UCS), that is, an individual who is equipped with appropriate knowledge and skills to operate as a communicator on temporary or permanent inter/transnational assignments. In other words, s/he is prepared and ready to function as a highly trained 'commuter' between different countries (nation-states), cultures, ethnicities, communities, and languages. S/he may thus be able to function as some kind of a 'transcultural nomad' (also referred to as the so-called 'expat' (expatriate)), while at the same time contributing to the preservation (sustainability) of his/her own cultural/national/ethnic/linguistic background,
- (b) a leader/champion of transcommunication, that is, an individual who is serving as both an organizer of transcommunication and a coach of transcommunication in whatever social setting (e.g. native or foreign, professional and non-professional, etc.) s/he is likely to participate.

By functioning in the above capacities, the HTC is also involved in realizing a number of deep ecological tasks, such as:

- contributing to showing respect to other cultural-national-ethnic-linguistic dimensions,
- contributing to accelerating the preservation and promotion of other cultural-national-ethnic-linguistic dimensions,
- contributing to the sustainability of cultural-national-ethnic-linguistic diversity,
- contributing to the application of the principle of 'zero fatality target' with regard to the cultural-national-ethnic-linguistic diversity, that is,

leading to the sustainability of the largest possible number of local cultures, ethnicities, languages and dialects, either by means of individual personal activities or by means of the HTC's involvement in various agencies, local, national, regional, and global groups of individuals and institutions who simply care about the preservation of the biggest number of living languages and whose goals are thus concentrated on and associated with the preservation of the afore mentioned diversity as a measure of mankind's overall social-cultural-linguistic vitality and as complete as possible grasp of the world (see also Chapter IX, section 4).

In order to realize the above tasks, the HTC must be involved in what may be generically termed 'panlogoergalia' (or universal natural language use in the NaLGA), that is, s/he must necessarily be involved in the development and maintenance of the following strategies:

- the strategy of connection to other HTCs via a General Mechanism of Linking (GML) in the universal communication space, and more specifically, in the global (i.e. cosmopolitan) network of HTCs, that is, the strategy of building interactive transcommunicator linkages as a basis of all the transcommunicative practices,
- the strategy of transcommunication, that is, the strategy of sharing the linguistic and non-linguistic (i.e. cultural-national-ethnic, non-verbal) resources owned by the particular HCAs with other HCAs via the interlocking parameters of militancy, trade-offs, utility, and display which constitute the so-called 'Imperial Tetragon of Embodiment' (hence ITE),
- the strategy of overall alignment, that is, the strategy of conforming to the principle of co-habitation of local cultures, nationalities, ethnicities, various natural languages and dialects, and the entire population of the HTCs in the global network of transcommunication as a part of the UCS, such that the HTCs' communicative activities contribute jointly to the generation of a global sense of communicative assonance and wellbeing (here referred to as the so-called 'communicative eutopia'), generated through non-deceptive, sincere and honest messages. Such a strategy is obviously contrary to the generation of communicative dissonance (the so-called 'communicative dystopia'), produced through the dissemination of more or less deceptive, insincere and dishonest messages which has also been (and is) amply present in the transcommunicative practices.

Every HCA may be profiled as regards the HCA's participation in the external environment. More precisely, every HCA may be viewed as basically a signer-speaker. In this sense, any healthy HCA is expected to represent

a more or less balanced and optimized potential and is thus viewed as capable of exchanging information with other HCAs by means of the individualized language resources, including the language code which is properly activated in verbal behaviour and coupled with the activation of the THC's non-language resources in non-verbal behaviours.

These resources, in turn, require the activation of the audio-vocal modality and the visual-tactile modality, respectively, or of both modalities in a highly synergistic manner. However, a definition of the HCA solely in terms of his/her language and non-language resources may not be sufficient, since all HCAs are completely and inescapably immersed in a sharable external social-cultural environment. This environment, which is fundamentally spatial-temporal in character, may also be branded as 'cultural-linguistic landscape', thus indicating the significance of the social-cultural elements which constitute its underlying character.

In addition, it may be branded as contributing to the human-centred 'linguoscapes', that is, the 'soundscape' and the 'graphoscape', thus indicating the co-occurrence and co-significance of speech sounds and graphic elements (letters, ideograms, syllables, etc.) as expedients of the audio-vocal and visual-tactile modalities. As has been indicated above, they may be easily realized synergistically by the HCAs in their highly varied communicative practices in the maximally open public space.

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Performance-based management of language and non-language resources

The general problem of the 'management of resources' which any biological agent has acquired and accumulated and is thus prepared to apply in the course of life is of paramount importance for the physical existence/survival of any being (i.e. any embodied entity/agent), both in species-specific terms and from the point of view of any individual entity's survival. The problem appears to be strictly economical in nature and has to do with appropriate expenditure/activation of the available resources, that is, the management of the resources in terms of gains and losses, and the realization of the overall objectives which direct the performance of any living entity/agent. Its overall significance to any organism lies in securing the organism's (as well as of the entire species') reproductive viability and biological resilience vis-à-vis any perturbations generated by the internal and external environment. In this respect, the general problem of the management of the resources attains the status of the so-called 'self-governance', both species-wise, population-wise and organism-wise, as a form of an immunological activity on an appropriate level of generality.

However, in dealing with the problem of resource management more sufficiently, one should focus on the characteristics of the 'resource system' as well as on the characteristics of the 'resource units' which can be found in the system. In particular, the resource system may be characterized by means of a variety of indicators. The resource system indicators which are applied to language and non-language resources are briefly described below.

The language and non-language resource system indicators:

1. The language areas, also referred to as 'communicative niches' (hence CN), which are available to and which may be activated by the individual HCAs in various communicative acts, include the following three niches: the daily routine and general culture niche, the profes-

sional niche, and the citizenship niche. All three niches are the depositories of language resources. Thus, if they are properly present in the language resources of a particular HCA, they collaborate closely with each other such that the communicator uses them more or less smoothly, and in a trans-niche manner, that is, within the Oskar-Gulliver-Petronius syndromes (see Chapter Eight above), and in proportion to the contingencies of the context of which every communicator is more or less aware.

2. The size of the language resource basically as an active dictionary. It is assumed that every HCA has at his/her disposal the language resources allocated in the respective CNs which most naturally differ in their sizes with respect to such basic resource units (also referred to as lexical categories or 'parts of speech') as nouns, verbs, adjectives, numerals, prepositions, adverbials, and syntactic components of verbal spoken/written communicative messages (also referred to as grammatical categories) such as: aspect, case, definiteness, mood, modality, tense, transitivity, voice.
3. The presence of communicative niches in every HCA's communicative practice. It is assumed that the following niches are relevant for the communicative practices realized by the HCAs:
 - the daily routine and general culture niche: this niche is the largest of the niches to which every HCA has access and which comprises most common vocabulary which deals with food, shelter, defense, transportation, health, kin relations, religion, general culture, common political parlance, gossip communication in unplanned and planned encounters, etc. The niche comprises the most common usage of language resources, as in, for example, daily encounters, both planned and spontaneous (unplanned), and daily verbal exchanges relating to all matters of daily routine. It is extremely essential for the sustainability of any NL that this niche is in place and that it is constantly available to all the HCA. It is also obvious that the presence of the niche is advantageous to any NL, for it provides protection of a NL against any invasions from other NLs. This effect is accomplished for the simple reason that the biggest number of HCAs (as members of a particular ethnolinguistic community) operate in the niche on a daily basis. One may, therefore, safely state that the presence of the niche is decisive in maintaining the resilience of a given NL. Finally, it should be observed that no NLs have been functioning without the daily routine and general culture niche as the fundamental one, that is, the one on which the other two are based.

- The professional niche: this niche is smaller in size, as it deals with highly specialized terminological enrichments of the language resources, founded by the continuous advancements made within the existing and emerging areas of scientific and technological endeavours. An increasing abundance of constantly changing scientific jargon serves to illustrate the range of the term.
 - The citizenship niche: this niche, while being a subset of the professional niche, is indeed the smallest in size, as it represents the most sophisticated terminology of the legal dimension of every HCA's communicative practice. Texts such as constitutions, codes of conduct, charters, declarations, conventions, treaties, covenants, various legal statements, etc., serve to illustrate the range of the term.
4. The sizes of the respective niches further defined in terms of the units which every HCA is able to activate in communicative acts. Subsequently, it is assumed that every HCA activates the language resources out of the existing sizes which the communicator has been able to accumulate and store in his/her long-term linguistic memory. This is done in accordance with the following simple principle: *I can only activate an asset which is at my disposal*. Thus, a small size of a given niche, which is at the disposal of a particular HCA, does not allow for an activation of abundant resource units, and, conversely, a large size of a given niche immediately credits the HCA with a possibility of choosing from a larger number of possibilities within the available resource.

As a caveat to what has been said above, it should be added at this point that the existing natural languages may vary even considerably as to the presence and sizes of the respective niches in which they are used. It is, therefore, obvious that a NL which has managed to develop all three niches is the one which may be regarded as a more robust one compared to any NL which has not managed to develop the professional and citizenship niches. With respect to the absence and non-availability of the two last niches, such a language may thus be regarded as a less robust one and, therefore, the one which is characterized by an overexploitation of the daily routine and general culture niche resources.

It is also desirable to emphasize at this point that performance-based management of language and non-language resources, especially with regard to the communicative practices held within the communicative niches, should be constantly monitored and profiled appropriately so that the communicative performances of every HCA may also be continuously improved (see Section I above). This can best be done by adhering to an ongoing process of collecting, analyzing and reviewing various communicator performance data. In this way, performance-based management of language and

non-language resources can be measured and may lead to profiling an optimal HCA.

Summing up this Chapter, it must be emphasized that performance-based management of language and non-language resources by any HCA may be defined as both a strategically sensitive and highly systematic as well as requiring an ongoing control of HCA performance in order to establish well-defined communicative objectives in the framework of successful and comfortable communicative practices. In particular, the said control should involve the following activities:

- identifying the presence and size of the communicative niches,
- identifying costs and benefits (gains) of language and non-language resource activation by the individual HCAs,
- converting the costs and benefits into successful and comfortable communicative practices by the individual HCAs.

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Communicative (performative-expressive) culminations

The presence of the human communicating agents may be regarded as the culmination of the evolutionary processes on Earth in that all the HCAs are members of the newest species which has been inhabiting the Earth, referred to as *Homo sapiens sapiens*. The culmination is, among other factors, linguistic-communicative in nature, as the human species is the only one known to be able to communicate by means of an extremely elaborated communication code, the language code. The performative/expressive power of language as a system of communication goes together with the performative/expressive power of the non-language (non-verbal: postural (bodily), facial and gestural) resources. Together, they are used in the communicative practices of the hybrid transcommunicators (HTC), which one may also regard as communicative 'culminations' of the human embodiment.

The communicative culminations may be organized into two types: (a) 'tangible' culminations and (b) 'intangible' culminations. The tangible communicative culminations comprise all those manufactured wholes, the 'opuses', which include the manufacture of handicrafts of all kinds, including all of technology and all architectural designs. On the other hand, the intangible communicative culminations comprise all those transient 'opuses' which include the 'manufacture' of such intangible mental products as language in general together with the particular natural (ethnic) languages, various non-language resources (i.e. facial, gestural, bodily), as well as the manufacture of overall ideological traits such as belief systems, value systems, aesthetic standards, etc.

In communicating to/with other human agents, every HCA/HTC relies on the linguistic and non-linguistic resources, their quality and volume. However, before they are properly activated in communicative acts on the

part of the sender, be it commissioned and non-spontaneous or unplanned and spontaneous, every HCA/HTC places him/herself in a vigilance (or stand-by) position, whereby the interlocutor and the messages which s/he is engaged in producing are properly screened. This is done in order to recognize the proclivities of the so-called 'context' of communicative acts. Thus, one may distinguish between two stand-by (alertness) positions which every HCA assumes: (a) the language resource stand-by position, and (b) the whole body stand-by position. Both are activated in a mutualistic/synergistic fashion and at more or less the same time in the physical acts of communicating within the oral communication order.

Finally, one should state that an extremely important aspect of HCA/HTC functioning is the fact that s/he is capable of performing-expressing under the complex conditions of the economy of 'alignment'. The alignment comprises the key features of communicative niches and communicative modalities into a 'universal communicative device' (UCD). Every HCA/HTC has access to the UCD. In this way, the attained competence level which characterizes every skilled HCA/HTC reaches the highest degree. Subsequently, performance/expression standards represented and utilized by the particular HCA/HTC allow for the highest degrees of success and comfortability in communicative practices.

Useful references:

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An assessment of natural language robustness (NLR) and its relationship to natural language sustainability (NLS): a fuzzy approach



Fig. 7. Monument of a sower (the monument may serve as an indication of the fact that every natural language user (transcommunicator) may be regarded as a 'sower' of that language in the open public space)

(Above is a photo of a monument (Pomnik Siewcy by Marcin Rożek) standing in a public park in the town of Luboń near Poznań, source: the author's private collection)

Any natural language may be characterized in terms of its 'robustness'. The concept may be defined as an interplay of a number of selected parameters and their fuzzy values. Natural language robustness (hence NLR) may be estimated around the following most general and fuzzy groups of parameters: I. internal parameters, with (a) 'internal quality', II. external parameters of: (b) 'sowing', and © 'harvesting'. The notions have been adapted here directly from the agricultural experiences of man and his physically and ecologically vital contact with the seeds, seeding, seed germination and soil where the seeds are deposited.

In assessing the degree of robustness of a natural language, which directly relates to natural language sustainability (NLS), the following two major groups of parameters, internal and external, should be taken into consideration. However, since they cannot be measured precisely by means of a decimal system, only fuzzy values may be postulated to characterize the respective parameters. That is why a fuzzy approach is undertaken here in approaching the problem of natural language robustness.

I. INTERNAL PARAMETERS OF NATURAL LANGUAGE ROBUSTNESS:

(a) internal quality

Types of modalities used by the HCAs in current communicative practice:

1. The Audio-vocal modality (AVo)

The AVo modality, which is the most fundamental and most primeval modality used in linguistic-communicative expression, can be expressed by means of the following factors:

- regional diversification of spoken language: it is expressed by means of the presence, number and size of regional dialects which may be treated as some kind of 'breeding loci' for a national language viewed as a dialectally polymorphic phenomenon, that is, as expressed via the presence of a standard dialect versus regional dialects surrounding it,
- the presence, size and sophistication of (local) culture-specific vocal and non-verbal resources: paralanguage.

2. The Visual-tactile modality (ViT)

The ViT modality, which has evolved within the linguistic-communicative expression on the audio-vocal foundation, can be expressed by means of the following factors:

- the presence, degree of diversification and size of means of graphic/written language: literature, poetry, printed grammars, legal docu-

ments, religious documents, scientific writings, daily newspapers, journals, dictionaries, other books, other transient printed materials, which may all be collectively referred to as 'graphic affluence',

- the presence, size and sophistication of culture-specific non-verbal non-vocal resources: they comprise all the culture-specific elements of non-verbal communication such as body language, gestures, and facial expressions,
- the presence of a sign language that a given linguistic community uses (e.g. American Sign Language, Nicaraguan Sign Language, etc.).

3. AVo and ViT modalities combined (the audio-visual hybridity, hence AVH)

The audio-visual hybridity can be expressed by means of the following factors:

- the presence, degree of diversification and size of audio-visual means of communication, such as feature films, documentaries, TV programs, etc., which all matter significantly in developing and strengthening the standard dialect (with an important note that should be made at this point: not all language communities have reached that stage of development of their languages and thus a number of language communities have not been able to promote their languages by means of AVH in the Natural Language Global Arena).

Moreover, the communicative fitness of the language used in the local cultural-linguistic environment is demonstrated via its use in the environment-induced communicative niches. They are discussed below.

4. The diversification and size of the natural language resources may be defined with respect to the presence of the following communicative niches:

- (a) the daily routine and general culture niche: it is the largest and most dominant of the niches. It is used in the daily communicative encounters and practices (also including various kinds of religious communication practices),
- (b) the professional niche: it is much smaller than the niche mentioned above. It is used in the study place and workplace niche (including the use of permanent and transitory sociolects, i.e. as contained in the socio-cultural diversification of spoken and graphic/written language forms expressed by means of sociolects based on a current social structure of a given linguistic community; also expressed through the presence of lexically and stylistically rich professional language resources organized in numerous professional sub-niches),
- (c) the citizenship niche: it is the smallest of the niches. It is used in various highly sophisticated forms of legal language resources (e.g. in

such documents as declarations, charts, constitutions, covenants, treaties, etc.).

The inter-relationships of all the afore mentioned niches in terms of their respective sizes may be illustrated in the following way (Fig. 8):

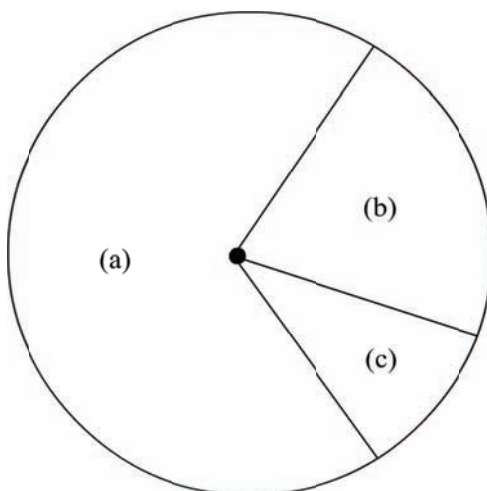


Fig. 8. Graphic presentation of the respective communicative niches (see the text above) in terms of their sizes

Where:

- (a) – the daily routine and general culture niche
- (b) – the professional niche
- (c) – the citizenship niche

It follows from the above presentation that natural language resources are developed and maintained in a highly hybridized and inter-niche manner, with (a) as the dominant niche.

II. EXTERNAL PARAMETERS:

(b) sowing

(b1) geographical factors:

5. Size of the area of the core of the natural language habitat (estimated in km²):

- 'large core area' stationary language (e.g. China mainland core habitat),
- 'small core area' stationary language (e.g. Estonian core habitat),

- 'arealess' non-stationary language (e.g. as evidenced in earlier Romani language nomadic way of life).

6. Geographical diversification of the area of the core of the natural language habitat which is an important factor in accounting for the existing regional diversification of dialectal varieties of a given natural language.

The following geographical factors are traditionally regarded as being responsible for the formation of regional dialects:

- lowlands
- mountains
- coastal regions
- forested areas
- desert regions
- other natural (geographical) 'dividers'.

(b2) demographic factors:

The following demographic factor may be distinguished:

7. Overall NL 'weight', that is, the so-called natural language linguomass/glottomass, expressed by the number of native users of a given NL, most naturally combined with a given NL's expressive capacity, as co-dependent on the size of the population using a given natural language.

The following weights/linguomasses may be distinguished with regard to the existing NLs:

- 'heavy' languages (over 100 million native users)
- 'semi-heavy' languages (below 100 million native users)
- 'light' languages (below 50 million native users)
- 'semi-light' languages (below 10 million native users)
- 'endangered' languages (below 1 million native users)
- 'near extinct' languages (below 10,000 native users)
- 'extinct' languages (either few or very few, usually old living users of the language or no users at all).

It should be added at this point that the linguomass/glottomass of a particular NL is dependent on the size of the population in the following simple way:

- (a) the bigger is the population, the bigger is the linguomass,
- (b) the smaller is the population, the smaller is the linguomass.

8. Structure of the overall habitat of a given natural language which may be defined as follows (the so-called 'core-periphery' relationship):

- 'core' (i.e. uniform, or geographically well-defined) language habitat, in which case we may refer to a core-dominant NL, and where the population may be estimated in %,
 - 'periphery' (i.e. non-uniform, or geographically ill-defined) language habitat, in which case we may refer to a periphery-dominant NL, and where the population may be estimated in %.

- ‘peripheral’ (i.e. non-uniform) language habitat, also referred to as a ‘dispersed’ (i.e. diasporic) habitat, in which case we may refer to a periphery-dominant or periphery-supplementary NL, and where the population may also be estimated in %.

9. Age structure of the population of the language community living in the core of the habitat which may be most conveniently expressed by means of the population pyramids (for detailed exemplifications, see, for example, US Census Bureau data).

The following age structures may be distinguished:

- ‘healthy’ cross-generational structure: in this structure, the phenomenon of the occurrence of first language acquisition which is represented amply by a large subpopulation of infants and children (shown as a bottom bulge on the population pyramid presented below), is a simple indication of natural language vertical transmission, that is, NL ‘flow’ from the elders (the primary caretakers, that is, the parents and grandparents) to the children. The former teach the young their native language in an informal way, most naturally by what may be called ‘natural language gifting’. An instance of a healthy population pyramid is shown below,

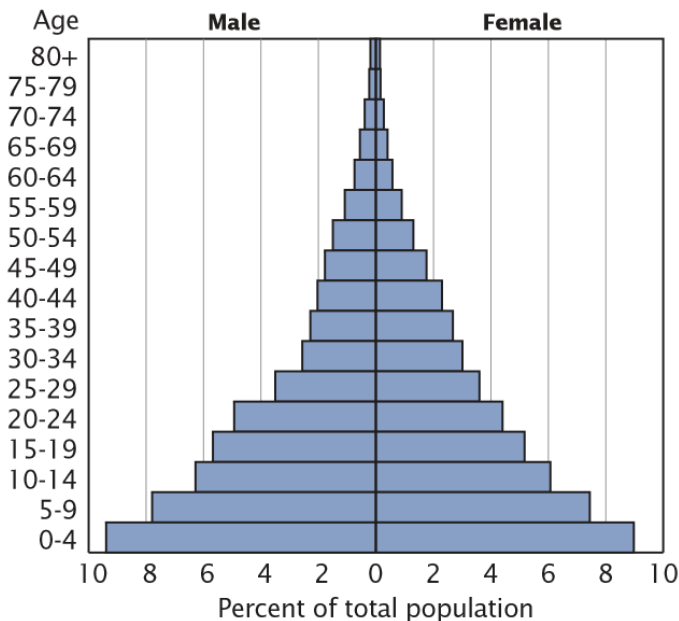


Fig. 9. An example of a healthy population pyramid, where the number of children visibly dominates as compared to the number of middle-aged and elder adults.

- 'unhealthy/ailing/contracting' cross-generational structure: in this structure, in its extreme form, it may not contain the subpopulation of children, or the entire population may be drastically reduced (shown as a population contraction). As a result, the phenomenon of first language acquisition may also be drastically reduced or be entirely non-existent in a given linguistic community. Such a language may be found in a moribund phase of its existence. An instance of an unhealthy/ailing population pyramid is also shown below (Fig. 9).

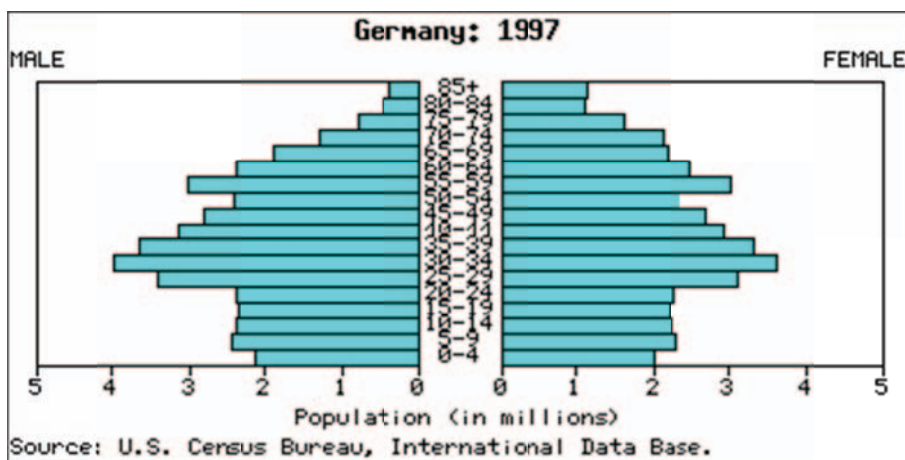


Fig. 10. An example of an unhealthy/ailing/contracting population pyramid, where the number of children is visibly reduced as compared to the number of middle-aged and elder adults

10. Urban : rural ratio (where the population may be estimated in %)

The urban communicators may be characterized as follows:

- they participate in a relatively denser network of human communicating agents (HCA) as potential communicators in a potentially greater number of communicative events involving a greater number of communicative encounters, with appropriately bigger-sized AVo and ViT modalities used in their communicative practices,
- they have a relatively easier access to maximally diversified language resources, including the archived graphic/written resources (e.g. libraries and other forms of archiving of printed texts),
- they are exposed to and participate in a relatively bigger and richer number of communicative encounters, both planned and unplanned (i.e. coincidental), with a proportionately greater involvement of both the AVo and ViT modalities and of AVH,

- overall, the urban communicators make a relatively higher contribution (offer) of spoken/vocal and graphic/written verbal language resources into the common-pool of interacting natural language resources,
- overall, they also make a much greater contribution to the maintenance and development of the size and sophistication of the common-pool natural language resources within the linguomass in all of the communicative niches (i.e. in the daily routine and general culture niche, the professional niche, and the citizenship niches, respectively) owing to a much bigger number of participating HCAs as compared to the less densely populated rural areas.

(b3) local status of the particular natural language:

11. Status of the language in the core of the NL habitat:

- a NL may enjoy the status of an 'official' language (and may thus be a major NL in a given habitat),
- a particular NL may have the status of an 'unofficial' language (and may thus be a minor NL in a given habitat).

(b4) social-educational factors:

12. A particular NL as a language which is taught formally: formal standards of education and expected relationship between educational standards and the size of the language resources in individual members of a given linguistic community (the higher is the standard attained by an individual HCA as a result of the educational process, the higher and bigger are *per capita* the language resources which may be attained by the individual HCA). The presence of compulsory vertical education (where qualified and licensed elders, that is, teachers/instructors, teach and use a given natural language in formal teaching institutions):

- the compulsory language of primary education
- the compulsory language of secondary education
- the compulsory language of higher education.

Local language external history where the following factors may be distinguished:

13. Whether a given natural language has ever had the status of an 'invading' language (including the estimation of the duration, size, and intensity of the invasion in its history). One may in this respect distinguish between 'hard' invasion (i.e. an invasion which has involved the use of the armed forces and administrative bodies of all kinds) versus 'soft' invasion (i.e. an

invasion which has involved, or does involve, the soft means of ideology and various cultural artefacts). This may be referred to as the general problem of 'linguopressure' (for example, an instance of 'external linguopressure', or, simply, an instance of language imperialism) exerted by a given natural language on another natural language.

14. Whether a given natural and invaded language has ever 'staged' or has been involved in organized and spontaneous resistance (reaction) to any invading language (including the estimation of the duration, size, types, and intensity of the resistance). The result of such an activity would be a more or less conscious resilience and possible repairs of the invaded language over a certain period of time by its native users.

III. EXTERNAL PARAMETERS:

(c) harvesting

(c1) Participation of a given NL in the natural language protection programs:

15. Global natural language protection programs (GNLPP): they are focused mainly on maintaining general cultural-linguistic diversity and NL equality on a global basis.

16. Regional natural language protection programs (RNLPP, i.e. continental, sub-continental, etc.): they are focused mainly on maintaining cultural-linguistic diversity and political equality in smaller regions (e.g. NL diversity protection in the European Union).

17. Local natural language protection programs (LNLPP) are most typically organized and held on the level of the nation-state or a particular ethnic community: they are focused mainly on maintaining the cultural-linguistic diversity within a given NL community and on a limited scale within the political-geographical boundaries of a given nation-state.

Awareness of the external status of a given natural language among its native users:

18. Awareness on the part of the native communicators of the presence of language dominance relationships: it concerns the native communicators' subjective feeling about the particular language as having either the 'super-stratal' (i.e. dominant, hegemonic), 'ad-stratal' (i.e. equal and ecocratic), or 'sub-stratal' (i.e. dependent and submissive) status, respectively.

19. Awareness on the part of the native communicators concerning a given native language's availability: it involves the native communicator's subjective feeling about the language as being a strictly 'local' versus 'global' language.

20. Awareness on the part of the native communicators of overall significance of their language: it involves the native communicators' subjective feeling concerning the importance of the native ethnic-linguistic community's contribution to world history with regard to the following elements:

- world significance of internal historical events
- world significance of the arts
- world significance of sciences
- world significance of technology
- world significance of national economy.

Awareness (reception) of the external status of a given natural language by other linguistic communities:

21. Awareness concerning natural language resource maintenance and development involves the following points:

- whether the linguistic-communicative activities are carried out solely by the native users of a given language, where any single act of using a language by its native communicators directly strengthens it)
- whether the linguistic-communicative activities are carried out together by the native and non-native users of a given natural language, where any single act of using a natural language as L2 somehow 'deshapes' (or may even destroy) it.

Concluding this Chapter one may state the following:

Concerning the present status of NLs:

- a) the sum total of the fuzzy values which have been proposed to hold for the particular parameters discussed above defines the overall degree of natural language robustness (NLR). The latter may be expressed by means of the 'natural language robustness profile' which may be procured and applied to any NL at any moment of the time of its existence,
- b) in the multi-parameter perspective of NL sustainability outlined above, it appears that all natural languages differ as to their degree of robustness along a scale extending from 'the most robust' (i.e. obtaining the strongest values) to 'the least robust' (i.e. obtaining the weakest values),
- c) natural language robustness (NLR) relates directly and proportionately to natural language sustainability (NLS), such that the bigger is NLR, the bigger is its NLS.

Concerning the future status of NLs:

- a) a natural language profiled as more robust is a cross-generationally and cross-culturally more sustainable language as compared to a less robust natural language,
- b) the higher is the degree of natural language robustness, the higher is the 'sustainability index' (SI) of a given NL,
- c) any natural language whose NLR has obtained the strongest value is *ceteris paribus* more than a likely candidate to enter the 'global power zone' (i.e. to become a candidate for being maximally empowered with the prospects of sustainability: this is particularly evident with a language which has managed to reach the position of a major 'globalizing language'. Presently, the most likely candidate is English),
- d) any natural language whose NLR has obtained the weakest value is *ceteris paribus* a very likely candidate to enter the 'survival alert zone' (i.e. to become an endangered language or to be a candidate for entering directly the 'extinction zone').

Useful references:

- PUPPEL, S. 2014. "Multis vocibus de lingua anglica: towards an outline of an emotional profile of English as a major globalizing natural language of today". **Scripta Neophilologica Posnaniensia** XIV. 139-148.
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The Natural Language Global Arena (NaLGA) as the language commons

Garrett Hardin (1915-2003), a renowned American ecologist, introduced the notion of the “commons” in his famous article from 1968. He introduced the notion in order to capture and describe the various processes accompanying the use of the resources of a common material property (e.g. a landed property, or a state) leading to the destruction of the said resources. Hardin based his discussion of a particularly burning issue in ecology, that is, the human population growth, as directly conditioned by the use of the Earth’s natural resources and of the activities of the welfare state. He expressed the view that overbreeding the human population was (and still is) responsible for what he had termed “the tragedy of the commons”.

According to Hardin, although the human individuals may (and do) to a certain extent act in rational self-interest, they should all recognize the overall and non-replenishable (i.e. perishable and unrecoverable) wealth of the natural resources of the commons and, by installing their proper management, not only demonstrate respect for them but also preserve the commons in their breeding potential for the good of the future generations.

The metaphoric meaning of the notion of the “commons” which is taken up here with a clearly ecolinguistic slant, is strongly related with the problem of ‘natural language preservation’ under the conditions of language contact in the NaLGA as the global operating space for all the existing natural languages. The notion of NaLGA serves here as a kind of ‘linguistic commons’ where every natural language with its historically established resources (phonological, lexical, syntactic, semantic, pragmatic-discursive) may be in contact with any other natural language resources.

And although it is difficult to imagine that a natural language will be wasted/exhausted by virtue of the sheer and inevitable presence in the NaLGA, it is nonetheless easily imaginable that persistent contact between

two (or more) natural languages, which are characterized by different degrees of robustness (see Chapter XIV), may indeed result in grave consequences for the contacting languages. Thus, especially under the conditions of a binding language contact (i.e. when the contact produces noticeable impact on either of the contacting languages), inequality, or lack of symmetry, may ensue. More precisely, this inequality may lead to a situation in which one of the contacting languages may be weakened (i.e. it may assume the status of a sub-language, or simply become 'a loser') and even perish, while the other may acquire a dominant/hegemonic position (i.e. a super-language may simply become 'a winner' or a language which can do harm to another contacting language). The loser-winner dyad, whereby languages are treated as unequal and uncocratic, may persist for quite some time. And if no special conservancy measures are applied by the contacting communities, it may simply become a dominant way of NL existence in the NaLGA.

Ecolinguistics may obviously learn an important lesson from simply observing (i.e. monitoring; see Chapter III) the course of events while natural languages are in contact with each other, whether in a binding type of contact or a non-binding one, in the NaLGA. Quite naturally, one may also venture to imagine a course of events which may promote a 'translinguistic' and thus more 'ecocratic' type of contact which is based on the notion of equality among natural languages, cooperation between/among them and a basically pro-sustainability (i.e. conservancy) approach. In such a case, a very high degree of natural language awareness is required on the part of both cultural-linguistic communities and the individual communicators.

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The ecology of natural language contact

The dynamic field of a communicator's linguistic-communicative practices, which may also be referred to as "the communicator's language-communication ecology" (LANCOM ecology), is the domain where there is room for the unavoidable natural language contact. Since all natural languages form the NaLGA, it is inevitable that local contacts between/among spatially neighbouring languages take place. Therefore, both statistically prevalent bilingual and statistically less frequent plurilingual contacts may be expected thus resulting in various local influences (i.e. disturbances), or intrusions into the structural-functional domains, such as the mainly morpho-lexical, syntactic, semantic, or pragmatic intrusions into the particular contacting languages are acknowledged.

With regard to the domain which is most frequently affected by the aforementioned intrusions, that is, the lexical level of language organization, one may postulate that the intrusions in the form of borrowings from one contacting language into another may fall into two main types:

- (a) convex borrowings, which may be illustrated by the following diagram (Fig. 11):

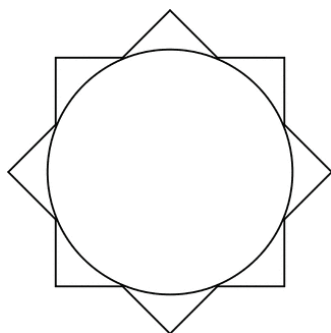


Fig. 11. Convex borrowing

In this type of borrowing, the core of the native vocabulary, represented by the inner circle, is supplemented (or 'enriched') by various lexical additions (represented here as the protruding triangles). An example of a convex type of borrowing is the word *computer* which had been added to the existing core vocabulary of e.g. Polish (where we may use the native word *liczydło*) and to a host of other languages in which it did not exist prior to its massive introduction, but which had also developed other lexical forms for the original meaning of 'doing any counting operations'.

(b) concave borrowings, which may be illustrated by the following diagram (Fig. 12):



Fig. 12. Concave borrowing

In this type of borrowing, the core of the native vocabulary, represented above by the polygon, is indented to indicate the fate of some of the native lexical items which, under the pressure of borrowings from other languages, may eventually disappear from current use or, simply, undergo the process of partial lexical erosion followed by lexical sedimentation. The process may be defined as the process of lexical replacement and the process of lexical 'slimming', contrary to the process of lexical enrichment discussed above, usually accompanied by the process of lexical sedimentation, or, a formation of lexical sediments accumulating in the history of a given NL.

The process of lexical sedimentation may for a while assume the shape of what in geology has been called 'soft sedimentation' to indicate a sedimentation process in the early stages of the sediment's consolidation into a more solid sedimentation forms. In the former sense, a soft lexical sediment is the one which may still be quite easily retrieved by the communicator, while a solid sedimentation of a lexical item refers to the stage in which no easy retrieval of a sedimented item is possible. An example of a native Polish item which is currently being replaced (or soft-sedimented, or has already been replaced) by a non-native (i.e. borrowed) item is the word *wielbiciel*. The word, which is being gradually deposited in the pool of lexical sedi-

ments, is currently being replaced (or has already been replaced) by the English word *fan*. Thus, the Polish communicators are known to use both "*Fani Lecha Poznań*" in order to indicate reference to a popular Polish soccer team, and "*Fani Chopina*" in order to make reference to refined XIXth century piano music and Fryderyk Chopin (1810-1849), the Polish virtuoso pianist and composer.

It should be further indicated that in language contact, it is the ethnic-linguistic communities which inter-relate and interact with each other in the NaLGA. These interactions follow a pattern which is dominated by such tendencies as: domination, displacement, confusion/contamination, quelling, death, preservation/revitalization of all those NLs acting as a 'heritage languages', that is, as languages which are naturally subject to more or less successful intergenerational preservation, endurance and transmission, including various immigrant conditions of language contact. Thus, the following types of heritage languages, further defined as 'contact languages', may be found within the ecology of language contact:

- dominant heritage languages,
- displaced heritage languages,
- confused/contaminated heritage languages,
- quelled (dormant) heritage languages,
- dead/lost heritage languages,
- preserved/revitalized heritage languages.

The aforementioned types of languages, referred to here generically as 'contact languages', neatly summarize the fates that await all the NLs as they go into contact with other languages in the NaLGA. In the sense expressed above, all NLs, apart from being heritage languages, most naturally form a rich diversity of contact languages which may be further sub-defined as representing any of the above mentioned types.

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Natural language communicative capacity building and the linguistic safety net system

The phenomenon of possessing and controlling sufficient linguistic resources is essential for any successful and comfortable transcommunicator. Therefore, the problem of building sufficiently sizable resources which would, in effect, represent a proper capacity for linguistic-communicative performance, is indeed of tremendous importance for any human communicator (i.e. transcommunicator). It is assumed that building NL capacity is accomplished through two major processes, (1) the learning processes, both individual and collective, and (2) the knowledge exchange processes. Since both processes have been described in countless many publications, there is no need to offer any further more or less exhaustive recapitulations at this point. However, what remains to be said before embarking upon a brief characterization of the processes of what may be termed 'NL capacity building', is to point out that we are all (and have always been) immersed in the two afore mentioned processes, (1) and (2). In addition, it must also be emphasized that the two processes may be characterized as 'flowing', as it were, both linearly, that is, through individuals and groups of individuals at the same time, as well as vertically, that is, through successive generations of communicators (see Chapter VIII above).

NL capacity building, as defined above, may be understood as a continuous process, both on an individual and on a vast social scale, whose additional, but equally relevant, goal has been to provide the transcommunicators with a properly developed 'social safety net' as a function of the 'universal communication network' (UCN) of which every individual transcommunicator is an inevitable part. The latter term, originally applied to the problem of social welfare economy, may also be generally defined as a more or less productive system which is (or should be) set at assisting the trans-

communicator in minimizing the negative impact of language contact in the NaLGA as well as in assisting the communicator in ensuring a minimum level of linguistic well-being and a minimum level of native/non-native language supply (one may say of sufficient 'linguistic nutrition'). The safety net system, or more properly, the 'linguistic safety net system', that is, the system which is oriented here towards the ecology of language and communication, may thus be directly involved in any NL maintenance vis-à-vis other NLs as well as in the maintenance of individual communicator identity (see also Chapter XIII above).

NL safety net system may best be described as functioning on the following general premises:

- maintaining the eco-friendly (i.e. ecocratic) attitude towards local cultures and languages is highlighted, which is further expressed in the highlighting of ethnicities and proper recognition of/and reduction of distance between diverse social-cultural, ethnic and economic statuses of the human population,
- counterbalancing the presence of hegemonic forces acting within the NaLGA, so that the eco-friendly attitude towards local cultures, languages, and dialects is insured as well as the particular HCA's dignity is also secured (*de dignitate et cultura linguae*),
- maintaining the environmentally conscious policy in linguistic practices, so that NL is generally one other important human factor participating in the sustainability of Nature,
- reducing the existing linguistic resource wealth/richness (i.e. size, quality) disparities among and with respect to the individual communicators, while also being aware that the following divide: 'rich linguistic resources - poor linguistic resources' naturally present in daily linguistic-communicative practices, generates basically endogamous relationships (or replicates some kind of unfavourable 'linguistic-communicative apartheid'), that is, where the linguistically rich communicators tend to keep separated from the linguistically poor in their linguistic-communicative practices. In this way, the linguistically poor communicators are in fact deemed to maintain a high degree of vulnerability to 'linguistic poverty' (or simply remain within the limits of linguistic poverty) thus reducing the degree of their communicative success and comfort. In this way, they somehow sentence themselves to function outside the 'linguistic welfare/wellbeing' which is characteristic of the properly developed linguistic-communicative resources and which may at the same time be one of the goals to be sought after and attained by the entire population of transcommunicators,

- developing linguistic-communicative self-insurance through the continuous enlargement of native and non-native linguistic-communicative resources.

It is imperative at this point to emphasize that the presence of properly developed linguistic safety nets, being an important part of language awareness of every individual communicator (expressed by the statement: *The communicator is aware of the dyad 'communicator linguistic resources – communicative practices' which provides linguistic/communicative safety to the individual communicators*) and of every single cultural-linguistic community (expressed by the statement: *The linguistic community is aware of the dyad 'linguistic community's linguistic resources – communicative practices' which provides linguistic/communicative safety to the entire linguistic community*), may bring multiple benefits to the communicators and the community in which s/he happens to live. If the linguistic safety nets become widespread such that they may be operating across the entire globe (in the NaLGA) with equal efficiency, they may contribute considerably to improving the standards of personal communication, both in the native and non-native languages, within and across local cultures and ethnicities as well as contribute to the overall wellbeing of the individual transcommunicators.

Furthermore, while discussing the problem of safety nets one should also bring to the fore the more general question of networking and its relevance for the sustainability of NLs. Networking, defined as a continuous process of building transcommunicator potential for connectivity and interactedness both on a local and global scale, may be connected with the following characteristics (also referred to as affordances):

- its existence continues to help in forging a new domain of communication, that is, the virtual domain of communication,
- its prolonged existence leads to a thickening of social-cultural relations with the other communicators in an increasingly denser network connectivity,
- its prolonged existence leads to a loosening, fragmentation and disruption of the more hierarchical aspects of those relations (e.g. in the family or in a local community) and making them more fluid, especially in 'computer mediated communication' (CMC),
- its prolonged presence in the universal communication space (UCS) gradually leads to a digital displacement of other forms of communication, such as the mass media and the telephone, and to a gradual weakening (and even complete removal) of the physical dimension of any communicative act such as the face-to-face contact between/among the communicators,

- its prolonged presence in the UCS allows the communicators to move to a predominantly information-based environment and information-centred economy of communication which is user-centric and group-based,
- as such, it contributes in a non-trivial way to the sustainability of any NL which participates in such networking, for it provides every communicator with a very rich communicative domain, both resource- and practice-wise.

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Natural language as (inter/trans)acting

As an important dimension of Nature, a single seed's power is contained not so much in its shape but in its potential to go into an appropriate 'executive' action once it has met a proper external environment, that is, once it has been deposited in the proper kind of soil. The 'seed as acting' is, therefore, an appropriate framework for considering the value of the seed as a design tailored to do appropriate acting. The same may be said about any living natural language which may be likened to a seed and the seed metaphor may be thus easily applied with respect to an assessment of language's values. The seed metaphor would not in this case be a distortion of the entire linguistic setup. On the contrary, the metaphor may be applied to 'language as acting', whereby the natural language's potential is best resolved with reference to what it can do in favourable (both social and cultural) conditions. In other words, any natural language is provisioned with the potential to participate in social-cultural actions, that is, to do multiple communicative-informative services across cultural-linguistic communities, no matter how large or how small they happen to be, or, simply, to serve as an interacting and transacting device which has been designed to do the job.

In the above perspective, any natural language may be conceived first of all as 'being at our service' and as being able to provide various benefits to their users (i.e. the entire population of transcommunicators). Thus, the transcommunicators are directly involved in and directly responsible for enhancing the 'natural language serviceability' by both increasing trade-offs between various micro services across the communicative niches (see also Chapters XII-XIV) and integrating the following parameters: availability of language and non-language resources, reliability of the resources, and usability of the resources. In this way, an important aspect of human well-being, that is, the 'communicative well-being', may be secured.

One of the fundamental conditions of natural language existence is that it be used by the transcommunicators in various social environments (tradi-

tionally referred to as 'social contexts') in order to enable the transcommunicators to carry out multiple services in various communicative acts, whether commissioned and thoroughly planned or not. Technically, the notion of 'natural language action/use' may be understood as including a whole pattern of mental-physical actions to be triggered when a particular language is charged with communicative services (i.e. communicative tasks). Among the mental actions, one may include the following operations: planning an utterance in response to both communicator-external and communicator-internal stimuli, selecting and retrieving lexical units and appropriate syntactic structures for an utterance, assembling the retrieved units into a more or less coherent message.

On the other hand, among the physical actions one may include the following: expressing the (un)planned message whereby an appropriate modality (i.e. either the audio-vocal modality or the visual-tactile modality as the major human communicative modalities) is activated, and evoking singular or collective responses such as communicating emotions, beliefs, opinions, etc., with ease, success and comfort on the part of the addressees.

Moreover, in order for such parameters of communication as efficiency, successfulness and comfort to materialize and for the communicative services to run smoothly, the transcommunicator's linguistic-communicative potential must be developed into and be characterized by a proper degree of richness (size and quality) of language and non-language resources to which the transcommunicator has access as opposed to 'language (linguistic) poverty'. The latter is viewed as a definitely serious hindrance to a smooth transcommunicator functioning in various types of public space (see also Chapter XXIV).

Subsequently, the opposition 'rich resources - poor resources' is burdened with the opposable degrees of performative/expressive freedoms whereby the relations between them is such that the presence of rich resources (i.e. resource endowment/resource abundance) implies (and, may be, even guarantees) the occurrence of a higher degree of expressive freedom in communicative practice. It is, therefore, through the language and non-language richness that any natural language - understood as acting - may be properly envisaged as being basically determined by the macroeconomy of language and non-language resource richness.

All in all, any NL participates in human acting which may be understood as the inter/transacting process in which any NL appears to be:

- a properly designed tool which is at the disposal of a particular HCA, or, more precisely, as a means used in order to react (i.e. receive and understand the messages produced by other HCAs) and act out (i.e. craft or engineer appropriate messages (which can be: creative, imagi-

native, aesthetic, motivated, successful, comfortable), or perform, appropriate messages in the public space. In general, the messages should all be characterized by: pattern maintenance (structural stability), intentionality, goal attainment, and necessary adaptations to the proclivities of the ever-changing environment.

In this way, any HCA, properly equipped with a NL and as an enhancer of the acting process, becomes a social-cultural-linguistic-communicative actor. As such, s/he should be able to function as:

- a master of the cultural, linguistic and non-linguistic resources,
- a master of the acting process (as defined above),
- a master of the environmental resources, that is, a transcommunicator who is capable of proper environmental management which should be further characterized by such parameters as: environmental adjustability, inter-communicator alignment, (multi)actor-attentiveness, and general audience-sensitivity.

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CHAPTER NINETEEN

The Tower of Babel and ecolinguistics

The story of the Tower of Babel is, despite common beliefs, not only in the literal sense about the people of Shinar in Babylonia who decided to build a colossal sky-scraping and heaven-reaching tower. It is also, perhaps above all, about an implementation of an idea which may be entertained in the ecolinguistic perspective, that is, of constructing an edifice whose sole purpose has been to integrate the global transcommunicators in the never-ending, and thus never accomplished, communicative enterprise of creating the new communication order in which all the transcommunicators would be busily, intentionally and, therefore, self-consciously, involved in communicating across all possible available communication orders. Such a construction would, most optimistically and logically, involve all humans in avoiding the negative aspects of the clash of civilizations and in keeping the transcommunicators away from any crises founded on culture and language.



Fig. 13. The Tower of Babel painted by the Flemish artist Lucas van Valckenborch (source: Internet: Valckenborch_babel_1568_grt)

The 'confusion of tongues' (understood here as the fullest possible diversification of NLs in the NaLGA) described in the Book of Genesis would not, in this case, represent human misery vis-à-vis god's omnipresence and might, but, on the contrary, it would epitomize a collective effort on the part of all the transcommunicators to continue building such a global cultural/ethnic/linguistic edifice, or a globally friendly habitat for the institution of the hybrid transcommunicator characterized by the following major parameters: global, social, cultural, transconnected, knowledgeable, outspoken, flexible, mobile, effective, successful, comfortable, concerned, and wired.

In this sense, the Tower of Babel should clearly be regarded as providing an excellent metaphor for this gigantic and on-going human project whose deeply ecolinguistic nature is self evident, for it focuses on the sustainability (preservation) of the phenomenon of the 'confusion of tongues', once regarded a misfortune but today being definitely regarded as a source of humanity's unquestionable cultural-ethnic-linguistic wealth and diversity. Also in this sense, the preservation of the metaphorical Tower of Babel remains a great challenge and obligation to all humanity's persistence in exercising individual transcommunicator's generosity and social cooperation, despite the truly dim prospects for many small (and therefore high-risk) languages whose presence in the NaLGA may soon be terminated due to a number of reasons already discussed earlier in the book (see Chapter XIV). Needless to say, ecolinguistics takes a vivid interest in the process leading to and possible outcome of the realization of the global Tower of Babel as outlined above.

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What 'kills' a natural language?

Natural languages like biological organisms are subject to a plethora of environmental pressures which may be either positive in the sense of strengthening them or negative, that is, they may function (in the long run) as detrimental (see 'natural language robustness' discussed in chapter XIV). In the latter case, any natural language whose degree of robustness has been demonstrably lowered may suffer weakening, even to the point of 'linguistic genocide'. Among the major factors which contribute to language weakening, including the extreme case of 'language death', are the following: biological, social, cultural.

They are briefly characterized below.

The biological factors contributing to natural language weakening and loss (language death)

One of the most decisive factors contributing to 'decimating' a natural language and pushing it, as it were, to the endangered language zone or removing it from the NaLGA completely is population-based. Thus, if a population of NL communicators is shaped in such a way that no natural successors are available and first language acquisition simply becomes void, such a language is likely to vanish from the NaLGA. A process of this kind is irreversible (see e.g. Evans 2001).

Another very important 'contributor' in weakening, if not removing language potential and any particular natural language from the NaLGA altogether, is connected with all those particular HCAs who suffer from various language impairments, either congenital or acquired, that is, owing to developmental, neurogenic or psychogenic causes. Thus, any HCA who may be characterized by various more or less permanent language and speech disorder(s) is automatically regarded as the HCA whose contribution to linguistic communicative practices is more or less reduced, if not made completely impossible in extreme cases.

The range of negative possibilities is indeed very broad and extends from various mild disorders to very grave degrees of language impairment, where the development of normal linguistic/communicative competence and subsequent use of a language is simply not possible (cf. Blumstein 1973; Kertesz 1979; Aronson 1980; Puppel 1992; Verhoeven and van Balkom 2003; Perkins 2007; Volkmer 2013; Loukusa et al. 2014). The various well-documented impairments comprise: autism, hearing deficits, voice disorders, aphasia, dyslexia, dysphasia, dysarthria, dyspraxia, dementia, echolalia, Asperger's syndrome, cri du chat syndrome, Down syndrome. They all contribute either to lowered or to radically reduced potential for communicative practices by means of language resources on the part of the individual HCAs who may be affected by any of the above mentioned impairments.

The social factors contributing to natural language weakening and loss (language death)

Among the most significant social factors which may contribute to NL weakening and loss are connected with the social evaluation of a given natural language. Thus, it may so happen that a particular language may not receive enough social (including political and administrative) support in a particular ethnolinguistic community and may therefore become jeopardized as compared to other more fortuitous and more robust natural languages (see e.g. Ehala 2009). This fact may be due to a number of reasons, such as: the language's extremely small size (i.e. small linguomass), the language's status of a minority language (sometimes also regarded as an unofficial language) vis-à-vis a majority language (usually regarded as an official language), dispersion of the language from the language's core to the periphery(ies), and collective/individual language awareness problems. The latter may comprise the following:

- a negative emotional profiling of the language by its native users (the so-called 'emotional deterioration' of a NL) resulting in reduced incentives to use it actively,
- lack of caring for the language on the part of the native communicators and entire cultural-linguistic communities resulting in the lack of promotion and conservation of the language,
- placement of the particular language resources and their use exclusively in the daily routine and general culture niche (see Chapter XIV),
- exclusion of the language from the formal educational system(s) and mass communication.

The cultural factors contributing to natural language weakening and loss (language death)

The cultural factors which may contribute to NL's overall vulnerability and which may, therefore, be regarded as affecting the gradual weakening and eventual loss of a NL may, among other factors, comprise the following:

- cultural subjugation of the language to an invading heavy/strong/robust/dominant language expressed by the native communicators' positive profiling of the invading language and their readiness to assume a favouritist approach to the invading language and make more or less uncontrolled (and unjustified) lexical importations to their native language(s),
- ethnic assimilation resulting in abandoning the native language (especially under the conditions of peripheral spread of the language owing to migratory processes),
- decreasing native culture-language awareness resulting in various forms of depreciation of the native culture-language complex and inability to counteract the overall devastating processes of the so-called 'language shift' (cf. Fishman 1991), and
- subsequent diminution of cultural prestige of the affected language and of the entire cultural-linguistic community.

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Grounding natural language

For a natural language to be fully operational (i.e. attaining and being of full HCA serviceability), it must be properly 'grounded'. This metaphor is based on the agrarian concept of seeds being grounded (or 'sown into') in the soil before they grow into plants (cf. Raven et al. 1981). One may envisage at this point that for a natural language to be properly grounded, it must be grounded, as it were, in three types of 'soils', the biological (i.e. mental) soil of the brain, the social 'soil', and the cultural 'soil'. Together, they decide about the semiotic/semantic grounding of every natural language.

The biological (mental) grounding of a NL: the biological 'soil'

Human language as a naturally evolved means of communication is managed by the human brain, the most complex biological device attested thus far in Mother Nature. According to the universally acknowledged accounts of how the brain works with relation to language and language grounding in particular, one may state that its nature (i.e. structure and functions) is distributed over the entire expanse of the brain as a part of the human body (human embodiment) which involves gigantic neural network connectivity, with its connectivity patterns activated and operating among the various processing units (also referred to as 'modules'). The entire expanse of the brain is busy in the cognitive-semantic operations fundamental to any linguistic-communicative behaviours performed by the HCAs which always take place under constant pressure of the environment, both internal and external.

Taken as a triune ensemble of the physical structures of: (1) the brain stem, (2) the limbic system, and (3) the cerebrum, the human brain is involved in grounding any natural language in three major dimensions: the dimension of physiology (expressed by the perceptive/productive potential), the dimension of emotions, and the dimension of reason (see e.g. Kral and MacLean 1973; MacLean 1990; Sagan 1977). These are, in turn, reflected in

three cognitive-linguistic dimensions which holistically cover appropriate linguistic resource dimensions/spectra: (a) the physiological part present in the semantic-lexical dimension of linguistic-communicative experience, (b) the emotional part present in the semantic-lexical dimension, and (c) the logico-philosophical part present in linguistic-communicative experience. All three are synergistically involved in shaping the HCA's overall linguistic-communicative competence and experience. Subsequently, the rather restricted, species-specific biological identity of a HCA is established.

The social grounding of a NL: the social 'soil'

The social grounding of any NL involves the presence of what may be called the social 'soil', marked by a more or less rich social structure (i.e. population size and functional composition) as an additional and necessary precondition for that type of grounding (cf. Halliday, 1975; Halliday, 2004).

The social grounding of a NL involves, among other phenomena, the need to both 'semiotize' it (i.e. place language in the semiosphere as a indexical/iconic/symbolic communication system) and 'semanticize' it (i.e. relate the formal lexical units to actual physical dimensions of the world and to the various discursive context-driven elements), as well as to place language necessarily in the 'expression-content' bond.

Any NL which has been semiotized/semanticized and put into the 'expression-content' bond is ready to be 'sown', as it were, among all the HCAs participants of the 'social life of language'. Its 'seeding' is thus properly secured. Subsequently, the less restricted (i.e. socially changeable) social identity of every HCA is thus firmly established.

The cultural grounding of a NL: the cultural 'soil'

The cultural grounding of a NL involves the presence of what one may call the 'cultural soil' marked by unavoidable and more or less rich cultural substance which is, in turn, determined by such elements as: inevitable ethnicity (ethnic background) of every HCA, his/her culture-language awareness, and maintenance of an emotionally positive/negative evaluation (i.e. profiling) of a NL by a particular HCA (or by the entire cultural-linguistic community).

It should also be added that any natural language occurs (i.e. is immersed) in a given culture system which may either constitute a closed (and therefore restricted, unchanging and highly predictable) system or provide an open (and therefore unrestricted, constantly changing and unpredictable) system. In the case of a 'closed (i.e. homogeneous) culture system', culture is

in a well-defined steady state characterized by the following dimensions: constant culture volume, stable and unexpanding communicative media, and homogeneous mixing of intergenerationally determined cultural-linguistic resources.

On the other hand, an 'open culture system' is overall never found in any prolonged steady state, whereby there constantly occur undefined changes dependent on a rich variety of factors. One may, therefore, say that an open culture system remains open under varying conditions of continuously changing culture volume, expanding communicative media, and heterogeneous mixing of cultural-linguistic resources.

It is also important to stress at this point that the ecologically significant situation concerning the grounding phenomenon is the following: owing to the inevitable culture-language contacts (i.e. the inter/trans types of contexts), the steady state condition is not reached, although various transient stages are formed, thus keeping all cultures and languages afloat in what may be referred to as the 'pelagic open ocean', that is, keeping all cultures in maximally open culture-language spaces, which naturally favours a continuous mixing of the various constituents. Subsequently, the least restricted (i.e. most changeable) cultural identity of every HCA is established.

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The ecology of transcommunicator meetings

Any NL most naturally 'blossoms' (i.e. lives and survives in the best of its shapes) in the social-cultural dimension where the particular communicators may (and do) demonstrate the proper size and sophisticated quality of their cultural, linguistic and non-linguistic resources. The public space which in communicative terms is the space for various communicative encounters, both planned (i.e. commissioned) and unplanned (i.e. spontaneous), offers a wide range of possibilities for exercising the communicative prowess (its opposite value is that of feebleness) of the particular HCA. In this perspective, the public space acquires the status of a meeting place where the individual HCAs get together and perform a plethora of interpersonal functions ranging from being active 'performers' to being more or less passive audiences, including the linguistic-communicative resources and functions.

One may envisage that the public space – as above all its subspace, the meeting place – may be further approached as being characterized by some kind of 'meeting ecology' (as being an integral element of human ecology and human ecosystem) which, in turn, properly determines the 'meeting landscape'. Both terms imply that the particular HCAs are busy participating collectively in manufacturing an ecological design of interpersonal relationships energized by various contexts (i.e. situations which contribute to external environmental determinism) while 'pouring' to that type of ecology the communicative energy and linguistic and non-linguistic 'nutrients' in the form of various communicative chunks of discourse, as well as establishing a diversified mosaic of individually-marked communicative behaviours which may belong to three different communicative niches (as discussed more thoroughly in Chapter XIV). The above may be regarded as contributing to the conditions of the ecology of meetings (see also the concept of 'linguis-

tic commons' discussed in Chapter XV) as one of the basic dimensions of the uniquely human linguistic-communicative predicament.

Under the conditions of the ecology of meetings, the various meeting places are most naturally turned into more or less temporary and highly dynamic assemblages/mosaics as expressions of the various 'linguoscapes' (linguistic landscapes) as subspaces of the NaLGA, which is filled with the individual HCAs who may in this way form enlarged information exchanging spaces.

In these spaces, the properly grounded and ethnically/nationally tagged linguistic and non-linguistic resources are evoked and assembled (or pooled up) in order to be activated and used in a plethora of communicative behaviours across all the communicative niches by the interacting HCAs as participants of various communicative acts (see also Chapter XXVIII).

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Parameters of a successful natural language

In the NaLGA, all natural languages tend to maintain inherent identity which may be quantified as either obtaining maximal or minimal values within the collective notion of natural language robustness. Therefore, a NL which is branded successful is the one which manages to maintain the highest degree of identity quantification with respect to a number of parameters. These parameters comprise the following:

1. **Isolated language:** it is maintained and developed under the conditions of there being no external influences that would be exerted on the language which may be voluntarily isolated (as has been the case with the languages of uncontacted tribes). Or, in other words, there does not occur any form of 'external linguopressure' that would alter the language in any way. In this condition, any NL's purity and stability against unwelcome influences is tightly secured. Another term for isolated language may be 'resilient language'.
2. **Secret language:** it is not a language which is easily exposed to the rest of the world of human communicators operating in the NaLGA. Such a language, which is left only to its non-contacting users and therefore not 'contaminated' through contacts with other linguistic communities, is only available to the outside world through deliberate seeking by the members of other cultural-linguistic communities.
3. **Beloved language:** all sectors of a cultural-linguistic community love to use such a language for all possible communicative tasks, including the aesthetic manifestations. The love of a language also includes a massive support of the language by members of the cultural-linguistic community in developing and sustaining its linguistic resources, both via institutional and individual communicator activities. The presence of a language which is loved by its native users

does contribute to the overall economics of happiness and psychological wellbeing of a given cultural-linguistic community.

4. **Sacred language:** it is a manifestation of language which is strongly associated with religious worship. This is why linguists make a distinction between 'sacred language' and 'vernacular language'. The former is ascribed with virtues that the latter does not have. More precisely, what makes a language sacred is that any sacred language is vested with solemnity and dignity both in oral forms (oral prayers and liturgical formulae) and graphic/written forms (sacred texts) of its manifestation. The vernacular manifestations of a natural language lack the above characteristics.
5. **Semantically adequate and useful language:** it is used in all possible dimensions and registers of (trans)linguistic interactions and across all the communicative niches. Furthermore, it represents communicator-external and communicator-internal reality adequately well. In other words, it allows for a mentally adequate construction (reflection) of the world.
6. **Gifted language:** it is voluntarily and informally transmitted by the primary caretakers (i.e. parents, grandparents, elder siblings and other family members) to children in the totality of the audio-vocal modality as a gift, including other communicative modalities. Together, they form the primary communicative potential of the child which is further processed in the formal schooling system.
7. **Diligently acquired language:** children acquire it as their first language diligently and without any inhibitions from their primary caretakers and through a plethora of spontaneous interactions with their caretakers, peers, as well as from various formal educational institutions geared towards the native language learning tasks.
8. **Formally transmitted language:** it is the language used on all possible levels of formal education as a language of instruction and the means accompanying an individual communicator's personal growth.
9. **Durable language:** it is characterized by a longitudinal (i.e. cross-generational) span. In most oral languages (i.e. in the primary oral communication order), the span is usually documented by a well-established and biogeographically determined lore. In graphic/written languages (i.e. in the secondary graphic/written order of communication), the span is documented by a whole tradition of book printing. Moreover, an unperturbed first language acquisition is the most efficient indicator of any NL durability, whereby an earlier version of the language, used by the preceding population (i.e. the parents and

grandparents), is naturally succeeded by a renewed version used by the succeeding generation (i.e. the children and their peers).

10. **Uniting language:** it is the most important element of social/ethnic/cultural integration (i.e. binding) of all the communicators functioning in a given cultural-linguistic community.
11. **Ornamental and ritual language:** it is used for the purpose of aesthetics (i.e. aesthetic expressions/displays) in such cultural-linguistic-communicative activities as poetry, singing, lore, and various ritual purposes (e.g. religious) as well as for the purpose of satisfying the needs of a given cultural-linguistic community. It is especially relevant in and responsible for maintaining a positive 'visage' of a cultural-linguistic community vis-à-vis other cultural-linguistic communities which participate in the NaLGA.
12. **Healing language:** it may be used to heal the members of a cultural-linguistic community. In other words, a given NL may be used by its members in various therapeutic applications.
13. **Cooperative language:** it is not exposed to (or is in contact with) other natural languages in the win-lose relationship (i.e. on a competitive superstratal-substratal basis), such that as a result of language contact, it may be weakened or replaced by a 'stronger' language in an operation referred to as 'language shift', or even lost irretrievably.

Furthermore, in the confines of a given cultural-linguistic community, it is a language which provides a whole plethora of communicative services and generally serves the purpose of providing interpersonal bonding and cooperation and exchanges (transactions) as well as the realization of various social opportunities. This overall criterion of NL practicality is realized through a more or less tight communicator network (see also Chapter XVII).

14. **Safe language:** it is not jeopardized by weakening (due to demographic and psychological-evaluative measures) and various deethnization/decline/extinction processes. Thus, a safe natural language is not a high-risk language whose existence in the NaLGA may be jeopardized due to negative demographic tendencies or by the free-riding, as it were, of the heavy languages on the receiving language linguistic resources in the conditions of language contact and the concomitant development of excessive psychological favouritism of such languages by the receiving cultural-linguistic communities.
15. **Recorded language:** it is a language which in its history has been successfully recorded (i.e. archived) by means of a graphic system (writing, printing). Subsequently, a strong tradition of its maintenance/preservation (in a cross-generational span) in the graphic form

has been developed and sustained. This may result in the maintenance of a high visual culture of such a language.

16. **Seeding language:** it is a language which has been successful in obtaining an overall positive (praising) profile in the NaLGA from the non-native communicators (one may call this phenomenon 'The Welcome Tag' which is attached to such a language) and has thus obtained permission from other cultural-linguistic communities to be learned and used by their members in a variety of ways. A seeding NL is also the one which has become successfully acknowledged as a 'soft invasion language' (i.e. whether invading another habitat unintentionally or fully intentionally). Needless to say, in the ecolinguistic perspective outlined in the present book, the safest framework for seeding a particular NL is via the transcultural/translinguistic framework of connectivities among the transcommunicators.
17. **Robust language:** it is a healthy, powerful, and living (i.e. both cross-generationally renewable and semantically adaptable) language where the degree of its robustness is inversely proportional to its sustainability.

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Natural language sustainability and the public space

Any natural language (NL) depends in its prolonged duration on the shape (i.e. the quality and structure) of the public space as a form of collective cultural-linguistic-communicative experience. One may distinguish two types of public spaces: (a) the private space of the family which is the kind of a primary social-cultural space and which is restricted in character in the sense that it is not readily open and accessible to all HCAs, and (b) the (maximally) open space (both physical and virtual) which, in turn, is the kind of derived social-cultural space that is readily accessible to all the HCAs, irrespective of ethnicity, gender, race, age, religion, and socio-economic standards.

Both types of public space constantly interbreed and cross-fertilize and thus conform to what may be termed the 'great culture-language sustainability potential'. They are, therefore, not only universal but they also appear fundamental in contributing in and operating towards the preservation and dissemination of NLs (see also Chapter XI). Moreover, the public space is an integral part of the NaLGA in which all NLs co-occur and function. Taking all the above into consideration, it appears relevant to briefly outline the public space in terms of some of its design features.

Public space design features comprise the following:

- (a) public space is either socially restricted (e.g. the private space of the family) or socially maximally open (e.g. the public physical and virtual agora). In other words, public space is human communicator-oriented and is, therefore, completely socially and culturally inclusive,
- (b) public space is a gathering place where people can meet and where they can exercise contact with nature and get involved in communicative activities with other HCAs (both planned/commissioned and unplanned/spontaneous), which in terms of maintaining communicative practice is particularly valuable (see Chapter XXII),

- (c) public space is the kind of communicative space where the boundaries between social isolation and social contact may be blurred and easily crossed both ways, i.e. from isolation to contact and from contact to isolation,
- (d) public space, especially of the open type, is the space which encourages the maintenance and spread of any natural language via a diversified set of communicative activities occurring between/among the contacting transcommunicators,
- (e) public space, especially confined to its urban design, that is, to a diversified 'public urban landscape', which is expressed in the totality of various subspaces, such as streets, sidewalks, plazas, parks, squares, gardens, shopping centres, and the entire urban infrastructure, serves to help in designing the diversified and strongly participatory communicative activities which, overall, fundamentally contribute in sustaining a given NL (see Chapter XXVIII),
- (f) public space is the space which is both generous and capacious enough in allowing all the HCAs to form and participate in more or less complex social-cultural-linguistic-communicative networks (see also Chapters VI and XVII). These networks, occurring both in the physical and virtual environments, allow for and encourage a wealth of communicative encounters and communicative behaviours. One may, therefore, say that every HCA is immersed in the whole 'wealth of interbreeding networks' which operate in the space commons and through which s/he is capable of both rehearsing the available cultural-linguistic-communicative resources, while maintaining his/her ethnic/cultural/linguistic/individual identity, and automatically contributing to the overall criterion of NL robustness.

One should also emphasize that, generally, the bigger is the network in which a particular HCA actively participates, the greater are the prospects for individual communicator language use, increased linguistic-communicative productivity and resultant overall NL sustainability. Subsequently, the size and diversity of networks, as defined above, in which the particular HCA happens to be immersed, define the individual transcommunicators' depth of social networking and the maintenance of his/her richness/poverty of language resources (see also Chapter XVIII),

- (g) public space, especially the urban type of space, is in constant flux in the sense that it is the collectivity of all the HCAs who own this space, unavoidably restructure it and constantly redefine it. Furthermore, public space thus defined constitutes the most direct and thus most natural environment for the social-cultural dimension of any NL.

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Natural language as an element of cultural geography

As has been observed earlier in the book, seeds are sown into natural soil. Physical (natural) geography and geology have been informing us about the types of soil which are most favourable to seed reception and seed germination. Every natural language may also be viewed as being sown into different kinds of soil, such as the 'biological soil', the 'social soil', and the 'cultural soil', respectively (see Chapter XIV and Chapter XXI). Collectively, these types of 'soils' either support a given NL and contribute to the maintenance of its robustness or are a hindrance to its sustainability.

With respect to the biological soil, its most favourable state for language reception is the overall unimpeded structure and functionality of the human brain contained and working within the standards of normalcy and health. With respect to the social soil, its most favourable state for language reception and maintenance is the presence of a rich social network in which every HCA is sustained and functions (see Chapter XXIV). Whereas with respect to the cultural soil, it may be stated that every natural language constitutes an indispensable element of the cultural milieu, among other theoretical approaches considered so amply by what has been termed 'cultural geography'.

The latter may be defined as the research discipline which focuses on examining the inevitable liaison between the physical environment of the Earth (the Earth as space) and its interactions with a whole set of embodied phenomena connected with the presence of the human species on Earth (e.g. the Earth as human/public space; see Chapter XXIV), and most notably connected with the complex dimension of diversified dimensions of human culture and natural language diversification which is shown on the map below (Fig. 14).

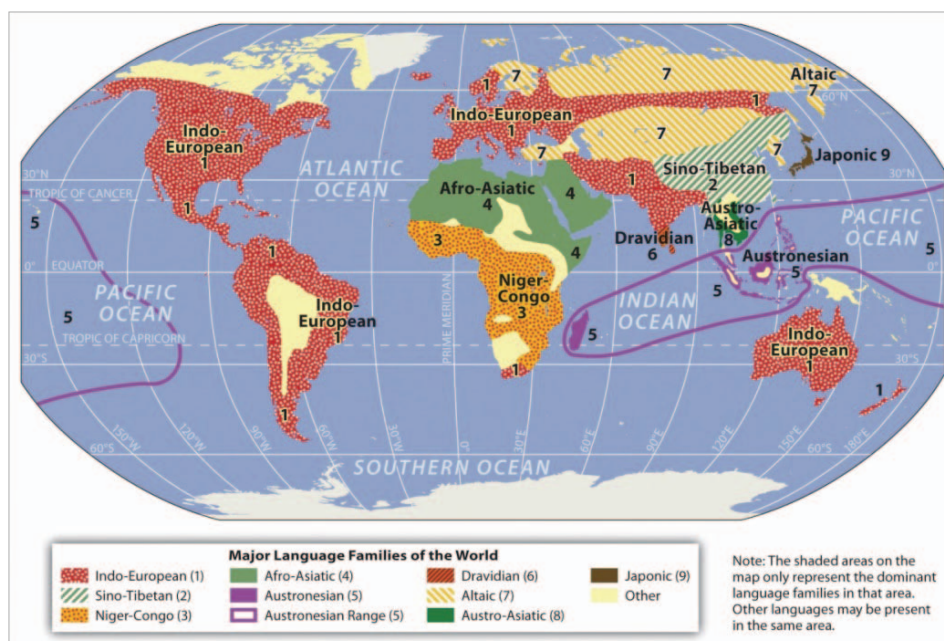


Fig. 14. Major language families and their geographical sites

(source: <http://open.lib.umn.edu/worldgeography/chapter/1-3-population-and-culture>)

In the light of the above, cultural geography appears to be a natural ally for ecolinguistics, for it enables one to view any NL as sown, as it were, into the rich cultural environment (i.e. cultural soil), and additionally to view it as a phenomenon co-determined by a set of cultural geographic parameters. The following cultural geographic parameters may be identified:

- landscape geography where the central role is played by the various forms of 'anthropopressure' (which may be defined as human impact on the physical environment, both negative and positive),
- cultural landscape with the varied manifestations of the human presence in it (especially in the urban-rural environment), and
- the diffusion of diverse cultural/ethnic/linguistic complexes across the universal space of the NaLGA.

It should also be stated that cultural geography, as defined above, most certainly contributes in a non-trivial way to a more thorough exploration of the human world (or, more precisely, the 'human ecosystem'). In particular, it contributes to a more precise characterization of the social-cultural institution of the transcommunicator as a person capable of transcultural, transnational and trans-ethnic navigations, that is, as someone being able to move

(more or less smoothly) across the various 'borders', both geographical (i.e. the physical/tangible dimension) and social-cultural-linguistic-communicative (i.e. the nonphysical/intangible dimension).

As an important practical outcome of cultural geography's research agenda, the above mentioned set of abilities and skills may further be used in order to delineate the normal and healthy profile of every hybrid trans-communicator as sketched by means of the matrix of the transcommunicator placed in the frontispiece of the book (and epitomized by the figure of Atlas).

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The power of language

All humans form a contiguous global community of transcommunicators who are globally transconnected in what has been termed here the ‘universal communication network’ (UCN, see Chapter XVII). As members of the UCN, we have access to all linguistic and non-linguistic resources which we use selectively in countless communicative encounters and communicative acts across all the communicative niches in which we happen to function. Also, while using these joint resources, we behave in accordance with the species-determined premise that ‘the language we use matters’. In other words, we all exercise the power of language as individuals and as cultural-linguistic communities in a number of respects and on a daily basis. In the former sense, we exercise the power of language as transcommunicators who are (or at least should be) capable of functioning according to the parameters expressed in the matrix for the hybrid transcommunicator (see the figure of Atlas). In the latter sense, the power of language is appropriately demonstrated in the NaLGA (as has been shown in Chapter XIV) as the power of a particular language to stand out, as it were, among all the other natural languages. In both cases, the power of language may also be connected with the power of using a given natural language in the service of individual/institutional ‘visage’ (or display).

A beautiful poetic version of what language may mean to us has been expressed in an unparalleled way by Jalāl-ad-Dīn Mohammad Rumi (simply known as Rumi, 1207-1273), a Persian poet, who composed the following love poem:

*You are the drop, and the ocean.
You are kindness, you are anger,
You are sweetness, you are poison.
Do not make me more disheartened.
You are the chamber of the Sun,*

*You are the abode of Venus,
 You are the garden of all hope.
 Oh, Beloved, let me enter.
 You are daylight, you are fasting,
 You are the fruit of misery,
 You are water, you are the bowl,
 Oh, give me some water this time.
 You are the grain of wheat, the snare,
 You are the wine, you are the cup,
 Raw you are, and cooked too you are.
 Oh, do not leave me quite so raw.
 You, the sudden resurrection,
 You, the everlasting mercy,
 You, who comes forth bringing fire
 Into the dry wood of my thoughts.
 You, the chamberlain of the sun,
 You, who merit every hope,
 You, whom we seek, and you who seek,
 You, the end and the beginning.*

Here, I have simply taken the liberty of treating this poem not so much as an unparalleled poetic expression of earthly love but as – above all – an overt expression of a strong affection to natural language and its diverse powers. The poem does so in a breath-taking manner and may indeed be regarded as a masterpiece of metaphorical appreciation for language whose countless many functions have been so skillfully, but quite inadvertently, expressed in Rumi's poem. The powers of natural language lie in the following:

- a) The power of NL in the NaLGA may be expressed most demonstrably by means of the critical priority of position (status) which a given NL assumes in the NaLGA. Thus, in the NL contact condition, it may either enter the more inertial (and thus more natural and more predictable) 'super-stratal' relationship with another language in which case it becomes a dominant/hegemonic/imperial language, or it may enter the inertial (and thus more natural and more predictable) 'sub-stratal' relationship with another language in which case it simply becomes a non-dominant/non-hegemonic/submissive language. The reasons why this is so have been described in Chapter XIV where reference to a number of parameters which form a synergetic design and which jointly characterize a particular NL's robustness has been proposed. As has been shown above, it is the degree of robustness that basically

determines the status which a given NL assumes and occupies in the NaLGA.

- b) The power of NL resources and of their use by and for the transcommunicators is contained in the size and quality of the linguistic and non-linguistic resources which are at the disposal of the particular transcommunicators as well as in the degree of awareness of their prominence combined with the degree of efficiency that each communicator demonstrates in the particular communicative acts. If a view is maintained that the language we use matters, it should also be clearly stated that the linguistic and non-linguistic resources combined together constitute a tremendous 'generic linguistic/non-linguistic potential' which every transcommunicator has access to and is capable of utilizing in communicative acts in the following ways:
- it serves as a vehicle for preserving the human communication system's integrity and purposefulness (intentionality) despite persistent chaos, clumsiness and lack of care usually present in the particular acts of linguistic communication,
 - it serves to ground the transcommunicators in the universal semiosphere, especially in the purely human symbolic dimension in which language occupies a central position,
 - it serves as an identity-forming system/design in that it provides every transcommunicator with the capacity of demonstrating 'semanticity', that is, with being able to make oneself understood by others, as well as with the capacity of being able to adhere to the feeling of belonging to a given cultural/ethnic/linguistic community,
 - it serves to promote a given cultural/ethnic/linguistic community in the sense of preserving its integrity vis-à-vis other communities and preserving cultural-linguistic diversity,
 - it serves to promote the individual transcommunicator as both a 'communicator of reason' (expression of logic and cause-effect thinking present in all kinds of assertions) and 'communicator of affect' (expression of feelings, both positive and negative),
 - it serves to enable, maintain and increase the transcommunicator's self-esteem vis-à-vis other transcommunicators,
 - it serves to empower the transcommunicator in the completion of various communicative tasks by means of diversified communicative styles,
 - it serves to normalize the human communicative services across communities and niches as well as between/among the transcommunicators,
 - it serves to practice all kinds of verbal/non-verbal abuse, such as:

- it serves to stigmatize and discriminate the entire cultural/ethnic/linguistic communities,
- it serves to stigmatize and discriminate the individual transcommunicators,
- it generally serves as a weapon capable of bringing discomfort to (or even injustice) the other transcommunicators through: demeaning, devaluing, disrespecting, ridiculing, offending, judgmentally accusing and violating the integrity of the other transcommunicators. In other words, it serves in practicing the dissonant feelings of hostility, superiority and conquest (dominance) with respect to other communicators,
- it serves to practice various dishonest acts by the transcommunicators such as deception (prevarication), manipulation and seduction through means of rhetorical persuasion and semantic manipulations,
- it serves to practice various assonant (and therefore comforting) healing activities through e.g. 'talk therapy'
- it serves to maintain the transcommunicators' ethnic identity as an important aspect of the transcommunicators' human and language rights.

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The technology of total immersion

‘Total immersion’ is what characterizes every being on Earth. Total immersion may be defined as the law of an unconditional and unexceptional (therefore inertial) participation of ‘every living organism’ (hence ELO) in the totality of conditions offered to ELO by the Earth as the direct carrier of life phenomena in order to sustain every aspect of life on this carrier. Every human communicating agent (HCA) as a hybrid transcommunicator is no exception to the phenomenon of total immersion (see also Chapter XXVIII).

With respect to the HCA, total immersion is realized through a synergy of a number of levels which jointly compose a ‘total immersion design’ and which comprise the following levels:

- the biological level on which every human being obtains his/her biological identity connected with the phenomenon of embodiment and with the genus *Homo sapiens* framing (i.e. with the determining influence of the biological filter of the human genome) and thus performs accordingly,
- the personal level on which every human being obtains his/her unique personal identity connected with the individual psychological framing (the psychological filter) and thus performs accordingly,
- the social level on which every human being obtains his/her social identity connected with the social (i.e. collective) framing through the social filter and thus performs accordingly,
- the cultural level on which every human being obtains his/her cultural identity connected with the cultural framing through the cultural filter and thus performs accordingly.

The entire ‘total immersion design’ may be illustrated by means of the following diagram (Fig. 15, where the particular volumes/sizes of the respective levels expand appropriately):

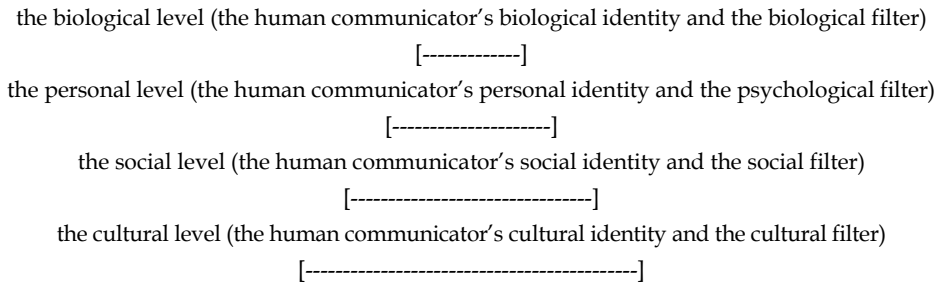


Fig. 15. A multi-storey total immersion design of the human transcommunicators

It is assumed that all four levels contribute to the generation of what may be termed the individual communicator's 'participation culture' (PC) of which a whole complex of 'participation technology' (PT) is a part. The latter allows ELO (including the HCAs) to perform within the synergy of the levels constituting the total immersion design.

PT involves the following sub-technologies:

- (1) sensor-based technology which involves the complex processes of clear reception/perception of the objective reality by means of the sensing apparatus. In the human world, it results in a proper grounding of every HCA in the real world so that a proper (i.e. denotative) semiotic/semantic grounding takes place,
- (2) resource-based technology which involves the navigation of every HCA through the language and non-language resources to which every HCA has direct access. Furthermore, resource-based technology allows every HCA to accomplish countless acts of communication (i.e. performances/expressions) either within the relatively limited communicative fitness of the 'Oskar-syndrome' which characterizes a certain ratio of the HCAs, the flexible communicative fitness of the 'Gulliver-syndrome' communicators, or the most sophisticated communicative fitness of the 'Petronius-syndrome' communicators,
- (3) compass technology which involves the navigation of ELO through the available spatial-temporal dimensions. In the human world, every HCA is thought to be able to navigate through the available language and non-language resources as well as through different types of public spaces in order to generate diversified goals of communication. More specifically, the navigation of every HCA is co-determined by the type of public space in which a particular HCA is currently located. The main types of public space include: the agora, the forum, the arena, the temple, the theatre.

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Malling the world of human communication: the shopping mall as a total immersion communicative design in present-day sedentary and urbanized culture

1. INTRODUCTION

The modern shopping mall (hence SM, also referred to as the shopping centre) which has become a permanent element of city landscape is a particularly interesting case of public space where communication practices are particularly intensive and which are, therefore, of utmost importance to communication studies. The SM has its precursors in the ancient agoras and outdoor bazaars and in the medieval squares of Europe (see, for example, the *Sukiennice* in Kraków) and, more recently, in Paris arcades of the XIXth century, where the merchants as well as the local farmers and craftsmen would put their products on public display and sell them to the needy customers (see e.g. Benjamin, 1999). At the moment, the SMs, while oftentimes being feats of architectural extravaganza, are typically indoor shopping centres (concourses) with sometimes very spacious outdoor areas designed for large parking lots attached to them. Topographically, their location is usually either in the peripheries of large cities (i.e. in suburban districts) or inside the cities in which case we may talk about urban locations (e.g. in central business districts or in other strictly urban locations).

Owing to their size and diversified functions, the SMs are significant nodes of social-cultural, commercial and recreational activities and they have simply become important socio-centric designs, that is, the centres of confluence of social-cultural, demographic, technological and economical

trends cross-running (or 'flowing') through present-day increasingly urbanized society. Subsequently, they may be generically defined as huge (sometimes even colossal) social-cultural-economic-spatial designs consisting of clusters of retailing and social places (e.g. shops, restaurants, bars, cafés, arcades, movie theatres, etc.) which attract and facilitate, or, are based on, transitory purposes, such as huge pedestrian traffic, instant and transient customer connectivity and a generally 'massively collaborative communicative activity' (predominantly of the audio-vocal kind) among the communicators taking place on their precincts.

In the latter sense, the SMs are important elements of urban linguistic landscape and are, subsequently, the places which most naturally serve as gigantic urban transitory depots or meeting arenas and agoras (cf. Orillard, 2008) for scores of individuals (whom one may also call SM wanderers or 'wandering communicators' / *flâneurs*) who frequent them sometimes solely for the purpose of encountering someone else and in order to get involved in talking to each other in countless many face-to-face encounters, both planned and unplanned, most of the time, however, for the purpose of purchasing a commodity. Such a purchase, ranging from a small item such as a book or a small pendant to a large item such as a car is always connected with the consumers' getting involved in a plethora of verbal exchanges of various kinds. These volatile exchanges constitute the very essence of the commercial side of any natural language life associated with a particular SM and which is always immersed in a particular cultural-linguistic setting.

It is especially for this reason, namely for the massive and busy communicative activity mentioned above, that the SM is an extremely interesting domain of research for ecolinguistics and for communicology, in particular. Communicology has been shaping its interests around the generic concept of 'massive communicative activity' also taking into its research perspective the fact that the SMs as very special 'heterotopias' (cf. Foucault, 1994) do provide such a strong case for human communicative activities.

Whereas, ecolinguistics has propelled its interests around the concept of massive communicative activity taking into its research perspective the fact that the SM constitutes a very efficient framework for enhancing, preserving and developing the linguistic resources of the individual communicators, precisely via countless communicator encounters both in commercial and non-commercial discourses (see e.g. Papen, 2012), necessarily with the multimodal and diversified linguistic material in the background. Within the confines of the SMs, the material is permanently put on display in graphic designs (in the form of a rich variety of (sometimes even multi-linguistic) advertisements and various other graphic-visual means, in which case one



Fig. 16. The shopping mall (SM) as a place of massive communicative encounters

may talk about 'the shopping mall as linguistic landscape'), as well as it is activated in a multitude of predominantly spoken encounters (see Fig. 16).

As has been stated above, the phenomenon of the SM is thus worthy of utmost attention on the part of both ecolinguistics and communicology (Puppel, 2008), for it happens to provide a communicative design of a very complex nature in the present form of sedentary (i.e. urban) culture which has managed to become the prevailing type of human culture since the nascent of agrarianism and, later, of the cities as nodes of dense communicative practices. It is also worth the while as a part of the communicology's research agenda, for the SM is a provider of a huge arena for massive communicative encounters which, in turn, contribute lavishly to the sustainability of natural language resources within the largest of all of the human communicative niches, that is, in the daily routine and general culture niche.

In this sense, the SM appears to act as an important ally to a given native language and to research in the field of ecolinguistics which is most naturally concerned with the question of the preservation of living languages. Thus, the fact that we entertain ourselves via frequenting the SMs has turned out to be of great relevance both to ecolinguistics and communicology.

2. THE SM AS AN INDICATOR OF 'METROPOLOEPITHYMIA'

The continuous urbanization of human social life (with all of its diversified social-economic-cultural-industrial-political-religious attractants) of which one selected example is a massive presence of SMs on a global scale, primarily dictated by the properties of the business-oriented and sales-centred corporationism, has gradually led to what may generically be called the phenomenon of 'metropoloeipthymia' (or the desire of the city, the desire to live in the city, also everybody's right to the city).

It is manifested in a growing power and attractiveness of the city as a triumphant human-centred system, that is, as a complex and dynamically expanding form of social/economic collectivist life and also as providing a number of diverse communicative functions as a place for tacit learning, innovation and creativity (see e.g. Bunnell, 2002; Glaeser, 2011).



Fig. 17. A XIXth century figure of a flâneur introduced into the context of a modern city
(source: Storan, N. 2011)

At the same time, the SM serves as a gigantic magnet, may be even verging on becoming some kind of a modern semi-sacred place (see e.g. Pahl, 2003a; 2003b), which has been attracting ever growing numbers of human population the world over who have decided to participate in 'urban tourism', but who have also decided to dwell and stay in the metro/mega city (see e.g. a classical study by Davis, 1955; Mitchell, 2003; Spencer, 2015).

Metropoloeipithymia may be summarized in the following observations:

- (a) cities are gradually becoming home to the majority of the human race,
- (b) the modern 'flâneur' (or a stroller/walker in a modern urban context) has become the symbol of the modern communicator's metropolitan individuality and identity (see e.g. Simmel, 1969; Tester, 1994) as well as of sustainable tourism, and
- (c) the modern flâneur is an urban beneficiary in that s/he is bound to enjoy the various services of the city, concentrated in the SM, which has thus become a successful provider of diversified communicative niches, as well as of genuine and sustainable communicative practices.

Indeed, the available data suggest that the urbanization ratio is now favouring the city dwellers by 53% as opposed to the population which inhabits the rural areas (see e.g. 2015 *World Development Indicators: Urbanization*, where this figure has been given). In addition, the above picture must be completed by information concerning the emergence of megacities (from Greek 'megalopolis' which indicates a very large place inhabited by humans).

Today, at least 13 urban agglomerations have reached the status of megacities where the number of inhabitants has exceeded 20 million (for detailed statistics concerning all cities exceeding one million inhabitants see e.g. <http://citypopulation.de/world/Agglomerations.html>; also Liotta and Miskel, 2012). The following megacities have been enumerated: Canton, Tokyo, Shanghai, Jakarta, Delhi, Seoul, Karachi, Manila, Bombay, Mexico City, New York, São Paulo, Beijing.

The metropoloeipithymia mentioned above is first of all expressed in the desire of the present and future city dwellers to look at the city as an inevitable socio-cultural-economic structure in which everyone exists or should sooner or later be doomed to exist. Subsequently, one may refer to the phenomenon in question as the emergence of *Homo urbanus* who has become an important constituent of the human ecosystem.

In the more narrow confines of ecolinguistics and communicology, the above mentioned phenomenon of metropoloeipithymia is assumed to be a clear manifestation of the human transcommunicators' desire to stay as close together as possible, so that gigantic 'swarming' (or 'banding together', or as has also been named 'forming urban tribes') of the human transcom-

municators is possible in diverse manifestations of city sociality (on 'urban tribes' see Maffesoli, 1996; on the phenomenon of 'swarming' see e.g. Bona-beau et al., 1999; on 'banding together' especially in popular music, see Lena, 2012; on 'food consumption', see Johnston and Baumann, 2015).

In this way, the city may be treated as an extremely 'thick' (i.e. dense and diverse) centre of sociality and an extremely important existential space, as well as one of the engines of contemporary culture and culture industry (see e.g. Norberg-Schulz, 1971; Adorno, 1991; Kotkin, 2005; Marsh and Onof, 2007; Schliephake, 2014). Moreover, since it has been providing an arena/agora for the continuous metropolitan spectacle of diversified communication events, it has become a magnet of interpersonal interactivity and a hub of countless encounters and communication acts by means of all the communication orders available to the individual transcommunicators.

In other words, it is in the city that natural language resources are on continuous public display and in continuous and massive use. In the particular instance of the SM, language happens to be on continuous display, for it simply supports the surrounding shops which are busy displaying a diversified richness of commodities always immersed in language. In fact, within the SM design, commodities and language mostly come in 'commodity-language' integrative packages where the commodity part is a very distinct commercial enhancer of all kinds of communicative customer-assistant exchanges basically held in a native language. Put simply, the SM constitutes an extended (i.e. augmented) urban and suburban space for linguistic activities of the communicators as prospective buyers and consumers where the commodity and various forms of oral/graphic communications operate hand in hand.

3. THE SM AS AN ARENA FOR NATIVE (LOCAL) LANGUAGE MAINTENANCE

The fact that most communicative exchanges which take place on the precincts of the respective SM are conducted in a native language definitely has a major bearing on the maintenance of the native language. In this way, it must be emphasized again, the SM is indeed a very strong and a very prominent centre for native language sustainability/maintenance (perhaps most notably within the daily routine and general culture niche, see Chapter XIV above) together with other city topologies and ecotourist sites where more or less intense human swarming and its effects can be attested (see Jacobs, 1984; Jacobs, 2006; Jacobs, 2012; also Chapter XXXIII).

Subsequently, the SM is, by its very nature, destined to be one of the major factors in the production and dissemination of what may be called the 'global commodity culture' which is founded on the overwhelming presence of commodities of all kinds. Thus, its Janus face shows up very demonstrably, where on the one hand, it serves to introduce and disseminate the globally standardized commodities, and on the other hand, it demonstrably serves to preserve the richness of the local languages through all kinds of commodity-oriented verbal exchanges taking place on its precincts on a daily basis.

Needless to say, these exchanges, their frequency and volume, additionally strengthen the phenomenon of metropoloeipithymia mentioned above, in which case one may talk about metropoloeipithymia-oriented swarming effects of the transcommunicators, not only within the confines of the particular city organisms but also within the global confines. In this case one may indeed dare talk of the 'global flâneur'.

In the context of the phenomenon of metropoloeipithymia described above, a particular native language which is so intensively exercised on a daily basis in the general arena of the SM receives a very strong support for its maintenance. It comes in a rich variety of forms including oral-verbal and graphic-verbal/iconic exchanges among the transcommunicators. Together, they form what may be referred to as a very profitable 'performative/expressive/preservative framework' in which the particular natural language happens to be immersed. The SM as a smaller spatial/territorial unit (as opposed to the nation-state) is today perhaps the best and most diversified communicative design in which what is global (i.e. the global range of commodities) is so fortuitously unified/allied with what is local (i.e. the local cultural-linguistic milieu) and where the local language preserving power of the many wandering individual transcommunicators (see Rheingold, 2002) has reached its peak, especially in the daily practice of activating the native language resources.

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On managing diversity

In most general terms, diversity appears to be a key concept in any ecological considerations. Quite understandably, they are focused on the more or less visible diverse forms of life, that is, resources and environment, and are, therefore, concentrated on the presence of a diverse and 'maximally complex natural landscape'. The latter is further based on what may be referred to as some kind of a 'holistic admissions program' implemented by Mother Nature. The program allows every single species to enter it and remain within the confines of the Earth's landscape just on the mere basis of their being different (or 'dissimilar'), whereby each one of them is granted by the Earth's ecosystem equal survival opportunities. This very fact constitutes the essence of the global (i.e. Earth's) diversity, equality and inclusion pattern of life (hence GPL).

Within the much narrower human perspective, diversity may also be considered to be one of the key concepts for a proper understanding of the 'human ecosystem', for it encompasses noticeable differences in at least such dimensions as: age, gender, race, individual physical fitness, religion, socioeconomic status, education, local culture (region of origin and everyday life), quality and size of language resources, natural language awareness both in terms of its robustness and its place in the NaLGA (see also Chapter IV on linguonomics and linguolabourese).

It, therefore, appears critical to all the human transcommunicators to be able to get involved in various management activities which would ensure the achievement of communicative effectiveness, success and comfort of every individual transcommunicator both in aligning him/her with the outside world and in various communicative acts. This alignment should generally follow the GPL, that is, the pattern of diversity, equality and inclusion mentioned above. Subsequently, managing diversity in the human world, including linguistic and communicative diversity, which seems analogous to the naturally and universally occurring processes of managing the Earth's



Fig. 18. Human diversity

(source: <https://home.kpmg.com/nz/en/home/about/diversity-inclusion.html>)

diversity, indeed appears to be of utmost importance for the survival of the genus *Homo sapiens*. A very simple illustration of human diversity is shown in the diagram below (Fig. 18).

The best way to conceptualize the management of diversity in very general terms is by reference to the notion of ‘strategy’. Obviously, the concept of ‘strategy’ remains one of the most popular concepts used in management studies and is, therefore, the one which must be properly defined before it is applied to the narrower confines of communicative diversity management discussed in the present Chapter. Historically, the term has been derived from the Greek word *strategos* (meaning ‘general’) which reveals its military origins. However, it must also be stressed that the word implies a more holistic perspective, or synergy of long-term goals, actions (activities, behaviour) and resources which should be activated in order to accomplish a given task, for example, the task of managing linguistic-communicative diversity which is of concern here. A very succinct and elegant definition of strategy was proposed by Chandler (1962:13) who stated that:

“strategy is the determination of the basic long-term goals of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals”.

In considering the management of diversity, in particular of linguistic-communicative diversity more closely, one may follow the proposal made by Ellen Chaffee (1985) who has distinguished three general models of strategy: (a) the linear strategy model, (b) the adaptive strategy model, and

(c) the interpretive strategy model. Although they have been characterized as differing from each other, they also appear pertinent for our discussion of the phenomenon of diversity management and one can imagine that their obligatory synergy contributes to a better understanding of this phenomenon. Each model will be briefly characterized below.

- (a) The linear strategy model: the model focuses on integrated decisions, actions and plans which are needed to be undertaken by any interacting agent to consciously achieve a given goal. In the narrow confines of the language-communication dyad, the model emphasizes the need to make strategic planning on the part of any HCA/transcommunicator concerning the linguistic-communicative resources to be used in communicative acts, especially in planned encounters.
- (b) The adaptive strategy model: the model focuses on the recognition by the HCA/transcommunicator of a possible mismatch existing between the shape of the external environment viewed in terms of both opportunities and risks it provides and the transcommunicator's linguistic-communicative resources to be activated in exploiting various adaptations within the opportunity-risk dyad in order to achieve communicative success.
- (c) The interpretive strategy model: the model focuses not so much on the organismal (i. e. biological) constraints holding in the communication process as it concentrates on the 'social contract', or a collection of various cooperative agreements made consciously by the interacting transcommunicators in order to produce mutually beneficial communicative exchanges. Specifically, the interpretive strategy involves the management of meaning and symbolicity invoked in the service of inter-transcommunicator acceptable behaviours. Furthermore, it is assumed to motivate the transcommunicators in favouring mutual communicative benefits in acts of interactive communications.

It must be finally emphasized that the three strategies should not be understood as managed and used separately. Instead, it is emphasized that they should be understood as managed and used in an overlapping and synergistic manner, for it is only in this manner that they contribute fundamentally to the generation of communicative behaviour diversity which lies at the heart of the ecolinguistic approach to language and communication.

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Global culture as an integrated ecofield for the human communicating agent (HCA) transmovements

The present world is now faster than ever before moving towards global integration and convergence, that is, towards a globally unified fabric of dimensions of which the phenomenon of 'global culture' is its most visible indicator. More precisely, the term 'global culture' is meant here to indicate a set of complex and varied processes of (a) globalized 'cultural diffusion' defined, in turn, as the ongoing global spreading of various indicators of social-cultural forces which are synergistically leading to (b) the creation of a globally uniform culture.

In these processes, local communities, with their local cultural-linguistic resources, are being vigorously pulled into a 'global cultural arena' with the inevitable plurality and multiplicity of interconnectedness among different local cultures as its defining characteristics. In it, such indicators as values, norms, and cultural-linguistic diversity, cross and supplement each other as well as they have begun to form a more or less palpable mixture offering all the individual HCAs an unprecedented and fertile richness of possibilities in exercising different forms of collectivized cultural identities.

With regard to the values which meet in the global cultural arena and which may, quite naturally, have different local tints, one may consider the following list: wealth, success, power, prestige, work ethic, reliance on science and technology, democracy, patriotism, charity, freedom, equality and justice, individualism, accountability and responsibility. In turn, among the norms, one should mention the following: conventions, customs, taboos, laws. Finally as regards cultural-linguistic diversity, one should have in mind the following elements: ethnicity, and nationality, with all the accompanying and more narrowly defined phenomena, such as ethnic languages and dialects, minority cultures and minority languages. All these contribute

to the fabric of individual HCA-transcommunicator identity and to the transcommunicator power and efficiency of individual communicative competencies.

The globalization processes are reflecting the overall and increasing interdependence of world societies (regional and local communities), with their local cultural-linguistic dimensions. This interdependence is, however, subject to one important condition. Namely, that they all have sufficient strength to be preserved. Thus, the problem of maintaining cultural and linguistic robustness on local levels is of utmost importance in the preservation of the world's cultural-linguistic diversification and richness. In this way, the progressing (and perhaps inescapable) homogenization of cultures is countenanced by heterogenous and resistant forces acting within the individual (local) cultural-linguistic communities. It is also in this way that all the HCAs are capable of maintaining their individual and locally-based identities, and are, therefore, capable of countenancing the negative consequences of the processes of globalization such as loss of local traditions and culture, or super-stratal domination of a globalizing language (e.g. English) against the remaining natural languages that may be pushed to the sub-stratal status.

At the same time, all the HCAs participate in the universal communication network (see Chapter XVII above) where hybridity, defined as cultural-linguistic mixing (or *mélange*) across the entire globe, is an inevitable dimension. Put simply, all the HCAs may (and many do) function as hybrid transcommunicators who are properly aligned, both intellectually, culturally and emotionally, and thus are capable of transmoving across the entire and culturally-linguistically diversified expanse of the globe, however, without dissolving their local cultural-linguistic identities. They may, therefore, be viewed as members of what may be called the 'global flâneurie', that is, they all constitute a population of 'global flâneurs', who are able not only to traverse the globe, not always in the comfortable conditions of international tourism but also in much more rugged conditions of enforced migratory movements, but also to absorb the contents of individual cultures and languages thus serving in the overall processes of culture-language contact and culture-language preservation.

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CHAPTER THIRTY ONE

The meaning of 'ecological thinking'

The term 'ecology' which is at the very base of the present publication has been around at least since the time of Ernst Haeckel's (1834-1919) seminal contributions to the science of biology, especially from the year 1866 in which his fundamental work entitled *Generelle Morphologie der Organismen* had been published. The definition of 'ecology' which Haeckel introduced in chapter 11 (Vol II: 286-289) of the said publication is indeed so fundamental that one is compelled to quote it extensively below:

By ecology, we mean the whole science of relations (emphasis mine, SP) of the organism (emphasis mine, SP) to the environment (emphasis mine, SP) including, in the broad sense, all the 'conditions of existence' (emphasis mine, SP). These are partly organic, partly inorganic in nature; both, as we have shown, are of the greatest significance for the form of organisms, for they force them to become adapted (emphasis mine, SP). Among the inorganic conditions of existence to which every organism must adapt itself belong, first of all, the physical and chemical properties of its habitat (emphasis mine, SP), the climate (light, warmth, atmospheric conditions of humidity and electricity), the inorganic nutrients, nature of the water and of the soil, etc.

As organic conditions of existence we consider the entire relations of the organism to all other organisms with which it comes into contact (emphasis mine, SP), and of which most contribute either to its advantage (emphasis mine, SP) or its harm (emphasis mine, SP). Each organism has among the other organisms its friends (emphasis mine, SP) and its enemies (emphasis mine, SP), those which favor its existence and those which harm it. The organisms which serve as organic foodstuff for others or which live upon them as parasites (emphasis mine, SP) also belong in this category of organic conditions of existence. In our discussion of the theory of selection we have shown what enormous importance all these relations have for the entire formation of organisms, and especially how the organic conditions of existence exert a much more profound transforming action

(emphasis mine, SP) on organisms than do the inorganic. The extraordinary significance of these relations does not correspond in the least to their treatment, however. So far physiology, to which this science belongs, has, in the most one sided fashion, almost exclusively investigated the conserving functions (emphasis mine, SP) (preservation of the individual and the species, nutrition, and reproduction (emphasis mine, SP)), and among the functions of relationship investigated merely those which are produced by the relations of single parts of the organism to each other and to the whole (emphasis mine, SP). On the other hand, physiology has largely neglected the relations of the organism to the environment, the place each organism takes in the household of nature, in the economy (emphasis mine, SP) of all nature, and has abandoned the gathering of the relevant facts to an uncritical 'natural history', without making an attempt to explain them mechanistically.

As can be easily noticed, this lengthy quote contains an exhaustive definition of ecology where the supportive and collaborating key concepts have been properly enumerated. These comprise the following:

- ecology defined as a science of relations between/among the organisms
- the organism defined as an organic form
- the presence of the environment
- specifications of conditions of existence of organisms
- the inevitable processes of adaptation
- the framework of the habitat and its parameters
- necessary contact between/among the organisms
- advantages and disadvantages of contact
- the occurrence of friendly organisms (friends)
- the occurrence of harmful organisms (enemies)
- the presence of parasites
- the presence of transformations in interactions leading to all kinds of changes
- the occurrence of organism-conserving functions (such as e.g. preservation, nutrition, and reproduction)
- the framework of ecological holism (i.e. relations of single parts of the organism to each other and to the whole)
- the resultant overall economy of organism – environment relations.

It therefore follows from the above terminological arrangement that ecology as a scientific discipline has been organized by Haeckel on a solid foundation of a set of constitutive concepts which collectively substantiate the meaning (i.e. semantic content) of the term 'ecological thinking' (or 'ecological mindset') in the originally 'biocentric' perspective.

In the present book, the Haeckelian ecological approach, reflected so strongly in his original terminology, supported by other important contributions (see the bibliographical entries quoted throughout the book), has been applied to the phenomenon of language thus placing natural language in the predominantly relational-environmentalist and synergic framework, but also placing natural language in the 'deep ecology' perspective. In so doing, natural language has been given the status of an important constitutive element through which humans effectively trans/inter/connect with each other and with the external environment, that is, the surrounding world (i.e. with the organic world (the so-called tangible assets), with cultures, ethnicities (the so-called intangible assets), etc.). In this way, all the humans jointly contribute to the preservation of life's natural diversity.

More precisely, humans contribute (or are obliged to contribute) to the preservation of both the tangible and intangible dimensions of human life, in particular through the proper valuation and validation of all the elements of Nature and, respectively, of all cultures and all natural languages, large and small, and their underlying resources. This is the gist of the 'ecology – eco-linguistics' framework.

To make the picture more complete, Haeckelian pioneering ecological approach must be followed up by the approach developed so amply later on (i.e. especially in the second half of the XXth century) by the representatives of the movement of 'deep ecology' which has focused on working out the principles of deep ecological perspective to life on Earth as the ultimate constraint (see e.g. Naess, 1973; Sessions, 2009).

The principles have been thought to move from the purely 'biocentric' (i.e. concentrated exclusively on the biological-organismal constraints) to 'ecocentric' (i.e. concentrated on the idea of the living planet, the preservation of her well-being as well as of the richness/diversity of organic and inorganic forms).

The basic principles of deep ecology have been most fully expressed through the following eight statements (the so-called 'platform articles of deep ecology'; see e.g. Devall and Sessions, 1985; Drengson and Yuichi, 1995), partially ecocentrically rephrased by Rowe (1996):

Platform article no. 1:

The well-being and flourishing of human and nonhuman Life on Earth have value in themselves (synonyms: intrinsic value, inherent value). These values are independent of the usefulness of the nonhuman world for human purposes.

Ecocentric rephrasing:

The well-being and flourishing of the living Earth and its many organic/inorganic parts have value in themselves (synonyms: intrinsic value, inherent

value). These values are independent of the usefulness of the nonhuman world for human purposes.

Platform article nr. 2:

Richness and diversity of life-forms contribute to the realization of these values and are also values in themselves.

Ecocentric rephrasing:

Richness and diversity of Earth's ecosystems, as well as the organic forms that they nurture and support, contributes to the realization of these values and are also values in themselves.

Platform article nr. 3:

Humans have no right to reduce this richness and diversity except to satisfy vital needs.

Ecocentric rephrasing:

Humans have no right to reduce the diversity of Earth's ecosystems and their vital constituents, organic and inorganic.

Platform article nr. 4:

The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.

Ecocentric rephrasing:

The flourishing of human life and culture is compatible with a substantial decrease of the human population. The creative flourishing of Earth and its multitudinous nonhuman parts, organic and inorganic, requires such a decrease.

Platform article nr. 5:

Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening. (No ecocentric rephrasing has been proposed).

Platform article nr. 6:

Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present. (No ecocentric rephrasing has been proposed).

Platform article nr. 7:

The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent worth) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the differences between big and great. (No ecocentric rephrasing has been proposed).

Platform article nr. 8:

Those who subscribe to the foregoing points have an obligation directly or indirectly to participate in the attempt to implement the necessary changes. (No ecocentric rephrasing has been proposed).

Following strictly the above platform articles, one is indeed tempted to rephrase them from the ecolinguistic perspective, as they all appear pertinent to 'ecolinguistic thinking' as a logical analog of 'ecological thinking'. In this way, one is bound to propose a dynamic dichotomy: 'ecological thinking → ecolinguistic thinking', where the latter is derived from the former (and underlying) type of thinking.

Subsequently, below is a proposal for a set of ecolinguistic rephasings of the eight platform articles presented above.

Ecolinguistic rephrasing of platform article nr. 1:

The well-being and flourishing of human Life on Earth have value in themselves (synonyms: intrinsic value, inherent value). These values are independent of the usefulness of the human world for human purposes.

Ecolinguistic rephrasing of platform article nr. 2:

Richness and diversity of natural languages contribute to the realization of human values and are values in themselves.

Ecolinguistic rephrasing of platform article nr. 3:

Humans have no right to reduce this richness and diversity at any time.

Ecolinguistic rephrasing of platform article nr. 4:

The flourishing of all the existing natural languages and human cultures is compatible with a substantial increase in the awareness of human well-being. The flourishing of all natural languages and human cultures requires such an increase.

Ecolinguistic rephrasing of platform article nr. 5:

Present interference with small (light/weak) natural languages is excessive, and the situation is rapidly worsening.

Ecolinguistic rephrasing of platform article nr. 6:

Policies must therefore be changed. These policies affect basic economic, technological, and – above all – ideological structures. The resulting state of affairs will be deeply different from the present.

Ecolinguistic rephrasing of platform article nr. 7:

The ideological change is mainly that of appreciating the ecocratic significance of all the existing natural languages, including the smallest and weakest languages,

rather than adhering to an increasingly higher valuation of the existing super heavy natural languages. There will be a profound awareness of the differences between big and great.

Ecological rephrasing of platform article nr. 8:

Those who subscribe to the foregoing points have an obligation directly or indirectly to participate in the attempt to implement all the necessary changes.

After what has been said above, it is the present author's conviction that 'deep ecology' is the proper framework in which every natural language, no matter how big (or heavy in terms of its linguomass) or how small (or light in terms of its linguomass), how isolated or how much in contact with other languages, obtains its highest value. In the ecolinguistic perspective, each NL is therefore regarded as a great achievement of mankind and as such requires concerted efforts on the part of those who have developed 'profound ecolinguistic awareness' concerning the task of emphasizing their everlasting and universal significance. Such an approach does, in turn, justify our possible collective efforts to save every single one of them for the future human transcommunicators and their well-being.

And at this point we are finally obliged to agree with the voices of the poets who have empowered us to recognize the significance of the ecolinguistic stance expressed in this book.

Samuel Taylor Coleridge (1772-1834) has stated the following:

Language is the armoury of the human mind, and at once the trophies of its past and the weapons of its future conquests.

Czesław Miłosz (1911-2004) expressed his firm conviction about the significance of language in the following succinct way:

Language is the only homeland.

Let these two statements epitomize the 'ecolinguistic mindset' which lies at the heart of the present book. We can finally add that the ecolinguistic mindset is without any doubt entirely immersed in the enduring accuracy and everlasting importance of the two statements.

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An ecosemiotic approach to feasting as a uniquely human endeavour

Feasting is a universal human phenomenon

(Twiss, 2008)

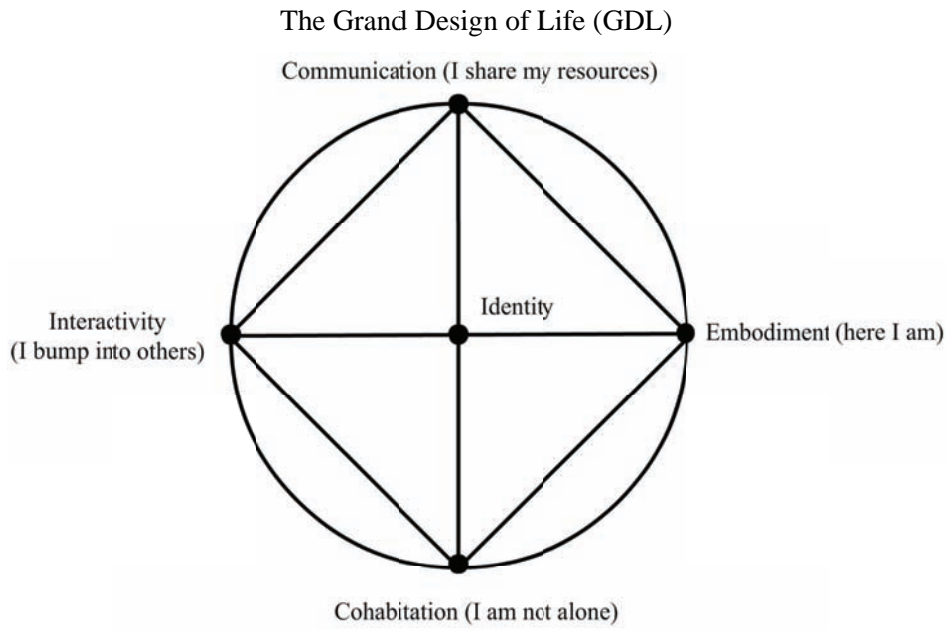
1. INTRODUCTORY REMARKS

All earthly creatures need fuel, therefore they must feed themselves as a part of an integral and fundamental life strategy (i.e. the way of being in the world) connected with organismal energy intake. In what follows, a brief analysis of three major feeding orders occurring in Nature will be presented. They comprise the following evolutionary sequence:

- (1) The earliest absorbing/dispersing/dissipative order of the plants (Kingdom: *Plantae*),
- (2) The later devouring order of the animals (Kingdom: *Animalia*), and
- (3) The latest feasting order of the humans (Kingdom: *Animalia*, Genus: *Homo sapiens*).

The three feeding orders differ in many dramatic respects and one may, therefore, postulate that they generate three distinctly different 'feeding ecosystems'. Subsequently, they participate in the Grand Design of Life (GDL) according to the inherent nature of their embodied being (agency) in the world where feeding is absolutely central for the maintenance of species-specific embodiment, participation in cohabitation processes, involvement in interactivity, and in all the communicative (or 'sharing') behaviours. For reference, the GDL is shown below (Fig. 19).

In the present analysis, focus is placed on the feeding orders which are assumed here to throw light on how feeding is connected with the way of life of the particular kingdom. In the kingdoms regarded here, feeding is organized into two strands, that is: the predominantly 'stationary' and non-focal



The primary biological level of performativity:
The biology dependent parameters can be organized into a stable matrix:



The politics of separation and binding of the embodied agents

Fig. 19. The Grand Design of life (GDL)

(i.e. focus-free) one which characterizes the plants, and the ‘non-stationary’ and focal one (i.e. focus-based) which characterizes both animals and humans (i.e. the entire animal-human complex). The stationary type does not require any displacements in the form of chasing/hunting procedures and instead requires grounding (rooting) the plant in more or less fertile soil and air from which it gets all the necessary nutrients, whereas the non-stationary type does require displacements in the form of more or less complex chas-

ing/hunting procedures of looking for prey, that is, all the necessary embodied agent translocations (i.e. spatial movements) in order to obtain all the necessary nutrients. The grounded nature of the plants, therefore, stands in sharp contrast to the mobile nature of the animal-human complex. All this, therefore, forms a major dichotomy with respect to their relations to the carrier (i.e. the Earth). This is shown below (Fig. 20).

| Feeding | |
|--|--|
| Stationary (non-focal in plants) | Non-stationary (focal in animals and humans) |

Fig. 20. The major feeding dichotomy

In what follows, a closer look at the afore mentioned feeding orders will be undertaken in order to further explicate the differences which prompt the sustainability of the three different feeding ecosystems mentioned above. After the analysis is briefly presented, it will become quite clear that the differences between them are tantamount in placing the two kingdoms (i.e. *Plantae*, *Animalia*, and the Genus *Homo* as part of *Animalia*) in three different energetic-semiotic designs:

- (1) the stationary (grounded and non-brutish) non-carnage energetic-protoindexical design of the plants,
- (2) the rough (brutish) carnage/non-carnage energetic-indexical design of the animals, and
- (3) the culturally processed (culturally tempered) carnage/non-carnage energetic-symbolic design of the humans. They are described below.

2. THE STATIONARY (GROUNDED AND NON-BRUTISH) ENERGETIC DESIGN OF THE PLANTS

As has been indicated above, the design is characterized by the absorbing/dispersing/dissipative feeding order. It means that plants absorb nutrients *in situ*, that is, directly from the soil in which they are grounded (rooted)

and from the air (basically absorbing solar energy and carbon dioxide, CO₂) which surrounds them. In exchange, they disperse seeds and more than generously (i.e. over-abundantly) dissipate oxygen for all oxygen-consuming forms of life to take.

The absorbing/dispersing/dissipative feeding order of the plants may be further characterized by the following strand (matrix) of parameters:

Absorbing/dispersing/dissipative feeding strategy matrix

- invasive by seeding
- non-invasive consumption-wise (not carnage-based)
- life-supporting (advantageous for all life, non-selfish)
- non-reductive (not reducing species diversity)
- ameliorative (improving the quality of the air)
- non-digestive (not requiring the digestive system)
- non-polluting (not producing any detritus)
- perennial/seasonal (ever-present and ever-ready to absorb/disperse/dissipate)
- protectively selective (selecting regions and soil types to be rooted in)
- unconditionally pan-altruistic (advantageous for all life, purely non-selfish).

As can easily be noticed, the above feeding order, which, while being a part of the communicative modus operandi of the herbivores, and which constitutes a protoindexical type of communicative potential (see the classification of signs by Peirce), forms the most non-invasive and universally accessible life strategy whereby solar energy is transferred to the rest of the GDL by means of herbivorous transmission. One may call this feeding order the most 'noble feeding order' developed on Earth (with the accompanying protoindexical proposition: no CO₂, no oxygen).

It must also be added that as a stationary (grounded) energetic design, it is connected with the entire history of life in that its unconditional success on Earth forms the necessary background to more brutal (carnage-based, focal and mouth-based) energetic designs, that is, those of animals and humans (with the accompanying indexical double proposition: (a) no oxygen, no animal life; (b) no mouth for intake, no animal life). Additionally, one may say that with the anthropo-centric humans, the successful fate of the herbivorous background is always that of a value taken for granted and, therefore, usually ignored by the human species in our daily encounters with that design.

The best expression of the herbivorous absorbing/dispersing/dissipative order is illustrated below (Fig. 21):



Fig. 21. The tree as the most expressive and most illustrative instance of the absorbing/dispersing/dissipative feeding order of the plants (kingdom: *Plantae*).

3. THE NON-STATIONARY (MOBILE) ENERGETIC DESIGN OF THE ANIMALS

The absorbing/dispersing/dissipative feeding order discussed above is fundamental to the essentially carnage-based devouring feeding strategy developed by the animals. Obviously, we must remember about quite a large group of exclusively herbivorous animal species (e.g. insect herbivores) but both the carnivorous (carnage-based) feeding and non-carnivorous types of feeding are instances of non-stationary energetic design which is of concern here. The devouring feeding order of the animals – which is based on the mouth-food direct contact of selected foodstuffs with the animal's mouth as the basic cognitive organ (i.e. basically without any limb mediation) – may be further characterized by the following strand (matrix) of parameters:

- invasive by body translocations in space
- invasive consumption-wise (herbivory, predatory, scavenger, carnage-based)
- destructive (prey- and carnage-based and focused on destroying consumed organisms)
- own species-supporting (species-centred, selfish)
- reductive (if occurring massively, reducing species diversity)
- non-ameliorative (not improving the quality of the air)
- digestive (involving the digestive tract)
- polluting (producing detritus)

- hunger-regulated
- selective (species selecting organisms to be devoured)
- repetitive
- solitary
- protosocial and eusocial (partly interactive, partly collective, partly integrative)
- indexically communicative (functionally referential food calling in some species, cf. Bugnyar et al., 2001))
- weakly altruistic (focused basically on offspring)
- in the great apes, partly involving the use of the upper limbs and prototools (e.g. sticks used by the chimpanzees in termite mound and ant hill penetration).

Again, as can be easily noticed, the above feeding strategy, which is also a part of the communicative modus operandi of the animal kingdom, and which semiotically constitutes the indexical type of communicative potential, forms a very direct and therefore directly invasive life strategy whereby solar energy is transferred to the respective species of the animal kingdom by means of the devouring order defined above.

The best expression of the devouring feeding order of the animals is illustrated below (Fig. 22):



Fig. 22. A very expressive instance of the devouring feeding order of the animals (kingdom: *Animalia*. Source: a photo by Christine and Michel Denis-Huot showing a group of lions involved in an act of prey consumption).

4. THE NON-STATIONARY (MOBILE) ENERGETIC DESIGN OF THE HUMANS

As has been indicated at the beginning of the Chapter, the energetic human design is based on the feasting strategy which is regarded here as a dramatic evolutionary change (improvement?) in the human feeding order over the animal feeding strategy in that the former necessarily involves the use of the free upper limbs (hands) as the basic (together with the brain) cognitive organs (cf. Anderson and Lightfoot, 2002). The use of the hands connected with our erect posture, either directly or with a prolongation of the hands with the utensils combined with all kinds of containers and plates therefore constitutes the very essence of feasting while making it an important biological-cultural process. However, still to a large extent, the humans share with the animals a number of indexical traits, as is shown in the list below.

The common core matrix of animals and humans:

- invasive by body translocations in space
- invasive consumption-wise (herbivory, predatory, scavenger, carnage-based, primarily including even cannibalistic practices of eating human flesh (see e.g. Sanday, 1986; Villa, 1992; Goldman, 1999))
- destructive (prey- and carnage-based and focused on destroying consumed organisms)
- own-species supporting (own species-centred, selfish)
- reductive (if occurring massively, reducing species diversity)
- non-ameliorative (not improving the quality of the air)
- digestive (involving the digestive tract)
- polluting (producing detritus)
- hunger-regulated
- selective (species selecting organisms to be consumed)
- repetitive.

On the other hand, the strongly human traits which make food consumption exclusively a symbolic feasting endeavor include the following set of parameters:

The exclusively human traits of the feasting strategy of the humans:

- solitary (a category which is 'transient', i.e. linking both animals and humans)
- strongly socio-cultural (highly interactive, collective, integrative, competitive)
- strongly socio-political (expressing sophisticated and stratified power relations)

- potentially pan-altruistic (if properly processed conscience-wise, i.e. potentially concentrated around an ecological rescuing service of the type “let’s us help the other species survive”)
- based on the upright posture (with free upper limbs as co-decisive in culture generation)
- involving the use of free upper limbs (the hands) and various sophisticated tools and containers manufactured thereof
- ritualized (partly subject to conventionalized and arbitrary symbolicity, e.g. cosmogonic)
- forming part of the exclusively human expressivity/performativity/decorativeness behaviour (ceremonious)
- localized (richly diversified through regionalized varieties)
- symbolically communicative (in adults it is connected with face-to-face encounters accompanied by verbal exchanges, i.e. involving the human air passage in verbal oral exchanges and oral interactions (e.g. polyphonus singing in collective feasting, see e.g. Jordania, 2011) and involving the gestural-facial-postural potential in non-verbal exchanges).

Both the purely animal and human traits are combined in the human feeding order based on the mouth-hands complex and as such they form part of the communicative modus operandi of the human kingdom. The latter constitutes the separate symbolic type of communicative potential (with the accompanying symbolic double proposition: (a) no free upper limbs, no feasting, and (b) no human air passage, no feasting).

Moreover, on the basis of what has been stated above concerning the human feasting endeavour (both individual and collective), one may venture to say that the latter, if partly and necessarily likened to the devouring feeding order of the animals, is additionally able to support the herbivorous feeding order, especially in relation to the human symbolic content.

It is further argued here that the symbolic content of the human feeding order, through the involvement of the verbal element, makes feasting eclipse and weaken, as it were, the brutish devouring order of the animals also present in humans, by virtue of the mouth-hand-food-voice involvement. In other words, the uniquely human phenomenon of culture generation with the immersion of the genus *Homo sapiens* in the symbolic-ritualized-communicative framework on the one hand makes the human feasting endeavor merge with the evolutionarily earliest herbivorous feeding order and the animal devouring order.

On the other hand, it contributes to the generation of a distinctly separate feeding order, that is, the human feasting order via the uniquely human synergic expressive/performative/decorative manual-vocal potential. This allows us to define the feasting order as necessarily involving the interface of

the use of the free upper limbs (i.e. the hands) along with the uniquely human characteristics of the air passage, e.g. expressed through the artistic-iconic (i.e. graphic) and verbal-oral (i.e. vocal) admiration of Nature.

The best iconic expressions of the feasting order of the humans are illustrated below (Fig. 23 and Fig. 24):

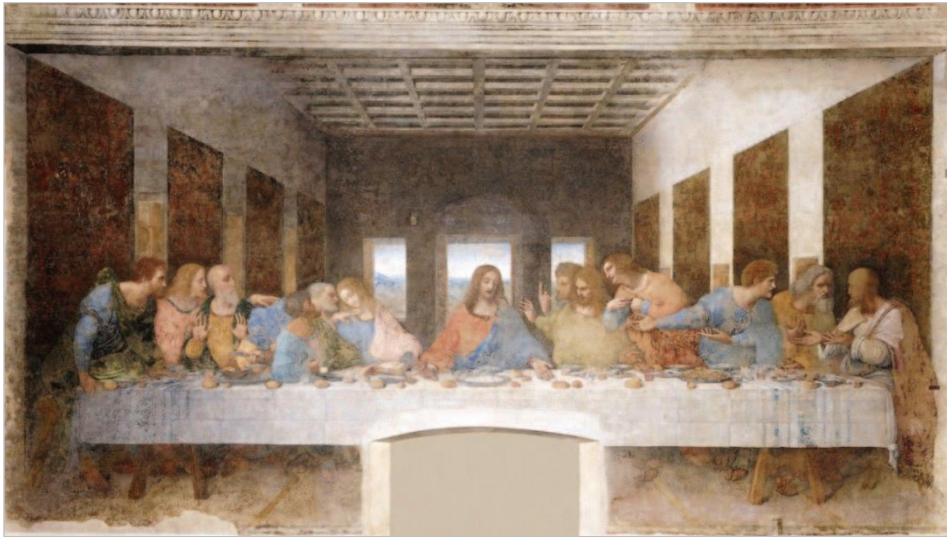


Fig. 23. Leonardo da Vinci's artistic illustration of the most famous instance of the human feasting order, the *Last Supper* (source: <http://www.haltadefinizione.com>).

Additionally, the human feasting order with its immersion in symbolic verbal content has been most beautifully expressed in a famous poem by William Wordsworth, *Daffodils* (written originally in 1804, the second version dating from 1815 which is quoted here). The poem has a double layering, that is: the direct verbal layer and the implied feasting layer (i.e. feasting precedes, accompanies, or simply merges with verbal behavior). Thus, the verbal layer is assumed to be based on the human feasting order, which are both culturally and symbiotically intertwined. The poem, therefore, demonstrates what may be called 'double feasting'. In it, the verbal feasting layer (or the verbal/aesthetic 'admiration' of Nature) necessarily collaborates closely with the pre-determining human feasting order as outlined above.

*I wandered lonely as a Cloud
That floats on high o'er vales and Hills,
When all at once I saw a crowd,
A host of golden Daffodils;*

*Beside the Lake, beneath the trees,
 Fluttering and dancing in the breeze.
 Continuous as the stars that shine
 And twinkle on the milky way,
 They stretched in never-ending line
 Along the margin of a bay:
 Ten thousand saw I at a glance,
 Tossing their heads in sprightly dance.
 The waves beside them danced; but they
 Out-did the sparkling waves in glee:-
 A Poet could not but be gay
 In such a jocund company:
 I gazed---and gazed---but little thought
 What wealth the show to me had brought:
 For oft when on my couch I lie
 In vacant or in pensive mood,
 They flash upon that inward eye
 Which is the bliss of solitude,
 And then my heart with pleasure fills,
 And dances with the Daffodils.*



Fig. 24. Still life. Oil on canvas by Jan Davidesz de Heem. It is a beautiful iconic representation of the feasting order of the humans (genus: *Homo sapiens sapiens*; source: <https://goo.gl/images/L5lssM>).

5. SOME CONCLUSIONS

The discussion presented therein and the propositions formulated above allow one to conclude that plants, animals, and humans belong to three distinctly different feeding orders. They are also assumed to form three semiotically different ecosystems (eco-semiotic systems) with respect to the way of their being in the world, namely: (a) the founding (i.e. primeval) and ever-encompassing protoindexical type of the earliest absorbing/dispersing/dissipative order of the plants, (b) the indexical and focal type of the devouring order of the animals, and (c) the symbolic and focal type of the feasting order of the human genus.

The latter type, although properly contained within the previous two by virtue of the indispensability of the need to refuel, that is, to 'consume' the air and to absorb food with the mouth organ, in fact constitutes a completely separate, indeed very complex and unique social-cultural (symbolic) endeavour. On the one hand, it is accomplished via the presence and availability of the free upper limbs (i.e. the hands) which are co-responsible for the manufacture of culture as such and of visible iconicity, in particular, and on the other, via the presence of the uniquely human air passage (with its specifically shaped human palate and lowered larynx). The human air passage is, in turn, responsible for the generation of sophisticated verbal/oral behaviour by means of human sounds. Subsequently, both the human potential for iconicity and sounds makes the feasting order of the humans not only a very special category of feeding but also forms a very special cultural-behavioural complex which should find its place in general semiotic and ecolinguistic research.

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Travelling with natural languages: 'ecotourism/geotourism' as an advanced form of NL sustainability

Nowadays an ever increasing number of people are undertaking travelling to all the corners of the Earth. They do so in order either to start a new job at a new location or simply to visit a selected destination (i.e. region or place) for strictly tourist reasons. In the latter case which is considered here with greater concern, we may refer to the phenomenon of visiting places across the globe as 'ecotourism' (or 'geotourism'). Within such a novel approach to the environment, in fact, the kind of environment which may be branded the 'total environment', the overall purposes of ecotourism /geotourism are multiple and they range from the need to experience contact with a set of new natural conditions, both biological and geographical, to the need of experiencing and appreciating contact with a different culture and language(s) of a selected community.

In this way, every visitor positions him/herself in a classical transcommunicator guise, that is, as someone who is ready to translocate him/herself in space in order to get involved in ecotourist activities, such as, among others, meeting and exploring the new locale with all of its social-cultural-linguistic complexity. Later on, such a person may serve as someone who may get involved in enhancing the advertising of the conservation of both local wild life (i.e. biological diversity) and the local culture-language complexes (i.e. cultural-linguistic diversity) in various forms of education.

As has been stated by Ziffer (1989: 6), ecotourism while constituting sustainable and responsible tourism is "a form of tourism inspired primarily by the natural history of an area, including its indigenous cultures. The ecotourist visits relatively underdeveloped areas in the spirit of appreciation, participation and sensitivity". This definition was strongly supplemented by a definition of ecotourism offered by Ceballos-Lascurain (1991: 25) who

stated that ecotourism is “that segment of tourism that involves travelling to relatively undisturbed or uncontaminated natural areas with the specific object of admiring, studying, and enjoying the scenery and its wild plants and animals, as well as any existing cultural features (both past and present) found in these areas”.

Most ideally, to be able to get around on a visited site, the ‘transcommunicator as an ecotourist’ (hence TCE) should be equipped with a sufficient knowledge of the internationally mediating language which is currently enjoying the status of a *lingua globalis* (e.g. English) together with some grasp of a local language. Thus, the most ideal transcommunicator who undertakes an ecotourist-generalist type of travel and who may thus appear to be successful in doing so, that is, in fully embracing and enjoying a culture-language complex other than his/her own, is expected to be trilingual (including his/her native language). In this way, s/he may strive to function as a very central figure who is participating in international preservation procedures leading to sustainable development and conservation of the local (i.e. host) culture-language complex.

While profiling the transcommunicator as an advanced and fully conscious ecotourist, one may postulate the following traits which should characterize such a person’s ecotourist practices and biases:

- any TCE must represent a nonconsumptive attitude towards the environment (both natural and human-induced) such that no negative environmental impact is implemented and the extent of visitor intrusion is thus maximally reduced,
- any TCE must accept and be involved in a positive promotion of environmental and life-centered (i.e. biocentric) ethics, that is, be involved in propagating species diversification, be set on the need to keep the environment for future generations, and, if possible, get involved in conserving the spatial environment in order to secure and expand the abundance of life,
- any TCE must demonstrate a biocentric attitude, that is, s/he must be highly aware of the activities which do not degrade the biological resources of the sites visited,
- any TCE must be highly culture- and language-sensitive and should not, therefore, fear receiving first-hand experiences while encountering the diversified natural and the intangible cultural-linguistic environments across the globe,
- any TCE must be ready to seek (and even help to organize) local support by assisting in maintaining and improving the economic, social and cultural conditions of the host (i.e. receiving) communities. In this

way, any local community which experiences the presence of TCE is also properly empowered,

- any TCE must be ready to get involved together with responsible members of the host communities in the protective activities leading to the sustainable development of natural and cultural-linguistic-communicative resources of the local sites and communities, as well as to the generation of feeling of wellbeing of the local inhabitants.

All in all, it should be emphasized that the marked global growth in (eco)tourism which has taken place in recent decades has, despite difficulties, turned out to be an extremely valuable phenomenon both ecologically and ecolinguistically, since it has by and large led to a highly appreciated recognition not only of biological diversity, but also of cultural-linguistic resources and local traditional knowledge thus contributing in a very positive way to the promotion of sustainability of the afore mentioned phenomena on a global scale.

Ecotourism may, therefore, be regarded as serving as an excellent illustration of the most expected and most beneficial processes associated with a global recognition of ecological, socio-cultural and economic sustainability of the human species in the framework of the human and natural ecosystems on both the global and local scales. This recognition inevitably comprises the natural language as the most powerful participatory and integrative tool of human interactive and communicative practices.

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Epilogue

The present book has been written with the purpose of offering some ecological, ecolinguistic and communicological reflections on the long-term presence of natural language and human communication on Earth. It has been done by means of the natural world-centric mode of presentation. Subsequently, the most natural and most general assumption accompanying this book has been that whatever is contained in the natural world, of which the human ecosystem is an integral and most relevant element, is worth sustaining as an indispensable part of all the living riches with which modern humans may be in contact. In this perspective, the human species is indeed obliged to actively participate in this process, as has been most succinctly expressed in Article 7 of the initial draft of the **Universal Declaration of Human Responsibilities** (Paris, 1997):

Although every human person is infinitely precious and must be unconditionally protected, the lives of animals and plants which inhabit this planet with us likewise deserve protection, preservation, and care. That is, we humans are a part of nature, not apart from nature. Hence, as beings with the capacity of foresight we bear a special responsibility – especially with a view to future generations – for the air, water, and soil, that is, for the earth, and even the cosmos.

In this particular regard, the human care for any attempts to sustain the uniquely human ecosystem by means of the protection and preservation of the Earth as its carrier has been strongly supported by poetic voices. A handful of them have been included here since they most expressively and most effectively embrace and acknowledge this world-centric approach, while also specifically embracing and acknowledging the ‘culture-language-communication’ triad. This triad has been the major concern of the book.

It is also this triad in which the human transcommunicators have ever been expressing themselves most profoundly as a marked characteristic of the genus *Homo sapiens*. Subsequently, the author finally hopes that the deep ecological concern for our human predicament, most notably expressed through a synergy and synthesis of a number of its social-cultural attributes,

has been clearly demonstrated throughout the book. To make this demonstration a hard fact and in order to properly highlight this concern, in the closing part of the book the reader will find a small section which offers a selective array of voices containing a poetic vision of human ecological awareness.

A short list of poems and reflections concerning human ecological awareness

Chief Seattle (1854):

*Humankind has not woven the web of life.
We are but one thread within it.
Whatever we do to the web, we do to ourselves.
All things are bound together.
All things connect.*

Native American elder:

*Honor the sacred.
Honor the earth, our Mother.
Honor the Elders.
Honor all with whom we share the Earth:
Four-legged, two-legged, winged ones,
Swimmers, crawlers, plant and rock people.
Walk in balance and beauty.*

David Henry Thoreau:

*Fishermen, hunters, woodchoppers, and others,
spending their lives in the fields and woods,
in a peculiar sense a part of Nature themselves,
are often in a more favorable mood for observing her,
in the intervals of their pursuits,
than philosophers or poets even,
who approach her with expectation.
She is not afraid to exhibit herself to them.
(Walden)*

Rabindranath Tagore:

*The significance which is in unity is an eternal wonder.
We try to realize the essential unity of the world
With the conscious soul of man;
We learn to perceive the unity held together*

*By the one Eternal Spirit, whose power creates the earth,
The sky, and the stars,
And at the same time irradiates our minds with
The light of a consciousness
That moves and exits in unbroken continuity with the outer world.*

American poet Audre Lorde (*Dream of a common language*):

*My heart is moved by all I cannot save:
So much has been destroyed
I have to cast my lot with those
Who age after age, perversely,
With no extraordinary power, reconstitute the world.*

American poet Alice Walker:

*While love is unfashionable
Let us live
Unfashionably...
Let us be intimate with
Ancestral ghosts
And music of the undead...
Let us gather blossoms
Under fire.*

The final reflection about the tree as the most perfect symbol of uncolliding, peaceful, most nourishing and down-to-earth being involved in the synergistic and synthesizing web of life is offered below:



Fig. 25

It is assumed that the tree represents Mother Nature in her most noble, most altruistic and most tranquil guise. The tree is, therefore, the highest expression of natural synergy and synthesis on Earth. The tree spends its entire existence serving all creatures by directly absorbing the Sun's energy, dispersing the seeds and dissipating oxygen. And it also knows that to serve others is to serve itself.

Index of technical terms used in the book

affective resource
affectology
anthropopressure
ASHAD monitoring-profiling complex
audio-visual hybridity (AVH)
audio-vocal modality (AVo)
banding together
biological auto-focus
body language
biological identity of a HCA
caregiver
champion of transcommunication
citizenship niche
closed culture system
coach of transcommunication
cohabitation
communication
communication order
communicative act
communicative alignment
communicative assonance
communicative culmination
communicative design
communicative dissonance
communicative dystopia
communicative encounter
communicative eutopia
communicative niche (CN)
communicative practice
communicative wellbeing
commuter
computer mediated communication (CMC)
concave borrowing
confusion of tongues
contact language
context
convex borrowing
cultural geography
cultural identity of a HCA
cultural-linguistic landscape
culture (cultural)
culture-language sustainability potential
daily routine and general culture niche
deep ecology
didactically modified native language
didactically modified natural language
(DMNL)
display
dissemination and maintenance (DAM)
ecocracy
ecolinguistic mindset
ecological thinking
ecology
ecotourism
embodiment
emotional deterioration of a NL
English as *lingua globalis*
ethnicity
every living organism (ELO)
expat(riate)
external linguopressure
facial expression
first language acquisition
General Mechanism of Linking (GML)
generic linguistic/non-linguistic potential
geotourism
gesture
global commodity culture
global cultural arena
global culture
global flâneurie
global flâneur
globalizing language
global language (monolanguage)
global natural language protection program
(GNLPP)

- global pattern of life (GPL)
 Grand Design of Life (GDL)
 Graphic communication order
 graphoscape
 Gulliver syndrome
 HCA identity principles
 HCA interaction principles
 heritage language
 heterotopia
 Homo urbanus
 human communicating agent (HCA)
 human ecosystem
 hybrid communication order
 hybrid transcommunicator (HTC)
 Imperial Tetragon of Embodiment (ITE)
 interactivity
 (natural) language
 language as acting
 language capacity
 language commons
 language-communication ecology (LAN-COM)
 language contact
 language death
 language engineering
 language gifter
 language officer
 language planning
 language policy
 language resources
 language resource stand-by position
 language revitalization
 language shift
 leaflet hand-to-hand delivery
 lexical sediment
 lingua globalis
 linguistic-communicative apartheid
 linguistic flatness
 linguistic nutrition
 linguistic (language) poverty
 linguistic safety net system
 linguistic welfare/wellbeing
 linguolabourese
 linguomass
 linguonomics
 linguopressue
 linguoscape
 linguospace
 local natural language protection program (LNLPP)
 massively collaborative communicative activity
 maximally complex natural landscape
 meeting ecology
 meeting landscape
 meeting place
 metropoloeipithymia
 militancy
 monitoring and profiling procedure (MPP)
 native language awareness (NLA)
 natural language (NL)
 natural language as 'a looser'
 natural language as 'a winner'
 natural language awareness
 natural language capacity building
 natural language diversity
 natural language gifting
 natural language global arena (NaLGA)
 NaLGA as linguistic commons
 natural language grounding
 natural language inherent identity
 natural language management (NLM)
 natural language preservation
 natural language preservation mechanism
 natural language robustness (NLR)
 natural language robustness profile
 natural language serviceability
 natural language sustainability (NLS)
 natural language safety net
 (transcultural) nomad
 non-language resources
 open culture system
 oral communication order
 organizer of transcommunication
 Oskar syndrome
 Panlogoergalia
 paralanguage
 participation culture (PC)
 participation technology (PT)
 performance-based management
 Petronius syndrome
 platform articles of deep ecology
 preservation
 primary gifting environment
 professional niche
 public urban landscape

- regional natural language protection program (RNLPP)
- resilience of a natural language
- Resource system
- Resource units
- safety economy
- safety net of the caregivers
- Saussurean legacy
- semiosphere
- Social life of language
- Social safety net
- Social identity of a HCA
- society (social)
- soft invasion language
- soundscape
- speech production mechanism
- standard language
- strategy of communication
- strategy of connection
- strategy of overall alignment
- supersigner
- supertalker
- superwriter
- sustainability
- sustainability index
- swarming
- technology of total immersion
- the welcome tag
- total immersion design
- trade-off
- tragedy of the commons
- transcommunication
- transcommunicator (TC)
- transcommunicator as a keystone species
- transcommunicator as an ecotourist (TCE)
- transcultural nomad
- transsigner
- universal communication network (UCN)
- universal communication space (UCS)
- universal communicative device (UCD)
- urban tribe
- utility
- vigilance position
- visual-tactile modality (ViT)
- whole body stand-by position
- 'zero fatality target' principle

Let us be humans of ecological substance!

Let us contact Nature!

Let us nurture Nature!

Let everything live!

Let everything remain!