

Grammars and cultures: on domain-specific functions of certain linguistic phenomena across languages

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RESEARCH DIMENSIONS

1. Examination of the subjunctive mood across disciplines, namely Natural and Social sciences.
2. Analysis of the subjunctive mood across cultural identities, namely in the works of English, Italian, Armenian and Russian scholars.

DIMENSION I

Stages of the analysis

1. A qualitative analysis—classification of the functions of the subjunctive mood in the specialized texts from Natural and Social sciences.
2. A quantitative analysis— estimation of the numerical prevalence of certain functions of the considered grammatical category over the others.
3. A comparison between the texts from Natural and Social sciences on the basis of the qualitative and quantitative analyses conducted.

DIMENSION II

Essence of the analysis

A culturally biased examination of the subjunctive mood in the English, Italian, Russian and Armenian languages via the quantitative method.

DIMENSION I

Authentic material

- 114 pages of highly specialized papers in Physics and Biology and 153 pages of on-line research papers from the field of Sociology.
- Only texts by English-speaking scholars have been examined.

Sources

- Academic online data-base *ArXiv*.
- Abstract book of International conference “Biotechnology and Health-3” and DAAD Alumni seminar.
- <http://www.gold.ac.uk/media/facts-ethics-event.pdf>
- <http://www.gold.ac.uk/media/experience-and-sociology.pdf>
- http://www.gold.ac.uk/media/castro_booklet.pdf
- <http://www.sociology.ox.ac.uk/swp.html>

DIMENSION II

Authentic material

- Specialized papers in Natural sciences only.
- Texts by English-speaking scholars – 114 pages
- Texts by Italian-speaking scholars – 117 pages
- Texts by Armenian-speaking scholars – 112 pages
- Texts by Russian-speaking scholars – 118 pages

Sources

- Academic online data-base *ArXiv*.
- Abstract book of International conference “Biotechnology and Health-3” and DAAD Alumni seminar.

FUNCTIONS OF THE SUBJUNCTIVE MOOD (SM) IN ACADEMIC ENGLISH

1. Supposition or assumption, probability

2. Suggestion

3. Conclusion based on logical evidence, facts

4. Wish

5. Condition

6. Purpose

7. Concession

8. Manner, comparison

EXAMPLES OF SM FUNCTIONS IN ACADEMIC ENGLISH

The domain of Natural Sciences

1. Supposition or assumption, probability

The only situation in which 4D general relativity **would break down**, and in **which one would need string theory**, or some other approach, **would be the final stages** of evaporation of a black hole.

2. Suggestion

A form factor $g(k)$ may be defined that modifies the expressions for $F(k)$ in Eqns. (1) and (2).

3. Conclusion based on logical evidence, facts

Including a longitudinal momentum dependence would make a small reduction in cross section values, about 5% for RHIC and 1% for LHC, as discussed in Appendix B.

4. Wish

The ultimate aim would be to develop physically realistic quantum field theories on a causal set.

EXAMPLES OF SM FUNCTIONS IN ACADEMIC ENGLISH

5. Condition

If the proper acceleration were sufficiently large, particles would be produced with mass such that their Schwarzschild radius exceeds their extent.

6. Purpose

In order that the Hamiltonian be Hermitian (in terms of the generalized adjoint), that it reduce to the canonical form in Fock space, and that the observer's four-velocity lie on the four-velocity shell ($v^2 = 1$).

7. Concession

The bouncing universes, that the no boundary proposal predicts, **might seem at first sight similar to the Ekpyrotic or cyclic universes.** However, there is an important difference.

8. Manner, comparison

These responses can have the effect of moving the cells toward or away from each other on average, **as if there were some effective force between the cells.**

EXAMPLES OF SM FUNCTIONS IN ACADEMIC ENGLISH

The domain of Social Sciences

1. Supposition or assumption, probability

Indeed, in the final two sections of this chapter, I want to consider **why it might be important for social scientists to attend not only to the actual domain** but also to the virtual.

2. Suggestion

Whitehead's attempt to develop a system of metaphysics should thus be seen not as a final statement concerning the nature of things, but rather as part of a larger ongoing historical project'

3. Conclusion based on logical evidence, facts

For us the red glow of the sunset should be as much a part of nature as are the molecules and electric waves **by which men of science would explain the phenomenon.**

4. Wish

This is a crucial point, **and I would want to underscore** its relation to potentiality, the defining characteristic of which is that it cannot, by definition, be grasped in thought.

EXAMPLES OF SM FUNCTIONS IN ACADEMIC ENGLISH

5. Condition

If one were to liken, for example, the qualities of subjectivity and objectivity to (a complex of) eternal objects. **then these qualities would be understood to be** both inside *and* outside the experiment, both 'universal' and particular, abstract and concrete.

6. Purpose

No examples found

7. Concession

Although Stengers' use of the notion of practices might be likened to Whitehead's emphasis on different modes of becoming (modes of becoming that will shape an entity's mode of achievement in its specificity), *she suggests that it is not the sheer number of witnesses that contributes to the reality of an entity such as America, but rather their heterogeneity*

8. Manner, comparison

No examples found

THE KEYSTONE PRINCIPLE OF FUNCTIONAL LINGUISTICS

M.A.K. Halliday “Language is as such because of the functions it has evolved to serve”.

(Halliday M.A.K. 1985 “An Introduction to Functional Grammar”)

SPEECH METAFUNCTIONS

(i) The **interpersonal** metafunction is concerned with the interaction between speaker and addressee(s) and the grammatical resources for **enacting** social roles in general, and speech roles in particular, in dialogic interaction; i.e. for establishing, changing, and maintaining interpersonal relations. One of its major grammatical systems is MOOD.

(ii) The **ideational** metafunction is concerned with 'ideation' and grammatical resources for **construing** our experience of the world around us and inside us. One of its major grammatical systems is TRANSITIVITY.

(Christian Matthiessen & M. A. K. Halliday. 1997 “SYSTEMIC FUNCTIONAL GRAMMAR: A FIRST STEP INTO THE THEORY”)

DISTRIBUTION OF THE SUBFUNCTIONS ALONG THE METAFUNCTIONS

INTERPERSONAL METAFUNCTION

- a. Supposition or assumption, probability
- b. Suggestion
- c. Conclusion based on logical evidence, facts
- d. Wish

IDEATIONAL METAFUNCTION

- a. Condition
- b. Purpose
- c. Concession
- d. Manner, comparison

THE QUANTITATIVE ANALYSIS OF SM FUNCTIONS IN THE FIELDS

<i>functions</i> <i>fields</i>	Interpersonal (hedging)				Ideational			
	supposition	suggestion	concl. based on logical evidence	wish	conditions	purpose	concession	manner comparison
Natural Sciences 114pages	101	41	43	7	24	3	7	2
Social Sciences 153pages	95	32	27	5	24	0	13	0

CORRELATION BETWEEN THE SM USE AND THE METAFUNCTIONS IN THE FIELDS

<i>metafunctions</i> <i>fields</i>	Interpersonal	Ideational	Total
Natural Sciences	192 (84.2% out of 228)	36 (15.7% out of 228)	228 cases per 114pages
Social Sciences	159 (81.1% out of 196)	37 (18.8% out of 196)	196 cases per 153pages

SOME PECULIARITIES OF SM USE IN THE DOMAIN OF SOCIAL SCIENCES

1. Each time they use their knowledge in order to claim that they know what humans and human societies may or may not achieve, they contribute to give to what exists the **power over what could be** (Stengers 1999: 204). Stengers is drawing attention here to a distinction between what can be known in and of the world, *and what the world could potentially be, a 'could' that can only, or at best, be imagined.*
2. *It is precisely Latour's suggestion that moralists should go looking for excluded entities (which implies that something 'exists' that could be 'found').*
3. *Perhaps this should come as no surprise, since it is, ultimately, a politics of reality to which Latour is referring.*
4. *This is not to suggest* that it is the cause of that situation however, or that it precedes it as such, **or that it should be thought of in terms of an original or model.**
5. Making the connections between these domains is the political task of the sociologist, *which Mills argues* should be exercised in work, in educating, and in life.

QUANTITATIVE ANALYSIS OF THE FUNCTIONS OF THE SUBJUNCTIVE MOOD ACROSS LANGUAGES

<i>functions</i> <i>languages</i>	Interpersonal (hedging)				Ideational			
	supposition	suggestion	concl. based on logical evidence	wish	conclusion	purpose	concession	manner comparison
English 114 pages	101	41	43	7	24	3	7	2
Russian 118 pages	10	36	7	0	1	1	3	0
Italian 117 pages	19	9	11	9	3	0	3	0
Armenian 112 pages	11	24	15	0	11	1	1	0

CORRELATION BETWEEN THE USE OF SUBJUNCTIVE MOOD AND THE METAFUNCTIONS ACROSS LANGUAGES

<i>metafunctions</i> <i>languages</i>	Interpersonal (hedging)	Ideational	Total
English	192 (84.2% out of 228)	36 (15.7% out of 228)	228 cases per 114 pages
Russian	53 (91.3% out of 58)	5 (8.6% out of 58)	58 cases per 118 pages
Italian	48 (88.8% out of 54)	6 (11.1% out of 54)	54 cases per 117 pages
Armenian	50 (79.3% out of 63)	13 (20.6% out of 63)	63 cases per 112 pages

The reader might object on the grounds that there are many possible measures of advancement, **but I would respond** by inviting the reader to pick any measure she chooses; the argument that I am about to give **should apply to all of them. The reader might alternatively claim** that there is no sharp minimum t^{\min} , but instead **we should describe the problem** in terms of a function which gives the probability that, for any given pocket universe, **a civilization as advanced as we are would develop by time t .** I believe, however, **that the introduction of such a probability distribution would merely complicate the argument,** without changing the result. So, for simplicity of discussion, I will assume that there is some sharply defined minimum time t^{\min} required for a civilization as advanced as ours to develop.

Source

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Eternal inflation and its implications‡

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