

Georgian Terminology: Tradition and Present State

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Abstract

This paper explores the tradition of term formation in Georgia and compares it to modern Georgian terminology. For this purpose 1600 terms were extracted from different biological dictionaries, namely, *Henderson's Dictionary of Biology*, *Illustrated Dictionary of Immunology*, *Modern Dictionary of Genetics* and some others (see the references). Terms were analyzed based on the comparative study. On the one hand, we investigated terms from more traditional fields, such as botany, zoology, anatomy, 800 terms altogether, in order to trace the tradition of Georgian term formation. The findings were compared to terms from domains, such as immunology, genetics and biotechnology, 800 terms as well, which developed relatively later and enabled us to investigate term formation trends in these fields.

The study showed that Georgian term formation provides a remarkable proof of the fact that the Georgian language has ample resources for the development of new terms. Comparative analysis of terms from more traditional fields and those developed relatively later revealed the issues, which are important from the point of view of working out principles of terminological policy.

Keywords: terminology, transliterated terms, term formation, Georgian language resources

1. Introduction.

The end of the 20th century and the beginning of the 21st century was marked by major changes in almost every field of science and technology. Modern technologies penetrated into different fields, causing revolutionary changes. "Rapid development of any field of science implies the spontaneous generation of new scientific terms, and the influx of such terms in nearly every field of knowledge is another characteristic feature of our era" (Margalitadze, 2018: 340). This process naturally posed a big challenge to the Georgian language. Unprocessed and unclear terminology may become an impediment factor for the development of this or that field. Technological developments in the fields of information and communication create the need for new ways of communication that did not exist previously. The vocabularies of languages require constant updating (Cabre 1992). Proceeding from these considerations it is important to pay more attention to the process of terminological work. The more so as even a superficial observation of modern Georgian

terminology clearly manifests that majority of terms almost in all fields are introduced into Georgian by means of transliteration.

This fact determined our choice of the research topic: to conduct a comparative study of term formation in Georgia by analyzing terms from more traditional fields, like botany, zoology and anatomy, 800 terms altogether and compare them to the terms of the fields, developed relatively later, namely immunology, genetics and biotechnology, also 800 terms.

2. Terms of Botany, Zoology and Anatomy

At the beginning of the research, we decided to study the terms from more traditional domains and 800 terms were selected randomly from the mentioned fields. The research showed that the main source for botanical, zoological and anatomical terms is the Georgian language and its vocabulary. The study revealed that the Georgian language and the words from common Georgian vocabulary were quite skilfully and creatively used for the creation of terms of anatomy, zoology and botany. Almost 80% of the analyzed terms are created by using resources of the Georgian language proper. Borrowing of terms is not frequent in these fields. One of the main methods of term formation is loan translation. The source of loan translation, in the majority of cases, is the Russian language, also the Latin language. The study also revealed that Georgian terms are often the result of several stages of structural borrowing, i.e. Russian terms were loan translations from Latin, German or French terms and Georgian terms were translation calques from Russian terms. E.g., such is the term *threadfin breams*, with the Russian equivalent Нитеперые (example 8). The Russian term is a calque from the Latin name of this fish, the English term has the same structure. The Georgian term is the translation loan from Russian and maybe from Latin as well. Below are given some examples of such terms (see examples 1-20):

1. **antirrhinum** – *bot.* დევისპირა (devispira)
2. **argute** – *bot.* ხერხებილა (xerxkbila).
3. **blind spot** – *anat.* ბრმა ლაქა (brma lak'a).
4. **beak-perch** – *zool.* დანაკბილასებრნი (danakbilasebrni).
5. **engraved catfish** – *zool.* ცრუბოლოკუდგრძელასებრნი (c'rubolokudgrzelasebrni).
6. **porthole** – *zool.* პირნისკარტა (pirniskarta).
7. **spiny-tailed** – *zool.* ეკალკუდიანები (ekalkudianebi).
8. **threadfin breams**, Нитеперые – *zool.* ბაწარფარფლიანები (bacarp'arp'lianebi).
9. **white marlin** – *zool.* თეთრი შუბოსანი (t'et'ri šubosani)
10. **racket-tail** – *zool.* ჩოგანკუდა თუთიყუში (č'ogankuda t'ut'iquši)
11. **bank swallow** – *zool.* მენაპირე მერცხალი (menapire merc'xali)
12. **postcranial** – *anat.* თავისქალისუკანა (t'avisk'alisukana)
13. **prebranchial** – *anat.* ლაყუჩინა (laquč'cina)
14. **postbranchial** – *anat.* ლაყუჩუკანა (laquč'ukana)
15. **acalycine** – *bot.* უჯამო, ყვავილის ჯამის არმქონე (ujamo, qvavilis jamis armk'one)
16. **acapsular** – *bot.* უკოლოფო (ukolop'o)

17. **acarpellous** – *bot.* ნაყოფფოთლო (naqop'p'ot'lo)
18. **knifefishes** – *zool.* დანისტანასებრნი (danistanasebrni)
19. **acerose** – *bot.* ნემსისებრი (nemsisebri)
20. **acinaciform** – *bot.* ხმლისებრი (ფოთოლი) (xmlisebri (p'ot'oli)).

3. Terms of Immunology, Genetics and Biotechnology

On the next stage of our study, we randomly selected 800 terms from immunology, genetics and biotechnology. These fields of knowledge developed relatively later and allowed us to investigate term formation tendencies of modern Georgian terminology. We found a very different situation as regards the terminology of these domains. The research showed that 75-80% of new Georgian terms are merely transliterated from their respective source-language equivalents, mostly from the English language (see examples 21-40).

21. **affinity chromatography** – *biotech.* აფინური ქრომატოგრაფია (ap'inuri k'romatograp'ia)
22. **cognate** – *gen. immun.* კოგნატური (kognaturi)
23. **complement** – *immun.* კომპლემენტი (komplementi)
24. **cluster of differentiation** – *immun.* დიფერენციაციის კლასტერი (dip'erenc'iac'iis klasteri)
25. **constant domain** – *immun.* კონსტანტური დომენი (konstanturi domeni)
26. **domain** – *immun.* დომენი (domeni)
27. **detoxification** – *immun. ecol.* დეტოქსიკაცია, დეტოქსიფიკაცია (detok'sikac'ia, detok'sip'ikac'ia)
28. **de novo mutation** – *gen.* დე-ნოვო მუტაცია (de-novo mutac'ia)
29. **explantation** – *biotech.* ექსპლანტაცია (ek'splantac'ia)
30. **polylinker** – *biotech.* პოლილინკერი (polilinkeri)
31. **amplified fragment length polymorphism** – *gen.* ამპლიფიცირებული ფრაგმენტების სიგრძის პოლიმორფიზმი (amplip'ic'irebuli p'ragmentebis sigrzis polimorp'izmi)
32. **chromatid interference** – *gen.* ქრომატიდის ინტერფერენცია (k'romatidis interp'erenc'ia)
33. **dominant lethal** – *gen.* დომინანტური ლეტალი (dominanturi letali)
34. **differential gene expression** – *gen.* გენის დიფერენციული ექსპრესია (genis dip'erenc'iuli ek'spresia)
35. **western blot** – *biotech.* ვესტერნ-ბლოტინგი (vestern-blotingi)
36. **acceptor splicing site** – *biotech.* სპლაისინგის აქცეპტორული საიტი (splaisingis ak'c'ceptoruli saiti)

37. **DNA footprinting** – *biotech.* დნმ ფუტპრინტიინგი (dnm p'utprintingi)
38. **DNA renaturation** – *biotech.* დნმ-ის რენატურაცია (dnm-is renaturac'ia)
39. **electroporation** – *biotech.* ელექტროპორაცია (elek'troporac'ia)
40. **pyrosequencing** – *biotech.* პიროსეკვენირება (pirosekvenireba).

We also find many loan translations from the English language in these domains as well. The study of the terms from the mentioned domains has revealed the increasing number of analytical, multi-word terms. Almost 70% of analyzed terms are analytical, multi-word terms. We have also observed that some multi-word terms are transliterated into Georgian (see examples 31-38). Analytical terms are not laconic but, on the other hand, they are transparent and motivated. Transliteration of analytical terms causes considerable terminological ambiguity, and is a very negative tendency for modern Georgian terminology.

4. Conclusion

The aim of our quantitative study was to trace the tradition of term formation in Georgia by analyzing 800 terms from more traditional fields like botany, zoology and anatomy and compare them to the present state of Georgian terminology. We found that nearly 80 % of terms from traditional domains, analysed by us were formed on the basis of resources of the Georgian language and this terminology provides a remarkable proof of the fact that the Georgian language has ample capabilities for the development of new terms. On the other hand the terminology of the domains, like immunology, genetics and biotechnology showed a reverse picture. Nearly 75-80 % of terms from these fields are borrowings. This tendency goes counter to the main essence of terms, main condition they should satisfy, namely that they should be clear, motivated and transparent (Ghambshidze, 1986; Ghlonti, 1983; Pochkhua, 1974; Cabre, 1992; Ten Hacken, 2006). We live in the times of great advances in science and technology. Numerous new terms appear in each domain on a daily basis posing a big challenge to the Georgian language. Unprocessed and unclear terminology may become an impediment factor for the development of this or that field. The new tendency of borrowing so many terms from English is to be carefully assessed and the terminological policy is to be worked out to somehow balance this tendency. That is why it is important to pay more attention to the process of terminological work and take into consideration the tradition of Georgian term-formation while creating new terms.

We would also like to emphasize that it is impossible to create all terms relying exclusively on the resources of the Georgian language itself and that we cannot avoid using internationalisms and borrowings. In our opinion, there is an urgent need that terminologists and domain experts make important decisions on the terminological policy for the Georgian language. In order to produce equivalents for terms, we have to decide how to introduce these terms into our language – by means of mere transliteration, or by making use of the available resources of our language. Proceeding from our observation and our study, apart from rich word-formation means of the Georgian language, the methods of semantic borrowing and structural borrowing can be successfully applied to the formation of Georgian terms.

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