

*Can we profit from a loss
and still expect substantial gains?*
**Grammatical metaphors as discourse
builders and translational choices
in English and Croatian
discourse of economics**

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Abstract

The present paper starts from proposed points of synergy between Halliday's (1998) *grammatical metaphors* and *conceptual metaphors* as proposed in Conceptual Metaphor Theory (Ritchie & Zhu, 2015) and concentrates on the nature and function of lexical choices in expert texts on economics in English and their translations in Croatian. The paper identifies and inspects the proposed instantiation types of grammatical metaphor (e.g. nominalizations and transformations to a verb or adjective as instances of *transcategorization*, taking place not only between lexical items, but also between syntactic categories and through series of transformations. Translational choices and strategies employed in their Croatian translations are then examined to determine the degree of overlap in the adoption and use of grammatical metaphor as both a language possibility and a translation strategy. The choice of translations of economics discourse from English into Croatian aims to test the hypothesis that translations, especially literal ones and those of novel metaphors may introduce new linguistic metaphors in the target language (Samaniego Fernández et al., 2005).

Key words: grammatical metaphor; conceptual metaphor; economics; translation strategies.

1. Introduction

Both the introductory title above and examples (1) a. and b. below have been chosen for their redolence with a particular type of phenomenon as the focus of the present paper:

- (1) a. *Therefore, **the fight** against **tax evasion** and tax fraud is one of the main priorities of the Juncker Commission, and one of the most important initiatives for **advancing** the **completion** of the EU single market.*
- b. *Stoga je **borba** protiv **utaje** poreza i porezne prijevare među glavnim prioritetima Junckerove Komisije i jedna od najvažnijih inicijativa za **unapređenje** rada na **dovršetku** jedinstvenog tržišta EU-a.*

What characterizes the two examples in both languages, as cases of an original piece of text in English and its translation in Croatian, is the presence of nominalization i.e. instances of shifts from one syntactic category to another, whereby processes and qualities are categorized as nouns and parts of NPs. It should become clear, however, that much more is happening at the rank of the word than a simple *transcategorization*. What varies are not simply lexical items, but grammatical categories. These cases are thus considered to be highly metaphorized, under a specialized understanding of metaphor, viz. *grammatical metaphor* (henceforth GM), suggested by Halliday (1985: 55) as “an alternative lexicogrammatical realisation of a semantic choice.”

This paper shall concentrate on more practical ramifications of the concept of GM by describing and analysing specific instances of it as translational choices in a particular discourse type. As such, for reasons to be presented, the study will be argued to cross-cut (at least) two major domains of interest¹. On the one hand, it addresses the activity of translation, itself a process essentially involving choices of grammatical form to convey meaning in texts as instantiations of meaning. On the other hand, it sets out to examine the nature and role of GM in a particular genre and register, one related to the language of science, in our case economics. Grammatical metaphors will consequently be argued to concern not only the domain of translation, but also that of contact linguistics.

We aim to tackle the following research questions:

Can translation, i.e. use of nominalizations as lexico-grammatical options available in TL (Croatian) be claimed to influence the adoption of grammatical metaphors as features typical of SL (English) as a potential donor

or

¹ Ravelli (2003), Banks (2003) and a host of other contributions to the volume on grammatical metaphor edited by Simon-Vanderbergen et al. (2003) note the impact of grammatical metaphor in areas as diverse as translation, education, training in academic writing and many others.

Is it primarily a matter of register and style preferences typical for specific text types, their related purposes and target audience?

The paper is structured as follows. After this introduction, we outline the basic theoretical issues related to grammatical metaphor in Section 2, with special emphasis to those pertinent to our study. Sections 3 and 4 address the nature and function of GM in academic discourse, register and style, and translation, respectively, providing a basis and justification for our methodological choices, outlined in section 5. Section 6 presents the results, followed by their discussion and conclusions in the final section.

2. GM as a multifaceted phenomenon

The notion of grammatical metaphor originated within Halliday's (1985/1994; Halliday & Matthiessen, 1999) *systemic-functional grammar approach*, i.e. as part of an overarching theory of language and its 'lexicogrammatical structure.' The latter, in turn, rests on his view of grammar as a theory of human experience.

The complexity of the phenomenon (see contributions in Simon-Vanderbergen et al., 2003) calls for a more systematic look at grammatical metaphor considered as a stratal phenomenon which exploits the 'play' that arises at the interfacing of the grammar and the semantics.² GM is able to bring to the surface the linguistic (and cognitive³) processes through which grammatical play and transformation might potentially create new meaning. Rewording is thus said to correspond to 'remeaning' (Vanderbergen, 2003: 224): "a piece of wording that is metaphorical has as it were an additional dimension of

² As we will see below, semantic variation is an important factor of distinguishing between lexical and grammatical metaphor. The feature of semantic tension, which is so typical of metaphor in its traditional sense, is also present in grammatical metaphor. Taverniers (2003) argues that grammatical metaphor involves a complex move, both 'down' in rank and 'across' in status (function/class). In other words, two kinds of grammatical movement are posited: one of rank, whereby a clause complex is reconstrued as a phrasal one from the function in a clause to a function in the nominal group, and one in structural configuration.

³ Ritchie and Zhu (2015) suggest that, in terms of cognitive effect and cognitive processing, GM (i.e. transcategorization) has the same (discoursal) effect as the objective *conceptual metaphor* in its PROCESSES ARE ENTITIES instantiation. Heyvaert (2003) relies heavily on the tenets of Langacker's (2000) *usage-based model* in her attempt to provide a theoretical-descriptive model of nominalization pattern, which lies in a dialectic of theory and description. The usage-based model is thus seen as "an approach which views nominalizations as 'systemically motivated' constructions which are structured with reference to the conventional units of language, and linked to them in terms of schematization and extension (...)," which results in differently entrenched units. We fully support her view of nominalizations as symbolic units which encode meaning, which mitigates the fact that "research on nominalization patterns often seems to consider the analysis of lexicogrammatical properties as an end in itself and only rarely attempts to link it up with the semantics of the construction" (Heyvaert, 2003: 46).

meaning: it 'means' both metaphorically and congruently" (Halliday, 1994: 353). The independent meaning of lexical word order and form is fundamentally associated with a different form and structure, which the new one represents, i.e. construes in a fundamentally new manner. What varies is not (just) lexical items, but also grammatical categories. What is more, the process goes so far that "[t]oo often, nominalizations are regarded as 'empoverished' clauses, rather than as constructions in their own right." (Heyvaert, 2003: 41). GM is, therefore, clearly a somewhat special process in several respects, as it opens a host of issues concerning both their nature and delimitation from other related concepts.

First and foremost, GMs can be seen as a departure from, or more usefully an extension of, the notion of (lexical) metaphor. What it shares with the traditional understanding of lexical metaphor is the "secondary" status of the grammatical metaphorical meaning. Taverniers' (2006) distinction between the semasiological and onomasiological view of grammatical metaphor proves extremely useful here. From a semasiological perspective, the starting point is a particular form or expression, and the central question is: *what kinds of meanings are or can be expressed by this form?* Conversely, the onomasiological perspective focuses on *how we express the same meaning*, making literal and metaphorical sentences respective variants of the same meaning. From a semasiological viewpoint, something is taken as an (ideational) metaphor because the standard meaning of a nominal expression (entity) is used to designate a process, rather than its default entity meaning. Onomasiologically, however, the meaning type 'process' is the starting point and it turns out it can be expressed in language in two ways, as a Clause (default for a process) and an NP (as a default for an entity), making the latter possibility secondary, i.e. a metaphor.

These important distinctions help alleviate of the difficulties in defining and delimiting what is 'metaphorical' and what is not in this new understanding of metaphor. The issue is commonly reflected in the differentiation between the so-called *congruent* and *noncongruent* forms/readings. Both follow from the above (onomasiological/semasiological) reinterpretation of literalness, which is more precisely interpreted as *markedness*, in that "certain forms can be recognized as unmarked expressions of the given meaning, conforming to the "typical ways of saying things"" (Halliday, 1985: 321). The latter are seen as 'congruent,' i.e. non-metaphorical variants. Halliday offers the example of the expression *protests flooded as a non-congruent version*, as a metaphorical variant of the congruent versions, viz. *protests came in in large quantities, protests were received in large quantities or very many people protested*.

The congruent variants present several issues. First, there is the possibility of suggesting several possible congruent variants, all of which feature variation, not only lexical, but structural. This makes the notion of *unpacking*

the metaphor, i.e. hypothesizing or arriving at a potential wording which mirrors its congruent form, both an important and problematic methodological step. Furthermore, the non-congruent, i.e. metaphorical reading is also said to be to be semantically marked in that it fails to capture and express the semantic content that the non-congruent one does, or does so in a different manner. Finally, the first two issues suggest the possibility of positing degrees of (in)congruency, i.e. congruent and less congruent *agnate*⁴ forms of expressing the intended meaning. To exemplify these, we borrow Gleason's (1965: 203) example, quoted in Heywaert (2003:55), where the cases b.-d. are considered as agnates of the structure in a. :

- a. I still regret not going to school.
- b. I still regret not having gone to school.
- c. I still regret their not going to school.
- d. I still regret that I did not go to school.
- e. I still regret the fact that I did not go to school.

We fully side with Heywaert in accepting the adoption and analysis of agnate forms as a tool for disambiguating apparently identical structures, and in her view that “yet another function of agnation lies in the identification of the component parts of a construction.” (ibid. 56) In fact, we will later hypothesize it to be one of the possible steps or actions in the process of translation.

This feature has also proven important in the description of various types of metaphors. In this respect, Halliday distinguishes between three classes of GM and correlates these to the basic functions of language. Two of them, the ideational and the interpersonal, are usually in focus. The third one, the textual function, serves to bind the two together. The ideational function of language concerns the way speakers construe their experience of reality through language. As we emphasized earlier, this is done through a lexicogrammatical reconfiguration of processes and their participants, as well as the latter's entities and qualities, earning them the term *metaphors of transitivity* (Taverniers, 2003: 8). Nominalizations are described as ‘ideational’ metaphors. They are, in other words, primarily seen as a resource for reconstructing experience along experiential and logical lines:

⁴ Much emphasis is put on finding one construction that can be considered as the congruent agnate of the nominalization and that is itself, syntagmatically speaking, a good English structure. Heywaert (2003: 66) suggests some important tendencies in this respect. For example, congruent agnate of a deverbal nominalization (to be distinguished from de-adjectival nominalizations like *long/length*) is argued to be typically clausal: “nominal groups may serve as metaphorical realizations of process configurations in alternate with congruent clauses” (Matthiesen, 1995: 678).

The semantic process is represented congruently as the Process in the transitivity structure of the clause; but through grammatical metaphor it may be nominalized and represented as if it were a participant or circumstance, possibly together with other elements of clause structure. (Matthiessen, 1995: 356).

In this respect, GMs, in the above understanding of different ways of construing the same experience, represent a prime example of this metafunction. In its ideational function, GM classifies processes into categories and makes them eligible for entering a number of causal relations, i.e. numerous instances of reasoning from one process to another. Furthermore, this results in a number of *syndromes*, defined as clusters of transformations which reconfigure the grammatical structure⁵ (Halliday, 1998: 214), an issue we return to as an obvious methodological problem in our discussion of methodological choices in Section 4. Although it is commonly accepted that GM is more than just nominalization, our decidedly specific focus on it is, therefore, conditioned by several both theoretical and methodological factors.

The other, interpersonal function, focuses on the enactment of interpersonal relationships between speakers and intersubjective positioning through linguistic interaction,⁶ Although translation could be seen as a bidirectional phenomenon, since it does involve a translator and the recipient/reader, for present purposes the interpersonal function will largely be outside of the scope of the present paper. It is, however, somewhat implied by the factors we will address (e.g. the intended audience of (translated) economics-related texts).

3. Grammatical metaphor and scientific writing

As noted earlier, the specific nature and role of GM as a mechanism or process in the linguistic system and “a way of meaning” invites interesting parallels with other domains. Ravelli (2003) notes its importance in relation to the understanding of written texts, their creation and recreation.

Halliday (1998) claims that the process of nominalization and separation of the discourse of science from ordinary discourse leads to the creation of (scientific) ideology. Scientific theory, and consequently style, is claimed to be similar to grammar in that it essentially reconstrues aspects of human experience in a different way to open them to observation, investigation and

⁵Although she focuses only on deverbal nominalisations, Heyvaert (2003) takes a broad approach to GM, in that she includes all nominal constructions which, at some layer of their assembly, incorporate a reclassified verbal component. We support her observation (ibid: 41) that “nominalizations included in the discussion differ as to the level of assembly at which the nominalization process takes place.”

⁶ As such it studies features of, e.g. evaluative language and modality, which accounts for the alternative term *grammar of mood*.

explanation. It is no wonder then that GMs represent scientific discourse builders, at the heart of written language. This is particularly true for the discourses of scientific and academic reasoning and style (Ravelli, 2003: 45) that students and scholars, past, present and future are required to adopt as 'tools of the trade.'

As (conscious) register and genre-driven specific choices, GMs are said to do certain things, i.e. serve particular purposes, and do so systematically. Ritchie and Zhu suggest two discursive processes/functions as crucial to the reliance on GM in scientific writing, viz. *technicalizing* and *rationalizing*. The "technicalizing" function has to do with the semiotic power of referring being further exploited to create technical taxonomies as cases of what Halliday (1998) considers 'dead metaphors.' The process is argued to result in the creation of terminology/taxonomy of technical terms. The latter are in turn argued to enable and improve the information flow. As such, these relate to the second, "*rationalizing*" function, crucially dependent on the ideational one, which is said to facilitate the development of scientific argument by creating chains of reasoning and qualifying, thus elaborating the argument. We fully support the view of the two functions as "complementary aspects of an integrated semiotic process." Both depend, first and foremost, on the same basic resource, viz. *transcategorization*, the shift from one syntactic category to another, i.e. of a clausal into a nominal mode of construal. Halliday refers to this semantic process as *distillation*. In other words, there seems to be a slight sense of the gradual 'distilling' effect of progressive nominalization from a simple morphosyntactic sequence in English, exemplified in (2):

(2) *The rock became plastic vs. the plastic state of the rock*

As such, nominalization reduces the number of clauses, allowing more information to be compressed in an NP and thus condensing information to enable further comments and observations about a concept.

This process, however, is not monolithic. Research has indicated an evolution in the processes and practices characteristic of scientific writing, whereby GM is said to play a crucial role.⁷ Based on an extensive corpus linguistic analysis, Biber and Gray (2013)⁸ note two complementary trends in academic writing. First, there is an increase in NPs and NP modifiers, which corresponds to the use of GMs as non-congruent versions. This, in turn, goes

⁷ Banks (2003) suggests three major developments in this respect: an increasing use of nominalized processes in scientific discourse in the last 250 years, with a more rapid development of physical over biological sciences in this respect, as well as an extension of the use of nominalized processes from the function of head in the noun group to that of modifier.

⁸ As suggested by an anonymous reviewer, this line of research, as well as further issues related to the role of register, genre and style are analyzed in a book-length format in Biber and Conrad (2019).

hand in hand with a decrease in verbs and clauses as cornerstones of congruent versions.

The discourse has thus changed to compensate for changes in nominal/phrasal structures. The nominal group thus becomes a powerful resource for making meaning – in English, and in many other languages besides.⁹ What is more, Halliday (1995) emphasizes that the tendency is to express relationship by phrasal devices¹⁰ rather than clauses has resulted in the “favourite clause type” of scientific English, with two nominalized processes or qualities (NP/AjdP) joined by a relator (VP), exemplified in (3)

(3) *rapid changes in the rate of evolution are caused by external events*

What is even more compelling, however, is the hypothesis that there is significant variation between written informational registers, i.e. different types of texts. The abovementioned tendencies seem to happen to different degrees in different registers, more heavily in specialist science research papers than in other academic subregisters. Biber and Gray (2013) relate this to three sets of factors: a) the written mode, b) their informational purpose and c) specialist audience. The hypothesis is that these fine-grained differences in purpose and audience correspond to systematic differences as to how far the changes in style went. We partially reproduce Biber and Gray’s (ibid: 105) classification in Table 1 below, and adapt it for present purposes:

Table 1: Audience and purpose of written registers (adapted from Biber & Gray, 2013: 105 (Table 5.3)).

Register	Audience	Purpose
Science	highly specialized	highly informational, technical
Non-Science	specialized	highly informational, less technical
Popular Science	wide readership	highly informational, less technical

These, as we will show below, have also informed our choice of corpus, especially since we see a number of potential parallels and (mutual) influences between scientific register and style, and the views on the process of translation. We thus briefly turn to the latter.

⁹ Godman and Weltman (1990) quote compelling evidence which bears witness to “the unprecedented, juggernaut-like dominance and progress of English in the international scene in science and related fields” (ibid. 195), making it an undisputed *lingua franca*.

¹⁰ The main reason for the semogenic power of an NP (Halliday, 1998: 227) is that it can be expanded to a more or less indefinite extent.

4. Grammatical metaphor and/in translation

The act of translating scientific texts into a language presupposes the existence of a scientific register in that target language and, if it lacks one, contributes to the development of such a register in that language (Godman & Veltman, 1990). This makes the notion of context of translation a valid area of investigation, if one wants to study the very process of translation, its outcomes and repercussions. For present purposes, we follow Godman and Veltman (*ibid.*) in acknowledging that translating may lead to certain coinages in the target languages- a phenomenon present and at the root of the specific function of grammatical metaphor. Given the status of English as somewhat of a lingua franca of modern business and economics, we expect its influence on translation choices “because of the special characteristics and demands of scientific translation, which places a high premium on congruity of terminology in the two translation languages” (Godman & Veltman, 1990: 193).

Furthermore, we expect it to work in tandem with the role of register and style in academic texts in (and on) domains such as economics, together with grammatical metaphor as one of its characteristics, whereby the translation process may be compared to the aforementioned unpacking processes,¹¹ i.e. the production of agnate forms (see Section 1). The latter is, furthermore, justified/ supported by abovementioned results of previous research into the development of academic style and formal (written) register.

The question we will tackle in this respect is: do all the logically possible shifts take place, or are only some of those that are possible in principle actually taken up?

Our analysis is therefore primarily *product-oriented* (Schäffner, 2004), but we plan to address the possible implications for *process-oriented approaches* which could first and foremost be related to hypothesizing the potential types and kinds of cognitive processes in the translator’s mind in the course of translating (cf. Conceptual Metaphor Theory). Such claims are, however, admittedly extremely tentative, given the myriad potential factors which can influence the translation process (cf. Sarmaniego Fernandez et al., 2005). Although we hypothesize many a number of these to be present in case of economics and economic texts too, we narrow down the present focus on the three factors: typological factors, register and properties of the translation

¹¹ In line with her understanding of GMs as symbolic units, i.e. constructions, Heyvaert (2003: 48) rightly emphasizes that the analysis of a construction should not only deal with the construction as product, but should also consider the order of assembly of its component parts, i.e. the construction as process. Similarly, she makes a theoretically important point that “a distinction can be made between, on the one hand, nominalizations which reclassify a verbal unit of the rank of the word into a nominal unit of the same rank, and, on the other hand, reclassification which involves a clausal unit being ‘downranked’ to nominal rank” (*ibid.*).

process that Steiner (2002: 213ff) claims to best explain the properties of translated texts.

5. Methodology

The analysis is divided into two strands. First, analysis was done by counting and classifying instances of GM in works originally written in Croatian.

Several caveats are in order, based on previous research into aspects of GM. First, although it is commonly accepted that GM is more than just nominalization, our decidedly specific focus on it is conditioned by several, both theoretical and methodological factors.

Ritchie and Zhu (2015), for example, observe that Halliday's coding and suggestions of congruent readings (and agnate forms) involve methodologically and theoretically intermediate steps that are not apparent, or are open to re-examination due to the aforementioned stratal nature of GMs as syndromes (see Section 2). This translates to a potentially imprecise and demanding task of suggesting the pathways of a gradual distillation process (cf. Heyvaert, 2003: 67, who also observes that some nominalizations can hardly be related to a good clausal agnate¹²). We have, therefore, chosen to follow Ritchie and Zhu (2015: 125, fn. 4) and limit our scope of analysis to a qualitative inspection of only *direct displacements* in English/Croatian and their translational counterparts as final choices of the translator in a particular case. We do, however, acknowledge the possibility of both the translator's or proofreader's re-editing moves, as well as later editorial interventions on the final text. Our analysis will, therefore, be more qualitatively-minded, in that that it will devote more attention to specific examples and potentially illustrative tendencies arising from the quantitative and contrastive analysis of the corpus examples.

To cater for the possible impact of types of academic prose, as suggested by Biber and Gray's (2013) corpus-based research, in our choice of corpus we sought to represent and distinguish between subcategories of academic prose according to register, audience, purpose. We used three types of text, with special focus on non-science and popular science texts.

Table 2 outlines the texts, along with their respective registers, purposes and audience.

¹² Instead, Heywaert (2003) argues for a network of agnates, whereby "each of the agnates highlights a specific grammatico-semantic feature of the nominal, and together, they define the nominalization." Although such an approach is undoubtedly valuable for a precise description of single instances, its complexity makes it too huge a bite for our present aims and purposes.

Table 2: Corpus texts classified according to target categories of register, purpose and audience.

SOURCES	REGISTER	PURPOSE	AUDIENCE
European Commission's report on competition policy, English and Croatian version	non-science (administrative)	informational	specialized
Blanchard, Olivier (2002) <i>Macroeconomics</i> . Blanchard, Olivier (2005) <i>Makroekonomija</i> .	science (technical)	highly informational	specialized
Blažić, Helena (2006) <i>Usporedni porezni sustav - oporezivanje dohotka i dobiti</i> . Ekonomski fakultet u Rijeci. Rijeka.	science (technical)	highly informational	specialized

A further extenuating factor was the lack of (reliable) translations from English into Croatian of specialist science research articles. One should also consider the possibility that the texts at hand were written by non-native users of language, another inevitable consequence of English as modern business lingua franca. Similarly, it is difficult to know whether the texts were originally written in English, or subsequently (self-)translated into English.

These, as well as a number of other potential factors influencing the translation process, as suggested by Samaniego Velasquez et al. (2005), necessarily make this study a preliminary, pilot look into the phenomenon.

5. Results

The first pair of texts that we have analysed with respect to the occurrence of GMs were the English version of the 2015 European Commission report on competition policy and its counterpart written in Croatian. We have classified these texts as administrative texts whose purpose is informational and whose audience is specialized (see Table 2). We started with the English text in which we looked for nominalisations, more specifically, process nominalisations (e.g. *spending, financing*), event/result nominalisations (e.g. *growth, reduction*), conversions (e.g. *gain, loss*) and deadjectival nominalisations (e.g.

impartiality, flexibility).¹³ We then checked how the instances of these were translated in Croatian.

Although the focus of this study is primarily a qualitative analysis of translational choices in a specific text type, the statistical analysis was first conducted with the aim of establishing overall tendencies regarding the frequency of nominalisations in this type of administrative texts. Our analysis showed that the number of event/result nominalisations far exceeds the number of process nominalisations both in source and target text (hereafter ST and TT respectively). However, while the number of process nominalisations and deadjectival nominalisations is roughly the same in both versions, the Croatian version contains more result nominalisations, i.e. 45.15 per 1 000 words, compared to the English one with only 32.51 instances per 1 000 words (see Tables 3 and 4).

Table 3: Frequency of nominalizations in the English version of the European Commission report.

Commission report_Cro (9 035 words)	No of process nominalizations	No of event/result nominalizations	No of deadjectival nominalizations	Total
Total	80	408	9	497
No per 1 000 words	8.85	45.15	0.99	55.00

Table 4: Frequency of nominalizations in the Croatian version of the European Commission report.

Commission report_Cro (9 035 words)	No of process nominalizations	No of event/result nominalizations	No of deadjectival nominalizations	Total
Total	80	408	9	497
No per 1 000 words	8.85	45.15	0.99	55.00

The explanation for this may lie in the fact that in Croatian, due to its grammatical system, there are no conversions, which could mean that some conversions found in English were translated as result nominalisations in Croatian. On closer scrutiny of such examples, however, we have estab-

¹³ The admittedly broad terminology denoting different types of nominalizations was taken from Quirk et al. (1985).

lished that this is not entirely so. While the majority of them were translated as result nominalisations, e.g. *access* was translated as *pristup*, *abuse* as *zlouporaba* (see also examples (4) b. and (5) b. below), we also came across instances where a process nominalisation was used instead (e.g. the phrase *online search services* was rendered as *usluge pretraživanja interneta*, *Google's conduct* was conveyed as *postupanje poduzeća Google*, etc.).

- (4) a. *State aid control ensure that public investment projects address real **needs**, keep **costs** under control and guarantee that public money is genuinely needed to get projects off the ground.*
- b. *Kontrolom državnih potpora osigurava se da se projektima javnog ulaganja zadovoljavaju stvarne **potrebe**, **troškovi** drže pod kontrolom te jamči da su javna sredstva doista potrebna za pokretanje projekata.*
- (5) a. *Econometric model simulations show that the Commission's merger and cartel decisions lead to a 0.7% **increase** investment after five years.*
- b. *U skladu sa simulacijama ekonometrijskih modela zbog odluka Komisije o koncentracijama i kartelima došlo je do **povećanja** ulaganja od 0,7% nakon pet godina.*

However, even if we take into consideration the number of English conversions translated as result nominalisations in Croatian, result nominalisations are still slightly more frequent in Croatian than in English. In our next step, we have, therefore, manually analysed how English nominalisations were conveyed in the Croatian text. What we have found is that there were as many as 24 out of 73 (32.87 %) cases in which the English process nominalisation was translated as a result nominalisation.

- (6) a. *In its two decisions, the Commission has set out the methodology for **calculating** the value of the undue competitive advantage enjoyed by Fiat and Starbucks*
- b. *U dojema odlukama Komisije navedena je metodologija za **izračun** vrijednosti neopravdane konkurentske prednosti pružene Fiatu i Starbucksu*
- (7) a. *They breach European antitrust rules by setting an artificially high minimum price for **processing** these transactions.*
- b. *Kršē europska protumonopolska pravila time što se za **obradu** tih transakcija naplaćuju umjetno visoke najniže cijene*

Additionally, in order to account for still a higher number of result nominalisations in the Croatian version, we manually checked each such instance against their counterparts in the ST. What we have established is that out of a total of 408 result nominalisations in Croatian version in as many as 61 cases a verb phrase or clause was the original wording in English (14,95 %). What we can see here is that the translator opted for metaphorization even in cases where the original wording was congruent.

- (8) a. *The guiding principles of competition enforcement are **to safeguard** impartiality, **enforce** the rule of law and **serve** the common European interest.*
- b. *Vodeća načela provedbe tržišnog natjecanja jesu **zaštita** nepristranosti, **provođenje** vladavine prava i **služenje** zajedničkom europskom interesu.*
- (9) a. *Enabling more effective competition helps **stimulate** investment by keeping markets open and ensuring that action is taken if a market leader abuses its position to prevent its competitors from growing and innovating.*
- b. *Omogućivanjem učinkovitijeg tržišnog natjecanja olakšava se **stimuliranje** ulaganja održavanjem otvorenosti tržišta te osiguravanjem da se poduzimaju mjere ako vodeće poduzeće na tržištu zloupotrebljava svoj položaj kako bi svojim konkurentima onemogućilo rast i inovacije.*

We then compared the textbook originally written in English (Table 5) and its translation into Croatian (Table 6) to see whether the results would be similar in a slightly different text type, aimed at different audience and with a different function.

Table 5: Frequency of nominalizations in the English textbook.

English textbook (4,090 words)	No of process nominalizations	No of event/result nominalizations	Conversions	No of de-adjectival nominalizations	Total
Total	10	196	81	9	296
No per 1,000 words	2.44	47.92	19.80	2.20	72.37

Table 6: Frequency of nominalizations in the Croatian translation of the textbook.

Croatian textbook translation (4,211 words)	Process nominalization	No of event/result nominalizations	Deadjectival nominalizations	Total
Total	6	268	9	283
No per 1,000 words	1.42	63.64	2.13	67.20

Again, it turned out that result nominalisations were by far more frequent than process nominalisations. What is more important, the analysis showed that result nominalisations in textbooks were more common than in the previously examined administrative texts (Tables 3 and 4 above). In the English version there were 47.92 result nominalisations per 1,000 words, while

in the Croatian one we counted 63.64 of them per 1,000 thousand words. Textbooks are of more technical nature than previously discussed administrative texts and it seems that such event nominalisations are a common feature of this register in both languages. Interestingly, once again result nominalisations in the Croatian version outnumber those in the English version. Even though we did come across examples in which English metaphorical wording was replaced by Croatian congruent wording, as e.g. in examples (10) a. and b. where the NP *wage moderation* was replaced by the Croatian clause *ograničiti rast nadnica*, these examples were quite rare. Much more common were examples of metaphors being conveyed by metaphors, e.g. NP *worker protection* was replaced by NP *zaštita radnika*, and NP *consumption decision* was replaced by NP *odluka o osobnoj potrošnji*.¹⁴ However, examples where English VP was replaced by a Croatian nominalisation, be it process ((11) a. and b.), event ((12) a. and b.) or deadjectival ((13) a. and b.) were again abundant.

- (10) a. *How can **wage moderation** be achieved?*
b. *Na koji način najbolje **ograničiti rast nadnica**.*
- (11) a. *The conclusion, they conclude, is **to remove** those rigidities, to make European markets more like the U. S. labour market.*
b. *Rješenje je, zaključuju, u **uklanjanju** tih ograničenja, kako bi europska tržišta rada postala sličnija američkom.*
- (12) a. *At the same time, they believe that it will take some time for investment and consumption demand **to recover**.*
b. *U isto vrijeme, međutim, vjeruju da će biti potrebno određeno vrijeme za **oporavak** investicijske i osobne potražnje.*
- (13) a. *Competition policy keeps markets **efficient** and **open**.*
b. *Politika tržišnog natjecanja zaslužna je za **učinkovitost** i **otvorenost** tržišta.*

In addition to analysing translations into Croatian, we also examined a text originally written in Croatian, which served as a parallel, control text for us to test three things: whether the tendencies observed in translations differ from what is commonly found in texts originally written in Croatian by Croatian authors, to what extent the translation is standardised with respect to the ST (cf. Toury, 1995), and to what extent the nominalisations are the features of the text-type.

The results basically run along the lines of those established in the translations from English (see Table 7). Result nominalisations outnumber pro-

¹⁴ What is however different between English and Croatian with regard to the latter examples is the fact that English NP head is premodified, while Croatian NP head is postmodified, an issue we will go back to in Section 6.

cess nominalisations with 42.56 instances per 1,000 words compared to 12.74 instances of process nominalisations per 1,000 words. A closer scrutiny indicates that in many cases result nominalisations are actually real technical terms, e.g. *porezna olakšica* (tax relief), *izdatak* (expenditure), *odbitak* (deduction), *primitak* (receipt), *ušteta* (savings), *priljev* (capital inflow), *odljev* (capital outflow), *sveobuhvatnost* (comprehensiveness), *neobuhvat* (non-inclosure), which lends support to previous conclusions on the technicalizing role of result nominalisations in specialized technical texts.

Table 7: Frequency of nominalizations in the textbook originally written in Croatian.

Croatian textbook (4,628 words)	No of process nominalizations	No of event/result nominalizations	No of deadjectival nominalizations	Total
Total	59	197	16	272
No per 1,000 words	12.74	42.56	3.45	58.77

7. Discussion and conclusions

Let us now go back to our first research question on whether all the logically possible shifts take place or whether translators take up only some of those that are possible. Our analysis has shown that when it comes to translation of nominalisations, as the most prototypical instances of the grammatical metaphor, in different types of technical texts in the field of economy translators use all logically possible options translating them with more or less congruent wordings found along the metaphorization cline. We had instances of grammatical metaphors being kept, in that English process, result, and deadjectival nominalisations were conveyed with their respective Croatian counterparts. We, however, also came across examples of remetaphorisation, i.e. of cases in which English metaphors were not only kept, but also reinforced in Croatian by being translated with a more metaphorical or less congruent wording, as e.g. in cases when English process nominalisations were translated as result nominalisations. Finally, there were also examples of demetaphorisation in which translators opted to convey an English grammatical metaphor through a congruent wording in the Croatian version.

However, we have noted that Croatian texts, be they translations or the originals, systematically opt more frequently for result nominalisations than English texts. Even though it is difficult to make any definitive conclusions based on such a limited data set as the one we have examined, this could

mean that Croatian tends to resort to less congruent wordings than English, at least when it comes to nominalisations in the registers examined. We have therefore established, at least in our text sample, that Croatian is characterised by a wider use of grammatical metaphor than English.

In answer to our second question, our analysis has revealed that fine-grained differences in purpose and audience indeed do correspond to systematic differences as to how far the changes in style go. How a metaphor will be rendered in the TT is greatly determined by the function it is supposed to carry out (cf. Manfredi, 2014). This is most obvious in the fact that both English and Croatian textbooks (both the translation from English and the work originally written in Croatian) contain considerably more result nominalisations than administrative texts. This is actually in accordance with the primary purpose of a textbook, which is to instruct a non-specialist reader, teach them the concepts of a specific technical field and the respective terminology. As noted in Section 2, scientific theory is very similar to grammar in reconstruing human experience in a different way to enable its observation, investigation and explanation (Halliday 1998). In parallel to this, by resorting to grammatical metaphor in language, speakers propose an alternative way of conveying the same event. This is especially useful in academic discourse where resorting to a different, less congruent wording on the metaphorization cline enables speakers to condense processes into entities and thus create technical taxonomies (Halliday, 1998; Ritchie & Zhu, 2015). Result nominalisations, as the endpoint on this metaphorization cline, serve this purpose especially well.

This function of the grammatical metaphor in scientific discourse was particularly evident in Croatian where our analysis of the textbook originally written in Croatian revealed a wealth of terms in the form of result nominalisations (e.g. *porezni poticaj*, *prirast bogatstva*, *pokriće proizvodnih troškova*, *pokazatelj porezne sposobnosti*, *podjela prihoda*, *porezna olakšica*, *sveukupnost ekonomskih dobara*, *tržišni poremećaj*, etc.). Especially striking for us, as native speakers of Croatian, was the fact that we came across such result nominalisations which do not exist in conversation, but function as terms in the specific discourse of economics, such as e.g. *porezni obuhvat* (Eng. *tax inclosure*) and *porezni neobuhvat* (Eng. *tax non-inclosure*).

Finally, our last research question was whether Croatian would be under the influence of English in the translation of observed nominalisations, i.e. whether we would have the case of standardisation in terms of Toury (1995). The analysis of Croatian TTs, and in particular the analysis of the textbook originally written in Croatian, allows several tentative conclusions. First, at least when it comes to this type of academic discourse in the field of economy, Croatian offers resistance in that translators often resort to a wording that is less congruent and more metaphorical (English process no-

minalisations, verb phrases and clauses were often translated as Croatian result nominalisations). What seems to be of more importance for the choice of wording here is the register, the text-type, and not the source text version, which leads us to believe that less congruent wordings are a typical way of conveying things in Croatian administrative and academic discourse¹⁵.

However, it would be wrong to conclude based solely on the analysis of nominalisations that Croatian has come further along the metaphorization cline than English has. Namely, in the course of our analyses of nominalisations in English texts, we would often come across phrases such as e.g. *budget deficit reduction*, *money demand curve*, etc. As noted in Banks (2003: 142) such nominal phrases are a 20th century, therefore a relatively recent, development in English scientific discourse where a considerable number of nouns function as modifiers within the nominal group thus achieving the density of information much stronger than in the cases when there are no noun premodifiers (cf. also Biber and Gray 2013). As Banks (2003) argues, this is the extension of the use of nominalised processes from the function of NP head to that of the NP modifier.

Since Croatian does not allow nouns as premodifiers of other nouns, we were interested in how these phrases were conveyed in Croatian. We found out that the target version was always more congruent and more explicit. This is visible in the common use of prepositions which explicate the relationship between the noun modifier and the noun modified within the NP e.g. *forecast error* was conveyed as *pogreške u prognozama* (lit. *errors in forecasts*), *open-market operations* were conveyed as *operacije na otvorenom tržištu* (lit. *operations on the open market*), etc. (for more examples see Table 8). Occasionally, adjectival nominalisations were conveyed as plain adjectives, e.g. *labour market rigidities* were conveyed as *nefleksibilno tržište rada* (lit. *rigid market of labour*). The genitive case was also used in Croatian TTs instead of English noun premodifiers, again to explicate the relationship between the noun modifying and the noun modified. For example, the phrase *rast domaćeg proizvoda* as the translation of the phrase *output growth* through the genitive case of *domaćeg proizvoda* (*output*) indicates what the NP head *growth* (*rast*) refers to (for more examples see Table 8 below).

¹⁵ As Steiner (2001: 181) argues, de-metaphorization is a part and parcel of the translation process since the the process of understanding and ascertaining the meaning of a text inevitably involves disambiguation in the form of relating clauses and other units to their less metaphorical variants even in the source text. Nevertheless, as he further argues, “typological effects may actually, to some extent, counteract the other processes going on during translation” (Steiner 2001:183), which may have happened in the Croatian versions of texts.

Table 8: Explication of English NPs in Croatian.

English NP	Croatian NP	Mode of explication
budget deficit reduction	smanjenje proračunskog deficita	genitive
consumer confidence index	indeks povjerenja potrošača	genitive
federal funds market	tržište federalnih fondova	genitive
equilibrium condition	uvjet ravnoteže	genitive
inventory investment	investicije u zalihe	preposition
money demand	potražnja za novcem	preposition
consumption decisions	odluke o osobnoj potrošnji	preposition
equilibrium output	ravnotežni domaći proizvod	NP to adjective
money market funds	novčani fondovi	NP to adjective

We can conclude that translators were forced to demetaphorise such English NPs and turn to more congruent wordings as the recipient system blocks the metaphorization and offers other ways of construing the same reality (Langacker 1987),¹⁶ which again limits the influence the source system can exert on the target system.

While the data set we worked on is admittedly limited in its size, which calls for caution when interpreting results, we still believe that it does enable us to point to tendencies with regard to the use of nominalisations in the language pair and the types of texts analysed.

Our results prompt us to believe that the register and text type as well as the typical and conventional way of construing experience in the target system override the influence of the source system, at least when grammatical metaphors are concerned.

Finally, our pilot-study has raised many questions, which will hopefully be dealt with in further research. First, it would be interesting to see whether our observations will be able to bear scrutiny of analyses conducted on a larger corpus, involving more specialized registers, spread over a larger span of time. Secondly, a diachronic analysis would certainly offer some more insights into the development of the scientific discourse in Croatian and the influence English as a lingua franca of that discourse may have exerted along the line.

¹⁶ Marginally, such cases of nouns premodifying other nouns do appear in Croatian texts but are commonly regarded as bad translation, e.g. *Cro. kredit scoring model* which is a newly coined phrase after the model of the English version, i.e. *credit scoring model*. The meaning of such 'grammatical calques' is transparent only to experts who encounter them in works originally written in English.

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