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Abstract:
The following contribution presents an innovative approach to Translation Studies pedagogy—and potentially, to the practice of professional translation. The method, known simply as cooperative translation, takes a sharp departure from the traditional model of a solitary translator working in isolation. Texts are instead translated in small peer groups, with the resulting benefits of an intersubjective dynamic, process-integrated quality control, improved motivation and other affective factors, as well as, in many cases, a superior final product. After presenting some background, briefly characterizing the classroom methods prevailing in many university programs in Translation Studies and relevant contemporary trends in higher education, the cooperative translation method is described, with concrete examples and empirical data to illustrate how such collaborative work proceeds in real time. This is followed by a discussion of the method’s advantages and the most suitable conditions for its application, concluding with some prospects for its use in both educational programs and professional practice.

Keywords:
constructivism; cooperative translation; learning theories; problem-based learning; Translation Studies programs; translation teams.

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1 Background and Status Quo in Translation Studies

1.1 Changing Conditions in the Translator's Profession

The present period is a watershed era for the practice of professional translation, and thus for the educational and research field of Translation Studies as well. The trend of globalization, as reflected in the formation of regional and global economic unions such as the European Union and NAFTA, as well as the increasing interconnectedness of international markets in their supply chains and demand for goods and services across borders, have brought with them a corresponding increase in the demand for localization of those goods and services and the accompanying documentation, promotional materials, and other language products. At the same time, rapid advances in information technology have revolutionized both the tools with which the translator plies his or her trade, as well as the text types and media dealt with and the forms of interaction between translators and employers or translation agencies, business partners, and clients. In this climate of converging and mutually accelerating globalization and Information Age technological development, it is clear that not only the professionally active translator must be adaptable
and versatile enough to "roll with the changes," but also—and most importantly—educational programs for translators must evolve in order to adequately equip their graduates with the requisite set of skills and competencies to function in the fast-paced, dynamic, and demanding conditions of today's (and tomorrow's) professional world.

1.2 Historical Didactic Deficits in Translation Studies Programs

These trends, conspiring to place unprecedented demands on the educational programs and translating profession, indicate all the more saliently the deficits inherited from the past three decades' Translation Studies pedagogy. The traditional model of the translator has been that of a solitary multilingual expert surrounded by piles of reference books. In this austere and sterile environment, the translator toils dutifully until the entire linear text at hand has been completed. Meanwhile, this vision of the translator's working mode has become mere fiction due to the recent developments sketched out above. Instead, today's translator typically sits at a computer workstation equipped with high-speed Internet, communicating frequently via a number of channels (telephone, e-mail, synchronous chat, etc.) with both clients and employers, and often with other members of a team tasked with completing a single project, which can sometimes be quite voluminous, comprising components embedded in multiple media, and simultaneously involving multiple target languages. As a translator, localizer, information architect, document designer, layout specialist, or project manager, the individual team member may even spend part or all of his or her workday in contact or close interaction with other team members. This entails a need for interpersonal skills, tact, and the ability to reach compromises, among many other social (and information technology) competencies whose importance would not be inferred from the outdated model described above, of the solitary translator relying mainly or exclusively on print media.

In a typical university Translation Studies program of the 1970s through the 1990s (and persisting in many cases up to the present), students in translation exercise courses would be presented with a short text in regular class meetings, which may then be read and briefly analyzed in a group setting, at which point each student was tasked with individually
preparing a translation of this source text (often excerpted from a daily newspaper, textbook, or other static print medium with little thought given to the relevance of the text at hand for students' later professional practice). During a subsequent class meeting, the instructor might ask students to volunteer to read their proposed translation solutions for given sentences of the source text, which the instructor would make remarks on and entertain further questions and comments from the class. The objective was to arrive at a single *model translation*.

A typical format for written examinations in these traditional translation programs could resemble final examinations in other subjects, where students sit at well-spaced intervals along tables, equipped (at best) with only print reference works (and, in order to raise the demands even further, perhaps only monolingual dictionaries). The student would then be presented with a text he or she had never seen before and asked to translate it within a set time period. Even in the case of technical texts written in languages for special purposes (LSPs), no technical glossaries might be permitted during such written examinations. The didactic reasoning behind this testing format was that only under these hermetic conditions could the instructors administering the examination be assured that the translation constituted that student's work alone, and that he or she had acquired a sufficient basic knowledge of any technical terminology needed for professional specialization.

On the other hand, as the pedagogical adage goes, "testing drives the curriculum." The mode of performance required of students in examinations, which tend to play a crucial role as gateways into their professional careers, will inevitably influence the students' preparation over the months and years leading up to those examinations. And indeed, when regular class meetings are conducted according to the format described above (translations completed individually, with subsequent follow-up discussion in the group), then nothing in the entire study program may truly approximate the working routine of the professional translator (see Kornelius 1995 and Orbán 2008 for more detailed descriptions of the deficits of traditional translation exercise courses).
1.3 Recent Curricular Reforms in Europe

In recent years, developments in education policy within the European Union (EU) have created prospects for improvements in Translation Studies programs, among others. In the Bologna Process, the EU member states seek to create a "European Higher Education Area" by 2010 (European Commission 2007). This entails dismantling barriers to academic and scientific exchange between European countries, standardizing study programs and course credits, and generally harmonizing the systems of higher education throughout Europe. The process began with the Bologna Declaration of 1999, calling for the adaptation of degree programs to make them compatible from one country to the next. This has meant that in Germany, for example, traditional degree programs such as the Diplom (a four-year degree designed to be undertaken by graduates of German academic secondary Gymnasium schools, and roughly equivalent to an Anglo-American Master's degree) are being replaced by the internationally better recognized Bachelor of Arts (BA) and Master of Arts (MA). At the same time, study contents have been grouped into self-contained "modules" representing key competency areas. These modules make it possible to promote the sustained development, over a number of semesters, of a student's competencies in the given area.

The new Translation Studies programs also place an increased emphasis on a scientifically informed practical orientation, as well as on nurturing professional and social competencies such as media skills and the ability to work in a team. This fundamental reorientation in the teaching approach has provided exactly the prerequisites that were needed in order to impart critical thinking along with methodical problem-solving skills, intellectual flexibility, and an initial set of professional competencies to the students. With the changing spectrum of tasks and techniques faced by today's translators, it has become imperative for educational programs to accustom their students to more differentiated and flexible working and learning styles. In doing so, they can set more complex and practically oriented tasks, which are better suited to promote the development of key competencies and additional qualifications in students. But all of this requires a certain openness to experimentation in order to break free from the entrenched routine of the traditional translation exercise described above.
1.4 Pedagogical Trend: Toward Student-Centered Learning, Constructivism

The ongoing reforms in European higher education are taking place against the backdrop of a broader overall paradigm change in teaching and learning theories. The traditional teaching concept of an expert instructor imparting a certain catalog of knowledge to students as if writing on a blank slate or filling an empty vessel is gradually giving way to a more interactive model. Educational programs worldwide are calling for more "student-centered" teaching, in which students take a more active and collaborative role in solving learning tasks. This development is reflected quite concretely in the seating arrangements found in classrooms from the primary level through to many higher education contexts: rather than sitting in rows of desks uniformly facing the front of the classroom (and often even bolted to the floor!), the recent trend is to group students around small tables with chairs that can be repositioned freely, with the instructor moving from table to table as the groups engage with a learning task. Such reforms are based on the learning theories of Jean Piaget (e.g. 1954; with his notions of the assimilation and accommodation of new knowledge in the learner's preexisting knowledge structures) and Lev Vygotsky (1978; with his "zone of proximal development," in which learning is seen as a collaborative social process helped along by interaction with peers at the same level of knowledge), among others. One prominent outgrowth of these ideas is Constructivist learning theory, which emphasizes the active role of the learner and his or her independent and individual construction of knowledge. A truly constructivist learning environment should be characterized by interdisciplinarity, alternating perspectives, multiple contexts, situatedness and learner-centeredness, problem-oriented learning, practical applicability, and problem-solving skills (e.g. Kiraly 2000). Constructivism has in turn inspired several specific teaching methods within the greater trend toward student-centered learning, some of which will be reported on in this article in the context of Translation Studies.

1.5 Project History: Teaching Medical Translation

Since its inception in 2004, the international and interdisciplinary research project Teaching Medical Translation (TMT) has evolved through a number of phases and explored a number
of aspects of medical and translation-related education programs, as well as experimenting with new learning and teaching modes for medical terminology. The TMT project began as a collaboration between the English department at the University of Heidelberg's Seminar for Translation and Interpreting (STI) and Institute of the History of Medicine (IHM) on the one hand, and the Indiana University School of Medicine Northwest (IUSM) on the other. The research partners exchanged experiences from their respective programs in medical technical translation, medical terminology, and the preclinical phase of medical school.

In particular, the team at the STI in Heidelberg became interested in the Problem-Based Learning approach used at the IUSM Northwest to teach preclinical medical students. PBL is a student-centered, self-directed teaching method pioneered by Canada's McMaster University Medical School in the 1960s and further developed at medical schools throughout North America. Finkle and Torp (1995) define it as a:

> [... ] curriculum development and instructional system that simultaneously develops both problem solving strategies and disciplinary knowledge bases and skills by placing students in the active role of problem solvers confronted with an ill-structured problem that mirrors real-world problems.

In the type of PBL practiced at the IUSM Northwest, a small group of students (typically numbering between three and eight) is presented with a complex, authentic learning task based on real-life scenarios. Instead of providing all the information and explanations needed to solve the problem at hand, the instructor assumes more the role of a "tutor," "guide," or "facilitator," fading into the background as the students identify and tackle their various learning issues on the way to solving the problem. The tutor allows the students to work independently and intervenes only if the group begins to move in an unproductive direction. The successes achieved using this approach at the IUSM Northwest prompted TMT researchers at the University of Heidelberg to ask whether, and in which form, Problem-Based Learning could be applied to the Translation Studies curriculum as well.

One issue that had to be resolved was whether the PBL method was only suited to the acquisition of declarative (factual) knowledge, or whether it could also prove effective in building procedural (skill-based) knowledge in students. One experiment (Stewart 2007) sought to supplement a lecture-based Introduction to Medical Terminology course at the
University of Heidelberg with small group sessions solving problems in a PBL format. The meanings of medical terms can be regarded as declarative knowledge, though linguistic performance in a productive or receptive capacity can be classified as more an example of procedural knowledge. Initial results of learning progress in both declarative and procedural terminological knowledge seemed promising, though the success of group exercises depended in large part on whether all group members began at a comparable knowledge level or whether perhaps some had a considerable knowledge advantage from the outset (as in the case of a mixed group consisting of both medical students on the one hand and translation students specializing in medical translation on the other).

Another area of application within Translation Studies has been explored by TMT researchers as well: the actual translation of a text in real-time by a self-directed group of peers. The remainder of this article presents findings and experiences observed to date when using this innovative translating technique.

2  Cooperative Translation

2.1  Adapting Translation Courses to Mirror Professional Practice

To accommodate the epistemological insights of Constructivist learning theory, while at the same time reforming the Translation Studies curriculum to more closely approximate the practical working conditions of modern professional translators, it is expedient to redesign translation exercises in a cooperative fashion. Like the problem-based learning method employed at many medical schools, a problem-based cooperative approach to translation should revolve around authentic and complex problem scenarios, realistic working contexts, a self-directed learning process among students working in small groups, and authentic learning resources and reference tools.

Initial trials of just such an approach to cooperative translation were carried out in a TMT research seminar in 2006. The method has since been refined and further developed (Orbán 2008). Moving away from the traditional concept of the translator as a solitary, introspective agent, cooperative translation calls instead for intense teamwork. In a typical scenario of
how a translation is completed in such an exercise, the students receive a translation assignment via e-mail, including details as to deadlines, text types, contact persons, and additional material. The source text is then translated in a manner analogous to the workflow of an actual translation agency. The group consists of three to five students, supervised by a tutor who possesses the necessary academic background in addition to practical experience with translating in the context of the subject matter at hand. The classroom for this exercise is well equipped with electronic media including a PC, high-speed Internet access, computer-assisted translation (CAT) tools, a PC projector, as well as a chalkboard or whiteboard. Students have the entire range of electronic tools and reference materials of a modern IT workstation at their disposal.

In contrast to conventional translation exercise courses, students do not prepare individual rough translations. Rather, they immediately begin the work of researching and translating the source text in the group setting. As each portion of the source text is read aloud and contemplated by the team, individual participants contribute translation proposals, which are written down, collected, and weighed against each other for their relative merits. Finally, an adequate solution is chosen by reaching a compromise among all team members.

What is novel about this approach is the fact that each participant is involved in the entire process, constantly exchanging thoughts and negotiating a solution that is acceptable to all parties. Because most translators are completely unaccustomed to working in this mode, there is an initial learning phase as they develop the basic skills required.
Fig. 1: The Translation Process According to the Cooperative Translation Model


2.2 Advantages of the Paradigm Change in Translator Training

This cooperative form of translation both requires and nurtures interpersonal and communicative skills in the participants, such as the ability to reach compromises, to cooperate, and to tolerate different working styles. During the problem-solving process, as students are confronted with different perspectives and strategies, they can more easily disabuse themselves of the notion that there is one correct solution. The insight that reality is perceived subjectively then informs their work and enables them to operate more flexibly with texts and adapt to changing circumstances. They gain the introspective ability to critically reflect on their own contributions through the eyes of teammates, as it were.

All of this brings considerable advantages for graduates as they enter the world of professional translation. Having taken part in learner-centered, authentic, and cooperative translation exercises throughout the semesters and years of their studies, they leave the institution of higher learning as self-confident and intrinsically motivated translators prepared to make a seamless transition into professional practice.

2.3 Experiments with Cooperative Translation at Heidelberg

As mentioned above, preliminary experiments with cooperative translation were conducted within the framework of the TMT research seminar in 2006. These were followed by additional small-scale applications in a variety of other translation courses at the STI. Empirical serial investigations began in 2007. Self-assembled teams of two to four students were trained to translate a source text using the conversational method of "thinking out loud" and negotiating solutions cooperatively. In most cases texts were translated from English into German. Source-text types ranged from simple everyday texts to complex, technical texts written in highly specialized language. The tools and reference sources available varied from case to case (from monolingual general-language dictionaries to precompiled terminological glossaries and parallel texts collected in advance). In some instances, translators could even conduct Internet research during the exercise, but all resources used were carefully documented. Each group recorded its activities in detail by taking minutes of the session on a standardized form prepared for this purpose. This
facilitated later comparison and analysis of the cooperative processes, in that the translation proposals, dictionary and Internet use, and the decision-making process could be reconstructed in detail.

2.4 Conditions for Effective Implementation

In general, the cooperative translation method is applicable to any conceivable translation scenario. But it has proven especially effective under certain conditions. When these conditions are met, the full motivational, creativity-enhancing and quality-assuring potential of the cooperative process can be realized. Cooperative translation exercises should be situated in realistic working contexts with authentic source texts. Participants should be allowed to independently divide themselves into groups and assign roles to team members. The tutor should remain in the background, except in the rare case when some intervention proves necessary, allowing the group to work independently in a self-contained, uninterrupted workflow. The optimal group size appears to be three to four teammates. For the sake of cross-pollination between team members, it is advantageous for the composition of the group to be fairly heterogeneous in terms of cultural background, prior knowledge, and linguistic proficiency. Moreover, it can be advantageous for the team to include native speakers of both the source and target languages. The results of the serial investigations suggest that cooperative translation is especially well suited for the translation of everyday texts into the (majority of team members') native language. In such cases, the translators' linguistic confidence allows them to realize the full creative potential of the cooperative format without having to doubt their intuitions or Sprachgefühl in terms of the grammaticality, acceptability, connotations, or overall felicity of proposed solutions. As long as the communicative and decision-making dynamics among the group members are unimpaired, an extensive exchange of ideas is generally guaranteed. The use of everyday texts assures that group members can pool their individual prior knowledge in order to achieve a full comprehension of the source text and to identify the localization measures required for the target language culture. When all of these prerequisites are in place, the
cooperative translation process can stimulate the characteristic mental processes which
distinguish it from conventional approaches.

2.5 Insights into Translators’ Decision-Making Processes

Over the course of the serial investigations, the principal investigator (Orbán) observed the
translating teams and, in addition, recorded the steps of their text comprehension and
reformulation processes in the standardized minute-taking format mentioned above. This
provided insights into the creative working strategies employed by translators in real-time
and the ultimate problem-solving and decision-making processes they rely on. A special
notation system was developed in order to record their activities in a systematic and directly
comparable manner. This system made it possible to align individual segments of the source
text and translation units as they were dealt with by the group, including each different
translation proposal tabled within a given group. All of the separate groups’ transcripts for a
certain source text were then juxtaposed in a format similar to that of a musical score. This
makes it possible to view the progress of a developing translation along the horizontal,
syntagmatic dimension as well as the vertical paradigmatic dimension, showing the source
text running above the various solutions as they were proposed. Even overlapping or
simultaneous contributions by multiple members of a single group can be recorded using
this notation system. A uniform coding system employing consistent symbols and colors
served the purposes of this interlinear translation comparison, so that linguistic features of
the various group translations could be analyzed and the group-internal decision-making
processes and final translation products could be evaluated both qualitatively and
quantitatively. The following excerpt of the transcript for one translation task completed by
six different teams (of a source text about London, taken from an online travel guide)
illustrates the notation system.

Course: First year. Group participants: BA in Translation Studies, 2nd semester; Diplom in Translation
Studies, 3rd semester. Date: 26 April 2007.

ST = Source Text: London

T1 = Translation proposal from Group 1, 3 translators
AT |London – Introduction|
Ü1 |Einführung, erster Einblick, Einleitung, London auf den ersten Blick|
Ü2 |London – Einführung|
Ü3 |London|
Ü4 |London – Einführung|
Ü5 |London, Einführung, Auftakt, Willkommen in London|
Ü6 |Einleitung, Einführung|

AT London is the place where the |historic past| and the |vibrant present| |come alive|. A

Ü1 |historische |lebendige |zusammentreffen
   Vergangenheit| Gegenwart| aufeinandertreffen|

Ü2 |historische, ge- |lebendige, |sich treffen, treffen
   schichtsträchtige |lebhaft| auffeinander
   Vergangenheit| Gegenwart|

Ü3 |geschichtsträchtige |pulsierende| vermischtsich mit…|
   Vergangenheit| Gegenwart /
   Leben|

Ü4 |geschichtsträchtige |lebendige |zum Ausdruck kommen|
   Vergangenheit| Gegenwart|

Ü5 |alte Geschichte| lebensfrohe, |zusammen-/aufeinander
   lebendige |treffen |
   Gegenwart|

Ü6 |Geschichte| schillernde, |aufeinandertreffen|
lebendige,
pulsierende
Gegenwart

AT  blend| of  history,  ground-breaking architecture and culture has created an

Ü1 Mischung, Geschichte, atemberaubend, prächtig, einzigartig, macht... zu...
Mix| herausstechend, eindrucksvolle Arch.

Ü2 Hauch, Geschichte, bahnbrechende Architektur| (er)schaffen, zu
Mischung| Tradition, dem machen, was sie ist;
Althergebr., auszeichnen
geschichtl.
Hintergrund|

Ü3 Aufeinander-| Geschichte| revolutionär, modern, einzigartige, hat... geschaffen|
dertreffen| bahnbrechende Architektur| hat... hervorgebracht|

Ü4 (gute) Geschichte, bahnbrechender Architektur|
Mischung|

Ü5 Mix, Geschichte, bahnbrechender Architektur| machen aus...
Mélange,
Mischung|

Ü6 bunte Geschichte, bahnbrechender Architektur| wurde...
Mischung|

AT amazing and constantly evolving city.

Ü1 | eine sich ständig entwickelnde Stadt; Stadt mit vielen Gesichtern; Stadt, die
ständig neue Facetten zeigt; Stadt, die ständig im Wandel ist; Stadt im
ständigen Wandel|

Ü2 beeindruckend, sich ständig (weiter) entwickelnde/verändernde Stadt
erstaunlich,
Fig. 2: Analysis of Group Translations

2.6 Main Research Questions

The analysis of the various cooperative translation transcripts concentrated on
1) problematic linguistic units of the translation process and 2) the characteristic types of
translation problems that the source text presented for the translator teams. The following
four questions lay at the center of the analysis:

1) Which translation units occupy the translator groups consistently, and what is the nature
of the main challenges in translating?

2) How broad is the spectrum of tentative translation proposals and how many different
variants are there in the finished translations?

3) Are there differences between everyday and technical texts in terms of the nature and
extent of stylistic variation?

4) What proportion of the final translation solutions are appropriate?
2.6.1 Problem Units from a Cooperative Translation Exercise

As a preliminary illustration of the answer to question (1), a color-coded excerpt from the London source text is shown below. The colored items within the text represent units that received special attention from the cooperative translation teams, and for which various translation proposals had to be entertained before the group could reach a compromise and agree on a final solution.

LONDON – Introduction (IV)

London is the place where the historic past (III) and the vibrant present (V) come alive (IV). A blend (IV) of history (I), ground-breaking architecture (II) and culture has created (III) an amazing (V) and constantly evolving city (III).

Not surprisingly (IV) the capital has become a mecca (V) for visitors (II) and a great place to live (IV). There really is something to appeal to everyone (III) and whatever your interests may be (IV), the city has it covered (V).

With countless museums, galleries and entertainment options (V) throughout the city there has never been a better time (V) to come and find out (IV) just how much it has to offer (IV).

Why London? (II)

London is one of the world's most remarkable and exciting cities (II). It has something to offer every type of traveller (V). This vibrant metropolis (IV) embraces (III) the diverse cultures of its population (IV), reflected through cuisine (IV), shops, music and colourful festivals (II).

London is a very accessible (VI) city; it has five international airports, an efficient road network (II) and extensive Underground, train, bus, and taxi services (V). The city is famous for a wealth of history and culture (II). Home to Britain’s national art collections (II), the Royal family and a host of major attractions, London's rich history (II), striking architecture (II) and over 200 museums offer a unique cultural experience (II).
The question of interest here is whether it is the individual word (coded in bold), the phrase (in italics), the clause (underlined), the entire sentence (double underlined), or a unit consisting of more than a sentence that required the most deliberation on the part of the translator teams.

### 2.6.2 Central Findings

The basic unit of translation is the phrase (a group of words constituting the maximal projection of a lexical category and containing no finite verb). This is true of both everyday texts and LSP texts, although there is an additional focus on the individual word in the case of LSP texts. This results from the higher concentration of technical terms in the latter category. The central units for the translator's perceptual and interlingual transfer processes are thus sub-clausal units, such as fixed phraseological constituents, collocations, word combinations, word groups, syntagmas, and the lexeme in context. The process of translating begins with the translation of phrases within the perceptual context of the sentence. This is a view that had won currency in the translation-related research of the 1970s but has since been eclipsed by other dominant research interests and paradigm changes. However, a return to the phraseological focus could contribute to bringing translation theory closer in line with actual translation practice once again.

![Figure 4: Relative Frequency of Problematic Translation Units in Everyday Texts (Left) and in LSP Texts (Right)](image-url)
Figure 4 graphically depicts the relative proportions of problematic translation units, as determined from the comparative analysis of all the cooperative translation teams' transcripts.

But not only does the phrase constitute the primary problematic unit for translation, it also appears to unleash the greatest creative potential on the part of translators within the context of the cooperative translation method. Thus, solutions generated cooperatively for units at this level showed an exceptional range of variation. This results from a complex network of equivalence-seeking strategies and the unusually intensive paradigmatic substituting of alternative solutions on the part of group members. The intersubjective dynamic, with its continuous exchange of ideas, cross-pollinates the individual translators' creative thinking and sets off chains of associations resulting in a high proportion of adequate solutions. On the other hand, the relatively small number of variants in the final translations compared to the number of proposed translation solutions points to an intersubjectivization of judgment formation. It is as if the various proposals from the team members are put through a qualitative filter, which ensures the closest denotative and connotative equivalence with the source text on the one hand, and an appropriate solution for syntagmatic combination with other elements of the target sentence on the other hand. Cooperative translation could thus offer an integrated form of quality assurance that accompanies the translation process in real-time, potentially increasing efficiency by eliminating the need for such steps later on.

Where LSP texts are concerned, the range of variation proves narrower. This can be explained by the higher degree of standardization in specialized texts, which leaves less free room for variation in diction, style, and expressiveness. As such, the low degree of variation in the texts produced by cooperative translation teams is an indication of both the specialized terminological knowledge of the translators and their competence in operating under the special communicative norms of LSP discourse.

In addition to the size of the problematic units that concern translators, problematic issues in the translation process were also classified into four categories:
Team members often needed to deliberate among themselves over questions of acceptability (whether a native speaker would consider a given construction natural-sounding and comprehensible in its communicative intent), grammaticality (whether a construction conforms to or violates the basic descriptive grammatical norms of the language), text comprehension (i.e. to determine which semantic interpretation of the source text was the correct one), and others. As the above pie charts show, cooperative translators were overwhelmingly occupied by questions of acceptability in translating both everyday texts and LSP texts. The most common acceptability issues concerned the language-specific idiom and bound language use (as in lexemes that mutually constrain each other's freedom of distribution). Most attention was devoted to linguistic "euphony," as illustrated by group members' comments to the effect that "X just sounds nicer in German." Such judgments were reached through both the individual and the intersubjective Sprachgefühl of participants. This reveals the linguistic mediator to be an autonomous text creator and linguistic aesthete.

Finally, within the context of acceptability judgments, different-sized units came into consideration. Figure 6 illustrates that here, too, it is assessments of the acceptability of subclausal units that dominate the translator's activities. Syntagmatic decisions such as choosing a word, a word in context, conventional two-word combinations, and the usage conditions of a word within a sentence are the primary problem units of general-language interlingual text production. Meanwhile, acceptability assessments at the level of words and
phrases play a less significant role in LSP translation than in everyday translation, simply because of the more restrictive lexical norms of LSPs.

Fig. 6: Relative Frequency of Units of Acceptability in Everyday Texts (Left) and in LSP Texts (Right)

In this area of acceptability assessment, as well as in working out the nuances of meaning, the affinity of lexical collocations, or the most idiomatic usage, cooperative translation proves to be a dependable means of avoiding errors and thus assuring quality. When several linguistically competent and methodologically proficient translators combine their abilities, then greater idiomaticity and overall felicity of the translation results.

Grammaticality issues arise more frequently in translating everyday texts due to their often hypotactic sentence structure. The questions dealt with in this context mostly have to do with syntax and the order of constituents. On closer inspection, however, these syntactic considerations generally boil down to stylistic considerations. They therefore play a minor role, mostly influencing the linguistic style and idiom of the target language text.

As mentioned above, the true potential of the cooperative translation method is realized in translating everyday texts into the translators' native language. The associative and interactive dynamics set a wide variety of creative thought processes in motion, and appropriate translation solutions develop out of diverse mental operations. At the same time, the great variety of proposed solutions is also subjected to a built-in quality control through the same group dynamic. The method will thus make a lasting contribution to quality control throughout the whole translation process.
3 Conclusion and Future Prospects

3.1 Reception of the Cooperative Translation Method

The method has met with great enthusiasm and an overall positive reception from the students, and thus future professional translators, who have experienced it. Interacting in a group builds intrinsic motivation, increasing participants' enjoyment of their work and the feeling of accomplishment at producing concrete results of a superior quality level. Participants develop a sense of solidarity and belonging within the group, which in turn generates a relaxed atmosphere and a positive mood, with the attendant boost in creative risk-taking and productivity. Working with authentic texts in a realistic setting that resembles the conditions of professional translation practice promotes the development of key competencies. Students acquire confidence in the use of electronic and other media, as well as with computer programs and tools designed specifically for translators.

3.2 Social and Interactive Benefits of Cooperative Translation

The cooperative translation method can serve to rehumanize the practice of professional translation. In an age of increasing reliance on computer-based technologies such as CAT and machine translation, a cooperative approach can liberate the freelance translator from the technological cocoon of his or her private computer workstation and return the process of translation to its proper context: that of direct interaction between human agents, where the interlingual text production process is characterized by the negotiation of understanding. The cooperative translators thus enjoy the best of both worlds: having modern information technologies at their disposal while also benefiting from social interaction and intersubjective cross-pollination.

A developmental benefit of this form of interaction is that it promotes social competencies such as a sense of responsibility to the group, communication skills, teamwork, the ability to argue the merits of one's own translation proposal and to make compromises, as well as the ability to provide constructive criticism. Such skills can be directly applied in the everyday professional practice of translation, where translators must often defend their chosen
solutions to monolingual clients and others lacking direct insight into the translation process. Seeing issues that arise during the translation process from the perspective of others also equips the cooperative translator with a broader repertoire of cognitive tools and enables him or her to respond in a more versatile and flexible fashion to challenges presented by future tasks of text decoding and encoding. The individual translator becomes aware of the subjectivity of meaning construction, which results in a more sophisticated approach to the comprehension and reformulation of texts.

3.3 Quality-assurance Benefits of Cooperative Translation

Thanks to the continuous intersubjective negotiation of meaning in the group, erroneous interpretations and interference effects due to individual knowledge gaps can be avoided in large part. The fact that even assessments of acceptability, grammaticality, and the basic euphony and felicity of translation proposals are subjected to scrutiny from several linguistically and methodologically competent points of view assures a high rate of appropriate solutions. The interaction between diverse processes of inference, based on participants' individually varying repertoires of prior declarative and procedural knowledge, facilitates the projection of the semantic contents of the source text into a coherent and well localized form for reception within the context of the target language culture.

3.4 Issues of Economy and Efficiency

A question which readily comes to mind with regard to the cooperative translation method is, "Why hire three or four people to do the work of one?" Indeed, at first glance the method may appear to constitute a sharp decrease in efficiency, in that the number of "man-hours" required to complete a translation is tripled or quadrupled. But this impression is deceptive, because in fact a well-trained team of cooperative translators can compensate for much of the inefficiency inherent in the traditional lone translator model. As group members "think out loud," their ideas set off chains of associations in the minds of their teammates, stimulating much richer variation in the proposed translation solutions. This dynamic process of intersubjective, associative cross-stimulation ensures that the translation process
continues at a steady rate, preventing many of the delays that a lone translator experiences; the group simply finds itself much less often "at a loss for words." The group dynamic also helps to prevent mental blocks and fatigue from setting in, two things the lone translator inevitably experiences after a certain amount of time on task. A cooperative translation group can maintain its concentration even over extended work sessions, guaranteeing a steady, high output level. Thanks to the inherent quality assurance effects of the group dynamic, suitable solutions are more often arrived at during the initial round of text production, obviating the need for extensive revision of the translation, an often-underestimated time factor in the lone translator model.

All things considered, after an initial phase in which the cooperative translation team adjusts to the unaccustomed working mode, the cooperative method can become at least as time-economical as the traditional method. Furthermore, the breaking up of the linear workflow into a more paradigmatic one allows for a cost-effective form of translation. Hence, the method can be functionalized for both educational programs and professional translation practice without major difficulties.

### 3.5 Contrasts: Individual vs. Cooperative Translation

The following table highlights the advantages of the new method for Translation Studies.

<table>
<thead>
<tr>
<th>The classic translation exercise</th>
<th>Cooperative translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>problem-solving strategy specified by the instructor</td>
<td>independent negotiation of a problem-solving strategy</td>
</tr>
<tr>
<td>bidirectional exchange between the students and the instructor</td>
<td>multidirectional direct exchange among the students</td>
</tr>
<tr>
<td>negotiation of one &quot;model translation&quot;</td>
<td>diverse translation proposals</td>
</tr>
<tr>
<td>inauthentic reduction of reference resources</td>
<td>authentic reference resource situation</td>
</tr>
<tr>
<td>translating in a situational vacuum</td>
<td>situated working contexts</td>
</tr>
<tr>
<td>artificial segmentation of the source text</td>
<td>working with functional translation units</td>
</tr>
<tr>
<td>protracted discussions of different translation solutions</td>
<td>short decision-making process</td>
</tr>
<tr>
<td>commentary on and evaluation of contributions</td>
<td>impartial exchange of ideas</td>
</tr>
</tbody>
</table>
by the instructor

| linking together of individual proposals | translating "all at one go"
| submission to authority | independent critical judgment
| limited understanding of the text due to one-dimensional perspective | deepened understand of the text thanks to multidimensional perspective
| uncertainty in dealing with questions of formulation, tendency toward literal translations | bold translation decisions, free and creative translation solutions
| limited potential for creativity and variation | great potential for creativity and variation in text production
| danger of mental blocks | translation process continues to flow
| translator limited to individual prior knowledge, extensive research work required | collective knowledge pool, less additional research workload
| careful proofreading required afterward | error prevention and quality assurance during the translation process
| routine-based thought processes and problem-solving strategies | stimulation of creative thought processes and unconventional problem-solving approaches
| lack of motivation | high motivation and work enjoyment
| fatigue effects, declining concentration, and potential frustration | highly dynamic translation process and constant level of concentration
| little readiness for risk-taking due to sole responsibility for translation decisions | greater readiness for risk-taking due to shared translating responsibility
| solitary translator, only interaction with media | cooperation and communication, diverse interpersonal interaction processes
| zero or negative dependency on classmates, competitive situation | positive dependency within the translator group, emergence of team spirit and a pronounced solidarity

Table 1: Cooperative Translation Contrasted with the Traditional Method

3.6 Prospects for Application in Professional Translation

As argued above, the cooperative translation method offers not only a substantial quality enhancement in the outcome of the translation process, but it can also do so without significantly increasing demands on the time, personnel, or other resources of a professional translation service provider. Many international companies and translation agencies routinely outsource their assignments to external freelance translators. The translations
completed by the external personnel are then edited, proofread, and rated by other personnel for purposes of quality control. This represents a considerable investment of time and other resources, which could actually be streamlined by implementing a cooperative translation method. As a result, the lone freelance translator who now sits at a computer in his or her private home or office would be brought together with the project manager sitting in an office at the translation agency or international company, and the multilingual editor would join them for a single, one-step process with direct social interaction taking place in real-time. In this sense, the human resources required for commercial implementation of cooperative translation are already available within most organizations. Thus, in principle, the only thing that is lacking is the insight that this mode of translation can yield superior results within a comparable framework of time and personnel constraints.

3.7 Prospects for Application in Education

Quite apart from its potential for use in commercial applications, the cooperative translation method has amply demonstrated its merits as a didactic tool. It simulates students’ future professional activities more closely than traditional translation exercise courses. It instills in them confidence and creativity, interpersonal and communicative skills, a more sophisticated approach to the interpretation of source texts and the formulation of target language texts, a better understanding of how others proceed with the translation process, an improved capacity for introspection, critical thinking, and for providing constructive criticism. Researchers can also observe cooperative translation exercises in order to gain insights into the mental processes involved in translation and to design improved tools for teaching and translating. The method thus shows great promise as a didactic tool, a research instrument, and a progressive model for the future practice of translation.

4 References


Online sources:

w1: http://www.visitlondon.com/city_guide/about_london/why_london/

All tables and figures in this article by Wencke Orbán.

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