



Translation commentary: A happy medium between translation curriculum and EAP

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Abstract

In this article, *Translation Commentary* refers to an English composition written by a learner of both English and translation, submitted together with his or her translation output. In an academic setting combining English-to-Chinese translation and English as a second language, this article deals with both the issue of translation and that of second language writing. By analysing student compositions with respect to a model of translation problem space (TPS) proposed in this article, the author hopes to show that some Chinese learners writing in English lack the ability to generalise from details to principles or vice versa. This situation, however, could be improved by referring students to the proposed model, where there is a hierarchy of concepts, from the more abstract to the more tangible, entangled in the problem space of translation. In this article, a first model of TPS leads to a second model of second language writing in the context of English for academic purposes. A software prototype is then proposed based on these two models, which is designed not only to clarify students' concepts in translation but also to improve their writings in English as a second language.

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1. Introduction

This is an interdisciplinary study exploring the relationship between second language writing and translator training. It involves student composition analysis, translation studies, problem solving theories, and computer assisted language learning. The motivation for this research is contextually generated from an MA programme in translation, where the translation commentary (TC) is used to gauge student achievement. There are a substantial number of Chinese students on this MA programme working on translation from English into Chinese, who become the subjects of this study. It has been consistently found by the tutor for this group that the ideas expressed in these students' writings do not seem to capitalise on the key concepts in translation studies, such as text analysis, translation methods, equivalence and compensation, and so on. That is, paragraphs in these students' TCs often seem to be inundated with insignificant details, without offering a more generalised view making use of the terminology of translation studies. The objective of this research is to develop a partial model of the translation process, called the translation problem space, to serve as guidance in both composition writing and content learning.

In this article, a few significant concepts in translation studies will be discussed within a problem-solving framework. As these concepts are properly assigned to their places in the problem space model, a pedagogical model is subsequently developed based on the initial model following an analysis of student TCs. Finally, to illustrate the usefulness of this pedagogical model, a computer programme is proposed with the aim to improve student writing in this context, which hopefully will also enhance their translation learning experiences.

2. Translation and problem solving

We start by examining the relationship between translation and problem solving. Mayer (1983, p. 5) defined a problem as consisting of three parts:

1. The problem is presently in some state.
2. It is desired that it be in another state.
3. There is no direct, obvious way to accomplish the change.

In translating a text, the text is originally in the state of being a source text (ST), and the desirable state is for it to be transformed to a target text (TT). Usually, there is no "direct" way to accomplish this aim (unless, of course, we are talking about "direct translation", which is usually not an optimal solution). In translation studies, there is a certain amount of literature devoted to the discussion of translation problems, usually concentrating on the use of "translation strategies" in the process of problem solving (e.g. Lörscher, 1996; Jääskeläinen, 2002). This article differs from this kind of study in that it focuses on the construction of a problem space before the actual problem solving steps are taken.

According to [Kahney \(1993, p. 19\)](#), a well-defined problem has the following structure:

1. Initial State
2. Goal State
3. Operators
4. Operator restrictions

In solving a problem, the subject moves from the Initial State towards the Goal State by manipulating the Operators while being constrained by the Operator Restrictions. In a translation problem, the Operators could include:

- Text analysis tools
- Reference tools
- Translation methods
- Translation units
- Translation strategies

And the Operator Restrictions for a translation problem could be:

- Translation purpose
- Translation readership
- Translation norms

These variables are explained in detail in the next section.

3. Problem space

[Keren \(1984\)](#), following [Newell and Simon \(1972\)](#), defined a problem space as

the subjects' representation of the task environment that permits the consideration of different problem situations and sets limitations on possible operations that can be applied to a given problem (p. 122).

According to [Keren](#), the misconception of a problem space could produce a totally different problem-solving result. For a translation problem, understanding the tools and constraints and constructing a correct problem space is a good initial step towards success.

In translation studies, “situatedness” has become an established notion, which emphasises the importance of context to translation, such as roles, purposes, and processes (see [Risku, 2002](#) for a brief review of situated translation). [Gerding-Salas \(2000\)](#) also observed that “a good translator should define some essential starting-points for the approximation to a text to be translated, such as the author of the text, the aim of the text, the readership, and the standard to be used ...” (p. 9). This observation captures the essence of the problem-space model proposed in this

article. Gerding-Salas's "essential starting-points" are stated formally in our problem-solving model as Operators or Operator Restrictions, which are explained below.

In the face of the source text, the translator is armed with a number of Operators to change the state of the problem with. First of all, the translator can use some analytical frameworks to break the source text down into manageable parts, or subgoals, in order to tackle them individually. **Text analysis tools** are defined here as *theoretical frameworks devised to analyse a text from one or a combination of linguistic perspectives, such as lexis, semantics, phraseology, grammar, pragmatics, and so on*. Baker (1992) is an example of breaking the source text apart into increasingly complex linguistic levels: words, phrases, grammar, theme and information structure, cohesion, coherence and implicature and so on, for easy discussion. Another extensively used text analytical framework for translation is the Hallidayan systemic grammar (Egins and Martin, 1997; House, 2001; Bell, 1991).

Secondly, contemporary translators usually work from a "translator workstation" (Melby, 1992; Somers, 2003) with tools like electronic dictionaries, corpora and concordancers, Web search engines, terminology banks, and so on. **Reference tools** in this article are defined as *any physical or virtual resources which can be consulted by a translator to solve a local problem, such as dictionary, concordancer, Internet, experts, library books, and so on*. While text analysis tools help clarify the structure of the source text and identify the subproblems, reference tools help investigate the content of the problem and find solutions to build up the corresponding parts in the target text.

Upon the onset of the translation task, the translator has to decide which translation method to use. Newmark (1988, 45) offered a scheme of translation methods on the continuum: word-for-word translation, literal translation, faithful translation, semantic translation, communicative translation, idiomatic translation, free translation and adaptation. In this article, the **translation method** is understood as *a general guidance for rendering a particular piece of translation, especially with regards to contrastive notions like literary translation versus idiomatic translation, faithfulness versus fluency, domestication versus foreignisation, and so on*. The translation method is one of the Operators which the translator should consider in order to arrive at a target text well balanced in accuracy and fluency. For example, if the translator decides to adopt a translation method leaning towards the author—that is, keeping the original wording and style as much as possible—such as in translating a poem, then the "faithful translation" method can be chosen. This translation method Operator will then exert a top-down influence on the translator's work on each translation unit.

The **translation unit** is another Operator in the translation problem space which the translator can manipulate in relation to other variables. Newmark (1988, p. 285) defined a unit of translation as "the smallest segment of an SL text which can be translated, as a whole, in isolation from other segments". In practice, *sentence* is most often considered the basic translation unit (Zhu, 1999). However, when cohesive devices are involved, the translation unit should expand from sentence to sen-

tence pairs or sentence series within the scope of the cohesion, which may span the entire paragraph in some instances (see the collocational chain explained in Halliday and Hasan (1976, pp. 284–292)). Recognising the correct length of a translation unit as text unfolds, is the first step towards identifying a manageable sub-problem to work with.

At the heart of translation problem solving lie the array of translation strategies, which are the most well-known Operator of all. Chesterman (2000, p. 82) defined translation strategies as “potentially conscious, goal-oriented procedures for solving problems” and went on to identify “a basic set of 30 textual strategies” to deal with translation problems. In this article, in order to distinguish translation strategies from the higher-level notion of translation methods, we define a **translation strategy** as *a usually linguistics related procedure adopted by a translator to solve a particular type of translation problem*. For example, some known strategies for translating English text into Chinese are: changing English passive sentences to Chinese active sentences, changing English complex noun phrases to Chinese verb phrases, splitting long English sentences to shorter Chinese clauses, and so on.

The task of translation is usually not undertaken in a vacuum. There are contextual elements which need to be taken into account and should be represented by variables in the problem space, called Operator Restrictions. The first of these is the purpose of a particular translation, which is usually specified by the client in the professional setting, or by the translation tutor in the academic setting, or otherwise assumed by the translator himself. According to Hatim (2001), “the way the target text eventually shapes up is determined to a great extent by the function, or ‘skopos’, intended for it in the target context” (p. 74). For this article, we define the **purpose of translation** as *the function to be served by the translation in the target culture*.

Readership is another concern of the translator attacking a given source text. Specifically, the translator needs to adjust the linguistic features of the translation according to the targeted readers’ age, gender, ideology, religion, cultural and educational background, and so on. A good example is the translation of Jonathan Swift’s *Gulliver’s Travels* into some other languages as children’s literature as opposed to the original genre of political satire (Kusmaul, 1995, p. 71).

Another Operator Restriction in the problem space is the **norms of translation** which are abstract conventions to be followed by translators in a given setting. Baker (1993, p. 242), as observed by Øverås (1998), referred to norms as the “translation features that have been observed to occur consistently in certain types of translation within a particular socio-cultural and historical context”. For example, in a dictatorial state, it may be a convention to translate words like *election*, *referendum*, or *autocracy* into some less “democratic-sounding” terms using various translation strategies.

Taking all the above variables into account, I offer a translation problem space (TPS) model in Fig. 1. The TPS is a hypothetical mental state which translators are supposed to experience, in one form or another, when embarking on a translation task. The emphasis of this article, however, is on the pedagogical implication of this model, to which we now turn.

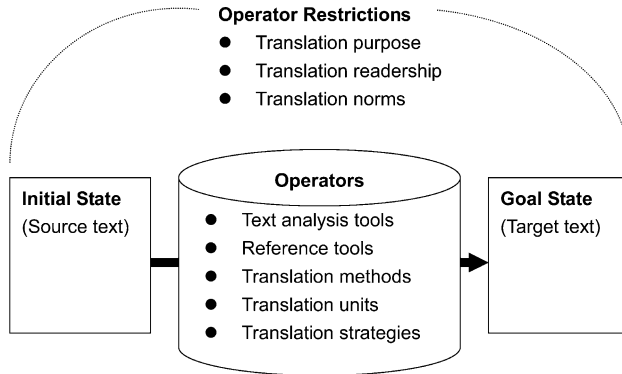


Fig. 1. The translation problem space model.

4. ESP and translation curriculum

Before turning to the translation commentary itself, we dwell briefly on the mediating area of English for academic purposes (EAP) to provide some background information for further discussion. Hyland and Hamp-Lyons (2002), in the first volume of the *Journal of English for Academic Purposes*, made the following observation:

The growth of English as the leading language for the dissemination of academic knowledge has transformed the educational experiences of countless students, who must now gain fluency in the conventions of English language academic discourses to understand their disciplines and to successfully navigate their learning (p. 1).

As the current research focuses on Chinese students studying in an MA programme in Translation and Language Technology in a UK institution, we are clearly dealing with such a case of EAP, where students are requested to gain fluency in the language germane to this discourse community. These students not only have to listen to lectures on translation studies in English and read English textbooks, they also have to speak English in seminar discussions and to write English essays and exam questions dealing with translation. From the students' point of view, it is vital that they receive some kind of training in EAP, to acquire the explicit and implicit "discourse rules" native to this particular discipline.

From the tutors' point of view, however, the emphasis of teaching is invariably on the content of each translation-related module. It is not desirable for a tutor in Translation Theory, for example, to mark grammatical errors or comment on rhetorical patterns systematically in student essays about translation studies. An evaluation strategy of our department is trying our best to extract meaning from non-native speaker student essays, overlooking the form of expression. In practice, this proves difficult if not impossible, since the comprehension of meaning is invariably affected by the grammatical structure and the rhetoric skills observable from the es-

say. Although no penalty whatsoever is induced by grammatical errors or problems in rhetoric expressions, inevitably the holistic impression and marking are affected by infelicities in student compositions.

It seems advisable then, that translation module instructors pay some attention to student composition skills without sacrificing their emphasis on content learning. Some departmental resources, for example, can be devoted to developing facilities for student to acquire EAP writing skills. In this study, we use the Translation Commentary (TC) written by our Chinese students as a vehicle to investigate how content knowledge and EAP writing skills can be developed in a consolidated fashion. Before explaining what TC is in our context and how it plays a part in this content/problem-solving methodology, a few rhetoric conventions need to be mentioned to share our conceptualisation of the writing pedagogy.

We follow the traditional approach to teaching composition and recognise the paragraph as the basic meaning-making unit in a student's writing. Furthermore, we accept that in a standard paragraph, a topic sentence usually marks the theme, which is then supported by a number of sentences supplying the evidence or details (see, for example, Cohan, 1976; Reid, 1984; D'Angelo, 1986, for this established approach to teaching composition). Within a paragraph, we also recognise that there should usually be a mixture of abstract statements (generalisations) and more concrete details. A didactic way of expressing this is by the "abstraction ladder" explicated in Seabury (1989). Being able to move up and down the abstraction ladder, i.e. switching between general statements and specific details, shows students' "awareness of a key way that language works" (p. 90). Most likely, this ability to navigate between abstract and concrete ideas bears significance not only on writing composition but also on the learning of domain concepts. With this in mind, we turn to the analysis of student TCs.

5. Translation commentary

The translation commentary is defined here as *a student composition required to accompany a translation task explaining the student's analysis of the text and the context, the problem-solving procedures, and other task-related thoughts*. Elsewhere this kind of accompanying note is also called "translation annotations" (Adab, 2000), or "translation diaries" (Fox, 2000, Martinez and Hurtado, 2001), which can serve as an instrument for evaluation, a student consciousness-raising activity, or a basis for further instruction.

The inclusion of TC in a translator's training programme can be justified on a metacognitive ground. Kussmaul (1995) usefully observed that "the ability to discuss translations in an objective way is central to a translator's competence". Also, as translation tutors, "we should offer our students the chance to comment on their own translations in tests" (p. 33). More generally, Peacock and Ho (2003) reviewed research involving second language learning strategies and found metacognitive strategies to be one of the three most frequently used strategies by second language learners. They also found there to be "a positive association between strategy use

and proficiency” (p. 182). In composition pedagogy, Coe and Gutierrez (1981) suggested that “proper and precise problem-definition is often a prerequisite to efficient problem-solution” (p. 262), which led them to request a “process-analysis paper” from their students to record their own writing processes. Xiang (2004) tested the “self-monitoring technique” by asking students to annotate their compositions with queries generated during the writing processes, which will subsequently receive relevant feedback from the tutor. Xiang found self-monitoring to be effective in improving the organisation of student compositions. All these point towards the usefulness for students to conduct some kind of metalinguistic or metacognitive activities in their learning—In this case, the writing of translation commentaries.

As an initial investigation, this research draws from 14 translation commentaries written by 14 MA students on our English-to-Chinese translation programme. All 14 students are Chinese native speakers, their English proficiency generally falling somewhere between 6.0 and 7.0 IELTS score. Each of the students was assigned 2–3 pages to translate from the book *The Enormous Crocodile* (Dahl and Blake, 2002) and was asked to submit both a Chinese translation and an English commentary recording their problem-solving procedures and accompanying thoughts. No particular instruction to EAP writing was given to students beforehand. No evaluation of student commentary was explicitly based on grammatical or rhetorical soundness.

The 14 TCs produced 70 paragraphs in total, which were each examined based on the TPS model illustrated in Fig. 1 and roughly assigned to a category either as an Operator or as an Operator Restriction, or as an introducing or concluding paragraph. The assignment of the category is inevitably subjective, since students were not specifically instructed to follow the topic-support paragraph structure explained earlier. That is, there may not always be an easily discernable centralised theme for a given paragraph. However, students were indeed taught about the important concepts in translation studies including those discussed in this article and encouraged to relate their work to these in their TCs. Therefore, it is relatively easy for this author, as Advanced Translation tutor to the students, to infer from the meanings of the sentences in a paragraph what the paragraph is primarily about. The result of the analysis is shown in Table 1.

Table 1 shows a large number of paragraphs being devoted to the exploration of translation strategies (28 out of 70 paragraphs). Contributions to the more abstract factors on the problem space (i.e. translation methods, translation purpose, translation units, translation norms) were relatively few. This echoes Seabury’s (1989) view that “the ability to move on the [abstraction] ladder, especially toward firmly based higher-level abstractions, can indicate cognitive growth” (p. 90). That is, being able to generalise from details and think in more abstract terms may be a more advanced and later-acquired academic writing skill.

In the following, one or two sample paragraphs from this collection of student TCs for each category (except introductory and concluding paragraphs) will be examined, with a view to showing where our focus of the problem is, and paving the way to the justification of the design principles of our remedial instrument. All formats, including emphases, are original.

Table 1
Student TC paragraph distribution

Category	No. of paragraph
Text analysis tools	8
Reference tools	4
Translation units	1
Translation strategies	28
Translation methods	1
Translation purpose	0
Translation readership	11
Translation norms	4
Introduction	7
Conclusion	6
Total	70

5.1. Text analysis tools

(1) Another example is the last part of my translation, **“He took all the coconut branches and held them between his teeth.” “He grasped the coconuts in his front paws. Then he stood straight up in the air, balancing himself on his tail.”** I fell more puzzled about this pose of crocodile, I am not sure whether he wants to hid himself inside some coconuts and coconuts branches, or he just wants to pretend to be a little, short coconut tree. When I consider more carefully, I get a result that maybe he wants to be a short coconut tree, so he needs “stood straight up” and “balance himself on his tail”. (S70)

In (1), student S70 briefly noted down her subproblem regarding text understanding and the solution she arrived at. This is an important point to mention in discussing translation, since by far the most prevailing cause of errors in our Chinese students’ translations is the misunderstanding of the source text (i.e. English). Vocabulary, syntax, and discourse level organisations such as cohesion and coherence—all will cause students to misinterpret the source text and render erroneous translations. Although it is good for S70 to mention this problem in her TC, the reader cannot help noticing a gap in her description of the problem-solving process. That is, she did not mention the exact process she went through or what tools she used to reach the solution (Her words “consider more carefully” do not seem to help much). It would be a better paragraph if she could add a few academic touches to the solving of this problem—a few lines about any text analytical frameworks she knew of from the literature of translation studies, such as Halliday & Hasan’s cohesion model, Halliday’s systematic grammar, Grice’s conversational maxims, and so on. This level of abstraction and the demonstration of specialised knowledge are what the academic community would require in this kind of discussion.

5.2. Reference tools

(2) ST is a fairy story and children will be the most likely readers, therefore the word classes and sentences used in TT must be easy enough for children to

understand. In order to know what kind of word classes and sentences are usually used in fairy stories, I had to look up some typical examples of fairy stories on the Internet. (S93)

Student S93 in (2) referred to the use of the Internet as a resource for locating example usages of language in fairy tales in the target culture as a step towards “register simulation”. Like (1), however, the student did not offer details as to how she located (e.g. through Google querying) and made use of these “typical examples” (e.g. Google search result listings). In the writing pedagogy, this equals to failing to support a topic sentence with details.

5.3. Translation units

(3) **Thirdly**, when we translate a text, radically, our translation should keep logical. For example, when I translate this paraphrase, “Now for **clever trick number one!**” he whispered to himself. “It won’t be long before I am eating **the first part of** my lunch!” at first time, I translate “clever trick Number One” as “实施我巧妙骗局的第一步 [conducting the first step of my ingenious trick]”, and omit “the first part of”. Then, when I read the first sentence of this translation, I find the crocodile has ever said he wanted to eat 3 children, so, I feel this part of translation (underlining part) is illogical, so I correct them as “设置我第一个巧妙的骗局 [setting up my first ingenious trick]” and “享受到我午餐的第一个小孩 [enjoying the first child as my lunch]”. (S70)

In (3), it could be inferred that student S70 was talking about the expansion of the translation scope (or, in technical terms, translation unit) to cover a previously individually considered fragment. As the student was presumably not familiar with the concept of translation units, she beat around the bush and finally struggled through the explanation with an unsatisfactory result. A summarising statement like “Before rendering, it is useful for the translator to consider how large the span of the current translation unit is”, perhaps followed by some middle-level generalisation statements, should help give the reader a better view of what the paragraph is about.

5.4. Translation strategies

It turned out that the category of translation strategies was the major concentration point of student commentaries. This is not surprising since translation strategies are the most tangible component in the process of translation. A large part of skill-level teaching and published didactic materials on translation are also devoted to the explication of translation strategies.

Seven categories of translation strategies were identified from the student TC corpus which totalled 28 paragraphs. Table 2 offers a breakdown of the number of paragraphs for each translation strategy (mainly in terms of what linguistic feature it deals with).

Student commentaries usually focus narrowly on the solving of individual sub-problems without generalising or relating to other factors in the TPS. This is illustrated by paragraphs (4) and (5):

(4) The sentence ‘I have secret plans and clever tricks’ appeared many times in ST, I translated the word ‘plan’ from a noun into a verb with its object ‘clever tricks’, and of course ‘secret’ would be the adverb of ‘plan’. This kind of change had avoided repeating almost the same phrases ‘secret plans’ and ‘clever tricks’. (S93)

Paragraph (4) discusses a very common translation strategy from English to Chinese—changing the grammatical categories of words, especially changing English nouns to Chinese verbs.

(5) ‘Sang’ in ST was used as an action of a bird between two sentences said by it, here this action had the same meaning with ‘cried’, an action of the crocodile in ST, both of them meant ‘say’. But choosing the meaning of ‘say’ was so general that cannot convey the excited mood of the actors, ‘shout’ here would exactly reflect author’s original idea. (S93)

Paragraph (5) dealt with a translation strategy involving the choice of words from a ‘lexical set’ (Baker, 1992, p. 18). It is intrinsically possible for S93 to relate (5) to the previous running paragraph (4) by, for example, stating that “In transferring words of multiple grammatical categories or words replaceable by words in the same semantic field, the most important concern is the effect of the chosen words on the reader in this genre”. The two separate instances of application of translation strategies are then united under the rubric of “dynamic equivalence”. None of this kind of generalising or relation-building behaviour could be observed, however, from my students’ TC corpus.

5.5. Translation methods

(6) Just like the measures mentioned above, “accuracy” is essential to a target text. But sometimes the target language has no direct equivalent for a word which occurs in the source text. Then the translator should try to find a word

Table 2
Categories of translation strategies and their paragraph distribution

Translation Strategy	No. of paragraph
Proper nouns	5
Collocations	1
Syntactic features (word order etc.)	7
Semantics (synonyms, polysemy and so on)	6
Rhyming	3
Addition of words	5
Omission of words	1
Total	28

which has the closest meaning to the source text for the target text. On the other hand, it goes without saying that the fluency of translation is also very important. . . (S40)

Example (6) is part of the only paragraph in the 14 TCs which shows the student's awareness of translation methods, i.e. whether the translator should lean towards the author (accuracy) or the reader (fluency). However, if the student had been familiar with the term Translation Method and the related concepts, she should in principle have been able to describe the situation in more depth and in relation to other variables on the TPS.

5.6. *Translation readership*

(7) It is a fairy tale intended for children, I have to be more careful on choosing the words in Chinese when I translate from the ST to the TT. The words in the TT must be easy, plain and interesting so as to attract the children's attention. . . (S07)

Readership is the second strongest concern of the 14 students in this assignment—11 paragraphs were devoted to it altogether. Students noticed this factor presumably because the material itself (children's literature) highlighted the issue of readership due to the common perception of children's limited language abilities.

5.7. *Translation norms*

(8) For the source text as fairy tales, there are thus some efforts should be done before translating, such as to confirm the reader level compared with their acknowledgement, make sure that the terminology in translation coordinates to the fairy tale's writing style, and to find out the principles of translation tactics related to the fairy tales. (S46)

Translation norms are extremely abstract and only a few students implicitly offered some thoughts related to norms. The abstractness of the concept can be seen from Øverås' (1998) remark that “norms constitute a continuum between two extremes, with formulated rules on the one hand and instances of idiosyncratic behaviour on the other”. In (8), it is evident that S46 was talking about the norms governing the translation of fairy tales, though clearly she did not know what term to use to better represent this concept.

6. Exploring the problem space with writing

The above analysis of student commentaries seems to show, among other things, the limitations of student abilities to relate their thoughts and concepts usefully to each other during the processes of translation or in retrospection. According to Coe and Gutierrez (1981), basic writing students often “fail to get the general and

particular into meaningful relationship”. Instead, they tend to “present generalizations vaguely and specifics without significance” (p. 267). This is indeed a notable problem from my student TCs, apart from their grammatical problems. It is also worth noting that rhetoric patterns may differ between cultures, a recurrent theme in the writing literature since Kaplan’s (1966) seminal work. Reid (1984), for example, noted that in Arabic written materials, it is not essential to support generality with details. For Chinese students, who may be used to writing in an indirect, metaphorical way in their mother tongue, extra effort may be required to assimilate to the English style of direct reasoning and concise expressions. In particular, as suggested by Reid, “the teacher should focus on differentiating general statement and specific detail” as students from non-English cultures “may reply on generalization to the exclusion of the specific” (p. 450). From what we have seen, the reverse may also be true—that students fail to get a view by attending too much to the specifics.

To address this issue, we developed a “translation problem space exploration” (TPSE) model, as shown in Fig. 2, following the style of the hierarchical network model proposed by Collins and Quillian (1969). This model is designed to serve as the basis for developing a computerised writing aid. In the middle of the hierarchy stands a Basic Level Category (BLC, see Rosch, 1978), represented by the more “discernable” categories such as Translation Strategy, Translation Unit, and Reference Tool. For language-acquiring children, words relating to BLC are usually the first to be learned; for example, *apple* is a BLC word, but not *fruit* or *Gala*. Categories above the basic level are more abstract terms like Translation Method, Translation Purpose, and Translation Readership, with Translation Norm being the most abstract. Under this basic level, on the other hand, are detailed listings of each BLC category, such as specific translation techniques and possible translation units like sentences or paragraphs.

As previously noted, at least some of our Chinese students have difficulty navigating between abstract and concrete ideas when writing in English. With the help of the TPSE model, students have a ladder of abstraction to climb up and down, and the problem of translation becomes more clear, the discussion of it in academic English more feasible. As Seabury (1989) commanded, the “benefit of using the abstraction ladder in class is that it gives students a way to visualize language”. Also, “the shift to visualization arouses new interest and brings a feeling of control” (p. 91). By offering the TPSE model, we hope that non-native speaking trainee translators, at some points of their writing processes, can stop and contemplate the relationships between the key concepts in translation studies, and try to relate one to another in a meaningful way. The TPSE model is designed to be more complicated and useful than the traditional “ladder of abstraction” model, as the latter is usually represented by a thin vertical line, with each node consisting of a single concept (e.g. cow–livestock–asset–wealth); while the former is a complex hierarchy with each level consisting of several parallel categories, as Fig. 2 shows. Hopefully, with the help of an implementation model of some sort, the targeted students can benefit from the TPSE model with regards to both content learning and second language writing. Thus, in the next section, we turn to such a practical model, in the form of a computer writing aid.

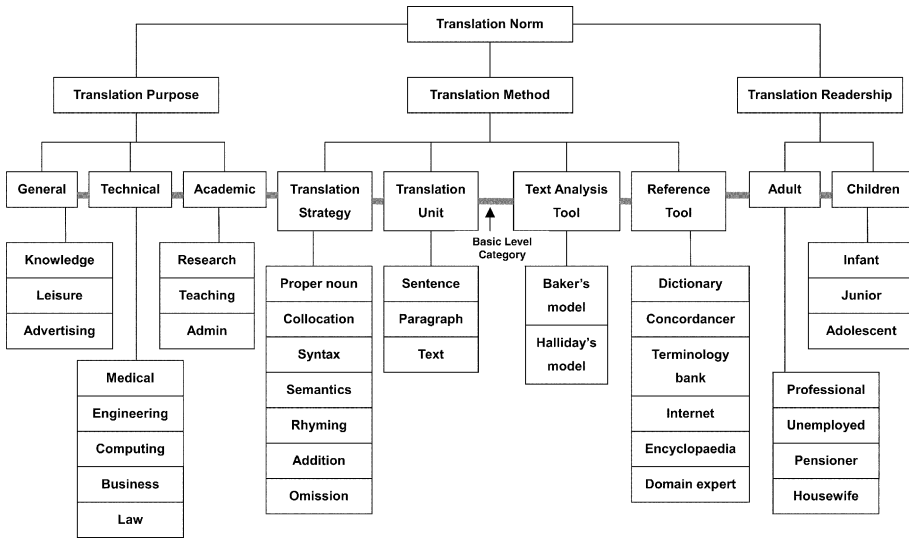


Fig. 2. The translation problem space exploration model.

7. TC writing aid

A programme based on the TPSE models proposed above is being developed to assist students writing TCs and enhance their EAP composition abilities in general. The system is designed to offer three functionalities:

- To automatically analyse student TC based on the TPSE model.
- To offer TC samples for students to compare or analyse.
- To offer exercises for students to assign levels of abstraction.

Ideally, the system should be able to analyse a TC by breaking each paragraph into a topic-support structure, or assigning each sentence a relative level of abstraction, or a combination of both, so that when a student finishes a TC, he can see how well his writing conforms to the standard rhetoric structure. Unfortunately, this would involve very complicated NLP or computational linguistics skills which we are currently not equipped with. As a pilot programme, we use a simple key-word counting mechanism to assimilate this complex function. Currently we are compiling a translation studies terminology, where terms represent distinct concepts in this discipline, such as culture, skopos, parallel corpora, translation memory, and so on. Apart from the usual fields of definition, part of speech, example, etc., each entry in the terminology will also be assigned a relative index of level of abstraction. This terminology, or database, will then be used as a basis for analysing student TCs, by matching each word in the TC to the entries in the terminology. The matched terms, along with their corresponding values of abstraction, are then used to generate an overall report indicating the “structure of abstraction” of student paragraphs. Stu-

dents can examine these reports in a critical manner to see whether their own paragraphs show a good balance between general and concrete items, and whether these are reasonably distributed in the text.

The matched words between the student TC and the system's terminology also serve another function: to help locate a model TC for comparison. The set of data is compared with sets of data prestored in the system serving as model compositions, on a paragraph-to-paragraph basis. When students evoke the *compare* function from the system's interface, a matching algorithm will be performed and the nearest match in numbers and kinds of concepts in the TPS will be retrieved, usually a paragraph. The idea is for the student to compare and observe how approximately the same variables on different levels of the TPS are manipulated in more refined versions of translation commentaries. We have found many TCs written by English native-speaker students useful in serving as model compositions (These students are learning to translate from some other European languages into English, and likewise have to write translation commentaries). Translation tutors themselves can also supply standard TCs and incorporate them into the system for student reference, embedding their pedagogical ideas in the sample texts.

Seabury (1989) described a classroom procedure based on the ladder of abstraction, where students read sample paragraphs and “trace movement from sentence to sentence” to appreciate the rhetoric pattern by locating each sentence on the abstraction scale. This activity can also be simulated by our system, which offers a convenient interface for students to assign levels of abstraction on a sentence-by-sentence basis. At some point, the student can stop to appreciate the track of reasoning in his own text or a model text, and learn about paragraph structure and rhetoric patterns. This function also offers a good platform for group discussion, when deciding the level of abstraction for each sentence.

Bacha (2002) noted that “the writing process helps to develop the students' cognitive skills in acquiring the necessary strategies such as analysis, synthesis, inference and so forth” (p. 164). By allowing students to traverse the translation problem space and consider the key concepts and affiliated ideas in translation studies using the hierarchical network model as a tool, we hope students will both develop second language writing skills and expand their domain-specific knowledge. By manipulating these concepts and observing them at work in paragraphs, eventually, it is hoped that students will gradually form a mental model in their mind consisting of the key concepts in translation studies, as a result of practicing this rhetoric convention by writing translation commentaries.

8. Conclusion

This article starts from a theoretical explication of translation teaching in the problem-solving perspective. A pedagogical model for translation is proposed based on the analysis of the translation problem structure in relation to concepts often mentioned in translation studies. This model then serves as a matrix for analysing

student translation commentaries as a form of second language writing. After identifying student inadequacies in their writings, a piece of composition analysis software is developed in line with the theoretical models proposed and with a view to enhancing student abilities in both translation and second language writing. In sum, I have first discussed translation studies and translator training in a problem-solving framework, which then informed second language writing pedagogy in the EAP context, and culminated in a computer assisted language learning (CALL) application. Arguably, this could be a useful guideline to design courses involving EAP in general, with or without the CALL element. It is not difficult, for example, to imagine the models being modified and applied to the teaching of legal document writing, health care report writing, software manual writing, and so on, with basic categories in each domain identified, and higher and lower categories subsequently added. When students become skillful in navigating between general and specific categories, they will have a firmer grip of the important concepts in the discipline, which are correctly distributed in a complex mental semantic web ready to be evoked by the writing hand.

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