Expertise in translation

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Introduction and aim

Expertise, or professionalism\(^1\), in translation has been an important subject of research in translation studies, more specifically in studies on the translation process (see Fraser 1996). Research on this process has had two kinds of purposes, theoretical and pedagogical (Kussmaul and Tirkkonen-Condit, 1995). On one hand, researchers have aimed at developing the theory of translation and, on the other, at improving translation training by describing a successful translation process; the latter aspect implies competent translators as participants (subjects) in research. As the profession of translators is becoming increasingly demanding (Fraser, 1996), the pursuit of knowledge of the translation process in general, and of a successful translation process in particular, gains additional weight.

Translation process studies have, however, produced an incoherent picture of this process, which can be attributed to the different aims, interests and backgrounds of the researchers involved (Fraser, 1996). As these studies reach from psycholinguistics to examining optimal translational practices, the incoherence may seem inevitable. It may, yet, be possible to relate at least part of the findings of these studies to each other in the framework of cognitive psychology. An obvious argument against this would be that translation is a very specific form of human behaviour, and that translation studies should be developed towards autonomy without borrowing concepts and results from other disciplines. For example, Séguinot (1989, p.1) suggests that translation research could develop its own theoretical constructs so that answers to questions concerning translation would not come from other areas. However, if we see translation as one kind of human information processing, cognitive psychology is an apparent framework in which translation can be productively studied. Further, using this framework does not mean obtaining answers from another discipline but it means developing and applying its concepts and methods to studying translation as, for example, the think-aloud methodology has been applied. Moreover, even if we pursued developing a comprehensive theory of translation, we may appreciate a philosophical point of view: "The assumption that monotheoretic research consists of autonomous disciplines or fields or theories does not entail independence or self-sufficiency." (Sintonen, 1991, p. 76).

The present paper focuses on expertise in translation, viewing it as a specific case of expertise in general, and relying on conceptual and methodological tools developed in cognitive psychology. It discusses, first, two approaches to expertise occurring in cognitive psychology. It argues that professionalism does not equal expertise, and suggests that this

\(^1\) The terms 'expertise' and 'expert' are related to but not identical in meaning with the terms 'professionalism' and 'professional'. All these terms refer to years of training, considerable experience, and working in the field in question. However, 'expert' implies that a person has acquired very high-level knowledge and skills. 'Professional', on the other hand, refers to a professional status but does necessarily imply expert-level skills.
distinction can shed additional light on some results obtained in translation studies, for example, by Jääskeläinen (see Jääskeläinen, 1993; 1996). Further, it argues that fast performance is not a defining characteristic of translatorial expertise. Second, it discusses translation as problem solving and translation tasks as ill-defined problems which constitute the other type of problems cognitive psychology defines. Finally, it presents some results of an empirical study on expertise in translation (Sirén, forthcoming). The most central of these results is what Gerloff (1988) called the “translation does not get easier” phenomenon.

Expertise in cognitive psychology

Research on expertise is one of the fields in which cognitive psychology has been particularly productive over the last ten years. Besides being theoretically interesting, expertise as an object of research has societal significance (Bereiter and Scardamalia, 1993, p. ix). In this research, it is possible to distinguish between two approaches to expertise which differ in their emphasis. The first approach has aimed at characterizing expertise by various criteria, and it emphasizes the differences between novice and expert performance (see eg. Glaser and Chi, 1988). The second approach is particularly interested in the process of acquiring expertise (see Bereiter and Scardamalia, 1993), and it emphasizes the differences between experts and experienced nonexperts.

Three criteria of expertise

In an overview, Glaser and Chi (1988) formulated seven criteria of expertise, emerged from research in the field (pp. xvii-xx). In the present paper, three of these criteria are discussed with reference to translatorial expertise. The criteria examined are: experts are fast in performing tasks in their own domains; experts spend a long time analyzing problems qualitatively; experts have strong self-monitoring skills. Between the first two criteria there is an obvious discrepancy which, however, is not insoluble.

The criterion that experts are fast in performing tasks in their own domains distinguishes, for example, between masters and novices in "lightning chess" (Glaser and Chi, 1988, p. xviii). An explanation Glaser and Chi propose for this is that experts are able to find solutions without extensive search. Chess masters make stereotypic moves triggered by specific patterns of pieces on the board, which is based on storing in memory a great number of rules concerning patterns and moves. The criterion of fast performance cannot, however, be applied straightforwardly to translational experts because the explanation for fast performance in "lightning chess" is quite apparently not valid in translation, which is due to the differences between these two domains. The former is (relatively) non-verbal, and performance in it is partially based on perceptual pattern recognition which is superior in experts (cf. also Groen and Patel, 1988). In contrast, the latter is verbally complex, and perceptual pattern recognition is irrelevant in such a domain (Groen and Patel, 1988, p. 288). Because of these basic differences between chess and translation, it would not be justified to generalize from the former and make the claim that fast performance characterizes expertise in both domains - or expertise in general. In all, albeit expert translators may translate fast - whereas novices struggling with comprehension do not - it seems that this is not a defining feature of translatorial expertise.
Before solving a problem, experts may spend a great deal of time analyzing it, while novices often attempt to solve a problem immediately (for example, to solve for an unknown in a word algebra problem, see Glaser and Chi, 1988 p. xix). An important part of analyzing quantitatively an ill-defined problem, such as a translation task (see section Translation tasks as ill-defined problems), is adding constraints to it (Glaser and Chi, 1988 p. xix). Adding constraints to a translation task would, first, mean elaborating on the translation commission or brief: purpose, audience, medium, possibly the expected life span of the translation, sometimes examination of the historical background of the source text. Further, some translation tasks are "source-text constrained" requiring high fidelity, while in some cases the translator has to compose the target text by using the source text as a starting point only. This is the case when the source text is deficient, a familiar situation to many translators (see Berglund, 1990) but little discussed in translation studies. In many translation commissions, possibly the most important constraint is, however, time. When a translation task is strongly time-constrained, the translator cannot pursue an optimal outcome but must accept a satisfactory one (also see Jääskeläinen, 1996). Further, translating fast when the time is limited could be seen as adjusting to specific task constraints instead of seeing it as a defining characteristic of expertise. As the constraints of translation tasks vary widely, translatorial expertise may be connected to a certain set (or sets) of constraints such as the medium in which the translation is published and the time constraints. It seems that even translational experts have to balance time with quality, and, further, some translators may specialize in tasks which usually are strongly time constrained while others specialize in tasks for which other constraints are more essential. (This is not to say that translational experts would necessarily be highly specialized. Bereiter and Scardamalia (1993, p. 16) suggest that the concept of expertise should cover both specialist and generalist experts.)

Second, adding constraints to a translation task would mean making textual-level decisions directed by contextual clues or demands.

According to Glaser and Chi (1988, p. xx), experts have strong self-monitoring skills. They seem to be more aware than novices if they fail to comprehend, make errors, or need to check their solutions. Experts do not only perform tasks or solve problems but direct and control these processes as well. Thus, translational experts would also adjust their performance to the task constraints, and produce a draft or a finalized text according to the translation assignment. It seems, however, that all translation professionals do not show or even develop strong self-monitoring skills. Tirkkonen-Condit (in Kussmaul and Tirkkonen-Condit 1995) cites a case in which a professional translator produced a rough draft very fast although the assignment called for a publishable text. Tirkkonen-Condit accounts for this by adding that time was all that mattered in the work place of this translator, and that the routine to translate fast was applied in the experimental situation. She characterizes this performance as a less successful professional process due to lack of flexibility. This can also be characterized as lack of self-monitoring skills in a translation professional. It supports the claim that professionals do not always develop expert-level skills (footnote 1), and that a distinction should be made between 'expert' and 'professional' at least for research purposes. Such a distinction sheds light on the findings that professional translators do not necessarily produce high-quality translations, failing to follow the brief and meet the standards (see also Jääskeläinen, 1993; 1996). In her article (1993),
Jääskeläinen discusses possible reasons for the lack of uniformity she had observed in the performance of professionals, in terms of both process and product: "[...] it would thus be possible that in choosing the subjects, we simply came across a group of exceptional personalities." Another possibility to account for such findings would be to relax the assumption that professional translators would necessarily be experts and behave in an optimal expert-like manner. The reasons for this can be various but, on the other hand, we do not always need to know what they are. As regards finding expert participants for a study on the translation process, the question is, how do we recognize an expert translator. It is obviously not sufficient to ask potential participants, how many years they have worked as professional translators; we need to know about the requirements and quality of their work. For example, having successfully translated classical novels indicates expertise in literary translation. On the other hand, the mere fact that a person has worked as a translator leaves open the question about expertise.

**Expertise as a process**

The second approach (see Bereiter and Scardamalia, 1993) views expertise as a process (doing something) as opposed to a state or a permanent property (having something). Thus, it becomes essential to ask how the process of expertise advances, ie. how expertise is acquired and developed further, and why some people become experts while others do not irrespective of their experience. Experts' careers and their ways of doing things in a broad sense are seen as important, which contrasts with the previous approach that is almost entirely confined to studying how individual tasks, most often assigned to participants by researchers, are performed. In translation studies, a wide view would mean to be interested, not only in what goes on in the heads of translators but also in what goes on in their offices, even over a long period of time.

Bereiter and Scardamalia (1993, p. 11) describe the careers of experts as progressive advancement on the problems in a field of work, whereas nonexperts constrict their fields of work so that they can manage by employing the routines they have developed. The authors write: "[...] experts and experienced nonexperts, even when they are nominally practicing the same profession, are actually pursuing different careers." (p. 11) Closely connected to this is the idea that professional status does not equal expertise. This is obviously consistent with everyday experience: we encounter professionals, also professional translators, whose skills and performance along with their overall attitude towards their work fall short of what we would expect.

The expert way of working can further be characterized by contrasting progressive problem solving to the nonexpert problem reduction (p. 96-100). The latter refers to seeing problems as something to be eliminated, which would eventually lead to work in which there are no real problems. Bereiter and Scardamalia, however, consider this as ignoring the task complexities there are in all domains. Compared to this, progressive problem solving neither ignores complexities nor forces unfamiliar tasks to existing routines. On the contrary, it means working at the edge of one's competence, and it is in this process, according to the authors, that expertise develops. This view of expertise is developed
further by introducing a social element, the work community. “Experts seldom exist in isolation”, the authors write (p. 104). They refer to communities that support the process of expertise as second-order environments (in contrast to first-order environments). Working successfully in such environments requires adapting to the achievements made in them (eg. methodological progress), and even striving to surpass these achievements. On the other hand, the community provides support, feedback and cooperation. For translators, a second-order environment would mean working in contact with other translators, with editors, various subject-matter experts, commissioners and so forth. However, obtaining information from or exchanging it with others may not, as such, be a sufficient condition for a second-order environment.

Translation as problem solving

As problem solving has been a central issue in the discussion above, it is worth examining to what ‘problem’ and ‘problem solving’ refer in various contexts. In translation studies, ‘problem’ often refers to different textual elements which cannot be translated without deliberation, if at all (see eg. Krings, 1986, pp. 113-143; Jääskeläinen 1993). ‘Problem solving’, then, refers to such deliberation and rendering a textual element (or omitting it). Further, Wills (1990) takes up the problem of ‘problem’ and the lack of uniformity in the use of the term. He distinguishes between macrocontextual problems (of establishing a context and elaborating on it) and microcontextual problems (of dealing with textual-level questions).

Cognitive psychology generally considers as problems entire tasks, however. Bereiter and Scardamalia (1993, p. 83) characterize ‘problem’ in a broad sense as ‘any nonroutine purposeful activity’, such as writing a story (but also arranging flowers in a vase or deciding how to spend a day off; ‘problem’ does not necessarily refer to something serious or very difficult). When solving a problem, we search in order to find a way to a goal, a completed task. We can see as problem a whole translation commission or task, and problem solving would then consist of all procedures that are employed when advancing from a source text to a target text, or from commission to delivery.

Thus, translation as one kind of problem solving requires deliberation but how time-consuming this is or how difficult a translator considers a task, is obviously case-specific. We could, for example, examine the possibility that fast performance would characterize translational expertise after all. In this case, ‘problem solving’ would, however, become somewhat puzzling. Can a task be a problem, if it can be executed effortlessly and fast, even more or less automatically? Indeed, the idea of expertise that Dreyfus and Dreyfus proposed includes that, in normal conditions, experts neither solve problems nor make decisions, they just do what works (1986, p. 31). This would mean that the more expert a person is, the less he or she would be engaged in problem solving. To experts, their field of work would consist mostly of quite trivial tasks. There are, however, several counterarguments to this view. First, seeing a field of work as unproblematic conforms to Bereiter and Scardamalia’s idea of problem reduction which is not an expert but a

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A ‘work community’ is not necessarily local and coherent but the word may refer, for example, to networks.
nonexpert way to work. Second, the Dreyfuses took car driving as their example from which they then generalized to other skills. Yet, car driving is strongly automatized in skilled drivers but generalizing this ignores the differences between different tasks and skills. Third, the evidence is becoming stronger that translation does not become easier with growing experience and expertise (e.g. Gerloff, 1988; Jääskeläinen, 1990; Sirén, forthcoming). Another domain in which this phenomenon has been demonstrated is writing (see Scardamalia and Bereiter, 1991).

**Translation tasks as ill-defined problems**

Cognitive psychology generally distinguishes between two types of problems, well-defined and ill-defined (also termed well-structured and ill-structured) (see e.g. Glaser and Chi, 1988.) Typically, well-defined problems are text-book physics or math problems: they can be presented unambiguously, they have clear solution paths and most often only one correct solution. Such problems comprise one end of a continuum without a clear-cut distinction to ill-defined problems (Voss and Post, 1988, p. 262). Translation tasks are ill-defined in that commissions or assignments are not unambiguous with only one possible interpretation and solution. For example, even if the readers of a translation were known, their responses need to be anticipated. Source texts require or lend themselves to more or less interpretation, and in real life they can be, not only ambiguous, but also deficient. For translation problems (tasks), there are no clear solution paths from the initial to the final state. Further, translations can hardly be considered either correct or incorrect solutions to problems, unless unquestionable translation errors become critical. When they become critical is, in turn, case-specific and a matter of judgement. It would also be impossible to tell the number of different translations that could be considered solutions to a translation task.

**New experimental evidence for the "translation does not become easier" phenomenon**

This section presents results from an experimental study on translatorial expertise. (Sirén, forthcoming). This think-aloud study compares the translation processes of translational experts and nonexperts. It was designed to examine three factors hypothesized to contribute to the translation process: source language proficiency, translatorial competence and specific domain knowledge. For the study, two content domains were chosen, literature and medicine. In an experimental situation, each participant translated two texts, one on each domain. There were six participants: two translational experts specializing in literary texts, two translational experts specializing in medical/scientific texts, and two medical experts, nonexperts in the field of translation. Thus, the participants formed three groups with different competence profiles, i.e. combinations of the three above-mentioned factors. The source-language (English) proficiency was high in all three groups. (The target language was Finnish, the first language of the participants.)

The study was designed to yield different matches between texts and competence profiles. The experimental designs in Gerloff (1988) and in Jääskeläinen (1996) were of the
same type. This study, however, did not have novices as participants but it compares experts and nonexperts. Further, one factor under study was domain knowledge, which implies the hypothesis that translation skills are not "general" context-free skills in the sense that they would be applicable to virtually any kind of translation tasks. Moreover, this study clearly distinguishes between professional status and expertise: the participants were chosen because of their merits, not because of their status as professionals. For example, the literary translators have translated about ninety titles in all, novels, plays and children's books, including classics, and their work is appreciated, also publicly.

As the aim was to match two different texts, one literary and one medical, with different competence profiles, an evident hypothesis was that the best matches would correspond to the most succesful processes (and also to the best translations). Thus, the literary translators were expected to produce the best literary translations. On the other hand, there were no specific hypotheses concerning the medical translation ie., how would translational vs medical expertise affect the translation processes and products.

The results emerged at this point of the study are: (1) The translational experts considered the experimental tasks more difficult than the medical experts. On average, the former also used a longer time to translate each text. (2) The self-monitoring skills of all the experts were evident. (3) The translational experts did not produce the best translations in all cases.

Both medical experts completed their literary translations during the experimental session while none of the translational experts did. ie. when asked what they would want to edit in their translations, the medical experts pointed out a few lexical items at most, while the translational experts explicitly labeled their translations as drafts that required more or less editing. (The translation brief was to produce a first version and the maximum time allowed was one hour). In addition, the expert translators considered particularly the literary translation task as one that could not be completed during one session. Reasons for this were the difficulty to produce in Finnish, for example, some of the proper names appearing in the source text, and the need to elaborate on the context more than was possible in the experimental situation.

The subject of the medical text was highly specific and the text itself was "doctored". It was made less intelligible than the original so that it would require more inferring. The purpose was that particularly the medical experts could rely on their domain knowledge in the translation process. However, the text did not match very well to their knowledge. The text was on virus vaccines, and the special fields of the medical experts were cardiology and neurology. This exemplifies that expertise is not comprehensive in such a wide domain as medicine.

The self-monitoring skills of the participants were manifest in the comments they made on the tasks (on or off record). These comments implied whether or not they would translate a text in a real-life situation and if they would, on what conditions. The medical experts brought up their nonexpertise particularly in relation to the literary text (although they did not hesitate to perform the task). The responses to the medical text varied from "would not translate" (a literary translator) to "would translate" (a translator of medical texts). In one case the position is not clear (a medical expert) but the rest of the participants
implied that they would translate the text but on certain conditions: they would first study the subject or consult a subject-matter expert. This further suggests that it would be important to investigate translators in their own real-world environments.

The quality of the translations needs to be related to the translation processes. For example, the other one of the literary translators produced a relatively crude draft of the literary text but she also considered it a draft, and there is hardly any reason to doubt that a finalized version would not be of high quality. In contrast, the other one of the nonexperts produced a translation of the literary text that was assessed to be good but the final quality of her translation was determined at that point because she would not have edited it further except for a few details. Thus, it is reasonable to assume that if we compared finalized versions of these translations, the translational expert would have the upper hand. Such a result suggests that even if differences in competence would obviously be great, they are not necessarily apparent in a translation at any stage of the translation process.

Discussion

This paper has used the term 'participant' instead of 'subject'. The reason is not only following recommendations (eg. Coolican, 1994, p. 175) but recognizing people as active parties in a study instead of passive subjects to be observed. (Gerloff (1988) also uses the term 'participant'). As regards experts, it is obvious that they are cooperators who not only participate a study at their own will but direct the experimental situation for their part. In our study, for example, the other one of the literary translators obviously considered unnecessary to translate the warm-up task that was given to the participants before the experimental tasks, and did not do it. She also disliked the content of the medical text and would rather not have translated it but did after all. It is apparent that experimental situations will be different if in one situation the participant is a student and the experimenter his or her teacher, and in another the participant is an expert with considerable professional and personal experience while the experimenter is less experienced and less expert.

Thus, it seems that one characteristic of translational expertise are self-monitoring skills as well as they obviously characterize expertise in general. However, a better understanding of translatorial expertise would require having an idea of its development, and results from cognitive psychology could serve as one starting point.

Finally, it seems worth once more to consider the results that translation does not get easier, particularly as according to common sense the same task should be easier for an expert than for a novice or a nonexpert. Besides translation, a domain in which experts work harder and more slowly than novices is writing, and the evidence for this is convincing (see Bereiter and Scardamalia 1991, p. 172). Novice writers perform a task in a straightforward manner while experts move between planning and local decision-making, which makes writing slower as it is repeatedly interrupted by pauses (p. 173). In this process an expert writer probably elaborates the problem into a more complex one, which also is likely to happen in an expert translation process, given that the time contraints are not overriding.
References


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Chapter One: The Shah of Blah

There was once, in the country of Alifbay, a sad city, the saddest of cities, a city so ruinously sad that it had forgotten its name. It stood by a mournful sea full of glumfish, which were so miserable to eat that they made people belch with melancholy even though the skies were blue.

In the north of the sad city stood mighty factories in which (so I'm told) sadness was actually manufactured, packaged and sent all over the world, which never seemed to get enough of it. Black smoke poured out of the chimneys of the sadness factories and hung over the city like bad news.

And in the depths of the city, beyond an old zone of ruined buildings that looked like broken hearts, there lived a happy young fellow by the name of Haroun, the only child of the storyteller Rashid Khalifa, whose cheerfulness was famous throughout that unhappy metropolis, and whose never-ending stream of tall, short and winding tales had earned him not one but two nicknames. To his admirers he was Rashid the Ocean of Notions, as stuffed with cheery stories as the sea was full of glumfish; but to his jealous rivals he was the Shah of Blah. To his wife, Soraya, Rashid was for many years as loving a husband that anyone could wish for, and during these years Haroun grew up in a home in which, instead of misery and frowns, he had his father's ready laughter and his mother's sweet voice raised in song.

Then something went wrong. (Maybe the sadness of the city finally crept in through their windows.)

The day Soraya stopped singing, in the middle of a line, as if someone had thrown a switch, Haroun guessed there was trouble brewing. But he never suspected how much.

The Challenge of Developing An AIDS Vaccine

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A very different approach to vaccine design involving synthetic peptides is being developed by two researchers. This approach requires knowing what parts of the HIV coat proteins actually bind to MHC receptors and stimulate a strong response. The idea is to synthesize peptides that correspond to these, which can then directly bind to MHC I and MHC II, and stimulate a neutralizing antibody response. By directly binding to MHC I, the peptide tricks the system, in that normally only internal protein fragments would be presented on this receptor, which is key to stimulating a cytotoxic T-lymphocyte (CTL) response.

Another variable in immune responses is that there are many different varieties of MHC receptor genes in the general population. The slight differences influence what portion of an antigenic protein is strongly bound by the MHC receptors. Through careful studies in mice and in infected humans, researchers have identified regions of the coat proteins that are recognized by multiple MHC types. By analyzing segments of these regions, they have identified specific sections, called determinants, that stimulate a CTL response, neutralizing antibodies, and helper T-cells.

The vaccines based on this approach are composed of peptides that contain multiple determinants for several MHC binding types. Experiments with these vaccines in mice have been successful in stimulating CTL responses to HIV coat proteins. The stimulated T-cells from these mice were tested against various strains of HIV. They were found to react differently to various strains. This problem of recognition of several strains affects any vaccine design, but by adding peptides that represent determinants of more strains, this synthetic peptide approach may be able to overcome it.