

The Beginning of Wisdom: Some practical aspects of technical translation

Nicholas Hartmann

Introduction

It has been said that no one but the author reads a document as carefully as the translator does. What if that same detailed consideration were applied to a piece of business correspondence that a freelance translator might receive and read every day, for example an e-mail message from a regular customer? That analysis is taken here as an opportunity to discuss some of the attitudes and habits that technical translators should cultivate.

The message

The names in the “message” below are fictitious, but its content and tone are typical. “Stanislaus Tweek” is a composite of several of my regular patent-attorney customers, and “Huber & Meyer” stands for a German patent law firm that represents German companies and inventors, and must work through a U.S. attorney in order to apply for a U.S. patent. “Prior art” is that which is already “known” in the strictly patent-related sense, i.e. the universe of existing knowledge to which a patentable invention must constitute a novel addition. “Declaration” refers to a translator’s formal statement of accuracy, discussed in more detail below.

Dear Nick:

Confirming our conversation of earlier today, please find attached the German text of another Jos. Schmidt GmbH electronic motor control system patent from Huber & Meyer in Munich. Please prepare an English translation of this text and e-mail it to Herr Meyer for review no later than June 21. My thanks again for accommodating the short deadline.

I have enclosed two prior-art documents that are referenced in the specification, for whatever terminological assistance they may provide.

Please note that we will require a Translator’s Declaration for this application.

Best regards,
Stan

Stanislaus Tweek
Tincker, Fiddel & Tweek, LLP
Intellectual Property Law

Relationships

Dear Nick: ... Best regards, Stan

The forms of address in Mr. Tweek's message are significant. He and I are on a first-name basis after working together for several years; we have met and we exchange Christmas cards. The relationship is cordial, even friendly, but still businesslike.

We can be friendly because we know what to expect from one another:

Although he can have someone else translate his patents more cheaply – and has done so when I have been unavailable – he still calls me first because he knows that I will give him a translation of the highest possible quality; deliver it on time; and be adaptable and flexible in terms of deadline, subject matter, consultation and review, and preferred style and terminology.

I in turn know that he will allow me the longest possible deadline consistent with his own time constraints; provide whatever terminology support he can; shield me from the complexities of the patent system and the whims of German attorneys; and pay my invoices promptly.

These mutual understandings are the foundation of how I define a “good customer.” This particular relationship goes further, however:

More relationships

e-mail it to Herr Meyer for review

Herr Meyer is the attorney at Huber & Meyer who actually writes the German applications that I translate. I am asked to send my translations to him so that he can make sure I am using the client's preferred terminology and suggest other minor procedural adjustments. He and I have learned to adapt to one another's idiosyncrasies and preferences, and to Mr. Tweek's as well.

A few years ago, after disagreeing vigorously with some of Herr Meyer's proposed changes that, in my opinion, went well beyond what the original German text actually said, I contacted Mr. Tweek and asked him to clarify the responsibilities, roles and obligations of the three parties involved. His response was, in part (emphasis mine):

You and I and Herr Meyer are all working for the ultimate client, Schmidt GmbH, and our primary responsibility is to exercise our professional judgment in such a way that Schmidt GmbH obtains US patents which will stand up in court.

You clearly cannot certify, as an accurate translation, wording which you believe introduces forbidden “new matter.” If an infringer did manage to invalidate a Schmidt patent on the basis of an

inaccurate translation of the text, this could destroy protection of one or more products from competition. People could lose jobs.

We must therefore continue to exercise our respective professional judgments while maintaining a cooperative spirit, since we are all on the "Schmidt team" together.

Because I communicate directly both with Herr Meyer (who originates the texts and who in turn is acting on behalf of Schmidt GmbH, which is ultimately affected by the quality of my work) and with Mr. Tweek (whose reason for wanting the best possible translation is to maximize his success in obtaining US patents for Schmidt GmbH so he can retain them as a client), I am no longer simply a “service provider” but one of the participants in a cooperative endeavor. Each participant derives the same advantage from working together as effectively as possible: we retain our respective customers, earn their respect, and enhance our professional reputations.

I therefore function as part of an explicitly defined “team,” each member of which makes a specific contribution that is acknowledged and respected by the others. This requires that each team member not only possess the appropriate expertise, but also have the confidence to assert it. That in turn requires experience: my triangular relationship with Messrs. Tweek and Meyer is not one in which I could have functioned successfully at the very beginning of my translation career.

Translation

Please prepare an English translation of this text

The American Translators Association’s Code of Business Practices refers to a translator as a “bridge for ideas from one language to another and one culture to another...” A real bridge, however, is inorganic and immobile, a static, non-living structure. Translators are none of the above: we are alive and active. What we really do, as the Latin root of “translate” implies, is to act as carriers across bridges.

But what do we carry? Translators might seem to carry written words, as interpreters carry spoken words, but our ultimate purpose is always to convey what the words themselves are carrying: ideas, concepts, meanings, and thoughts.

Words and language, after all, are just containers: they are conventions and agreements among groups of people that certain noises (spoken language) and squiggles (written language) have certain meanings.

The translator must look at one set of squiggles, understand what they mean, and express that meaning as another set of squiggles. It might appear that the squiggles are the end product of translation (since words are often the unit by which we get paid). But the real product, the reason for making all the squiggles, is what they mean; and the quality of a translation is determined by how well the translator turns source symbols into meaning (=

comprehension) and back into target symbols (= expression). The symbols are merely vehicles for moving meaning from the author's mind through the translator's to the reader's.

Consider the Chinese ideogram 水. If you cannot read Chinese, it is indeed merely a squiggle. Even a transcription into the Roman alphabet ("shui") of that ideogram's pronunciation in Mandarin Chinese is meaningless without a knowledge of the spoken language.

With appropriate dictionaries we can accurately translate 水 into English as "water"; and it might seem that our work is then finished. And so we are, if our work is performed only on the level of noises and squiggles. But water's real existence goes far beyond the spoken and written conventions of different human languages; if we really want to understand water, we need to walk along a beach, turn on a faucet, or step in a puddle.

A true understanding of anything can therefore be gained only by direct experience of it – the sound and feel of water, how one gear meshes with another, the size of the Grand Canyon. True understanding then leads to correct internalization of the meaning of a source-language text, which can then be expressed accurately in the target language.

This is why technical translators love factory tours: they are an opportunity to see real things and real processes that we would otherwise never directly experience.

Time management

My thanks again for accommodating the short deadline.

The older I get, the more keenly I realize that accurate, high-quality translation of complex technical material is an intellectually and physically demanding activity.

I have found that in the long run, it is better to turn down work and devote appropriate attention to what I have, than to produce less than the best possible quality just in order to generate more volume. The alternative is a vicious circle:

Too much work = fatigue = inattention = mistakes = poor quality = loss of reputation, customer confidence and repeat business = ... not enough work.

Time management therefore means not only meeting deadlines, but also understanding one's limitations and capabilities and how they affect quality.

Responsibility

we will require a Translator's Declaration

Here is the gist of the Translator's Declaration (also called a Verification) that I use. My thanks go to Jan Clayberg and Olaf Bexhoeft for providing me, fifteen years ago, with a copy of their battle-tested Declaration that I have used successfully ever since:

I, Nicholas Hartmann, translator ... declare that I am well acquainted with the English and German languages and that the appended document is a true and faithful translation of:

[document reference]

All statements made herein are to my own knowledge true, and all statements made on information and belief are believed to be true; and further, these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the document.

The Translator's Declaration is a formal statement that I have the knowledge and qualifications to do the job I have taken on, and that I take responsibility for what I have done. It is where the translator literally signs on the dotted line to verify accuracy.

There are implied penalties for negligence and incompetence: for example, "willful false statements may jeopardize the validity of the document," thereby possibly invalidating the patent and once again causing people to lose their jobs.

But the Declaration's choice of words is interesting: "well acquainted with" (not "an omniscient and unchallengeable expert in"); "to my own knowledge true"; "statements made on information and belief are believed to be true."

The Declaration does not impose a requirement for perfection. It does, however, put into legal language the obligations that every translator should already feel: to acquire and maintain knowledge of both the languages and the subject matter of every translation; to apply that knowledge with unfailing care; and to do everything necessary to ensure accuracy. In other words, to act like a professional.

Subject knowledge

another Jos. Schmidt GmbH electronic motor control system patent

It is curious that in the Translator's Declaration, I am not required to affirm that I know anything about the subject matter of my translation. While such knowledge is obviously mandatory, the manner in which technical translators acquire it seems to be very heterogeneous.

In my own case, for example, my three degrees in an obscure corner of the humanities might seem poor preparation for the translation of German electronics patents. But higher education does teach some useful habits of mind: research skills, intellectual rigor, the existence and function of specialized language, the fundamental importance of

experimentation and the scientific method, and how to write clearly. I was also fortunate to have inherited from my father – a photojournalist and industrial photographer – his fascination with technology as an expression of human creativity, and to have accompanied him as he photographed production plants, laboratories, aircraft hangars, architectural monuments, machine parts, and much more.

Other technical translators have come to their careers through very different but similarly indirect routes, but I believe that the details of training and background are merely secondary. What all successful and contented technical translators share is not a particular course of study but certain fundamental personality traits: we are insatiably curious about the real world, both natural and man-made; our curiosity is wide-ranging, even all-encompassing; and we firmly believe there is no such thing as useless information.

The appeal and excitement of a life in technical translation are that it requires (and rewards) an omnivorous approach to knowledge: you drive hundreds of miles out of your way to look at a bridge, or take the long way round to whatever you need at the hardware store, or read owner's manuals for things you don't even own. What makes you a good technical translator is therefore not what you get taught while you're in school, but how much you want to keep learning for the rest of your life.

Terminology, finally

for whatever terminological assistance they may provide

The title of this essay is taken from the Chinese saying

"The beginning of wisdom is to call a thing by its right name,"

and terminology is obviously an important aspect of technical translation. But how do we decide what the "right name" is?

Very often, it depends on what a lot of other right names are: in a particular industry or trade, within a particular document or set of documents, or even as preferred by a particular engineer or patent attorney.

For example, a recent project required me to translate three French patents relating to a firearm mechanism: all three dealt with much the same subject matter, and had to be consistent with one another and with a previous (mediocre) translation that had already been submitted to the Patent Office.

Those involved were the translator (me), another translator functioning as editor and as representative of the translation partnership that was my direct customer, the patent attorney who was their customer, and the engineers at the company applying for the patent.

Because of the large number of interested parties and the need to conform to previously defined terminology, this one set of documents ended up tying all of us into some truly Gordian terminological knots.

Let's start with the apparently simple concept of locking or immobilizing a movable part (French terms are in *italics*, English terms in **boldface**):

We begin with *immobiliser*, which we effortlessly translate as **immobilize**. Based on *deserrer* = **unlock**, we then rashly assume that *serrer* = **lock**. Wrong: *bloquer* = **lock**, because following exhaustive discussions between the attorney and the engineers, we were told that “none of the other options – jam, inhibit, block, trap, park, secure, freeze – seems to capture the idea here as well as ‘lock’.” So *serrer* = **interlock**.

On to *verrouiller*. **Bolt** seems obvious but that English word has a specific meaning in firearms; a better general term would be **lock**, but *bloquer* already occupies that terminological space. So we select **clamp**. A *dispositif de verrouillage* is then a **clamping device**; a *douille de verrouillage* should therefore be a **clamping sleeve**, but turns out in fact to be just a **sleeve**, because the same reference number is used in one of the documents for a plain old *douille*, whereas a lexically identical *douille* with a different reference number is actually a **cartridge case**.

The same problem occurs with *axe du canon*, which is the **barrel axis**, suggesting that every instance of *axe* is therefore an **axis**. Unfortunately some of them are physical elements rather than geometrical constructs and are therefore **pins**.

All these components move within something called a *bâti*, which the dictionary defines as a frame; but *carcasse* is already defined as “**frame** = the basic unit of a firearm that houses the firing and breech mechanisms and to which the barrel and stock are attached, aka receiver, although Client (12/20/04) says that frame is a superordinate term to receiver,” a road down which we will not travel.

Let's move on to *boîtier*, which cannot be a frame and which we define as a **housing**. A *boîtier de culasse* is (thank God) a **breech housing**, so is *culasse* then **breech**? Sorry, it's a **bolt** (remember *verrouiller*?), which according to the client is the same as a **breech block**, being “the part that closes on the end of the barrel opposite where the bullet exits.”

Our joy at finding that *tête de culasse* is in fact **bolt head** is tempered by the discovery that *culasse mobile* is a **mobile breech**, because “according to the client the bolt is the same as breech block, except that for *culasse mobile* Termium gives breech bolt or even breech block or, when no rotary motion is performed, closure is usually referred to as a breechblock,” another road down which we will not go.

All this is fired by a *mécanisme de détente*, which we render as **trigger mechanism**. The result is that for *déclenchement* we then cannot use the obvious **triggering**, and must instead use **release**. Although *déclenchement et/ou arrêt* is translated in the prior US filing (the paradigm to which we must conform) as **triggering or blocking**, by special dispensation we are allowed to call it **release and/or stoppage**. “Stoppage” sounds funny, but as soon as we consider “locking” or “blocking” as an alternative we are hit on the back of the head by three boomerangs labeled *serrer*, *deserrer*, and *bloquer*...

This went on for almost two months, through dozens of monolingual, multilingual, and pictorial dictionaries, downloaded PDF files containing parts lists for Finnish sporting rifles, e-mails, 40-minute telephone calls, a constantly expanding and mutating glossary, consultations with engineers, and so on. It came within eight hours of being a multi-year project.

The “right name” is therefore whatever is right in a particular applicable context. The next time I encounter any of these terms in French I may not be able to use the same English equivalents even if they do refer to firearms, because a different document may be affected by different antecedents, contexts, and preferences.

Summary and conclusions

What is therefore the real meaning that a technical translator should extract from a message like the one we have been discussing? What are the real instructions being given? What must the recipient understand in order to act on it appropriately?

I believe there are six fundamental things that all translators, especially those dealing with technical material, must understand:

- a. The nature of translation and the translator: that spoken and written languages are merely symbols and sets of assumptions referring only indirectly to real things, and that the real things are what is important and must be comprehended.
- b. The translator’s interaction with clients, editors, and ultimate customers: a translator, no matter where he or she is physically located, cannot ever work successfully in isolation.
- c. Time management: knowing how much can be accomplished while maintaining high quality, which is the foundation of a long-term approach to a professional career.
- d. How to acquire and refine subject expertise within one’s own psychological and emotional context: if you don’t know DNA from RNA but circuit diagrams are your favorite bedtime reading, then say No to the biomedical jobs and expand your knowledge of electrical engineering. Whatever you do, you must love it; otherwise translation is just a job, and there are easier jobs.
- e. Our responsibilities to:
 - our customers, not only because they pay us but because we have accepted obligations with regard to delivery deadlines, accuracy, appropriateness, and quality;
 - our colleagues: we have a professional and moral obligation to help other translators learn and advance, to take pride in what we do, and to let the rest of the world know about it;

- the public: the work we do affects our customers, and their customers, and eventually those customers' employees and stockholders. Translators must be aware of being participants in society and in the national and world economy;
- f. How to collect, manage, and evaluate terminology: the words we use must be appropriate and up-to-date and must reflect, whenever possible, direct contact with what lies behind the terminology. Once you have stood inside a waste incineration plant and experienced its smell and heat, or spun a roller bearing, or looked carefully at a suspension bridge, you can bring true understanding to your translations of texts on those subjects.

So perhaps “the beginning of wisdom is to call a thing by its right name,” but it is only the beginning.

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Nicholas Hartmann has worked as an independent technical and scientific translator since 1984, serving customers in the United States and Europe. For more information, please visit www.nhartmann.com.

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