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CD Index

Directory

Contents

Corpus

JPed parallel corpus, arranged by issue number and format,
CorpusTools.doc, corpus access utility.

Dissertation

Tese.doc, this document.

DLLs

Dynamic link libraries for *CorpusTools*.

E-Appendix

Unabridged results to accompany *Chapter 7*.

Google

Google Desktop Search setup files,
TweakGDS setup files.

Abstract

This Masters dissertation describes the process of designing and compiling a suite of three corpora and the software solutions developed to access them. It then goes on to investigate the general statistical characteristics of the three corpora and finally an analysis is performed of a specific language feature across all three corpora.

The three corpora are all made up of paediatric texts. The first corpus consists of 785,448 words, comprising the original Portuguese texts of all content published online by *JPED* in 2003 and 2004. The second corpus consists of the English translations of the texts in the first corpus. It contains 771,169 words and has been aligned with the first at the paragraph level. The third corpus consists of 772,090 words of original English texts published online in *Pediatrics* from January to May 2004. The third corpora is designed to be comparable with the first two.

The general statistical characteristics of the three corpora suggest that English translations of Portuguese paediatric texts have more in common with paediatric texts originally written in English than with Portuguese paediatric texts, suggesting that the language (English or Portuguese) is dominant over translation status.

The choice of whether to use an adjective or a noun when translating four Portuguese adjectives with classical etymology was investigated using the three corpora described. It was observed that, in the *JPED* translations, the frequency of usage of “cardiac” or “heart” and “hepatic” or “liver” were approximately equal while the frequency of usage of “pulmonary” or “lung” and “renal” or “kidney” were roughly one order of magnitude different. These distributions approximate to binary choice systems described by Halliday as “equi” (50:50) and “skew” (90:10). In the *Pediatrics* corpus, cardiac/heart and pulmonary/lung were “equi” systems while hepatic/liver (\cong 10:90) and renal/kidney (\cong 90:10) were “skew” systems.

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The thanks that I owe to my wife Regina are equally boundless. She has put up with the consequences of months of research without complaint and has provided invaluable love and support. She is also the reason I live in Brazil.

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Finally, while I have been helped by many people to arrive at this point, all the mistakes are mine.

Thank you all.

1. Introduction

This dissertation describes a research project that has grown out of a combination of my professional and academic interest in technical translation and corpora. I am both a technical translator and a student of translation. I have been translating medical literature from Portuguese into English for almost four years and have developed an interest in terminology and lexical choice based on my daily observations.

The decision to create a parallel corpus of translated medical texts was taken in the hope that such a resource could be of use both when translating and when studying translation. It seemed quite a simple idea!

This dissertation begins by discussing the general area of medical translation and the specific type of medical translation involved here, goes on to cover some of the issues that must be considered before creating a corpus and then describes a preliminary pilot study that was undertaken. The specific objectives aimed at are then detailed in terms of corpora to be compiled and tools to be developed and this is followed by a description of the methodology employed. The corpora and tools that were developed are then introduced and finally a linguistic analysis is made of the corpus using one of the tools.

The dissertation itself, together with the tools and the one and a half million word parallel, aligned corpus are also provided on the accompanying CD. A seven hundred and fifty thousand word comparable corpus that was also compiled has not been included for copyright reasons.

JPED, medical translation and international English

The electronic version of the *Jornal de Pediatria*, entitled *JPED*, is available free of charge online in Brazilian Portuguese and in American English translation (<http://www.jped.com.br>). I am one of two translators who are responsible for the English versions of the research articles, literature reviews, editorials and letters to the editor.

The *Jornal de Pediatria* is the official publication of the *Sociedade Brasileira de Pediatria*. It is a peer-reviewed scientific periodical published eight times a year. There are six bi-monthly issues and two six-monthly supplements that deal with a specific subject in greater depth. In the words of the *JPED* editors,

JPED is the online version of *Jornal de Pediatria*, the largest and most prestigious journal of pediatrics in Latin America, with a readership of over 15,000. In addition to providing free access to the full text of all volumes of *Jornal de Pediatria* since 1994, JPED also offers the full English version of all articles published since 2000.

(Sociedade Brasileira de Pediatria 2004)

Medical translation *per se* is a very specific type of translation and translation into English for an international journal or publication online, or both, even more so. There are many reasons for this.

The first point is that Western medicine is far older than the English language. This, in itself, makes medical English different, since although the grammar and conventions are English, a very large proportion of the vocabulary is either Greek, Latin or Anglicised versions of these two languages.

The second point is that the medical community is collaboratively international. Cutting-edge work on cloning published in South Korea, for example, credits co-authors from Hull University in the United Kingdom. A great deal of medical literature is written in English by people who are not native English speakers and a large proportion of what is written, whether by native users of English or not, is read by people whose mother tongues are not English.

More specifically, a significant proportion of the lexical items and phrases that are translated from Portuguese into English, particularly terminology, originally entered Portuguese from English. This is because the United States of America, the United Kingdom and Canada are three of the eight richest countries in the world and, because they spend huge amounts on healthcare, they are also responsible for producing a large proportion of new medical knowledge. Germany, Italy, France and Japan, four more members of the G8 group of nations, are also responsible for a significant number of medical discoveries, but it is very common for their work to be either published in English or made more widely available in English translations. With the exception of Latin American and Iberian research, almost all of what Brazilian medical researchers source from outside the country, is accessed in English.

These factors are especially pertinent to the translation of medical literature into English since certain traditional concepts relied on by translation studies scholars, such as target culture and norms, are problematic in an international context. How can one define a target culture if one's target audience is drawn from the entire planet? In the words of Michael Hoey, writing in his capacity as Chief Advisor for the *Macmillan English Dictionary for Advanced Learners of American English*, "English is no longer any

country's property, but has become a true *lingua franca*" (Rundell, 2002, p. ix). In such a context Cristiane Nord's statement that, "translation always takes place between two rather well defined sub-groups of the two language communities involved" (1997, p. 43) may be true for the translation of European Union documentation into Spanish, for example, but is a little more problematic when applied to medical translation. While the sub-groups, i.e. the paediatricians writing and reading the articles, are indeed fairly well defined, the language communities involved, and one of them in particular, are not. The editor of *JPED*, Renato Procianoy, in an editorial celebrating the journal's addition to the select list of scientific publications indexed on Medline, gives a brief description of what translating the journal and making it available on the internet is intended to achieve,

O *Jornal de Pediatria* tem o interesse de se tornar uma revista de grande abrangência. É importante que os artigos publicados no *Jornal de Pediatria* sejam lidos pela comunidade científica, assim como esperamos que investigadores não brasileiros publiquem no *Jornal de Pediatria*.

(2003, p. 475)

Thus, while the sub-groups that Nord refers to are easily identified, the language communities of which they are sub-groups are not. The majority, but not all, of the authors of the original articles are Brazilians, although many of them live and work in English-speaking countries. The target audience for the translations, however, is the entire scientific community, drawn from members of a large proportion of all the world's language communities.

Of course, this does not mean that the *JPED* translators can do what they wish, far from it. Hans Höning's statement that, "All a translation can achieve – and a translator should aim for – is to satisfy the (defined) needs of clients and/or users." (1997, p. 17) still

holds true, but in this context they are required to find other norms and guidelines than those derived from national cultures.

In the specific case in question, translating a Brazilian paediatrics journal for online publication that can be accessed from anywhere in the world, we have two sources of norms. The first is the wishes of the client – in this case the *Sociedade Brasileira de Pediatria* - and the second is the international medical community.

Medical English is, of course, a type of Language for Special Purposes (LSP - also known as Language for Specific Purposes), but the extent to which it is a single ISP is debateable. Paediatrics is considered a medical specialty, i.e. doctors have to attend further training courses after their basic medical training to become paediatricians. This is not, however, the end of the matter since a paediatrician is basically a general practitioner who specialises in children. Paediatrics also has myriad sub-specialties such as pneumology, oncology, and endocrinology. Therefore, each of these sub-specialties also has its own sub-LSP. As Bowker and Pearson point out,

Because LSP users have different levels of expertise, there are also different levels of LSP communication. When experts communicate (...) they tend to use a highly specialized language. (...)

Another type of communication takes place between experts and semi-experts, such as students or experts from related fields.

(Bowker & Pearson 2002, p.28)

The authors submitting articles to *JPED* fall into both of these categories. Some of them are on the teaching staff at training hospitals or University medical departments and are used to explaining their fields to medical students, while others are doctors working in hospitals or the wider public health sphere hoping to encourage primary care paediatricians

to spot the symptoms of their particular specialty as early as possible. Another category of author includes laboratory-based researchers who also publish in more specialized journals and are aiming to disseminate the knowledge they have accrued in in-depth experiments.

Two translators have to deal with all of these variants. To put the task into perspective, the *JPED* editorial board has thirty-five members responsible for the sub-specialties, in addition to the Editor in chief, three associate editors, four members of the executive board and an executive editor responsible for translation. This is not to say that the translators have no help – all translations are returned to their original authors for inspection and are also reviewed by the relevant specialty editors before being published on the internet.

Furthermore, the range of medical reference material available free of charge online is unparalleled in any other field. Both the North American and British governments make available huge amounts of information.

The US *Centers for Disease Control and Prevention* publishes *The Bad Bug Book* listing all infectious and poisonous agents known to them. The North American government, in the form of the *National Institutes of Health*, also runs the PubMed/MEDLINE system, which includes the world's largest searchable research database, a medical dictionary, an encyclopaedia and detailed descriptions of all pharmaceuticals currently licensed in the United States (2005 a).

In addition to these institutional resources, many of the most prestigious medical journals make their content available free of charge for ethical reasons. This fact is intrinsically linked with the content itself. The *World Medical Association International Ethical Policy*, for example, states that,

A PHYSICIAN SHALL NOT permit motives of profit to influence the free and independent exercise of professional judgement on behalf of patients.

(1949 [revised 1983])

while the *Declaration of Geneva*, adopted by the same organization, contains the following commitment,

I WILL NOT PERMIT considerations of age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual orientation, social standing or any other factor to intervene between my duty and my patient

(1948 [revised 2005])

Many medical publishers, in particular medical societies that publish their own journals, have interpreted these and other consensus statements to mean that it is unethical to withhold potentially life-saving information for financial reasons.

The United Nations' Secretary General, Kofi Annan launched the Health InterNetwork at the UN Millennium Summit in 2000 and, in response, *HINARI* was set up to provide access to some of the world's leading biomedical publications to poorer countries, either free of charge or at reduced cost depending on *per capita* gross national product. This project covers for-profit publishers.

Another initiative of a similar type, taken by not-for-profit publishers (the majority either professional societies or university publishers), is defined by the *Washington DC Principles for Free Access to Science*, in which the signatories pledge to make the full text of their journals available free of charge, in some cases after a delay, and to make all content freely available to countries on the World Bank's list of low-income countries (2004).

The range of reference materials available on the internet is not limited to government websites and biomedical journals however. Some of the most useful resources are those paid for, and run by, pharmaceutical companies. Merck publishes a large range of medical resources, “on a not-for-profit basis as a service to the community” (Merck, 2005), including the *Merck Manual of Diagnosis and Therapy* (Beers & Berkow, 2005), which Merck claims is “The world’s most widely used medical textbook”. Also provided by Merck is *Dorland’s Illustrated Medical Dictionary*, which the University of Kansas Medical Library describes as being “Considered by many to be the most respected and comprehensive medical dictionary available” (2005).

The examples given here are just a selection of the most useful medical information resources available on the internet provided by governments, medical societies, publishers and educational institutions and pharmaceutical companies. There are yet more, equally important, resources whose providers do not fall into any of the categories so far mentioned. The most useful of these is *Gray’s Anatomy*, published electronically free of charge by *Bartleby* with help from sponsorship by *Amazon.com* (1918 [20th edition, 2000]).

The final group of resource providers are global institutions such as the *World Health Organization* who publish the *International Classification of Diseases*, currently known as *ICD-10*, which aims to list and provide diagnostic criteria for all known diseases, thereby providing great quantities of vocabulary in both English and Portuguese (1994-2005).

2. Corpora and translation

Berber Sardinha begins his study of corpus linguistics by describing the creation of the *Brown University Standard Corpus of Present-day American English*, produced in 1960 and containing one million words (Berber Sardinha 2004, p.1). However, translators appear to have ignored its potential, as he points out in an earlier article, in which he explains that when Lynne Bowker published her *Cumulative Index of Bibliography of Translation Studies* covering the period 1998-2001, just two percent of the work cited was corpus-based (Berber Sardinha 2002, p. 17). He goes on to suggest why the forty or so intervening years have not seen a greater integration between corpus linguistics and translation studies, focussing on three possible reasons.

The first is the prejudice of corpus linguists against translations, which they exclude from their corpora on the basis that translated text is distorted or unrepresentative and so unsuitable for language study. An example of this attitude is apparent in the way Susan Hunston sums up work by Laviosa with a corpus of translations and a parallel corpus of non-translations. Apparently, Laviosa was able to, “indicate the difference between ‘real English’ and ‘translators’ English” (2002, p. 127). The concept that translators do not use *real* English is seemingly accepted even by those corpus linguists who are themselves investigating translation.

The second reason is the negative attitude that translation researchers and translators have towards linguistics in general (ibid. pp. 19-20). Interestingly, while Berber Sardinha puts corpus linguists on one side against translators and translation researchers on the other, Hans Hönl was lamenting how little effect “translatologists”, had had on translators when he observed that, “scholarly investigations have so far had very little impact on the work of

translators as it is practised every day” and so sees translators and translation researchers as opposed (1997, p. 22).

The third reason offered for the disappointing lack of interest shown in the interface between corpus linguistics and translation studies is the lack of technology, which Berber Sardinha classifies into two categories, the first being,

a tecnologia enquanto corpora propriamente ditos, especificamente os de maior interesse para a tradução, como os paralelos e/ou comparáveis. Esses são reconhecidamente mais raros e difíceis de coletar do que os corpora monolíngües.

(*ibid.* p. 20)

To put this degree of difficulty into perspective we can consider the amount of work necessary to create any large monolingual corpus. Based on the information provided in the acknowledgements pages of the 1995 COBUILD (Sinclair, 1995) and the 2002 Macmillan (Rundell, 2002) dictionaries, both corpus-based, we find the following figures: for the 1985 edition of the COBUILD dictionary, based on a twenty-million-word corpus, at least fifty-seven people were required to work on a project that lasted from 1980 until 1987; the 1995 edition of COBUILD, based on a two-hundred-million-word corpus credits sixty-one team members (the second dictionary project was only started in late 1992 after a number of grammatical works were published, but the corpus was constantly added to throughout [Gwyneth Fox, Editorial Director, COBUILD2, personal communication]); the Macmillan dictionary, which does not mention how large a corpus was used, credits a massive one hundred and seventy-nine contributors! Of course, not all of these people were working on the corpora, but they were all necessary to go from producing the corpora to creating usable finished products from them.

These were monolingual projects backed by two of the largest publishers in the world and it is not difficult to understand why such efforts have not been reproduced in the form of bilingual or multilingual projects. The first reason is that while English is the dominant language worldwide and the COBUILD and Macmillan dictionaries can both be used by first and second language learners, any project involving a language other than English, by definition, has minority status and therefore smaller projected financial returns. The second major reason is the extra work involved in creating a usable parallel corpus (while a comparable corpus is easier to compile, the findings that it makes possible are also more limited).

Notwithstanding, since, “Parallel corpora are, in a very real sense, best characterized as the ‘Rosetta Stone’ of modern corpus linguistics.” (McEnery & Wilson, 1993, p.7), the lack of such corpora in any given language pair represents a missed opportunity, since,

their full potential may only become known when an end user has the opportunity to actively exploit such a corpus. That presupposes the existence of one.

(ibid. p. 9)

Returning to the second of Berber Sardinha’s categories, we have technology in the form of,

os programas de computador para exploração desses corpora específicos para a tradução, como os alinhadores e concordanceadores paralelos, que são menos numerosos, poderosos e, indiscutivelmente, de acesso mais restrito.

(2002, p.20)

Some programs designed to access parallel corpora do exist, but, as Berber Sardinha points out, they are either unsatisfactory (e.g. *MultiConcord* – Woolls, 1994-1998), limited to a

specific corpus (e.g. *DISPARA*, Santos et al., 2005 [last update]) or restricted access (e.g. *TranSearch*, RALI, 2001-5).

One of the main problems with concordancers when working with parallel texts is the scope of the *window* opened onto the texts. If one uses, for example, the aligner

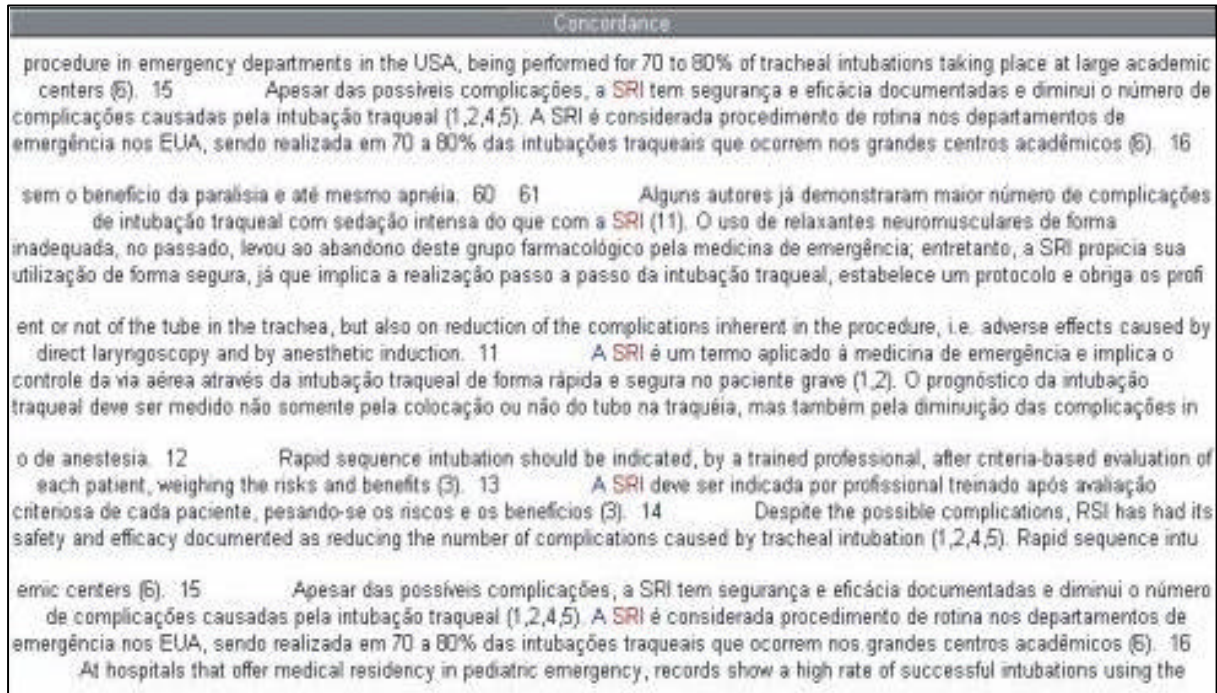


Figure 2.1 – Concordance of ‘SRI’ from aligned texts produced by Wordsmith Tools

function in *Wordsmith Tools* (Scott, 1996-2004^{*}), and then tries to access the resulting file via the concordancing tool of the same software, some very basic limitations become immediately apparent.

The first of these limitations is that it is very unlikely that a standard, single-line Keyword In Context (KWIC) display will contain both the node and its translation, particularly if the node happens to be at the start of a long sentence. Figure 2.1, above, in

^{*} For all procedures involving the *Wordsmith Tools* aligner and viewer, version 3 was used (1999) since at the time of writing the function was not available in the most recent update to version 4. For all analyses that did not require the aligner and viewer tool, version 4 was used.

which the concordances have been expanded to four lines each, can be used to illustrate some of these points. These are the first five concordances of “SRI” from an article in Portuguese on *seqüência rápida de intubação* (Amantéa et.al., 2003) that had been aligned with its translation into English. The reason that there are only five concordances is that this is all that is visible with *Wordsmith* maximised to fill a standard SVGA computer screen (1024 by 768 pixels).

Of interest is the tendency for the term to occur at the start of a sentence, which in turn results in the KWIC window revealing much of the translation of the previous sentence and very little of the translation of the concordance itself. In only one of these five concordances (the fourth) is the translation of the term, “RSI”, visible within the four lines of text.

Another problem is that there is no way of sorting the results by their translations since (and this point is common to all of the concordancing tools investigated in the initial stages of the present project) the concordancer has no way of knowing what the translation of any given word is. Linked to the first point is the fact that when studying translation it is most likely that the researcher will need to view more context than when, for example, looking for instances of word usage for dictionary creation. Translation equivalence is inextricably linked to context and so, without context it is often impossible to evaluate translation decisions. Indeed, in four of the five concordances in Figure 2.1, the translation decision does not even appear

MultiConcord goes to the opposite extreme, in that it displays just one concordance at a time, which is equally unsatisfactory. In fact, if the concordance size is expanded indefinitely, *Wordsmith* also gets to a point at which just a single concordance is shown at a

time. *MultiConcord*, however, has another drawback, since it is only capable of producing concordances from a maximum of thirty source files plus their thirty translations.

In both cases the problem stems from the decision to align the texts serially. By saving aligned files on an alternate line for each language, both programs give the effect of a two-language sandwich, something like a two-way radio conversation in which the participants take turns to speak or to listen. The result is that both texts become fragmented and if the context necessary to evaluate a translation is in the alignment unit previous or subsequent to the translation itself, the display becomes extremely disjointed. An alternative would be to have source text and translation in two vertical columns, side by side, thus producing the effect of two, parallel, streams of information, one in each language.

Neither program is capable of displaying meta-information such as author, full text titles or publication dates together with the concordances, even though all of these details can be of relevance when investigating usage. Particular authors develop their own styles and it is of interest to be able to check whether a given feature of language that has been observed could be limited to a specific author or group of authors. Similarly, language changes over time, and publication dates are an interesting variable to have available for consultation.

The result of all these factors is that any analysis of a parallel corpus almost immediately becomes a manual task once the corpus software has been used to identify examples.

Despite all of these practical limitations, parallel corpora are very much to be desired. There are three basic motives for this, corresponding to the three components of the *linha*

de pesquisa into which the present project fits; lexicography, translation, and language teaching. Each of these can benefit from corpus techniques.

The first of these three (interrelated) components is dealt with by Biber et al.,

Lexicography is concerned with the meaning and use of words. Traditionally, lexicographic research investigated the meanings of words and synonyms. In more recent times, such investigations have been extended using corpus-based techniques to study the way that words are used

(1998, p.21)

With the help of a parallel corpus, this concept can easily be applied to the meanings and usage of words in translation.

The second of the items is dealt with by Johansson, who wrote, “a corpus of original texts and [their] translations can be a rich source in the study of translation patterns” (apud Olohan 2004, p. 29), and also Berber Sardinha,

Há uma unanimidade entre os pesquisadores da tradução e os lingüistas de corpus em torno da questão da utilização de corpora eletrônicos na tradução: o posicionamento corrente é o de que tanto os estudos tradutológicos como área acadêmica de pesquisa, quanto a prática tradutória, têm muito a ganhar com um contato maior com a Lingüística de Corpus.

(Berber Sardinha 2002, p. 15)

While the usefulness of corpora to the third, language teaching, is supported by Bowker and Pearson, echoing McEnery’s Rosetta Stone metaphor,

a suitable parallel corpus can in fact sometimes be a better option than a dictionary

(2002, p 194)

Corpora are not, however, only useful for language teaching when used as dictionaries with real-life examples. *Data Driven Learning* was developed by Tim Johns with his students at Birmingham University and it was a pioneering effort in the use of corpora for teaching (Hunston, 2002, pp.170-171). The original technique was very simple in that language students were encouraged to find the answers to their own questions from a raw corpus of English. According to Hunston, there were many advantages, three of which she explains in more detail. The first benefit was that the students were more motivated to learn, both because they were finding the answers to specific questions they needed answered and also because they had found the answers themselves. Secondly, students were able to find things that teachers or text books had let pass unnoticed. Finally, she states that the technique also encouraged students to develop their skills at deducing meaning from context (*ibid.*).

With all of these possible uses for a corpus of medical translation in mind, the first step towards producing one was to investigate the practicalities involved with a small-scale pilot study.

3. A Pilot study – two training corpora

Before embarking on creating three full-sized corpora, two training corpora were constructed in order to test the methodology envisaged and to investigate the feasibility of the project as a whole.

The first of these ‘training’ corpora was extracted from a single issue of *JPED* to test the construction methods and to get a general idea of the problems involved. The second training corpus was designed to be comparable with the first and consists of texts from the North American paediatrics journal *Pediatrics*.

The texts for the first training corpus (*JPED* Volume 80, Issue 3) were in the form of *Microsoft Word* documents and so needed to be converted to text-only format in order to be accessible by *Wordsmith Tools*. At this stage in the project the intention had been to make use of *MultiConcord*, so each translation was aligned to its Portuguese original, but they were stored into two separate files, with the extensions *.po* and *.en*, which is the method *MultiConcord* uses to identify the language pair.

Having created a sixty-two-thousand-word parallel training corpus (almost exactly half and half, English and Portuguese), a few preliminary tests were run to see if the corpus stood up to expectations. While, in principle, one should not hypothesize before looking at the data, certain preconceived notions of the characteristics of medical texts are unavoidable (and in my case, as a translator of medical texts, these notions may well be more firmly fixed.)

Analysing the JPED parallel training corpus

Once alignment had been checked and then adjusted manually until satisfactory, a test was performed of the parallel concordances of a word that I find particularly problematic in terms of translation. The word chosen was *quadro*, as in *quadro febril*. Of the twelve instances found, the word was omitted in four cases, was translated as “condition” in three cases, as “status” in three cases and as “presentation” and “symptoms” once each. A much larger body of data would be needed before one could start to analyse this diversity further, but the wide distribution of possible translations is indicative of the word’s problematic status.

The next tool to be applied to the training corpus was *Wordsmith Tools’* Wordlist creator. Wordlists order occurrences of words by frequency and this alone can tell us much about the characteristics of the texts they are produced from. They really come into their own, however, when they are used to compare frequencies across samples, which is done by *Wordsmith Tools’* Keywords compiler.

Version 4 of *Wordsmith* includes a wordlist that has been created from the hundred-million-word *British National Corpus – World Edition*. The *BNC World* corpus is aimed to be representative of English as used all over the world and includes spoken texts. The *JPED* training corpus is a very specific slice of English usage, so it would be hoped that some interesting differences might be found.

Wordsmith has a tool to compare the two wordlists and create a list of keywords. Keywords are chosen based on their frequency of occurrence with relation to the reference frequency (*BNC*). The first thirty results of this comparison are summarized on the next page in Table 3.1.

British National Corpus				JPED, volume 80, issue 3, Wordlist & Keywords								
Word	Freq.	%	Texts	Word	Freq.	%	Texts	Key word	Freq.	%	RC. Freq.	RC. %
THE	6,055,105	6.09	4,050	#	2,345	6.76	12	#	2,345	6.76	1,604,421	1.61
OF	3,049,564	3.07	4,040	THE	1,782	5.14	12	BREASTFEEDING	126	0.36	155	
AND	2,624,341	2.64	4,050	OF	1,292	3.73	12	ESOPHAGITIS	97	0.28	0	
TO	2,599,505	2.61	4,049	AND	1,084	3.13	12	PITUITARY	71	0.21	77	
A	2,181,592	2.19	4,045	IN	763	2.20	12	PATIENTS	179	0.52	17,313	0.02
IN	1,946,021	1.96	4,047	TO	646	1.86	12	OBESITY	72	0.21	218	
#	1,604,421	1.61	3,167	WITH	444	1.28	12	ALLERGENS	54	0.16	25	
THAT	1,052,259	1.06	4,026	A	427	1.23	12	PHADIATOP	44	0.13	0	
IS	974,293	0.98	4,027	FOR	339	0.98	12	SOYA	57	0.16	124	
IT	922,687	0.93	4,022	WAS	339	0.98	12	IGE	46	0.13	11	
FOR	880,848	0.89	4,036	THAT	323	0.93	12	FIBER	42	0.12	8	
WAS	863,917	0.87	3,931	IS	310	0.89	12	CHILDREN	187	0.54	41,332	0.04
I	732,523	0.74	3,830	WERE	271	0.78	12	FECAL	39	0.11	2	
ON	731,319	0.74	4,027	AT	219	0.63	12	MRI	49	0.14	102	
WITH	659,997	0.66	4,012	OR	192	0.55	12	WEIGHT	106	0.31	8,400	
AS	655,259	0.66	3,992	CHILDREN	187	0.54	12	INSERIR	34	0.10	0	
BE	651,535	0.66	4,011	PATIENTS	179	0.52	8	POLYSACCHARIDE	35	0.10	10	
HE	593,609	0.60	3,739	BE	178	0.51	12	OBSERVED	86	0.25	5,007	
YOU	588,503	0.59	3,619	BY	177	0.51	12	SENSITIZATION	35	0.10	34	
AT	524,075	0.53	4,000	THIS	164	0.47	12	ALLERGIC	44	0.13	247	
BY	513,444	0.52	3,910	AS	160	0.46	12	PTOSIS	29	0.08	3	
ARE	458,368	0.46	3,995	ARE	144	0.42	12	INHALANT	30	0.09	8	
THIS	454,419	0.46	4,004	NOT	134	0.39	12	CELLULOSE	40	0.12	175	
HAVE	448,684	0.45	4,000	BREASTFEEDING	126	0.36	3	GHD	26	0.07	0	
BUT	446,783	0.45	3,984	ON	125	0.36	12	ATOPIC	26	0.07	11	
NOT	431,075	0.43	3,987	IT	122	0.35	12	MYOCARDITIS	24	0.07	2	
FROM	425,987	0.43	3,949	BETWEEN	121	0.35	12	CLINICAL	59	0.17	2,994	
HAD	413,144	0.42	3,820	FROM	117	0.34	12	REFLUX	40	0.11	475	
HIS	410,294	0.41	3,645	AN	114	0.33	12	DIAGNOSIS	51	0.15	1,718	
THEY	376,289	0.38	3,931	WEIGHT	106	0.31	7	FECES	22	0.06	0	

Table 3.1 – Word frequencies for BNC and frequencies and keywords for JPED

In analysing the wordlists produced from corpora a distinction must be made to indicate whether figures represent total numbers of words or numbers of different words. In common with standard practice, summed up very well in *Corpora in Applied Linguistics* (Hunston, 2002, pp. 16, 17) distinct words will be referred to as “types” and total

occurrences are counted as “tokens”. This decision having been taken the lists can now be analysed a little.

The most immediately striking feature is that number one type on both the frequency and keyword lists for *JPED* is “#”, which signifies any number*. That numbers should be more frequent than any single word in medical writing might not seem strange, but they are actually four and a quarter times more frequent than in the *BNC*, which does itself include a certain proportion of technical writing. Numbers account for more than six percent of the entire *JPED* training corpus whereas in the *BNC* only “THE” accounts for more than six percent of all tokens. No single word passes six percent of the *JPED* training corpus tokens.

The next most important type in the *JPED* keyword list, and the most important word, is “BREASTFEEDING”. The *Sociedade Brasileira de Pediatria* (SBP) will be very pleased if this is borne out over the whole corpus, but it is likely that there will be chronological factors involved. One might expect the frequency of occurrences of this word to be lower in the past than today since the SBP has been campaigning hard for about ten years to make the medical community realize that breastfeeding is the foundation for the future health of babies for the rest of their lives. Indeed Brazil now has one of the best breastfeeding rates worldwide, beating many first world countries in this respect.

At this point it was perceived that the word “INSERIR” was appearing in the English translations. It appears in nineteenth position in the keywords column (column 9) of the table of frequencies reproduced above, despite not being an English word. A search of the texts revealed that they contained instructions to the technical team who publish the texts to

* This count actually also includes equations and any other word that includes a numeral so “B2B”, meaning “business-to-business” would be erroneously recognized as a number. As this is true for all statistics produced by *Wordsmith* it does not lead to bias in terms of comparisons, but should be borne in mind when making statements such as “one point six percent of all types in the BNC are numbers.” which is a false statement and should be corrected to “one point six percent of all types in the BNC include numerals”.

the web in the form, “INSERIR FIGURA 1” and that there were similar labels for tables.

Of course, this is exactly the type of problem the pilot study was meant to identify.

Analysing the Pediatrics comparable training corpus

Via the extremely labour-intensive method of cutting and pasting, article by article, into *Microsoft Word* (Microsoft, 1983-1999) from the electronic, public access, version of *Pediatrics*, an entire issue was collected on the hard drive of a PC. The issue chosen corresponded to the same month (May 2004) as the *JPED* training corpus.

One very interesting factor that became obvious from a simple perusal of the issue's contents page was that, while all of the articles were published in English, they were not necessarily all written by native English speakers. Two of the articles in volume 113, issue 5 of *Pediatrics* were submitted by research teams from Holland, one was from France and one from Israel, reinforcing the points made in the introduction to this dissertation on the difficulties of identifying and specifying the language communities between which translation is taking place.

Once the comparable training corpus had been compiled, a brief analysis was made of the English part of the parallel training corpus in comparison with the *Pediatrics* comparable training corpus. A schematic representation of the first thirty results of this comparison is reproduced on the next page.

The most striking feature here is that the first six types in the frequency lists for *JPED* and *Pediatrics* are the same forms in the same order and that the percentages of the total number of words that they account for are extremely similar. The total proportion of numbers in *JPED* volume 80, issue 3 is 6.11% and for *Pediatrics* it is 6.03%. If we then look at the frequency of numbers in the *BNC* it is just 1.61%.

Wordlist: BNC			Wordlist: JPed V80, N3			Wordlist: <i>Pediatr</i> V113, N 5				
Word	Freq.	%	Word	Freq.	%	Texts	Word	Freq.	%	Texts
1 THE	6,055,105	6.09	#	2,226	6.11	14	#	3,901	6.03	17
2 OF	3,049,564	3.07	THE	1,960	5.38	14	THE	3,274	5.06	17
3 AND	2,624,341	2.64	OF	1,384	3.80	14	OF	2,473	3.82	17
4 TO	2,599,505	2.61	AND	1,124	3.09	14	AND	1,885	2.91	17
5 A	2,181,592	2.19	IN	849	2.33	14	IN	1,403	2.17	17
6 IN	1,946,021	1.96	TO	663	1.82	14	TO	1,383	2.14	17
7 #	1,604,421	1.61	WITH	480	1.32	14	A	956	1.48	17
8 THAT	1,052,259	1.06	A	445	1.22	14	FOR	785	1.21	17
9 IS	974,293	0.98	THAT	360	0.99	14	WITH	694	1.07	17
10 IT	922,687	0.93	WAS	353	0.97	14	THAT	531	0.82	17
11 FOR	880,848	0.89	FOR	352	0.97	14	WERE	519	0.80	17
12 WAS	863,917	0.87	IS	343	0.94	14	IS	442	0.68	17
13 I	732,523	0.74	WERE	270	0.74	14	WAS	439	0.68	17
14 ON	731,319	0.74	AT	219	0.60	14	OR	391	0.60	17
15 WITH	659,997	0.66	BY	196	0.54	14	CHILDREN	367	0.57	15
16 AS	655,259	0.66	OR	194	0.53	14	BY	348	0.54	17
17 BE	651,535	0.66	PATIENTS	190	0.52	9	ON	307	0.47	17
18 HE	593,609	0.60	BE	189	0.52	14	AS	303	0.47	17
19 YOU	588,503	0.59	CHILDREN	186	0.51	14	ARE	301	0.47	17
20 AT	524,075	0.53	THIS	178	0.49	14	ARE	301	0.47	17
21 BY	513,444	0.52	AS	177	0.49	14	THIS	280	0.43	17
22 ARE	458,368	0.46	ARE	154	0.42	14	FROM	274	0.42	17
23 THIS	454,419	0.46	NOT	144	0.40	14	HEALTH	266	0.41	11
24 HAVE	448,684	0.45	ON	136	0.37	14	THEIR	255	0.39	17
25 BUT	446,783	0.45	BETWEEN	131	0.36	14	BE	254	0.39	17
26 NOT	431,075	0.43	IT	130	0.36	14	AN	248	0.38	17
27 FROM	425,987	0.43	FROM	128	0.35	14	NOT	248	0.38	17
28 HAD	413,144	0.42	AN	127	0.35	14	PATIENTS	248	0.38	12
29 HIS	410,294	0.41	WEIGHT	126	0.35	9	AT	247	0.38	17
30 THEY	376,289	0.38	WHICH	120	0.33	14	STUDY	247	0.38	14
							HAVE	246	0.38	17

Figure 3.1 – Word frequencies for BNC, JPED (corrected) and Pediatrics

When “the classic chi-square test of significance with Yates correction for a 2 X 2 table” (Scott 2004, help files) is applied using an online chi-square calculator (Uitenbroek, 1989 & 1997), the difference between these frequencies for the two medical corpora is shown not to be statistically significant ($p=0.088$), whereas the differences between each of them and the *BNC* are highly significant ($p = 0.0001$ in both cases).

By applying the Yates-corrected chi-square (which is more conservative than the basic Pearson version) one is testing for the probability that these frequencies are different by chance (the null hypothesis), which is expressed as chi-square and p values. The classic cut off for statistical significance is a less than 5% chance that the observed phenomenon has occurred by chance, which equates to a p value that is less than or equal to 0.05. In this specific case we have a simple yes/no statistic, i.e. either a type is or is not recognised as a number. This gives what is known as one degree of freedom and means that the 5% cut off equates to a chi-square value of 3.84 or greater. (Uitenbroek, 1997)

The probability statistics are calculated based on the relative frequency of each type with respect of the sum of all tokens in the corpus. This means that such figures are more relevant the higher up the list they appear since the list for the *BNC* was generated from 99,465,296 tokens and therefore a word occurring just once has the potential to have a much lower relative frequency than a word appearing once in a thirty-thousand word corpus. This restriction does not have much effect at the top of the list.

Relative frequencies for the first six types in the medical corpora and these same types in the *BNC* are as shown in Table 3.2 below.

	BNC	JPED	Pediatrics
#	1.61 %	6.11 %	6.03 %
THE	6.09 %	5.38 %	5.06 %
OF	3.07 %	3.80 %	3.82 %
AND	2.64 %	3.09 %	2.61 %
IN	1.96 %	2.33 %	2.17 %
TO	2.51 %	1.82 %	2.14 %

Table 3.2 – Frequencies for first six types in JPED and Pediatrics, together with their equivalent frequencies in the BNC

These frequencies equate to the following Chi-square and p values when the Yates-corrected test is applied to the differences between them:

	BNC vs. JPED	BNC vs. Pediatrics	JPED vs. Pediatrics
#	p = 0.0001, Chi-square = 271.626	p = 0.0001, Chi-square = 264.667	p = 0.8357, Chi-square = 0.043
THE	p = 0.0332, Chi-square = 4.532	p = 0.0016, Chi-square = 9.882	p = 0.3243, Chi-square = 0.971
OF	p = 0.0051, Chi-square = 7.814	p = 0.0041, Chi-square = 8.231	p = 0.9705, Chi-square = 0.001
AND	p = 0.0621, Chi-square = 3.478	p = 0.9295, Chi-square = 0.008	p = 0.0457, Chi-square = 3.989
IN	p = 0.0789, Chi-square = 3.087	p = 0.3200, Chi-square = 0.989	p = 0.4744, Chi-square = 0.512
TO	p = 0.0009, Chi-square = 10.915	p = 0.0911, Chi-square = 2.853	Chi-square = 2.476, p = 0.1156

Table 3.3 – Yates-corrected Chi-square for differences between frequencies

Cells that are shaded contain statistically significant values. One would expect that values in the left-hand and centre columns might be significantly different since medical writing is different from the contents of the BNC. These results, therefore, merely confirm that we are dealing with different varieties of texts. The significant difference between JPED and

Pediatrics on the frequency of “AND”; however, may warrant further investigation despite being borderline, since one of the objectives when translating *JPED* is conformity with the international norm. One means of testing whether this is stylistic or structural might be to compile a corpus of British paediatrics texts, but that is beyond the scope of the present research project.

Returning to Figure 3.1 above, the cells shaded in blue contain personal pronouns. Note that personal pronouns do not appear at all among the thirty most common types in the medical corpora, whereas the first one in the *BNC*, “I”, accounts for almost one word in a hundred and also that there are a total of four personal pronouns in the first thirty *BNC* results.

In both medical corpora the first personal pronoun to occur is “WE”, but while in the *JPED* list it does not figure until position seventy-five accounting for 0.15 % of all tokens (55 out of 36,407), in the *Pediatrics* list it is at position thirty-three and accounts for 0.3 % of all tokens (195 out of 64,702 tokens). This is possibly due to the fact that seventeen of the eighteen *Pediatrics* articles (94.4%) had multiple authors, whereas only thirteen of the fifteen *JPED* articles (86.6%) were each written by more than one author.

Other statistics available in the wordlists that have been used to compare styles are the type/token ratio, average word length, average sentence length and sentence to paragraph ratio. The current training corpora, however, do not appear to the researcher to be large enough to return representative statistics for these measures although once the corpus has reached its target size they could be investigated.

Returning to Figure 3.1 one last time, the words highlighted in yellow have a number of things in common. Firstly, they are all nouns. Secondly, none of them appear in the *BNC*

top thirty. Thirdly, they are not involved in the structure of text as are the vast majority of all the others (with the exception of personal pronouns and the possessive “HIS” in the *BNC*) being pronouns, articles, conjunctions etc. Finally, and not coincidentally, they are all related to the field of paediatrics.

Wordsmith Tools was used to generate keywords from the two medical training corpora using the British National Corpus wordlist as a reference file. The results of this operation are shown on the next page.

Figure 3.2 contains a comparison of the Keyword lists for *JPED* and *Pediatrics*. The colours in the cells containing the keywords are coded to signify the researcher’s opinion of their scope in terms of medical area.

Words in yellow cells are common to medical language in general, including consulting room conversations and even the language of laymen when discussing medicine. These words are “PATIENTS”, “WEIGHT”, “CLINICAL”, “ABNORMALITIES” and “DIAGNOSIS” in the case of *JPED* and “PATIENTS”, “HEALTH”, “MEDICAL”, “DIAGNOSIS” and “PATIENT” in the case of *Pediatrics*.

Words in green cells are more specifically related to paediatrics. For *JPED* these are, “BREASTFEEDING”, “CHILDREN”, “INFANTS”, “PEDIATRIC” and “MOTHERS” and for *Pediatrics* they are “BREASTFEEDING”, “CHILDREN”, “PEDIATRICIANS”, “PEDIATRIC”, “MOTHERS”, “INFANTS”, “TODDLERS”, “PARENTS”, “INFANTILE”, “CHILD”, “MATERNAL” and “PARENT”.

Words in orange coloured cells are specific to scientific research. For *JPED* these are the numbers and “OBSERVED”, “STUDY”, “PREVALENCE”, “SIGNIFICANT”, “GROUP”, “GROUPS”, “STATISTICALLY” and “TABLE” while for *Pediatrics* they are

Keywords: JPed V 80, N 3 (English Translation)				Keywords: Pediatrics V 113, N 5 (Published in)		
Key word	No.of Files	Freq.	%	Key word	No.of Files	Freq.
#	14	2,226	6.11	#	17	3,901
ESOPHAGITIS	3	115	0.32	AUTISM	2	197
BREASTFEEDING	3	111	0.30	BREASTFEEDING	3	147
SOYA	4	101	0.28	SCHIP	1	98
FIBER	4	66	0.18	CHILDREN	19	367
POLYSACCHARIDE	3	63	0.17	PEDIATRICIANS	7	75
FECAL	4	60	0.16	PATIENTS	12	248
PATIENTS	9	190	0.52	HEALTH	11	266
OBESITY	1	72	0.20	PEDIATRIC	11	72
CELLULOSE	3	62	0.17	ANTIBIOTICS	3	103
PHADIATOP	1	44	0.12	MDI	2	68
PITUITARY	1	55	0.15	ORAL	6	137
WEIGHT	9	126	0.35	STUDY	13	247
FECES	3	42	0.12	DEHP	1	61
ALLERGENS	2	45	0.12	CLINICIANS	4	80
IGE	2	42	0.12	MOTHERS	7	129
CHILDREN	14	186	0.51	PHYSICIAN	4	87
MRI	1	49	0.13	AUTO-CPAP	1	52
OBSERVED	14	93	0.26	PHYSICIANS	5	76
HISTOLOGICAL	3	48	0.13	TTM	1	47
PTOSIS	1	29	0.08	ENROLLMENT	2	46
ALLERGIC	2	42	0.12	INFANTS	7	76
ESOPHAGEAL	3	29	0.08	GALACTOSEMIA	1	40
SENSITIZATION	3	32	0.09	MEDICAL	12	134
GHD	1	26	0.07	MEHP	1	37
CLINICAL	14	66	0.18	DIABETES	2	67
REFLUX	3	45	0.12	DIAGNOSIS	11	76
ABNORMALITIES	5	44	0.12	TODDLERS	3	50
ESOPHAGUS	3	26	0.07	PARENTS	13	139
INFANTS	7	47	0.13	INFANTILE	3	45
DIAGNOSIS	8	53	0.15	FEEDING	5	76
STUDY	12	108	0.30	RESTRAINT	1	64
ATOPIC	2	25	0.07	TABLE	13	143
INHALANT	2	24	0.07	STUDIES	15	125
PREVALENCE	10	44	0.12	CPAP	1	30
MYOCARDITIS	1	22	0.06	GLUCOSIDASE	1	33
PEDIATRIC	10	24	0.07	CHILD	13	143
MITES	2	29	0.08	RHAGLU	1	28
HUMID	3	31	0.09	MATERNAL	1	54
CT	1	32	0.09	SES	1	36
DIETARY	7	37	0.10	NYS	1	26
SIGNIFICANT	12	76	0.21	PARENT	6	75
ENDOSCOPIC	3	34	0.09	ANTI-TTG	1	25
GROUP	12	118	0.32	METABOLITES	2	33

Figure 3.2 Keywords for JPED and Pediatrics

the numbers again, plus “STUDY”, “ENROLLMENT”, “TABLE”, “STUDIES” and “SCORES”.

With the single exception of “WERE”, all the other keywords produced are specific to sub-specialities of paediatrics such as nutrition (“FIBER”, “SOYA”, “OBESITY”, “CELLULOSE”, etc.).

Comparing these categories it becomes apparent that *JPED* has more material from the sub-specialities and research while *Pediatrics* has more from general medicine and general paediatric practice.

Also of interest is that, with the same single exception of the word “WERE”, all of the types that Wordsmith has chosen as being the top fifty keywords for both journals are either nouns or acronyms for nominal groups (for example CPAP stands for Continuous Positive Airway Pressure which is used in intensive care).

The colours in the “No. of Files” column grade the number of files in which each word appears. When a word only appears in one file the square is left blank. From 2 files to 13 or 16 files, for *JPED* and *Pediatrics* respectively (one less than the total number of files), the cell is shaded ever darker shades of blue and cells representing words that appear in every file are shaded red (14 or 17 files).

The general impression given by this data overall is that *JPED* has more articles going into the subspecialties while *Pediatrics* has more general paediatric articles. This may simply be a result of the specific issues chosen for the pilot study, possibly even because May is Spring in America and Autumn in Brazil, but, in the researcher’s opinion is more likely to be due to the fact that there are many more specialist medical journals in America and so articles that would be published in more specialised journals there are

published in *JPED* in Brazil, since, after all, paediatrics is a combination of general practice with all the subspecialties together, with the single proviso that the patients are babies, children and adolescents.

The fact that so many of the types only appear in one (23/100 = 23%) or two (11/100 = 11%) articles suggests that at this size of corpus not much is being discovered about medical texts in general and that many more subspecialties need to be included before the effects of each individual file are attenuated. The inclusion of editorials and letters means that certain articles will be discussed in a second file and the specialty-specific vocabulary they contain therefore appears in more than one file, but in just one or two issues.

Summing up, the pilot study has clearly demonstrated differences between both translated and non-translated medical texts and the texts of the BNC. It has also demonstrated clear similarities between the translated and non-translated medical texts and has provided a clearer idea of what is possible.

4. Project objectives

Having completed the pilot study, the project took on its final shape, aiming to construct corpora that could then be used to investigate the application of corpus methodology to lexicography, translation and language learning.

More specifically, in an attempt to go some small way towards filling the gap described by Berber Sardinha, in terms of parallel corpora and parallel corpus software, the decision was taken to compile a parallel corpus from the annals of *JPED* and use it to investigate lexical usage in medical translations, to explore its possible applications as a translation aid and to look into the possibilities it may hold for advanced learners of medical English.

The original intention when embarking on the project had been to create a corpus from the issues of *JPED* published from January 2000 to December 2004, which covered the whole period during which the journal had been translated in its entirety. However, during consultation with Claudia Buchweitz, executive editor of *JPED* and director of the translation agency responsible for the English texts, it was decided that the first two years of the project had lacked sufficient standardization and that some of the translations were not of a high enough quality to be employed for the threefold purpose of translation research, translation aid production and LSP acquisition. The decision was therefore taken to only include issues from 2003 and 2004

The specific goals are most easily defined by describing the perceived needs they are designed to meet. These can be divided into two groups, in accordance with Berber Sardinha's twin categories of technology to which access is problematic, namely corpora and the software to access them with.

An LSP parallel corpus

As was mentioned in the opening paragraph of the introduction, I am a professional technical translator specializing in medical translation from Brazilian Portuguese into English. Within this very narrowly defined area of translation (which nonetheless embraces a very large body of work, as a quick browse of the www.scielo.com.br and www.bireme.br/abd/P/lilacs.htm websites will reveal), there do not appear to be any existing corpora.

As Olohan points out,

researchers' viewpoints on the concept of translation form an important basis for the application of corpus-based methodology to the study of translation, since they will underpin the choice of object of study, i.e. what kind of translation, produced when, by whom and for what purpose

(2004, p. 20)

but this is not the only point to be taken into consideration. The personal competence of a researcher is also of paramount importance. For example, a researcher who does not understand German would be foolish to try to develop a theory on whether or not translations of Günter Grass' works into English employ "foreignizing" techniques. Although the researcher could identify compounds like "She-rat", "bare-tailed form", "know-it-all-ness" and "ratgibber" (Grass, 1987, p.3) and postulate the theory that the translator (Ralph Manheim) was trying to convey something of the German language's propensity to create compounds, thus demonstrating the foreign origin of the book, a German speaker might well point out that these words are equally strange in German and are actually a feature of the author's style and not of his native language. Whether or not

this is the case I have no idea, since I do not, in fact, understand any German at all, which is precisely the point!

The absence of any similar parallel corpus within my area of competence, translations *from* Brazilian Portuguese *into* English, can partly be ascribed to Brazil's status as a post-colonial country, where translation has traditionally been used to import knowledge, and partly to the domination of English as the language of choice for most international LSP communication. As Olohan explains, drawing on Maia and Varantola, "specialist texts are very often available in English but to a much lesser extent in other languages, whether as originals or translations."(2004, p. 25).

Brazil, however, is very much *post*-colonialist and this scenario is changing very rapidly. In the field of medicine, which is very often in the forefront of new developments in general, Brazil is no longer restricted to importing technology and ideas, but also exports them and is a pioneer in many fields – the introduction of "generic" medicines by José Serra during the administration of Fernando Henrique Cardoso and the subsequent creation of a factory in Mozambique to produce antiretroviral drugs (used to treat HIV) during the administration of Luiz Inácio Lula da Silva are perhaps the most famous, but by no means only examples of what has been described in the press as Brazil's neocolonialism.

Another, more personal, example of this exportation of information is the psychiatry textbook, written by the Brazilian Diogo Lara and entitled *Temperamento forte e bipolaridade: dominando os altos e baixos do humor* (2004). Less than one year after its publication in Brazil, I was invited to translate this book into English for release onto the North American market. Unfortunately, workload commitments meant that the offer had to be declined, but the project will go ahead with a different translator.

In deference, therefore, to the imperative for a researcher to undertake research only into subjects in which he or she has competence, to the great wealth of Brazilian medical literature being exported in translation and to the scarcity of studies into these translations, the construction of a parallel corpus from published (and edited) medical texts appeared to be a worthwhile objective.

As has been mentioned already, the corpus design is intended to facilitate study of the translations themselves and also to provide a basis for the creation of tools and techniques to aid in future translations and to contribute to LSP acquisition.

Corpus exploration and exploitation tools

Berber Sardinha writes about ‘programas de computador para exploração’ (2004, p.20), which, appropriately enough, has a double meaning for English speakers. The Portuguese verb ‘explorar’ can mean both “explore” and “exploit” in English and both meanings are fitting in the current context.

In terms of research into translation practice, it is the first meaning, “explore”, that is applicable and it is also this that is lacking in existing software tools (at least those that were investigated for the present project). While *Wordsmith Tools* is an excellent resource for exploring monolingual corpora, it is, as was mentioned in Chapter 2, fairly limited when it comes to bilingual corpora. *MultiConcord*, while offering some interesting features, such as “on-the-fly” alignment, is limited to working with 30 files in each language at a time. The *JPED* annals from 2003 and 2004 contain a total of two hundred and eighty-three texts in Portuguese. One objective of this project, therefore, is to attempt to develop more satisfactory methods of exploring such a large body of texts and their translations in such a way as to facilitate future study of the translation process and product.

With reference to developing methods and tools to aid the translation activity, it is the second sense of “explorar”, “exploit”, that is of interest. The *Sociedade Brasileira de Pediatria* has been paying for the translation of its journal for four and a half years at the time of writing and it is of great interest to them that advantage be taken of this large body of work.

As was mentioned earlier in the chapter, the products of the first two years of the translation project were considered to have suffered from their experimental nature too much to be suitable for use as an aid for future translations. As Cristiane Nord puts it, to

use substandard translations as a translating aid would be, “setting the fox to keep the geese” (Nord, 1997, p. 40). The current project, therefore, will involve only those articles and their translations published during 2003 and 2004, but a possible objective of future research might be to compare these “approved” translations with the earlier ones in order to try to identify differentiating features.

The translations that have been chosen for inclusion in the corpus could be used by translators in a variety of ways. Translators working on future editions of *JPED* could exploit them as a means of standardizing items such as technical terms, names of institutions and academic titles, all of which can be problematic. Some examples of counterintuitive, but correct translations of these types of items are shown in Table 41 below, together with more obvious, but incorrect possibilities.

Original	Non-standard translation	Standard translation
Ressonância Nuclear Magnética	Nuclear Magnetic Resonance	Magnetic Resonance Imaging
Cistouretrografia Miccional	Micturating Cystourethrography	Voiding Cystourethrography
Instituto do Câncer Infantil do Rio Grande do Sul	Infant Cancer Institute of Rio Grande do Sul	Rio Grande do Sul Childhood Cancer Institute
Associação Brasileira de Medicina de Grupo	Brazilian Association of Group Medicine	Brazilian Association of Health Maintenance Organizations
Professor Ajunto	Adjunct Professor	Associate Professor
Professor Titular	Titled Professor	Full Professor

Table 4.1 – Standardization of technical terms, names of institutions and academic titles

Translators working on paediatric texts in general could also use a corpus of *JPED* texts and their English translations as a resource capable of suggesting possible translation

solutions for problematic terms or structures. An example of previously employed translations of the extremely problematic term *quadro* is shown in Table 4.2 below.

Original	Translation used
quadro clássico	classic presentation
quadro clínico	clinical condition
quadro clínico	clinical parameters
quadro clínico	clinical aspects
quadro clínico	clinical presentation
quadro clínico predominante	predominant clinical features
quadro de BA	AB episode
quadro de imunodeficiência	immunodeficiency [translation by omission]
quadro de mania	manic illness
quadro delirante	delusional disorder
quadro infeccioso	infection case
quadro intestinal	intestinal involvement
quadro poliarticular	polyarticular signs and symptoms
quadro semelhante	similar picture
quadro sugestivo de doença bacteriana	profile suggestive of bacterial disease
quadro viral	viral infection
quadro virológico	virological status
remissão final do quadro	final remission of symptoms
reverter o quadro	reverse the trend
tempo de evolução do quadro	time since onset of disease
um quadro geral	a general summary
a melhora do quadro	improvement of the situation
fase inicial do quadro clínico	initial phase of its clinical course
gravidade do quadro	severity of their injuries
mantiveram o quadro	remained in this state
melhora do quadro respiratório	improvement in respiratory function
o quadro já é bastante avançado	the syndrome has already advanced significantly
quadro agudo	acute phase

Table 4.2 –Previous translation solutions for “quadro”

The translations of *quadro* shown in Table 4.2 come from translations of *JPED* volumes 79 and 80 (years 2003 and 2004). It will be observed that the word has been translated as twenty-six different English words, in one case as three words (“signs and symptoms”) and can also be omitted (translation by zero). The *Michaelis* Portuguese-English dictionary gives thirty-four different possibilities for *quadro* divided into seventeen different senses (Wimmer, 1983, p. 1032). Only two of the entries in the dictionary, “picture” and “summary”, coincide with the usage in the *JPED* translations and the only example of medical usage, *quadro cerebral* is translated as “brain problem” in the dictionary, which is not a solution that has been used by the translators of *JPED*.

Furthermore, as Bowker and Pearson explain, a corpus of technical texts can be used to find already existing definitions of terms, since technical writers very often define their terms before using them (2002, pp. 153-5). In the case of a parallel corpus the translator would then be in the happy position of having a bilingual definition. Two examples of authors defining their terms, plus the translations of these definitions, are given in Table 4.3 overleaf. The term being defined is printed in bold type.

Summing up the twin objectives of exploration and exploitation very neatly (albeit in reverse order), Susan Hunston writes,

In practical terms the question is: What software can be developed that will enable a translator to exploit corpora as an aid in the day-to-day business of translation? In theoretical terms, the question is: What does a corpus of translated texts indicate about the process of translation itself?

(2002, p. 123)

Original	Translation
<p>O diagnóstico de retardo mental é definido com base em três critérios (7): início do quadro clínico antes de 18 anos de idade; função intelectual significativamente abaixo da média, demonstrada por um quociente de inteligência (QI) igual ou menor que 70; e deficiência nas habilidades adaptativas em pelo menos duas das seguintes áreas: comunicação, autocuidados, habilidades sociais/interpessoais, auto-orientação, rendimento escolar, trabalho, lazer, saúde e segurança. O QI normal é considerado acima de 85, e os indivíduos com um escore de 71 a 84 são descritos como tendo função intelectual limítrofe.</p> <p>(Vasconcelos, 2004, p. S71)</p>	<p>The diagnosis of mental retardation is established according to three criteria (7): onset of symptoms before the age of 18 years; intellectual function significantly lower than average, with an IQ equal to or less than 70; and poor adaptive skills in at least two of the following areas: communication, self-care, social/interpersonal skills, self-guidance, school performance, work, leisure, health and safety. An IQ greater than 85 is considered normal, and individuals with an IQ between 71 and 84 are regarded as having a borderline IQ level.</p>
<p>O transtorno de estresse pós-traumático (TEPT) é caracterizado pela presença de medo intenso, sensação de impotência ou horror em consequência a exposição a trauma extremo, como ameaça de morte ou abuso sexual. A probabilidade do desenvolvimento do TEPT relaciona-se à gravidade, duração e tempo de exposição ao evento traumático. Evidenciam-se modificações intensas de comportamento, como inibição excessiva ou desinibição, agitação, reatividade emocional excessiva, hipervigilância, além de pensamentos obsessivos com conteúdo relacionado à vivência traumática (em vigília e como conteúdo de pesadelos).</p> <p>(Asbahr, 2004, p.S28)</p>	<p>Posttraumatic stress disorder (PTSD) is the intense fear, feeling of powerlessness or horror due to the exposure to an extreme trauma, such as life threat or sexual assault. The probability of developing PTSD is reliant on the severity, length, and time of exposure of the individual to the traumatic event. Remarkable changes in behavior are observed, including excessive shyness or disinhibition, agitation, excessive emotional reactivity, hyperarousal, besides obsessive thoughts with the traumatic experience (while awake or in nightmares).</p>

Table 4.3 – Definitions of terminology from JPED

The final objective in constructing the corpus is to provide a resource that will be of use to LSP learners. In the case of the English LSP used in *JPED*, there is a very large target audience. The first group of potential users are the members of the *Sociedade Brasileira de Pediatria*, which includes all licensed Brazilian paediatricians. These doctors

are constantly in contact with English and need to use it regularly in their professional lives. Any of them wishing to contribute to a Brazilian scientific journal will normally be expected to provide an abstract in English together with their Portuguese article and any of them wishing to submit work to an international journal will be expected to submit the entire article in English. Conference papers delivered at international congresses, which may never be published will also often have to be available in English and the fact that the authors present them in person mean that, while they offer the opportunity for winning respect from peers, they can also be the cause of public humiliation.

Furthermore, even those who have no intention of publishing or of delivering conference papers will often need to read recently published material in English and, at the very least, the *JPED* corpus should help them to identify the correct keywords to use in MEDLINE searches and to understand the material thus found.

This is, in general, a very advanced and auto-didactic group of language learners. Doctors, by necessity, are committed to lifelong learning (*reciclagem*) and they are very comfortable with materials-led learning processes, with little or no pedagogical input. Access to what is basically a large database of translated texts could be all they need for the purposes set out above. This database does, of course, already exist in the form of the *JPED* website, but the site's search engine is notoriously inaccurate and English and Portuguese versions are not available on the same pages (in fact they are basically twin, separate sites, mirrors of each other in different languages).

A second group of LSP learners who would benefit from a searchable parallel corpus of previously published paediatric texts consists of Brazilian medical students who are in the process of learning both the Portuguese and English LSPs simultaneously.

The final objective, therefore, is to develop methods by which the *JPED* corpus can be exploited by LSP learners in the medical community. While tools such as *Wordsmith* (Scott, 1996) could accomplish some of these tasks there are two main drawbacks to their use for language acquisition.

The first of these drawbacks is cost. *Wordsmith Tools* costs fifty pounds sterling for a single-user license. This is not a huge amount in the United Kingdom, but it is equivalent to about four-fifths of a Brazilian minimum *monthly* wage and there is no doubt that the majority of Brazilian medics working within the *Sistema Único de Saúde* (Brazil's National Health Service) could suggest many better uses for this money.

The second drawback is once more related to the size of the “window” opened onto a given word. While the standard five left, five right horizon is perfectly adequate for the majority of linguistic analyses, a learner will often want a lot more context than this. Belinda Maia writes,

The fact is that terms, like words, need a context, and differing opinions on the correct term for X owe much to the geographical, professional, social and even personal context in which it appears.

(2002, 224-5)

and while the *JPED* corpus only contains paediatric texts, this is not enough context when the huge number of subspecialties is allowed for. Very often an LSP learner will need to read a number of complete articles to be sure they have fully understood a term or concept, particularly if it is new to them in both their native and acquired languages. The solutions developed, therefore, must take both of these points into account.

5. Methodology

Construction of the JPED parallel corpus

Berber Sardinha (2004, pp. 20-22) describes in detail how to build corpora and classifies the various types. According to his classification, the primary corpus constructed for this project:

- is composed of written texts
- is synchronous, comprising a continuous body of work published bimonthly from January 2003 to December 2004
- is static, sampled by convenience
- contains specialized texts, specifically Brazilian paediatric texts, limited to research papers, review articles, editorials and letters to the editor
- is predominantly written by native users of Portuguese in the case of originals and by both native and non-native English users in the case of the translations
- consists of complete parallel texts, translated from Brazilian Portuguese to International English with US spelling

Certain corpora, such as the Brown, LOB, London-Lund and ICE (Meyer, 2002, p.38) are made up of extracts rather than entire texts in an effort to avoid the statistical bias that could result from having, for example, fiction texts from forty to one hundred thousand words long in the same corpus as emails and transcribed conversations. While this practice may be advisable when constructing a corpus that aims to be representative of a number of different types of language use, it is not particularly helpful when working with LSP texts from a single domain. Biber et al. explain that,

the characteristics of a text can vary dramatically internally. A clear example of this is with experimental research articles. (...) Introduction, Methods, Results and Discussion sections have quite different patterns of language use. Thus, sampling that did not include all of these sections would misrepresent the language patterns found in research articles.

(1998, p. 249)

John Sinclair, writing in 1991, had already realised the possible problems that using excerpts could cause and makes a further point about the added possibilities that using full texts offers;

a corpus made up of whole documents is open to a wider range of linguistic studies than a collection of small samples, There is no worry, either, about the validity of sampling techniques. (...) from a large corpus can be drawn any number of smaller, more specialized ones, according to requirements from time to time.

(p. 19)

All the articles were included in the corpus in full, but the abstracts were omitted because, for the whole of 2003 and for part of 2004, the English abstracts (and titles) were the responsibility of the authors of the articles. Not only were they not translated by professional translators, but some of them were not translated at all and were actually written in English and at times bear little relation to the Portuguese *resumos*. Bibliographies were also removed for the obvious reason that they are never translated and are full of proper nouns.

The actual process of parallel corpus construction is very slow since the original files must be aligned exactly, at the very least in terms of paragraphs and the number of carriage-returns between paragraphs. The decision was taken to follow the layout of the

original Portuguese text in the event of any divergence in the translation. The result of this decision is that when a single paragraph in the original had been translated as two or more paragraphs these were joined together and that when two or more paragraphs in the original had been translated as a single paragraph this was divided up to mirror the structure of the original.

Although I already held around half of the texts in *Microsoft Word* document format, because I myself had translated them, I had discovered during the pilot study that these versions were not necessarily identical to those finally published. This is because the original authors are asked to approve the translations, and are allowed to modify them and they also undergo an editing process. For this reason all five hundred and sixty-six files were downloaded from the *JPED* website using *HTTrack Website Copier* (Roche & Philippot, 1998-2003), an open source offline browser. This process was complicated by the fact that the *JPED* website uses the .php format which is a type of active server page. This means that the pages do not exist until a client browser requests them, at which point the server generates them from their component parts. The result of this is that it is not possible to simply instruct the offline browser to download the entire site since there is no index. A list of the URLs of the desired pages must first be generated and passed to the offline browser which then requests them one by one explicitly.

In order to allow for the widest possible range of options for accessing the corpus, each version of each article was stored in four different forms, resulting in six different files for each article, three per language. These formats, and the reasons for choosing them, are as follows.

- 1 As plain text, monolingual files, saved into separate directories named to reflect each issue of *JPED* (e.g. Vol79Iss1) and for each language within that issue (i-files or p-files), with filenames reflecting the year, volume number, issue number and starting page number in the printed version (e.g. 03-79-01-01.txt for 2003, volume 79, issue 1, page 1). This format is for use with *Wordsmith Tools* for producing statistics, concordances, word clusters & etc.
- 2 As plain text, bilingual files, aligned at the paragraph level with each paragraph occupying a single line, saved into directories named to reflect the contents (d-files), which in turn were saved into the same directories as format 1, corresponding to each issue of *JPED*, and with filenames as for format 1 with the addition of “-twin” (e.g. 03-79-01-01-twin.txt). This format is also for use with *Wordsmith Tools* although as explained earlier functionality is limited by the viewing window.
- 3 As monolingual files in the *Microsoft Word* document format, tabulated by paragraph and saved into directories and with filenames as for format 1 but with the “.doc” file extension (e.g. 03-79-01-01.doc). This format is primarily for reference and to ensure that no possible future options are ruled out.
- 4 As bilingual files in the *Microsoft Word* (Microsoft, 1983-1999) document format, aligned by paragraph within a two-column table and saved into directories named “d-docs” and with filenames as for format 2 but with the “.doc” file extension (e.g. 03-79-01-01-twin.doc). This format is designed for use with the translator’s aids and language learner’s resources, which will be described below, in the chapter headed *Solutions Developed*.

All of the files and formats described above can be found on the CD-ROM that accompanies this dissertation in the X:\Corpus\ directory, where X is the drive letter representing the local CD drive. The articles included are listed in *Appendix A*, by issue, with both Portuguese and English titles and full author listings.

These formats were created by batch processing the .html files downloaded by *HTTrack Website Copier* (Roche & Philippot, 1998-2003) using *Visual Basic* (Microsoft, 1997-1999) code that I wrote specifically for this purpose. Files were renamed using *Rename-It!* (Eriksson & Bernoux, 2004), an open-source utility for renaming files in batches.

While Bowker and Pearson describe a fairly time-consuming manual alignment process involving switching between texts and manually adding or deleting carriage returns (2002, p.97), it was found that by using *Visual Basic* scripts this job could also be batch processed. Olohan explains that it is common practice to align automatically and then manually correct any misalignments (2004, p.26), which is what was done in the present case.

The decision was taken not to attempt to tag the corpus for parts of speech at this stage since, for the stated objectives, this was not necessary and is an extremely time consuming process which would have excessively limited the amount of text that could have been included by a single researcher during the time available for a Masters degree.

One further decision taken was to include the texts as they were actually published, including translation errors. While, as Hans Hönl puts it, “There is no way any part of a translation can be proved to be “correct” in the sense that it is a faithful replica of the original” (1997, p.17), it is, however, often very easy to prove the incorrectness of a

translation. For example, an article on hypertension by Salgado and Carvalhaes (2003, p. S121) contains the words,

Porém, devido ao aumento do débito cardíaco, a pressão sistólica tenderia a aumentar; entretanto, em alguns indivíduos, a vasodilatação pode levar à manutenção ou até à diminuição da pressão arterial.

[underlining added]

the English translation of this was published as,

Systolic pressure may tend to increase because of decreased cardiac output, but vasodilatation may lead to the maintenance or even reduction of blood pressure in some individuals.

[underlining added]

At first glance, this translation appears to be fine, we have an increase in *débito cardíaco* in the original and a decrease in “cardiac output” in the translation. Both sentences appear to be describing a reduction. However, *débito cardíaco* actually means the same thing as “cardiac output”, so the translator has exactly reversed the meaning of the original by reducing in the translation what was being increased in the original.

Such errors cause a conflict of interests between different potential users of the corpus. Should one then, in the interests of one group of possible users – language learners – correct such errors when they are identified? Or should preference be given to translation studies researchers, who may well find information of relevance to studies of the translation process in these mistakes?

Since there is also a third group of users of the corpus envisaged – translators themselves – and since it is to be hoped that they will benefit from the occasional reminder

that even the most accomplished translator can commit the most basic of errors through carelessness or overwork, the errors stand.

In the future, however, it is to be hoped that a corrected version of the corpus can be prepared specifically for language learners, perhaps with the input of the editorial board of *JPED* to act as a final adjudicator in cases of ambiguity.

A comparable corpus created from the journal Pediatrics

The primary corpus is a parallel corpus, i.e. the texts in English are all translations of Portuguese texts and can be aligned with the originals in one-to-one “equivalence” at the paragraph level. This is extremely useful for the study of translation decisions and for relating textual features from one language to those of the other.

This type of corpus, however, has one drawback. Even though around half of the texts in question have been translated by a native speaker of English, this is not by any means the same as having been written originally in English – whether by a native or not. This is where a comparable corpus comes in. Maeve Olohan states,

A methodological approach that is likely to come to the fore in future work is the combination of findings from comparable corpus analysis and parallel corpus work, (...) This dual approach proves particularly fruitful in measuring the extent of any source-text influence on patterns of usage observed in translated language.

(Olohan 2004, p.192)

One feature of great interest to the members of the *Sociedade Brasileira de Pediatria* is conformity with what are described as ‘Gold Standards’. Gold standards are used in diagnosis and research and are the most reliable and trustworthy means known at any given point in time for testing for diseases, chemicals and such things. In the case of tracheal tube intubation, for example, the gold standard to check for correct airway management is a chest x-ray showing the position of the breathing tube. When researchers are testing a new technique they will test it both against overall medical outcomes and also against the existing gold standard.

In conjunction with the *Conselho Editorial* of *JPED*, the translators chose the American journal *Pediatrics* to be the overall gold standard for paediatric language use. This journal is the official publication of the *American Academy of Pediatrics* and is the most cited paediatrics journal worldwide and also has the largest “impact factor”* (Pediatrics, 2005a). The result of this decision in practical terms is that, for example, although both “haemoglobin” and “hemoglobin” are employed worldwide, the second spelling will be chosen in preference to the first for *JPED*, because it is the version used in *Pediatrics*.

Returning to the quotation from Olohan above, the decision was taken to create a second corpus, for purposes of comparison, consisting of original paediatric texts written in English and published in the North American journal *Pediatrics*. As the main corpus is already a parallel corpus this second corpus makes possible two types of comparable corpus, as described by Olohan (2004, p. 35). This is to say that, by comparing texts from *Pediatrics* with the translations from *JPED* a monolingual comparable corpus is created and by comparing them with the original Portuguese texts from *JPED* a bilingual comparable corpus is achieved.

A monolingual comparable corpus is of interest to translation studies researchers who wish to investigate the ways in which English produced by translation differs from English that has not been produced by translation. Olohan has done a great deal of research into features of translation and translators’ style and usage, much of it under the guidance of Mona Baker, using a corpus of translated texts in English and comparing it with subcorpora

* *Impact Factor*: produced by the *Thomson Institute for Scientific Information*, this is “a ratio between citations and recent citable items published. Thus, the **impact factor** of a journal is calculated by dividing the number of current year citations to the source items published in that journal during the previous two years [by the total number of source items published during those two years]” (Thomson Scientific, 2005). It has become a way of ranking scientific publications and currently *Pediatrics* is the No.1 journal in the field of paediatrics worldwide.

of the *BNC* (2004, pp. 88-167). By comparing translated texts with non-translated texts the aim was to identify features that might be specific to translation or individual translators. One drawback with the techniques she describes is that they do not take account of the source texts since her translational corpus is monolingual. Since the translated component of the monolingual comparable corpus would be drawn from the *JPED* parallel corpus, any features that are identified with reference to the texts from *Pediatrics* could be traced back to the original source texts in Portuguese to investigate whether they do indeed originate from the translation process.

A bilingual comparable corpus made up of two sets of non-translated texts on the same subjects in two different languages could be of interest to researchers wanting to investigate the ways that the LSP is used in the two languages. It could be used in studies aiming to identify features of the LSP that are not language-specific or, conversely, to identify features of the two languages that are divergent despite the common subject matter.

Since the average issue of *Pediatrics* is three to four times larger than the average issue of *JPED* and since *Pediatrics* is published monthly rather than bimonthly as is the case with *JPED*, it was impossible to create a corpus that was at the same time synchronous with the *JPED* corpus, while containing a similar number of words and following the same sampling methodology. In the interests of statistical comparison it was decided to make the *Pediatrics* corpus as close as possible to the same size as the English component of the *JPED* corpus. This meant that either the sampling technique of including everything published in each issue or the number of issues sampled had to be changed. Since, as was explained at the start of this dissertation, paediatrics comprises many different subspecialties, each with their own LSPs, it was felt that the best compromise was to accept

that synchronous sampling was less important than the inclusion of entire issues. The final sampling technique chosen was therefore to start with the first article published in January 2004 and to include all published articles until the number of words in the *Pediatrics* corpus was comparable with the number of words in the English component of the *JPED* corpus. The result of this decision was that the first four issues of *Pediatrics* volume 113 were included in their entirety together with the first twenty articles in issue five. These texts are listed in *Appendix B*.

These articles were also downloaded using *HTTrack Website Copier* and cleaned using scripts written for the purpose. Since the *Pediatrics* corpus is monolingual there is no problem using *Wordsmith Tools* to investigate it and so files were only stored in plain text format. Articles were saved into directories named to reflect the issue of *Pediatrics* they were published in and were named using the same system as the monolingual text files in the *JPED* corpus. For example, the first item from the first issue of volume 113, published in January 2004, received the filename and path “C:\Corpus\PedVol113Iss1\04-113-01-1.txt”.

In keeping with the intention to create a corpus that would be comparable with the *JPED* corpus, abstracts and bibliographies were removed since they had been excluded from the *JPED* corpus for the reasons explained above.

The comparable corpus has not been included on the accompanying resource CD since the *Pediatrics - Terms and Conditions of Use* web page states, “The material as presented in this version may not be distributed to any other person”, and also, “The person using *PEDIATRICS* online may view, print, or store copies of the journal provided that the information is only for their individual use.” (2005b).

6. Solutions developed

Corpora

The final suite of corpora developed consists of three bodies of texts. The first of these is the original Portuguese texts from *JPED*. The second comprises the English translations of the first. The third is a body of text collected from the journal *Pediatrics* and sampled in such a manner as to be as similar as possible to the second with the exception of the fact that they are not translations.

The descriptive statistics that follow were generated using *Wordsmith Tools* version 4. When statistics are produced by the wordlist function of *Wordsmith* they obey certain parameters previously defined by the user in the settings section. For the present purposes, it is necessary to specify how one of these settings in particular was used.

As was explained in Chapter 3, numbers, and also terms or abbreviations containing numbers (e.g. 95%CI), account for a significant proportion of all of the tokens in medical texts. *Wordsmith* allows each of these items to be treated as a separate word, or to be grouped together in a single class of numbers. For the present project it appeared to be of greater interest to group all items containing numbers and thereby get an idea of the part played by such items.

As a result of choosing not to include items containing numbers in the wordlist, all items containing numbers are grouped and, in the case of the *Pediatrics* corpus, which will be used as an example, appear at the top of the wordlist. At first, this appears counterintuitive. The choice was made not to include numbers and numbers have appeared in first position!

What is actually happening is as follows. Two different counts are generated for the total number of tokens as a result of making a choice that basically treats all numbers as a single type on the frequency list, but removes them from the overall statistics. The first of these counts, “tokens (running words) in text” shows the total number of items irrespective of whether or not they contain numbers. It is this figure that is used when calculating the percentage of the wordlist that is accounted for by any given type. Therefore, the *Pediatrics* corpus contains 48,569 occurrences of items containing numbers and 772,090 total tokens. The percentage of “numbers” contained in the corpus is therefore calculated thus:

$$(48,569 / 772,090) * 100 = 6.29\%$$

The second count, “tokens used for wordlist”, however, is less than the first by the total number of items containing numbers:

$$\begin{aligned} \text{tokens (running words) in text} &= 772,090 \\ \# &= 48,569 \\ \text{tokens used for wordlist} &= 723,521 \end{aligned}$$

This second count is used when the type to token ratio is calculated. Therefore, for the *Pediatrics* corpus:

$$\begin{aligned} \text{types (distinct words)} &= 20,424 \\ \text{tokens used for wordlist} &= 723,521 \\ \text{type to token ratio} &= 2.82 \end{aligned}$$

So, choosing not to include numbers has indeed removed them from the overall statistics generated for the corpus.

There follows a brief summary of the descriptive statistics for the three corpora. The total numbers of tokens are given first for the corpus as a whole and then, in parentheses, minus the items containing numbers – the number of words used to calculate the type to token ratio.

The Portuguese component of the *JPED* corpus comprises 283 texts, containing a total of 27,981 types and 785,448 tokens (743,314), giving a type to token ratio of 3.76. The standardised type to token ratio of the Portuguese component of the *JPED* corpus, recalculated every 1000 words, is 39.89. The mean word length is 5.25 characters and the mean length of the texts is 2,627 tokens.

The English component of the *JPED* corpus contains a total of 20,155 distinct types and 771,169 tokens (729,923), giving a type to token ratio of 2.76 and a standardised type to token ratio of 37.53. The mean word length is 5.21 characters and the mean length of the texts is 2,579 tokens.

In comparison, the *Pediatrics* comparable corpus only contains 249 files, which together contain a total of 20,242 types and 772,090 tokens (723,521), giving a type to token ratio of 2.82 and a standardised type to token ratio of 34.53. The mean word length is 5.21 characters and the mean length of texts is 2,917 tokens. Note that the *Pediatrics* corpus, at 772,090 total tokens, is just 0.12% larger than the English component of the *JPED* corpus with 771,169 tokens, thus eliminating the need to use statistics to correct for size, which would be of dubious validity since language does not follow normal distribution (Dunning, 2004, pp. 2-3).

These figures are summarised in Table 6.1 below.

	<i>JPED</i> Portuguese	<i>JPED</i> English	<i>Pediatrics</i>
Tokens	785,448	771,169	772,090
Tokens used for wordlist	743,314	729,923	723,521
Types	27,981	20,155	20,424
TTR	3.76	2.76	2.82
sTTR	39.89	37.53	34.53
Mean Word Length	5.25	5.21	5.21
Mean Text Length	2,626.55	2,579.23	2,917.43

Table 6.1 – Basic quantitative characteristics of the corpora

Viewed side-by-side as in Table 6.1 above, these figures are remarkable for the similarity between the two English corpora. The type to token ratio of the translated component of the *JPED* corpus is just 2.2% less than the type to token ratio of the original texts in the *Pediatrics* corpus. In comparison, the type to token ratios of the *JPED* English component and the *Pediatrics* corpus are 26.6% and 25% smaller, respectively, than the type to token ratio for the Portuguese component of the *JPED* corpus. It would appear, at least on a superficial level, that the language in question (English or Portuguese) is of greater importance than whether or not the texts are translations, since the differences between the TTR values for the two English corpora and the Portuguese corpus are both a full order of magnitude greater than the difference in TTR values between the two English corpora. Furthermore, while one might expect the translations to have acquired some traces of the language from which they were translated, the opposite appears to be true here since the TTR of the translated texts is even lower than the TTR of the original English texts.

Some possible reasons for these observations could be over-compensation on the part of the translators, the fact that not all of the *Pediatrics* texts were written by native speakers of English and, possibly, simply the difference in range of subjects covered.

Perhaps even more striking than the type to token ratio, at first glance at least, is the fact that, to the two decimal place level of accuracy offered by *Wordsmith*, the mean word lengths for the two English corpora are identical. However, the variation between the mean word lengths for the two English corpora and the mean word length for the Portuguese corpus is actually just 0.8%.

Rosa Maria Caporrino Castanho has compiled a comparable corpus of Brazilian Portuguese and American English scientific texts on hypertension, and which have been organized by Luciana Latarini Ginezi. The corpus can be accessed on the NILC website (2005). The texts are not translations, indeed, in another indication of the type of prejudice against translations referred to by Berber Sardinha and discussed in Chapter 2, the texts are described as “authentic” and the point made that they have been checked for “originality” to be sure they are not translations. This is a bilingual comparable corpus, the *CorTec Hypertension* corpus. Unfortunately, the two components of the corpus are not the same size. It appears that the corpus design favoured sampling a similar number of texts in Portuguese and English (125 and 126, respectively) over sampling a similar number of words. According to the website, the Portuguese component of the *CorTec Hypertension* corpus has 22,000 types and 356,718 tokens, giving a type to token ratio of 6.17 and a mean text length of 2,853.74 tokens. The English component, however, has just 17,808 types, but 453,475 tokens, giving a type to token ratio of 3.93 and a mean text length of 3,599.01 tokens.

Since the two components of the corpus are so different in size, and the interface provided on the internet does not allow for the selection of subcorpora, the type to token ratios for the English and Portuguese components cannot be compared with each other because corpus size has more effect on this ratio than any other factor. It is, however, possible to compare them with subcorpora of the *JPED* and *Pediatrics* corpora.

Wordsmith tools version 4 allows the user to randomise the order of the files being selected to create a wordlist. In order to randomly sample a number of tokens as similar as possible to the number in the relevant *CorTec* subcorpora, the file list for each of the three components of the corpus of paediatrics texts (*Pediatrics*, *JPED* English and *JPED* Portuguese) was randomised and then files were removed from the top of the list until the number of tokens was within a thousand or two of the target. The file with the number of tokens closest to the difference between the number remaining and the target number was then removed. In this manner a subcorpus of the *Pediatrics* corpus was produced containing 453,468 tokens, a subcorpus of the English *JPED* corpus was produced containing 453,474 tokens and a subcorpus of the Portuguese *JPED* corpus was produced containing 356,723 tokens. The type to token ratios and mean text lengths of these subcorpora are compared with their equivalents from the *CorTec* corpus in Tables 6.2 and 6.3 below.

	Portuguese component of <i>CorTec Hypertension</i> corpus	<i>JPED</i> Portuguese subcorpus
Tokens	356,718	356,723
Types	22,000	19,430
TTR	6.10	5.26
Number of texts	125	143
Mean length of texts	2853.74	2495.57

Table 6.2 – Comparison of descriptive statistics for CorTec Hypertension and JPED Portuguese components

The type to token ratio of the texts in the Portuguese *JPED* subcorpus, at 5.26, is 13.8% lower than the type to token ratio of the Portuguese portion of the *CorTec* corpus at 6.10. Since both corpora are “authentic” texts and both are written in the same variant of the same language, the only remaining differences between the texts are their authors and the area of medicine that they cover. It would be interesting to be in a position to compare texts on the same subjects that had been translated *into* Portuguese.

	English component of <i>CorTec</i> <i>Hypertension</i> corpus	<i>JPED</i> English subcorpus	<i>Pediatrics</i> English subcorpus
Tokens	453,475	453,474	453,468
Types	17,808	15,963	16,092
TTR	3.93	3.52	3.55
Number of texts	126	179	165
Mean length of texts	3599.01	2533.37	2748.29

Table 6.3 – Comparison of descriptive statistics for CorTec Hypertension and JPED English components and Pediatrics subcorpus

Observing the equivalent figures for the three English subcorpora, it would appear that the same type of difference is occurring. While the *JPED* subcorpus has a type to token ratio that is just 0.8% lower than the *Pediatrics* type to token ratio, at 3.52 and 3.55 respectively, these figures are 10.4% and 9% lower than the *CorTec* type to token ratio at 3.93. These two differences (10.4% and 9%) are very much comparable with the 13.8% difference observed between the two Portuguese subcorpora.

Unfortunately there is no real way of comparing the type to token ratios for the two different languages in the *CorTec Hypertension* corpus since their sizes vary so greatly.

In chapter seven of *Introducing Corpora in Translation Studies*, entitled *Features of Translation*, Maeve Olohan discusses a number of methods that have been employed to test hypotheses about the nature of translated texts as compared to non-translated texts using corpora (pp 90 – 144). She describes a number of studies that she undertook together with Mona Baker that employed a corpus of translated texts (TEC) and a “comparable” corpus of non-translated texts (extracted from the BNC). She writes,

The comparable corpus used consists of texts selected from the BNC, chosen to be as comparable to the TEC as possible in terms of size, time of publication of the texts, and author gender representation

(p. 94)

It could, however, be argued that, no matter how much importance one places on the criteria listed, the subject of texts is more important than anything else when investigating lexical choice and this position would appear to be supported by the results described above. While the language being used (English or Portuguese) has the greatest effect on type to token ratio (with the exception of corpus size, which is completely dominant and must be eliminated in some way, the easiest of which is to work with similar sized corpora),

within each language it appears that differences in subject matter, even the small difference between one medical domain and another, also exert an influence. With specific reference to the results shown in Table 6.3, the influence has an effect that is around one order of magnitude greater than the effect possibly exerted by translation. Furthermore, while the originals in the *Pediatrics*, and presumably also those in the *CorTec* English section, were written by a large range of different authors, each with their own habitual vocabulary, the vast majority of the *JPED* translations were produced by just two people and this could be the cause of the 0.8% difference in type to token ratios. A future investigation might find interesting results if the translations were compared according to translator. Would both translators have similar type to token ratios?

In the same chapter mentioned above, Olohan also suggests that, “when translations are longer than their source texts, this is sometimes attributed to explicitation.” (p.92) In the case of the *JPED* parallel corpus, however, the opposite is true with the translated texts having 1.8% fewer tokens than the originals. Once more, however, it appears very problematic to state that this proves anything meaningful about translations when a parallel corpus is unable to take the differences between languages into account.

Mike Scott has proposed a method of compensating for corpus size when calculating type to token ratios, which produces what he terms the standardised type to token ratio and which is the result of recalculating every thousand tokens and then taking a mean average (*Wordsmith Tools* help file). By doing this, the aim is to provide a measure that can be used to compare the lexical variation of different-sized corpora. However, the method has a major drawback that springs from the manner in which the thousand-word blocks are selected. The type to token ratio of the first thousand words of each file is calculated and

then the next thousand, etc. and then all the ratios are averaged. As Scott explains in the help file, however, any files that contain less than one thousand words are simply ignored. Table 6.4 below lists the averaged sTTR values for each of the three paediatric corpora, together with the highest and lowest values for any single file to give an idea of the range of fluctuation.

	<i>JPed Portuguese</i>	<i>JPed English</i>	<i>Pediatrics</i>
sTTR overall	39.89	37.53	34.53
Lowest sTTR	28.20	28.47	25.83
Highest sTTR	50.00	46.80	49.60
Total number of files	283	283	249
Number of files not counted	61	58	42
Percentage of files not included	21.6%	20.5%	16.9%
Number of tokens (less numbers)	743,314	729,923	723,521
Number of tokens not included	141,314	141,923	118,521
Percentage of total tokens not included	19.0%	19.4%	16.4%

Table 6.4 – Standardised type to token ratios and basis for calculation

Observing the figures, it becomes apparent that this measure breaks the previous trend in which the two English corpora have been similar and the Portuguese corpus different. These sTTR values are on a continuum with the original texts at either end and the translated texts in the middle, slightly closer to the Portuguese than to the English originals.

It is possible to argue, however, that this measurement is not really very informative. Also listed in Table 6.4 are figures for the number of files ignored because they have less

than one thousand tokens. In all cases more than 15% of the files that make up the corpus are ignored and in the case of the two *JPED* corpora, more than 20% of the files are ignored.

It might be argued that these files do not account for a very large proportion of the entire corpora, bearing in mind the average length of the texts (2,626.55, 2,579.23 and 2,917.43 tokens for *JPED* Portuguese, *JPED* English and *Pediatrics*, respectively) and the fact that, by definition, all the files ignored have less than one thousand tokens. These are not, however, the only tokens being ignored. Although the help file doesn't mention the fact, it is also possible to prove that even when files have more than a thousand tokens not all of these tokens are being used for the sTTR calculation. What actually happens is that the calculation is performed for every thousand tokens in a file until less than one thousand tokens remain – these “extra” tokens are then ignored too. For example, if a file has 1,500 tokens, then the calculation is performed for the first thousand, but the remaining 500 are ignored, thus eliminating one third of the file from the calculation.

Looking at Table 6.4 once more, one perceives that the result of this, together with the fact that the translated files are guaranteed to be a similar size to the original files, is that 19% of all tokens in the Portuguese corpus are ignored and 19.4% of those in the English *JPED* corpus are ignored. In comparison, just 16.4% of the tokens in the *Pediatrics* corpus are not used for the sTTR statistic. This alone is enough to cast doubt on the validity of the sTTR measure since the words ignored are more likely to be tokens that have already occurred than to be fresh types.

There is, however, another bias produced by this procedure, which is related to which tokens are being ignored. As was mentioned in Chapter 5, Biber et al. have shown that

language varies greatly between different sections of scientific articles (1998, p. 249). In the case of files with more than one thousand tokens, all of the words being ignored are from the ends of the texts, where one would expect to find “Discussion” and “Conclusions” sections. The sTTR count, therefore, is counting fewer words from these sections than from “Introduction”, “Methods” and “Results” sections. Furthermore, the majority of texts with less than one thousand words will be either letters to editors or editorials, which one would expect to have different language usage from the research articles.

All of these problems with the sTTR measurement undeniably introduce a bias and it is, unfortunately, a bias that cannot be calculated and so one that cannot be corrected. Nonetheless, this may well be the reason that, in the case of sTTR, the previous pattern of similarity between the two English corpora and difference between them and the Portuguese corpus is broken.

Another measure of lexical variation is the frequency with which the most common words are repeated. Table 6.5 below shows how much of each corpus is accounted for by the first type, in order of frequency, by the first ten types together and by the first one hundred types.

	<i>JPed</i> Portuguese	<i>JPed</i> English	<i>Pediatrics</i>
Number of types	27,981	20,155	20,424
1 st type	5.39%	5.97%	6.29%
1 st 10 types	25.57%	27.69	26.3
1 st 100 types	46.67	47.59	46.31

Table 6.5 – Percentage of corpora in first 100 types

In all three corpora, nearly half of all tokens are repetitions of the one hundred most frequent types. It will be observed that, in general, the English *JPED* corpus makes most use of the most frequently occurring words. This is one factor that contributes to the type to

token ratio being lower than for the *Pediatrics* corpus and is possibly another manifestation of there only being two translators. Since the Portuguese corpus also uses the first one hundred types slightly more than the *Pediatrics* corpus this is not responsible for the much larger difference in type to token ratios seen between the two languages.

While the frequency with which the most common types occur is not what makes the type to token ratio of the Portuguese corpus so different, the total number of *hapax* is certainly a factor. Observing Table 6.6 below, the similarities between the English corpora are clear, and it is very much the sheer number of types that only occur once that differentiates the Portuguese corpus from the two English corpora. One factor that is undoubtedly involved is the fact that Portuguese adjectives often have four possible spellings, to agree with masculine, feminine and plural nouns, and *Wordsmith* treats each as a different type.

	<i>JPed</i> Portuguese	<i>JPed</i> English	<i>Pediatrics</i>
Number of types	27,981	20,155	20,424
Position of first <i>hapax</i>	17,108	12,959	13,019
Proportion of types occurring once	38.5%	35.7%%	36.2%
Number of tokens in wordlist	743,314	729,923	723,521
Number of tokens appearing once	10,784	7,196	7,406
% of tokens occurring once	1.5%	1%	1%

Table 6.6 – Proportion of *hapax legomena*

Summing up, in terms of type to token ratio, average word length and number of *hapax* forms, the translated and original English texts are extremely similar and contrast

with the original Portuguese texts. This may well be an indication that, at least in the case of medical translation from Portuguese to English, the target language is dominant over the status of translation or non-translation. One of the features that mildly differentiates the translated English texts from the original English texts is the extent to which the most common types are repeated. The translated texts employ more repetition than the original ones, but it is possible to argue that this is more indicative of their restricted authorship than their translated nature. The standardised type to token measure appears to show some influence of the source texts on the translations, but, as was explained above, the effect that the lengths of the texts has on this measure means that it may well be inevitable that translations bear greater similarity to the originals than with other measures since they are obliged to be a similar length.

Software

In addition to the three corpora described in the last section, two software solutions were developed to access the corpora in ways that could help with translations studies, translation practice and language acquisition. The first is aimed at translation researchers, translators and LSP language users and, in its current form, is dedicated to the *JPED* parallel corpus, although the design does allow for its use with any corpus aligned in the same manner. As was explained in *Project objectives* above, there are certain problems with existing parallel corpus software, the most significant of which is the lack of scope provided by the viewing window and the restricted context that this results in.

The many statistical functions offered by *Wordsmith Tools* can be used with the *JPED* corpus and the Portuguese and English components can also be used separately as data for the *Concord* and *Keywords* modules.

The point at which *Wordsmith Tools* becomes unsatisfactory is when a researcher or translator wants to investigate the aligned texts and also when textual metadata is of interest. In an attempt to make it possible to perform such investigations, I developed a simple utility using the version of *Visual Basic* that runs within *Microsoft Word*. The utility (shown in Figures 6.1 & 6.2) performs a fairly simple task. Making use of the *Microsoft Word* object model to access the search routines, the utility allows the user to specify which of the articles that make up the corpus are to be searched and then creates a document containing all those paragraphs that contain the search string that the user specifies with all occurrences of that search term highlighted.

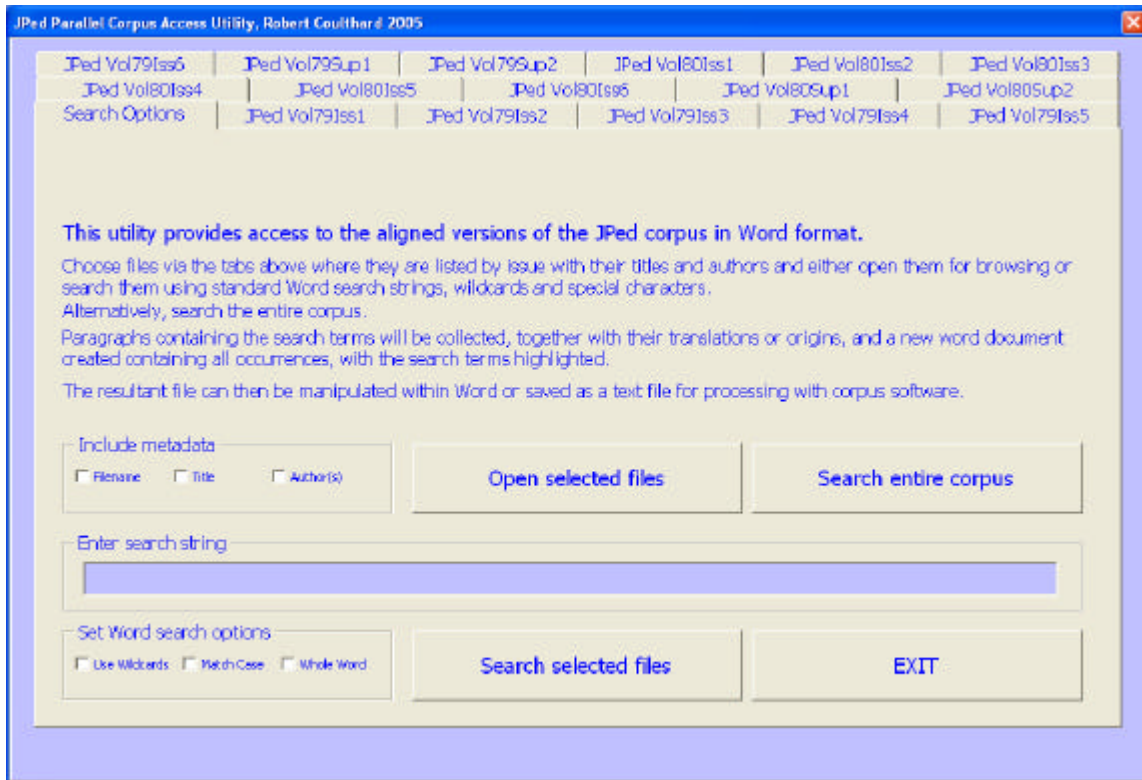


Figure 6.1 – Parallel corpus utility, search screen

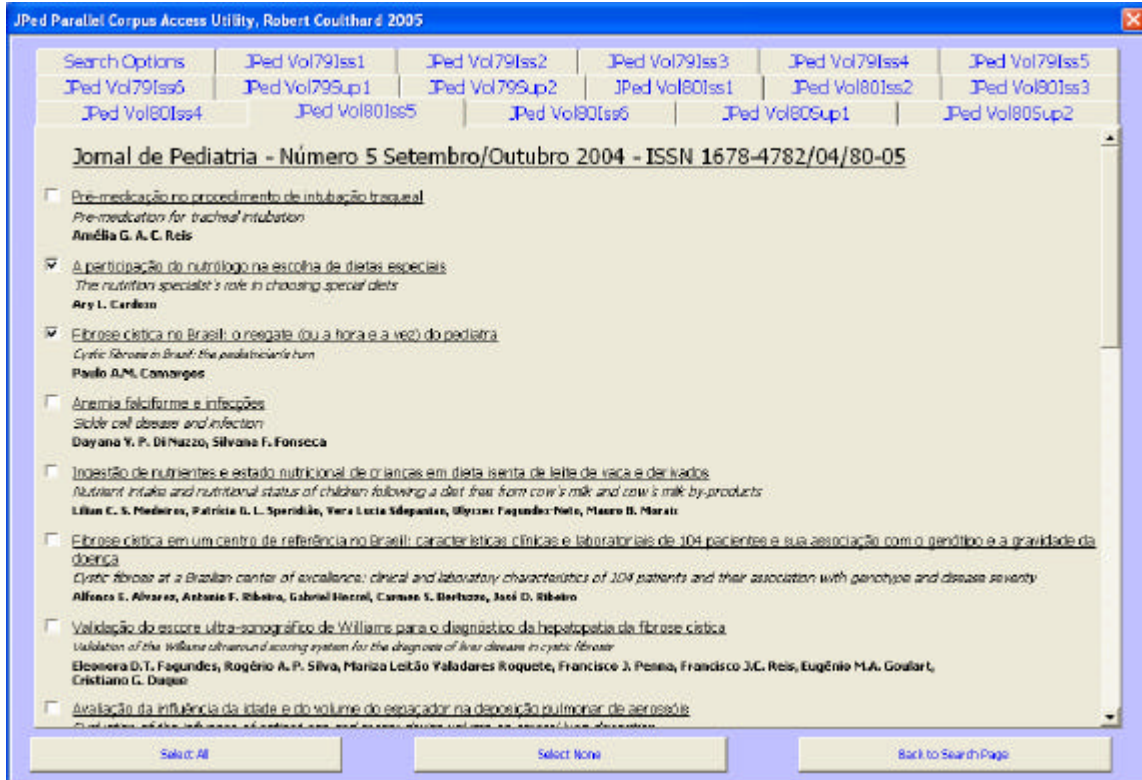


Figure 6.2 – Parallel corpus utility, text selection screen

As a result of using the *Microsoft Word* search routines, a number of features are available that are potentially of use to translators, researchers and language learners. The standard *Word* wildcards and special characters can be used, making it possible to search for very specific search strings (for a detailed description of these features, which can be used to include or exclude items or ranges of items such as digits, characters, carriage returns, page breaks, tabulation characters and the like, refer to *Microsoft Word* documentation).

In addition to taking advantage of these advanced search capabilities, such as the ability to search across paragraph boundaries, any length of string can be located. This is particularly useful for medical language since there are very many multiword terms which are not necessarily translated by the sum of the translations of their component parts. An extreme example of this is *pressão capilar da artéria pulmonar*, which is translated as “pulmonary capillary wedge pressure”. This term appears just once in the entire corpus, out of 572 occurrences of *pressão*, 28 of *capilar*, 23 of *artéria* and 482 of *pulmonar*.

Another feature of the search utility is that it provides a facility for including the filenames, titles and authors of the articles found. With *Wordsmith Tools*, users have to keep track of this metadata themselves since output includes just the filenames. While the files in the *JPED* corpus have been named in such a way as to indicate their publication characteristics, in terms of volume, issue and starting page number, it is not possible to include titles in two different languages and as many as ten different authors per article within a filename.

A short example of the output of this utility is shown in Table 6.7 below.

Filename:	03-79-02-107-twin.doc
Title:	<i>Atresia biliar extra-hepática: métodos diagnósticos</i>
Author(s):	Sydney M. Cauduro
A expressão clínica da atresia das vias biliares extra-hepática (AVBEH) é de uma icterícia colestática, causada por processo inflamatório perinatal iniciado nos ductos biliares, determinando esclerose progressiva e obstrução inclusive da árvore biliar intra-hepática. Nos Estados Unidos, ocorrem anualmente cerca de 400 a 600 casos de AVBEH (1) e, apesar de todos avanços no conhecimento desta enfermidade e de recursos diagnósticos modernos, como a colangiografia por ressonância magnética (2) e a sequencial espectrometria de massa (3), a confirmação diagnóstica não cirúrgica permanece um desafio.	The clinical expression of extrahepatic biliary atresia (EHBA) is that of a cholestatic jaundice, caused by perinatal inflammatory processes originating in the biliary ducts, causing progressive sclerosis and obstructions even of the inter-hepatic biliary tree. In the United States, around 400 to 600 cases of EHBA occur annually (1) and, despite all of the advances in the understanding of this disease, such as cholangiography by magnetic resonance imaging (2) and sequential mass spectrometry (3), non-surgical confirmation of diagnosis remains a challenge.
Na criança, a colestase é observada fundamentalmente no período neonatal, sendo que 70% a 80% dos casos correspondem à AVBEH ou à hepatite neonatal (HN) (4). No King's College Hospital (Londres), em um período de 10 anos (1989-1999), cerca de 998 crianças foram avaliadas em razão de colestase, sendo que a AVBEH representou 22% dos casos, e a HN idiopática, 44,4%. Outras causas importantes de colestase foram deficiência de alfa-1 antitripsina (8,1%), síndrome de Alagille (4,5%), cisto de colédoco (2,4%), relacionada à nutrição parenteral total (2,3%) e colestase intra-hepática familiar progressiva, síndrome de Byler (2%) (5). Dependendo da região geográfica estudada, os dados estatísticos em relação à etiologia da colestase poderão ser outros, como na África do Sul, onde a sífilis é responsável por 22% dos casos (6).	In children, cholestasis is basically observed during the neonatal period, with 70% to 80% of cases corresponding to EHBA or neonatal (NH) (4). At King's College Hospital (London), over a period of 10 years (1989-1999), around 998 children were assessed due to cholestasis, of whom 22% had EHBA and 44.4% idiopathic NH. Other important causes of cholestasis were deficiencies of alpha-1 antitrypsin (8.1%), Alagille syndrome (4.5%), choledochal cysts (2.4%), related to total parenteral nutrition (2.3%) and progressive familial intra-hepatic cholestasis, Byler syndrome (2%) (5). Depending upon the geographical region being studied, statistical data related to the etiology of cholestasis may be different, as, for example, in South Africa where syphilis is responsible for 22% of cases (6).
O fato de a doença raramente acometer recém-nascidos pré-termo e ser discordante em gêmeos monozigóticos, poderia reforçar a impressão de um agente infeccioso, isquêmico, tóxico ou metabólico atuando no final da gestação, mas, até o momento, não existe apenas um só fator implicado na etiologia da AVBEH. A hipótese de que a HN e a AVBEH fossem uma única doença, em fases diferentes de evolução, chegou a ser aventada, mas tal fato nunca chegou a ser comprovado. Alguns vírus, como o rotavírus A e C, citomegalovírus e papilomavírus foram implicados na etiologia da AVBEH, mas essas observações não foram confirmadas. O reovírus 3 é citado em várias publicações como possivelmente implicado na etiologia da AVBEH, mas Steele e col., utilizando técnica de PCR (reação em cadeia de polimerase), não detectaram o RNA do vírus em tecidos hepáticos de 50 crianças com colestase, sendo 14 com AVBEH (7).	The fact that the disease rarely affects pre-term newborns and is discordant with monozygotic twins may reinforce the impression that is an infectious, ischemic, toxic or metabolic agent active at end of gestation, but, at present, there is no single factor implicated in the etiology of EHBA. The hypothesis that NH and EHBA were a single disease, in different phases of evolution has been ventured, however this has never been confirmed. Reovirus 3 is cited in many publications as possibly implicated in the etiology of EHBA, but Steele et al. employing PCR techniques (polymerase chain reaction), did not detect the RNA of this virus in hepatic tissues of 50 children with cholestasis, 14 of whom had EHBA (7).

Table 6.7 – Parallel corpus utility, excerpt from results of search for “hepatic*”

The results are very different from those obtained by performing a concordance, lacking any kind of sorting capacity. Very often, however, this is all that is required for a translator or language learner. A translator, for example, can immediately see, in the first paragraph, that, in the past, *extra-hepática* has been translated without a hyphen and so maintain consistency. The language learner, on the other hand, could find the correct order of adjectives in the translation of *colestase intra-hepática familiar progressiva*.

The most important advantages, however, come from the fact that the utility uses features built into *Microsoft Word 2000*, which is, without doubt, much more accessible than concordancing software. The utility itself will not increase the costs of any healthcare organisation that has already paid for the right to use *Microsoft Word*.

There are two possible drawbacks, although these are very easily overcome. The first of these is the fact that, since the utility requires disk access, the macro security settings in Microsoft Word must be set to medium or low (and *Word* restarted). While this potentially poses a minor risk in terms of virus vulnerability, using antivirus software, disconnecting from the internet while running the utility and resetting security to high after use should all reduce this risk to a negligible level. The second potential drawback is that the utility requires references to four object libraries.*

The second solution developed for exploiting the *JPED* parallel corpus has even fewer financial barriers to access than the first, since it does not rely on *Microsoft Word*. While many people have used *Microsoft* macro technology for translation tools, the most widespread application being *Wordfast* (Champollion, 1999-2003), a very cheap

* Visual Basic for Applications, Microsoft Word 9.0 Object Library, Microsoft Office 9.0 Object Library and Microsoft Forms 2.0 Object Library are all supplied with *Microsoft Word 2000*, but may need to be selected from within the Visual Basic Editor via the Tools menu. The utility itself resides within a *Microsoft Word* document called *CorpusTools.doc* and is included on the resource CD that accompanies this dissertation.

translator's workbench that runs within *Word*, I believe that I am the first person to have harnessed the power of *Google Desktop Search* (Google Inc., 2005) to search a corpus held on a local drive.

Many people have advocated the use of internet search engines as translation aids, Walter Carlos Costa, for example, mentioned *Google* specifically (2001), and when translating medical texts the internet is, without doubt, the most valuable resource available. The solution developed for the *JPED* corpus, however, uses a recently released utility that can be downloaded free of charge from the *Google* website together with a third-party utility that is designed to give the user greater control over the *Google* local search utility (Evans, 2005).

Google Desktop Search (hereafter *GDS*) was designed to search the whole of the user's computer for items such as text documents, emails and multimedia files. It works by creating an index of every item on the computer that falls within its scope, as a one-off process, and then adding new items in real time as they are downloaded, viewed, or opened.

By using the additional control provided by *TweakGDS* it proved possible to restrict the scope of *GDS* to the aligned versions of the files that make up the *JPED* corpus and so search the corpus using *Google's* proprietary search algorithms (see Figure 6.3 on page 74).

This solution is not appropriate for quantitative translation research since the way that *GDS* ascertains the relevance of files means that it does not return every single occurrence of a search term, but just those that meet certain criteria. Unfortunately, these criteria are not published by *Google Inc.* since they are trade secrets, However, as anyone who uses *Google's* internet search technology knows, *Google* has the knack of unerringly finding just what the user wants.

The main advantages of using *GDS* to query a corpus are of most interest to LSP users and translators. In the case of the *JPED* corpus this means the categories of learners described in Chapter 4 and also translators working in the same LSP domain. The first of these advantages is the fact that results are not concordances, but in exactly the same format as the familiar *Google* internet search results (see Figure 6.4 on the next page). From the list of hits on the initial results page the user has the choice of opening the document in its dedicated application (in this case *Microsoft Word*) or of opening the *GDS* cached copy. This cached copy will also be familiar to users of the internet search tool. The advantages of the cached copy are that all occurrences of the search terms are highlighted and no paid software is needed to view it – just an internet browser.

A second major advantage of using *GDS* is that all the standard *Google* search techniques can be employed. Words can be excluded from the search by using the “” operator, for example, and terms that are to be searched for can be grouped using inverted commas. This means that the user can specify the context in which a term is being used and also exclude certain types of context. If inverted commas are not used then the search terms can appear anywhere in the document and are not required to be next to each other, or even close together.

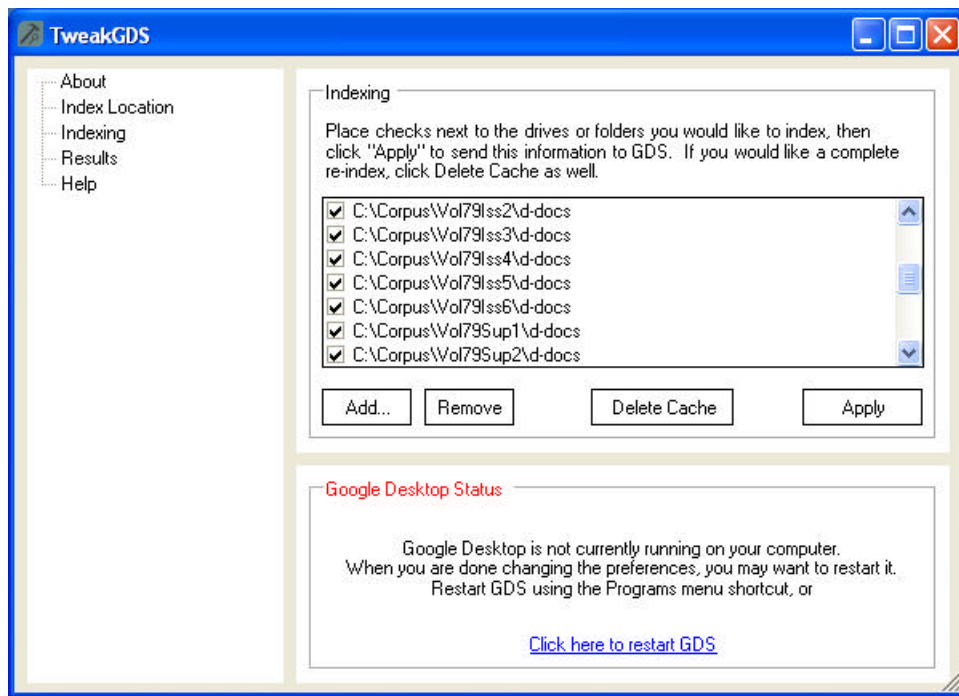


Figure 6.3 – Restricting the scope of Google Desktop Search using TweakGDS

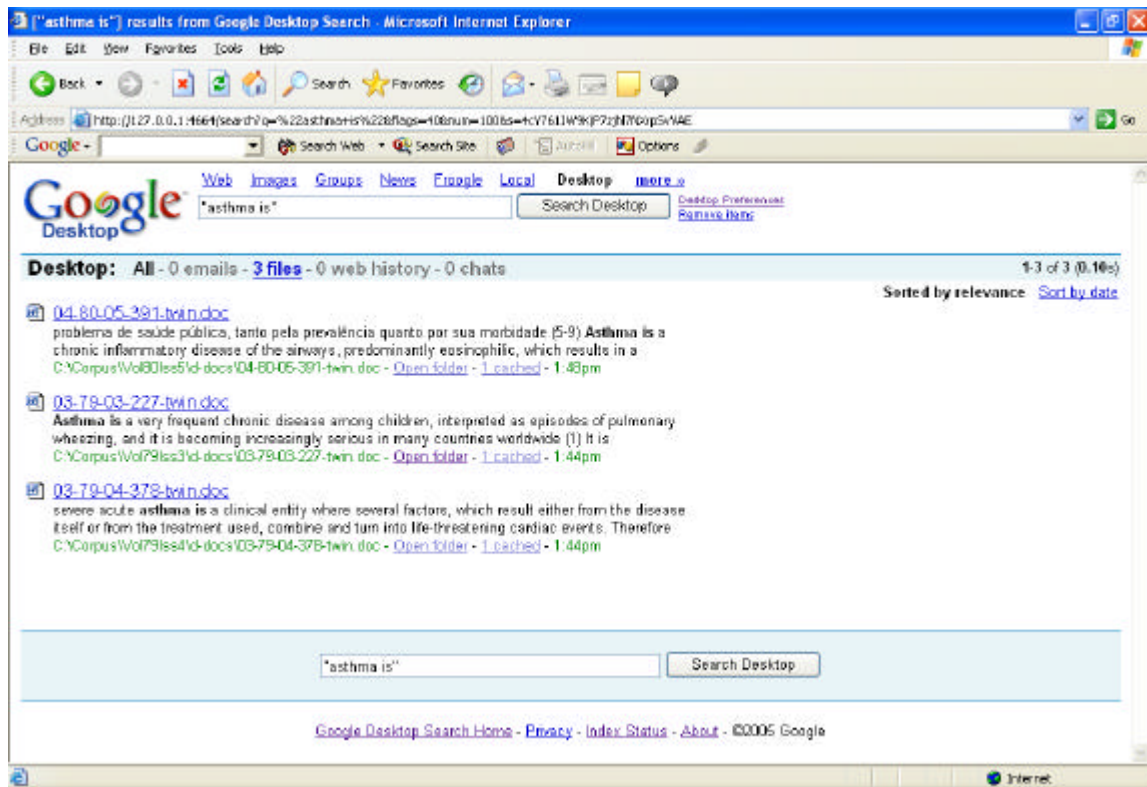


Figure 6.4 – Google Desktop Search results for “asthma is”

As was mentioned in Chapter 4, *Project objectives*, one of the most promising applications of an LSP corpus is as an aid to language acquisition. However, it is not only healthcare professionals learning the LSP in a language that is not their own who can benefit from the information contained in the *JPED* corpus. As Bowker and Pearson explain,

non-experts, like translators or technical writers, generally have to take it upon themselves to become ‘mini-experts’ in the subject fields in question. (...)
(2002, p.38)

It is not enough for a translator to know the correct translation of a technical term in the target language. It is also absolutely necessary to understand the meaning of the term and its correct application,

A corpus can be useful for providing conceptual information. Sometimes the context surrounding a particular term contains a definition, explanation or description of some of the characteristics of the concept designated by that term.

(ibid.)

Google Desktop Search is particularly suited to finding such occurrences, as can be seen in Figure 6.4 above, where the results for a search on “asthma is” have returned two definitions of asthma and one definition of severe acute asthma.

One final point with reference to GDS is that it is based on technology used primarily with .html documents and so treats a document’s filename and title as two different entities. This means that, by using the fields provided in the properties of *Microsoft Word* (Microsoft, 1983-1999) documents, it has proven possible to have the results displayed with both the titles of the articles and their filenames, thus providing some of the available

metadata directly on the results page since the filename provides publication details. Users who have *Microsoft Word* can also view the authorship data via the *File* menu.

Google Desktop Search and *TweakGDS* are both provided on the resource CD that accompanies this dissertation in a folder named *Google*.

In conclusion, by using GDS to query the *JPED* corpus the information contained in the corpus is accessible by people with no experience of corpus linguistics and without the need for any investment beyond a basic PC running the *Windows* (Microsoft, 1981-2001) operating system.

7. Analysing the corpora

Analysis of the translations of four adjectives with classical etymology

Meyer (2002, p.138) quotes Leech as having written that corpus creation, “always takes twice as much time, and sometimes ten times as much effort”, as analysing it does.

However, Meyer himself goes on to say that,

still, many analyses have to be done manually, simply because we do not have the technology that can extract complex linguistic structures from corpora, no matter how extensively they are annotated.

(ibid.)

The *JPED* corpus is not annotated at all, but even if it were, it is doubtful whether the analyses that will be described in this chapter could have usefully been automated to a greater extent than they actually were.

There is a class of adjectives in the English medical vocabulary consisting of words derived from Latin or Greek that designate a relationship to vital organs. Adjectives with the same base morphemes are also used in Portuguese. Examples of such adjectives are *pulmonar/pulmonary* and *hepático/hepatic*.

For the medical translator working with Portuguese source texts and translating into English, this class of adjectives is problematic because in English there is an alternative to choosing the cognate in the target language. This alternative is to create a noun phrase in which the name of the organ in question replaces the adjective. An example of this can be observed with *lesão pulmonar*. While this phrase can be translated as “pulmonary lesion”, it can also be rendered by “lung injury” or “lung damage”. There is no basis that I have ever been able to deduce for deciding which of the possibilities should be chosen. The

analysis in this chapter is an investigation of the way in which four of these terms are translated, followed by a comparison of these translations with the way the same structures are used in the non-translated texts in the *Pediatrics* corpus.

Using the *Visual Basic* utility described in the *Software* section of Chapter 6 occurrences of *pulmonar*, *renal*, *cardíaco* and *hepático*, together with their respective feminine and plural forms, were located in the *JPED* corpus. The search terms used were “pulmona*”, “cardíac*” and “hepátic*”, all with the wildcards option selected, and “renal” and “renais” with the match-whole-words option selected (a search for “rena*” returned more false positives than correct results). Since the resulting output came to 258 pages, these results have been included on the resource CD only. They can be found in a folder named “E-Appendix”.

From within these files *Visual Basic* code was used to extract the terms together with three words on either side. The resulting file was then examined and a list made of every distinct multiword form, with care being taken to make sure that the correct noun or noun phrase was attributed to each occurrence of the adjective. When necessary, intervening words were excised and the resulting ellipsis marked with “(...)”. For example, *doenças agudas respiratórias e cardíacas* would be edited to *doenças agudas (...) cardíacas*. Whenever it was apparent that the L3 - R3 excerpt had not included the entire term it was enlarged.

In passing, it is worth noting that this process is one of those elements of the analysis that it is difficult to envisage automating successfully. For example, the excerpt *que apresentam funções hepática e renal mais* was found in the search for *hepática* and then again, as, *funções hepática e renal mais eficazes. Esses* in the search for *renal*. Note that in

neither case does the adjective agree with the noun to which it is applied. The plural noun *funções* is also separated by two words from the adjective *renal*, meaning that it would not be picked up as being related by a standard “clusters” function.

Next, each separate form was then tracked to its translations and these were noted and counted. A typical result for a single usage in the source text would therefore be as shown in Table 7.1 below. Note that not every occurrence of “heart rate” in the corpus is a translation of *frequência cardíaca* (it is also used as a translation for *batimentos cardíacos*) and that this potentially applies to all of the translations. For this reason, this process was also performed manually to ensure that only instances that actually were translations of a given source text form were counted in the entry for that form.

frequência cardíaca	cardiac rate		7	
	heart rate			18

Table 7.1 – Translations of *frequência cardíaca* in the JPED corpus

Once all occurrences of each adjective had been accounted for, the number of times that the term had been translated using the cognate adjective, the number of times a noun had been used instead and the number of times the adjective had been omitted entirely were all totalled. The example shown in Table 7.1, therefore, indicates that *frequência cardíaca* occurred twenty five times in the source texts and was translated seven times as “cardiac rate”, 18 times as “heart rate” and was not translated by zero. The full listings of all distinct occurrences can be found in Appendix C. Summaries of the results are shown in Table 7.2 below.

	pulmonar	renal	cardíaco	hepático
occurrences	492	254	245	140
distinct source terms	160	80	101	78
distinct translations	209	100	124	99
translations by zero	17 (3.5%)	5 (2%)	13 (5.3%)	4 (2.9%)
translations with adjective	369 (75%)	238 (93.7%)	141 (57.6%)	66 (47%)
translations with noun	106 (21.5%)	11 (4.3%)	91 (37.1%)	73 (52.1%)

Table 7.2 – Summary of translation choices

In Table 7.2 above, a distinct source term is any construction in which the adjective was used in a different multiword term. For example, *dano oxidativo pulmonar*, *dano pulmonar*, *dano pulmonar agudo*, *dano pulmonar oxidativo* and *dano tecidual pulmonar* are all classed as distinct terms since, although in every case it is *dano* that is modified by *pulmonar*, the extra adjective in each of the three-word terms also modifies *dano* and is inseparable in translation. Each of these distinct source terms has been translated in one or more ways, so the five different source terms using both *dano* and *pulmonar* were translated as “oxidative lung damage”, “oxidative pulmonary damage” and “pulmonary oxidative damage” for *dano oxidativo pulmonar*, “pulmonary injury”, “lung injury” and “lung damage” for *dano pulmonar*, “acute pulmonary damage” for *dano pulmonar agudo*, “oxidative pulmonary damage” for *dano pulmonar oxidativo* and “pulmonary tissue damage” for *dano tecidual pulmonar*. Of these terms, “pulmonary injury” occurred three times, “oxidative pulmonary damage” occurred twice and the remainder occurred once each. All this means that, for the five examples given, there were thirteen total occurrences of five distinct source terms which were translated as ten distinct translations, ten

occurrences of which used the adjective “pulmonary” and three of which used the noun “lung”.

Looking at the results in Table 7.2, one immediately notices that, with the exception of translation by zero, the translation choices are by no means uniform. The extreme cases are *renal*, which has only been translated using “kidney” four point three percent of the time, and *hepático*, which has been translated using “liver” on more than half of all occasions.

With the marked exception of “hepatic” and “liver, there is a tendency towards using the adjective ranging from the very strong tendency to prefer “renal” over “kidney”, through a strong tendency to prefer “pulmonary” to “lung” to a mild tendency towards “cardiac” rather than “heart”. The only noun preferred is “liver” and the preference is very small.

It is tempting to postulate that these results are due to source language influence since the option of using the noun could be seen as diverging from the source text by choosing a different morpheme. However, until it has been seen whether or not this usage differs from target-language patterns, this hypothesis cannot be considered.

Comparison of translations with *Pediatrics* corpus

For this analysis, *Wordsmith Tools* was used, since the *Pediatrics* corpus is monolingual and had been compiled in plain text for this purpose. Concordance searches were run for each of “pulmonary”, “lung”, “renal”, “kidney”, “cardiac”, “heart”, “hepatic” and “liver”. For the four nouns, irrelevant instances were edited out.

The most common term in the *Pediatrics* corpus was “sudden cardiac arrest”, which occurred 49 times followed by “heart rate” which occurred 39 times. The full listings of all distinct occurrences can be found in Appendix D. Summaries of these results are shown in Table 7.3 below.

	pulmonary vs. lung	renal vs.kidney	cardiac vs.heart	hepatic vs.liver
Instances	61 - 87	59 – 8	198 - 177	15 - 41
Percentages	41.2% - 58.8%	88.1% - 11.9%	52.8% - 47.2%	26.8% - 73.2%

Table 7.3 – Adjectives vs. nouns in *Pediatrics* corpus

It will be noted that there is a very strong tendency towards “renal” rather than “kidney” and a very slight tendency towards “cardiac” rather than “heart”. On the other hand, the noun “lung” is preferred to the adjective “pulmonary” and “liver” is strongly preferred over “hepatic”.

Table 7.4 contains a comparison of the translations from *JPED* and the terms from *Pediatrics*, first in the form of total instances of each case, then as percentages of the total number of occurrences of each pair of choices and finally as percentages of the total number of occurrences of all eight possibilities in each corpus.

		pulmonary vs. lung	renal vs. kidney	cardiac vs. heart	hepatic vs. liver
Instances	<i>Pediatrics</i>	61 – 87	59 – 8	198 – 177	15 – 41
	<i>JPED</i>	369 – 106	238 – 11	141 – 91	66 – 73
Percentage within pair	<i>Pediatrics</i>	41.2% - 58.8%	88.1% - 11.9%	52.8% - 47.2%	26.8% - 73.2%
	<i>JPED</i>	77.7% - 22.3%	95.6% - 4.4%	60.8% - 39.2%	47.5% - 52.5%
Percentage of all eight	<i>Pediatrics</i>	9.4% - 13.5%	9.1% - 1.2%	30.7% - 27.4%	2.3% - 6.3%
	<i>JPED</i>	33.7% - 9.7%	21.7% - 1%	12.9% - 8.3%	6% - 6.7%

Table 7.4 – Comparison of totals and proportions between *Pediatrics* and *JPED*

Before comparing the distribution within the pairs, it is interesting to note the differences in distribution across the four pairs. In the *JPED* corpus, 43.3% of all occurrences of any of the eight possibilities use either “pulmonary” or “lung”. In contrast, it is the “cardiac”-“heart” pairing that accounts for the majority of examples in the *Pediatrics* corpus with 58.1% of all occurrences using one or the other. This is, of course, an indication of the subject matter covered by the two corpora, but that in turn is itself an indication of the differing general concerns of Brazilian and American paediatricians. In Brazil infant mortality is still a problem and the majority of avoidable infant deaths are due to respiratory causes. In the United States, infant mortality is very low and paediatricians are very concerned with avoiding and predicting adulthood diseases while patients are still children. Heart disease is the number one cause of death in the United States. The contrast can be clearly observed in Figures 7.1 and 7.2 below.

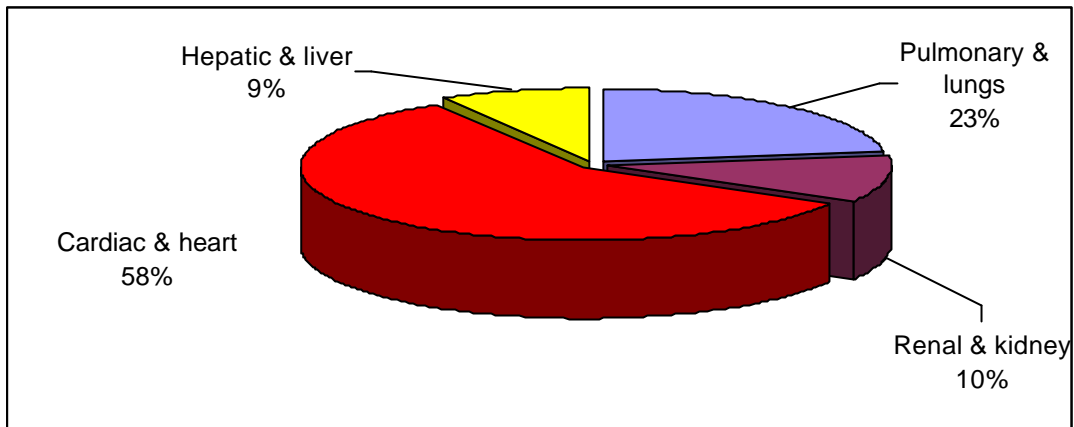


Figure 7.1 – Overall distribution of terms in Pediatrics

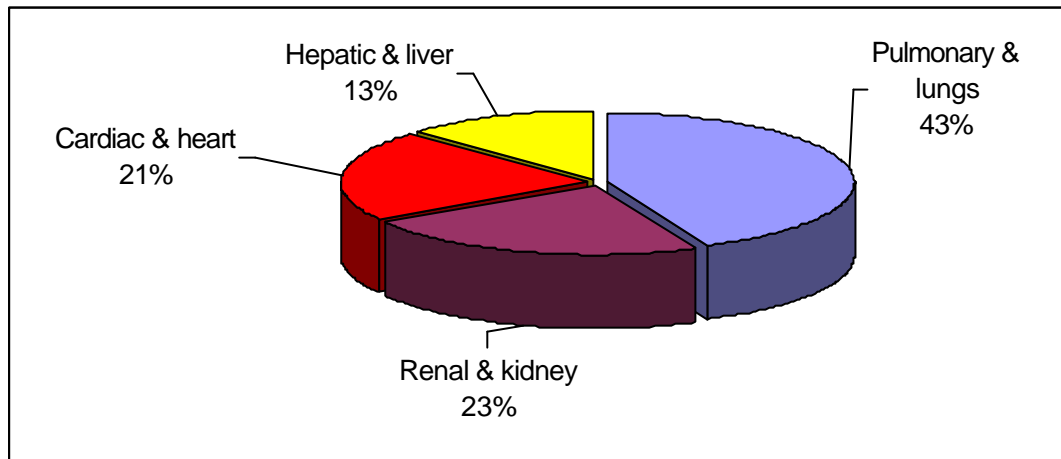


Figure 7.2 – Overall distribution of terms in JPED

Returning to the distribution within each of the pairs, Figure 7.3 shows the results within each pair for *Pediatrics* and Figure 7.4 shows the same for *JPED*. In both cases, each possibility, adjective or noun, is shown on a bar chart as a percentage of the total number of occurrences of both of them, which is an idea borrowed from Maeve Olohan (2004, p.96).

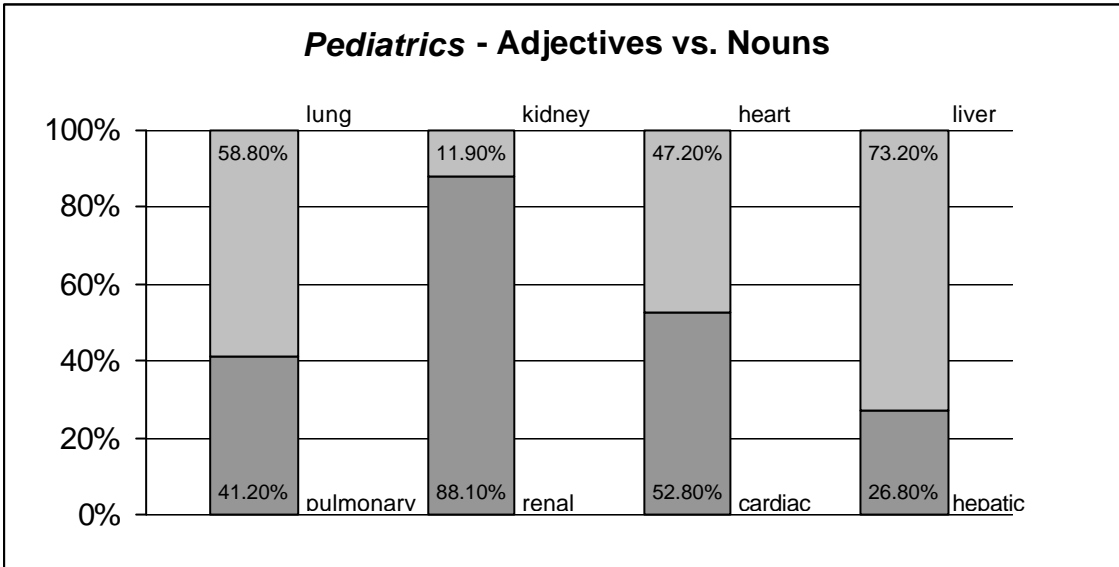


Figure 7.3 – Pediatrics

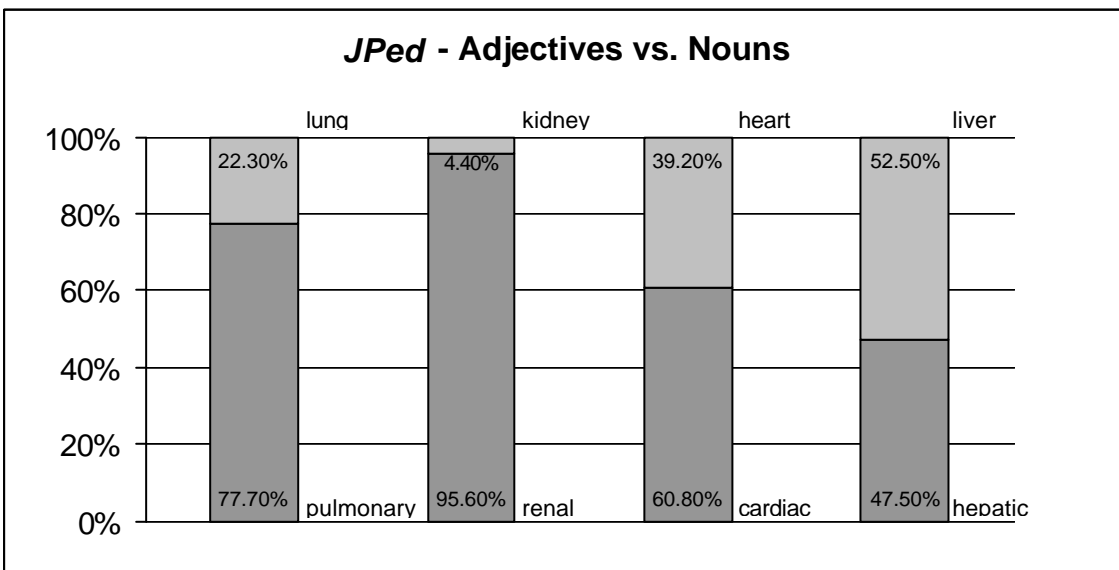


Figure 7.4 – JPED

Looking at the usage of these eight words for the two corpora in this format, it becomes easier to see some similarity between their profiles. While the same tendency to have greatest preference for the adjective with “renal” and greatest preference for the noun in the case of “liver”, the differences between these extremes are greater in the case of the non-translated texts.

According to Mona Baker, one feature of translated texts is “levelling out”, in which translated texts, “steer a middle course between any two extremes, converging towards the centre” (apud. Olohan, 2004, p. 100). It is possible that this is what is being seen here, that the translators are conforming with the general tendencies of the medical paediatric English that they observe constantly, but have not followed these tendencies to the extremes seen in the *Pediatrics* texts with the result that that the preference for ‘liver’ over ‘hepatic’ is not as strong as in the original texts.

In work using the COBUILD corpus to investigate polarity and primary tense in finite clauses, Halliday and James (1993, p. 35) describe a hypothesis that Halliday formulated in the 1960s on the basis of manually collected empirical data. Halliday hypothesized that binary grammatical systems fall into two categories, one in which there is a marked and an unmarked choice, a “skew” system, and one in which, “each term would occur with roughly the same frequency” with neither choice being marked, the “equi” system (ibid.) Halliday had found that, “the difference in frequency of the options in a skew system tended to be approximately one order of magnitude”, which he expressed as

equi systems: 0.5 : 0.5

skew systems: 0.9 : 0.1

(ibid.)

These proportions are roughly equivalent to those observed for the choices investigated here. Of course, Halliday was referring to grammatical systems and these are lexical choices, but there is still a grammatical aspect since the choice is between adjective and noun. What is most interesting is that the profile of usage in *Pediatrics* fits the pattern more closely than the profile of usage in *JPED*. In *Pediatrics* the lung/pulmonary and heart/cardiac choices would be equi systems with figures of 58.8% versus 41.2% and 47.2% versus 52.8% respectively. The kidney/renal system would be almost exactly as described for a skew system, split 11.9% to 88.1%, with “kidney” the marked term. The liver/hepatic system is the one that least follows the model, divided 73.2% to 26.8%, although it should be remembered that this is the pair that occurred least of all, accounting for just 8.6% of all occurrences of all eight possibilities in the *Pediatrics* corpus.

In contrast with these figures, the liver/hepatic system is an equi system in the *JPED* corpus and the lung/pulmonary system is skewed with “lung” the marked term. The other two systems are the same as in the *Pediatrics* corpus with kidney/renal strongly skewed towards “renal”, making “kidney” the marked term and heart/cardiac being an equi system.

The proportions shown so far are for the relative use of each type of structure, using adjectives or nouns. The final step taken in analysing the translations by comparison with the usage in the *Pediatrics* corpus, was to investigate which of the actual phrases used in *JPED* were also used in the comparable corpus.

Using *Wordsmith Tools* once more, concordance searches were run for all of the translated structures which had not been translated by zero. Those phrases that were located were listed in order of the frequency with which they occur in the *Pediatrics* corpus and are shown in Appendix E. The two most frequent terms are, once more, “heart rate” and

“sudden cardiac arrest”, which is to be expected, since the frequencies are those from *Pediatrics*. Note that these figures do not separate those occurrences of “heart rate” that are part of other, longer, terms in the earlier listings, for example in “heart rate measurements”, and also groups together plurals with singulars. This is why the 39 occurrences of “heart rate” in Appendix D have increased to 54 occurrences of “heart rate(s)” in Appendix E and “heart rate(s)” is the most common term when in the earlier list it was “sudden cardiac arrest”.

These phrases could be said to have been “attested” by the *JPED* corpus and “affirmed” by the *Pediatrics* corpus. One interesting feature of these lists is that, without fail, the majority of those terms that only occur once use the adjectives. Nine terms using “pulmonary” appear only once, in comparison with three terms using “lung”. There are eight terms using “renal” that only occur once, compared with just one term using “kidney”. For “cardiac” and “heart” this ratio is eight to two, and, even though there are only three terms using “hepatic”, two of them only occur once, in comparison with a single term using “liver” that appears just once.

It is possible that there is a tendency for less-used terminology to employ the adjectives, but not necessarily for more-often used terminology to employ the nouns.

A graph of the proportions of adjectives to nouns in those terms from the *JPED* translations that also appear in the *Pediatrics* corpus (Figure 7.5), shows that for those terms that are used in both corpora, the pattern of usage is very similar to that seen in Figure 7.4 for overall usage in *Pediatrics*, possibly suggesting that were the remaining terms from *JPED* to occur in other issues of *Pediatrics*, the frequencies with which they were used might be distributed in a similar manner.

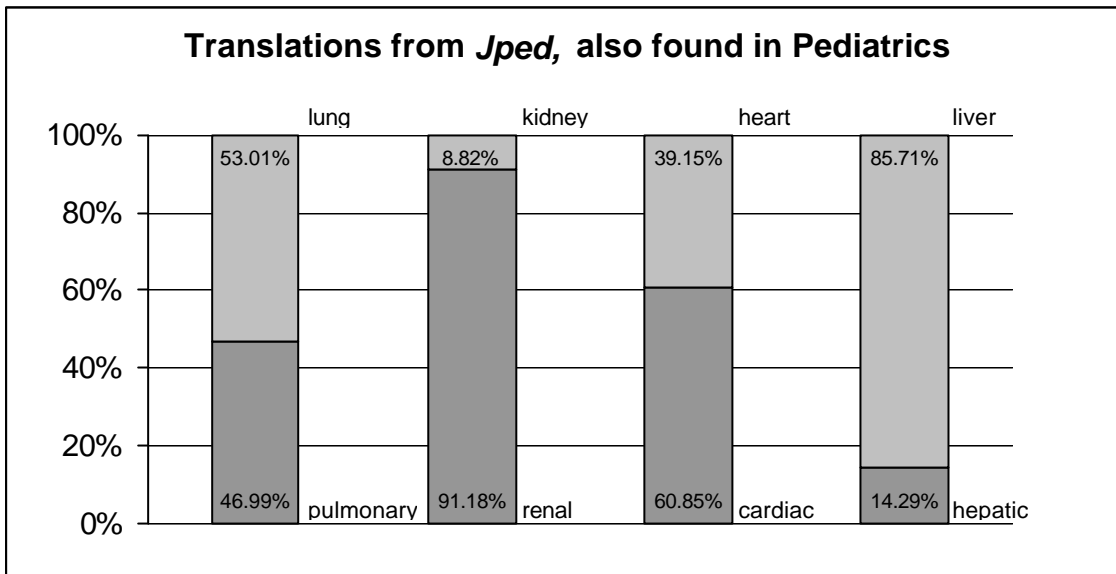


Figure 7.5 – Distribution in Pediatrics of terms common to both corpora

Once more, the binary systems liver/hepatic and kidney/renal are very close to Halliday’s definition for skew systems and the lung/pulmonary system is very close to a perfectly balanced equi system.

One further point that should be noted with reference to the heart/cardiac system is that a single file from *Pediatrics* is having a disproportionate effect on the results – in favour of “cardiac” over “heart”. What has taken place is that all 49 occurrences of “sudden cardiac arrest”, the most common term using “cardiac”, are found in just one file. For some reason, the author has decided not to abbreviate the term, creating an acronym, as is common practice with often-repeated terms. In contrast, the most common term, “heart rate(s)” occurs in eighteen different texts. Interestingly, if the author of the article that contained “sudden cardiac death” had chosen to abbreviate the term and it had only appeared once in full, the proportion of uses of heart and cardiac would be almost exactly one to one, giving four binary systems that almost exactly match either Halliday’s definition for an equi system or his definition of a skew system (Figure 7.6).

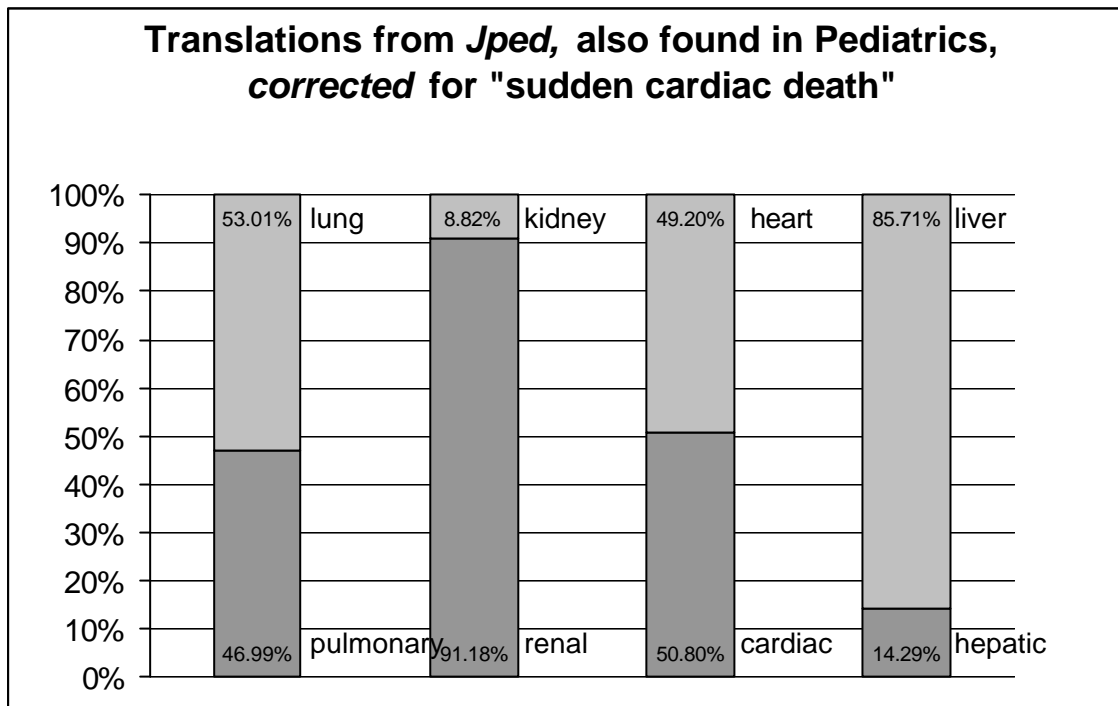


Figure 7.6 – Adjusted distribution in Pediatrics of terms common to both corpora

Admittedly, this last “correction” is hardly scientific, but it does show how a very small, but repeated deviation from the norm can greatly affect results even with a fairly large corpus. In this case the norm is the standard practice in *Pediatrics* of listing abbreviations at the start of articles and using a term in full only once or twice within the text.

Another example of how easily results can be skewed is provided by Rayson and Garside who report that, having used frequency profiling together with tagging to identify semantic categories representative of the domain of air traffic control, found that number five on their list was, “an anomaly caused by an interviewee’s initials being mistaken for the PH unit of acidity” (2000, p.4).

Of course, a corpus can only ever be a source of data and software only a means of accessing and organizing it. It is up to the researcher to ask the right questions and an enormous amount of human intervention is constantly required to ensure that the answers

are what one believes them to be. As Mike Scott reminds us in one of *Wordsmith Tools*' popup messages, "Computer tools don't do the thinking".

8. Conclusions

Corpus as translator's reference tool and LSP acquisition resource

There can be no real doubt that the corpus of Portuguese Paediatric texts and their translations into English will prove a very useful resource for the translators of *JPED*. While the process of compiling it has been time-consuming and repetitive, the ways in which it can be used are varied and should repay, with interest, the time invested in its creation.

The corpus has many potential uses for both professional and student translators. For professional translators it offers resources to help with standardization and can provide suggestions when inspiration is lacking.

For translators who are in training, the corpus usefully supplements paediatrics dictionaries and glossaries while avoiding the pitfall of always seeking to offer some type of equivalent even when there is no equivalent that invariably fits. Susan Hunston quotes King as saying that the fact that glossaries and dictionaries do not offer translation by zero is unsurprising and springs from the fact that,

dictionaries have a bias in favour of finding lexical equivalents or paraphrases – but the more successfully they do this, the less faithfully they reproduce actual translator behaviour.

(apud. Hunston, 2002, p.125)

In general, we learn by experience, but a corpus such as the *JPED* parallel corpus can offer access to other translators' experience and speed up the learning process. Bowker and Pearson (2002, p.140) describe using corpora to direct reading when learning a new LSP, and the technique is perfectly applicable to parallel texts.

It is hoped that the *JPED* parallel corpus can be posted on the *JPED* web site in the form of a CD image that could be downloaded by members of the *Sociedade Brasileira de Pediatria* so that they will be able to take advantage of the information it contains.

Google Desktop Search provides an option by which local results are automatically added to internet results when it is running in the background. This means that the *JPED* corpus would be integrated into the every-day research of its users. Any time that the words that users searched for (in Portuguese or English) were in the corpus, *GDS* would add those results to the top of the results list, thereby very often providing the user with bilingual usage examples.

The major drawback to using a corpus as a resource of this type, whether for translation or language acquisition, is one that is shared with dictionaries. If an example is not present in the corpus or the dictionary then a different solution must be sought.

Corpus for studying translation

While the analysis of the translations and their correspondence with non-translated usage has yielded results in terms of a list of “confirmed” uses of the structures investigated, these results cannot be generalized. They demonstrate the usage specifically of the words investigated, exhaustively, but also exclusively. So, while the results can be used as the basis for a hypothesis, the usage of, for example, “cutaneous” and “skin” would have to be investigated before any reliable statements could be made.

Belinda Maia writes that,

Corpora, or at least large quantities of electronic text, are receiving increasing attention as sources of information. It is partly for this reason that domain specialists are quicker to understand the possibilities of specialized corpora than linguists.

(p. 225)

but perhaps the truth is not that they are quicker to understand, but that the possibilities are more immediate. Corpora are proven tools for producing glossaries and dictionaries.

The analyses of the corpora performed here have yielded interesting results that suggest that, at least in the case of medical translation, English translations are more similar to English originals than to the Portuguese texts they were translated from. This observation was reinforced by observations made of figures given for a corpus of texts on hypertension.

A smaller difference than was observed between different languages was observed between translated and original English texts, but not exclusively in a manner that made them more similar to source-language texts. A hypothesis could be formulated by which

issues of translator style and subject domain are considered to be responsible for the differences between texts in the same language.

With reference to the analysis of the usage of specific words in the medical vocabulary, it was possible to observe clearly-defined preferences in usage that were not in all cases similar for translated and non-translated texts and which were specific to the lexical items involved and not the type of structure being employed.

Finally, these results came as a surprise. The expectation had been that either one form or the other would have been shown to be dominant and not that a given form was preferred or not for a given pair of words. This is the best feature of corpus-based investigations, since intuition is not always correct and real usage does surprise us.

Possible future directions

Some interesting avenues for future exploration have been glimpsed during the course of this project. Three of these that appear most inviting are described below.

One difference that stood out between the Brazilian and North American paediatric texts was observed in Chapter 6. The former texts made a great deal more mention of “pulmonary” and “lung” and the latter of “cardiac” and “heart”. As was explained, infant respiratory conditions are of great concern in Brazil and in the United States, heart attacks, hypertension and obesity are all public health problems.

The *World Health Organization* publishes mortality statistics for both Brazil and the United States (2005) broken down by cause of death, age and sex. It would be interesting to isolate words associated with the major causes of death in each country and analyse the relationship between their frequencies of occurrence and the mortality figures.

Another interesting subject for further research is the difference observed in type to token ratio between all of the paediatric subcorpora created for comparison with the *CorTec* corpus and the type to token ratios of the hypertension texts in that corpus. One possible theory to be tested is that the field of hypertension is very much more specialized than paediatrics and so more technical, and more specific, technical vocabulary is used. It would be of interest to select a number of subcorpora from the *JPed* corpus to reflect subject matter and then compare them to see how the change from, for example, critical care to breastfeeding affects the statistical profile of the texts.

The effect that corpus size has on type to token ratio is so great that only corpora of similar sizes can be usefully compared along these lines. A future project might find it useful to produce a sliding-scale of type to token ratio to corpus size for a number of

different genres. This could provide a useful basis for comparison or possibly even disprove the relevance of calculating these ratios.

Finally, the production of the *JPed* and *Pediatrics* corpora has been a very long process, but one which has yielded a resource that can be used repeatedly to provide data to investigate countless hypotheses, and anyway, as Charles Meyer puts it,

doing a corpus analysis will always involve work – more work than sitting in one’s office or study and making up the data

(2002, p. 141).

References

- Amantéa, S.L., J.P. Piva, M. Inajá Zanella, F. Bruno & P.C. Ramos Garcia** (2003) “Acesso rápido à via aérea” in Rio de Janeiro: *Jornal de Pediatria* 2003, 79 (S2) S127-S138
- Asbahr, F.** (2004) “Transtornos ansiosos na infância e adolescência: aspectos clínicos e neurobiológicos” in Rio de Janeiro: *Jornal de Pediatria* 2004, 80 (S1) S28-S34
- Beers, M. & R. Berkow** (eds) (2005) *The Merck Manual of Diagnosis and Therapy*, Internet Edition, USMEDSA @ <http://www.merck.com/mrkshared/mmanual/home.jsp> accessed 12/06/2005
- Berber Sardinha, T.** (2002) “Corpora eletrônicos na pesquisa em tradução”, in: **Tagnin, S. E. O.** (Org.). *Cadernos de Tradução: Corpora e Tradução*. Florianópolis: NUT, 2002, v. 1, n. 9, p. 15-59
- Berber Sardinha, T.** (2004) *Linguística de Corpus*, Barueri, SP: Manole
- Biber, D., S. Conrad & R. Reppen** (1998) *Corpus Linguistics: investigating language structure and use*, Cambridge: Cambridge University Press.
- Bowker, L. & J. Pearson** (2002) *Working with Specialized Language - A practical guide to using corpora*, London/New York: Routledge.
- Caporrino Castanho, R.M. & L. Latarini Ginezi,** (2005) *CorTec Hypertension Corpus* @ <http://www.nilc.icmc.usp.br/%7Emike/cortec/isobre.html> accessed 12/08/2005
- Carlos Costa, W.** (2001) “Traduzindo com a Internet”, in Loni **Grimm Cabral Pedro de Souza, Ruth E. Vasconcellos Lopes, Emílio Gozze Pagotto** (orgs.) *Linguística e Ensino: Novas Tecnologias*. Blumenau, p. 181-201
- Champollion, Y.** (1999-2003) *Wordfast version 4.22 AG*, available @ <http://www.wordfast.net>
- DC Principles** (2004) *The Washington DC Principles for Free Access to Science*, Washington: DCPrinciples @ <http://www.dcprinciples.org/> accessed 30/06/2005
- Dorland, W.** (2003) *Dorland's Illustrated Medical Dictionary* Internet Edition W.B.Saunders @ http://www.mercksource.com/pp/us/cns/cns_hl_dorlands.jsp accessed 12/06/2005
- Dunning, T.** (1993) *Accurate Methods for the Statistics of Surprise and Coincidence*, in *Computational Linguistics*, Volume 19, number 1, pp. 61-74. accessed @ <http://www.comp.lancs.ac.uk/ucrel/papers/tdstats.pdf> on 06/12/2004
- Eriksson, M. & W. Beroux** (2004) *Rename-It!* 3.22, SourceForge, downloaded @ <https://sourceforge.net/projects/renameit/> 27/08/2004

- Evans, N.** (2005) *TweakGDS*, Podsync downloaded @ <http://www.podsync.com/> 15/05/2005
- Frankenberg-Garcia, A. & D. Santos** (2002) COMPARA, um corpus paralelo de português e inglês na Web, in: **Tagnin, S. E. O.** (Org.). *Cadernos de Tradução: Corpora e Tradução*. Florianópolis: NUT, 2002, v. 1, n. 9, p. 61-79.
- Google Inc.** (2005) *Google Desktop Search*, Google Inc. downloaded @ <http://desktop.google.com/index.html> 15/05/2005
- Grass, G.** (1987) *The Rat* (translation of *Die Rättin* into English by Ralph Manheim), Orlando: Harcourt Brace & Company
- Gray, H.** (1918 [20th edition, 2000]) *Anatomy of the Human Body*. Philadelphia: Lea & Febiger, 1918; Bartleby.com, 2000. www.bartleby.com/107/ accessed 12/06/2005
- Halliday, M.A.K & Z.L. James** (1993) "Polarity and Primary Tense in the Finite Clause" in **Fox, G., M. Hoey & J.M. Sinclair** (eds) *Techniques of Description: Spoken and Written Discourse*, London: Routledge, 32-66.
- Health InterNetwork** (2001) *About HINARI*, Health InterNetwork @ <http://www.healthinternetwork.org/src/eligibility.php> accessed 30/06/2005
- Hönig, H.G.** (1997) "Translating the Constructive Way", in **Lorscher, W.** (Ed.) *Ilha do Desterro*, no.33, p.39-53, Florianópolis: Editora da UFSC
- Hunston, S.** (2002) *Corpora in Applied Linguistics*, Cambridge: Cambridge University Press
- Kußmaul, P.** (1997) "Functional Approaches in Translation Studies in Germany", in **Lorscher, W.** (Ed.) *Ilha do Desterro*, no.33, p.25-38, Florianópolis: Editora da UFSC
- Lara, D.** (2004) *Temperamento forte e bipolaridade: dominando os altos e baixos do humor*, Porto Alegre: Amazem de Imagens
- Maia, B.** (2002) "Do-it-yourself, disposable, specialised mini corpora – where next?: Reflections on teaching translation and terminology through corpora", in: **Tagnin, S.E.** (Org.). *Cadernos de Tradução: Corpora e Tradução*. Florianópolis: NUT, 2002, v. 1, n. 9, p. 219-234.
- McEnery, T. & A. Wilson** (1993) *Corpora and Translation: Uses and Future Prospects*, UCREL Technical Papers, University of Lancaster
- Merck & Co Inc** (2005) *The Merck Manuals* @ <http://www.merck.com/pubs/> accessed 12/06/2005
- Meyer, C.** (2002) *English Corpus Linguistics: An Introduction*, Cambridge: Cambridge University Press.
- Microsoft Corporation** (1995-2004) *Microsoft Internet Explorer, 6.0.2900.2180.xpsp_sp2.gdr.050301-1519* downloaded via *Windows Update*, 04/08/2004, Richmond: Microsoft
- Microsoft Corporation** (1983-1999) *Microsoft Word 2000 9.0.3821 SR-1*, Richmond: Microsoft

- Microsoft Corporation** (1987-1999) *Microsoft Visual Basic 6.0 8714*, Richmond: Microsoft
- Microsoft Corporation** (1981-2001) *Microsoft Windows Version 5.1 Build 2600.xpsp_sp2.gdr.050301-1519: Service Pack 2*, Richmond: Microsoft
- National Institutes of Health** (2005a) *MedlinePlus*, National Library of Medicine @ <http://medlineplus.gov/> last accessed 12/06/2005
- National Institutes of Health** (2005b) *PubMed*, National Library of Medicine @ <http://www.pubmedcentral.nih.gov/> last accessed 14/07/2005
- Nord, C.** (1997) “Defining Translation Functions: The Translation Brief as a Guideline for the Trainee Translator”, in **Lorscher, W.** (Ed.) *Ilha do Desterro*, no.33, p.39-53, Florianópolis: Editora da UFSC
- Olohan, M.** (2004) *Introducing Corpora in Translation Studies*, London: Routledge
- Pediatrics** (2005a) *Pediatrics – About the Journal*, @ <http://pediatrics.aappublications.org/misc/about.shtml> last accessed 03/07/2005
- Pediatrics** (2005b) *Pediatrics – Terms and Conditions for Use*, @ <http://pediatrics.aappublications.org/misc/terms.shtml> accessed 13/03/2005
- Procianoy, R.S.** (2003) “O Jornal de Pediatria para o mundo” in Rio de Janeiro: *Jornal de Pediatria* 2003, 79 (6) 475
- RALI** (2001-5) *TranSearch*, Montreal: RALI
- Rayson, P. & R. Garside** (2000) “Comparing corpora using frequency profiling” in *Proceedings of the workshop on [Comparing Corpora](#)*, held in conjunction with the 38th annual meeting of the *Association for Computational Linguistics (ACL 2000)*. 1-8 October 2000, Hong Kong, pp. 1 – 6, accessed @ http://www.comp.lancs.ac.uk/computing/users/paul/publications/rg_acl2000.pdf on 05/12/2004
- Roche, X. & Y. Philippot** (1998-2003) *WinHTTrack Website Copier*, downloaded @ <http://www.httrack.com/> 15/05/2005
- Rundell, M.** (ed.) (2002) *Macmillan English Dictionary for Advanced Learners of American English*, Oxford: Macmillan
- Salgado, C.M & J.A.T. Carvalhaes** (2003) “Hipertensão arterial na infância” in Rio de Janeiro: *Jornal de Pediatria*, 2003 79 (S1) S115-S124
- Santos, D., A. Frankenberg-Garcia, R. Silva & S. Inácio** (2005 [latest update]) *Dispara*, Braga, Lisbon, Oslo, Porto: Linguateca
- Scott, M.** (1999-2004) *Oxford Wordsmith Tools, 4.0.0.200*, Oxford: OUP
- Sinclair, J.M.** (1991) *Corpus, Concordance, Collocation*, Oxford: OUP
- Sinclair, J.M.** (ed.) (1995) *Collins COBUILD English Dictionary*, London: HarperCollins

- Sociedade Brasileira de Pediatria** *About JPed*, @ <http://www.iped.com.br/ing/expediente.asp> accessed on 15/11/2004
- The Centers for Disease Control and Prevention** (2001) *The Bad Bug Book* at <http://www.cfsan.fda.gov/~mow/intro.html> accessed 12/06/2005
- Thomson Scientific** (2005) *The impact factor – ISI Thomson Scientific* @ <http://scientific.thomson.com/knowtrend/essays/journalcitationsreports/impactfactor/> accessed 03/07/2005
- Uitenbroek, D.G.** (1997). *Two by Two Tables*, Southampton: SISA <http://home.clara.net/sisa/two2hlp.htm#Yates> (accessed 24/11/2004)
- Uitenbroek, D.G.** (1989). *Two by Two Table Calculator*, Southampton: SISA <http://home.clara.net/sisa/two2.htm> (accessed 24/11/2004)
- University of Kansas Medical Library** (2005) *Medical Dictionaries* @ <http://library.kumc.edu/omrs/Dictionary/dictmed.htm> accessed 12/06/2005
- Vasconcelos, M.** (2004) “Retardo mental” in Rio de Janeiro: *Jornal de Pediatria* 2004, 80 (S1) S71-S82
- Wimmer, F. (ed.)** (1983) *Michaelis Dicionário Ilustrado Volume II Português–Inglês*, São Paulo: Melhoramentos
- Woolls, D.** (1994-1998) *MultiConcord*, Odiham: CFL Software Development
- World Health Organization** (2005) *WHO Mortality Database* @ <http://www3.who.int/whosis/menu.cfm?path=whosis.mort&language=english> accessed 12/06/2005
- World Health Organization** (1994-2003) *International Classification of Diseases: ICD-10* @ <http://www.who.int/classifications/en/> accessed 12/06/2005
- World Medical Association** (1949 [revised 1983]) *World Medical Association International Code of Medical Ethics*, London: WMA @ <http://www.wma.net/e/policy/c8.htm> accessed 30/06/2005
- World Medical Association** (1948 [revised 2005]) *Declaration of Geneva* Geneva: WMA @ <http://www.wma.net/e/policy/c8.htm> accessed 30/06/2005

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The Genetics of Autism

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Educating Pediatricians on Children's Oral Health: Past, Present, and Future

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To Tap or Not to Tap: High Likelihood of Meningitis Without Sepsis Among Very Low Birth Weight Infants

Ian Janssen, Wendy M. Craig, William F. Boyce, and William Pickett

Associations Between Overweight and Obesity With Bullying Behaviors in School-Aged Children

William H. Edwards, Jeanette M. Conner, Roger F. Soll, and for the Vermont Oxford Network Neonatal Skin Care Study Group

The Effect of Prophylactic Ointment Therapy on Nosocomial Sepsis Rates and Skin Integrity in Infants With Birth Weights of 501 to 1000g

Appendix C – Tabulated results from *JPed*

Terms using <i>pulmonar</i> or <i>pulmonares</i> and their translations		No. instances		
		zero	pul	lung
agressão pulmonar	pulmonary aggression		1	
água extravascular pulmonar	pulmonary extravascular water		1	
alto fluxo pulmonar	pulmonary high flow		2	
amadurecimento pulmonar	improvement of pulmonary function		1	
ambiente inflamatório pulmonar	pulmonary inflammatory milieu		1	
anormalidades vasculares pulmonares	pulmonary vascular abnormalities		1	
áreas pulmonares dependentes da gravidade	gravitationally-dependent lung regions			1
áreas pulmonares sadias	healthy areas	1		
arquitetura pulmonar	pulmonary architecture		2	
artéria pulmonar	pulmonary artery		13	
artérias pulmonares	pulmonary arteries		1	
atividade vasodilatadora (...) pulmonar	act as (...) pulmonary vasodilators		6	
ausculta pulmonar	pulmonary auscultation		3	
	auscultation pulmonary		1	
biópsia pulmonar	pulmonary biopsy		1	
campos pulmonares	pulmonary lobes		4	
capacidade pulmonar total	total lung capacity			1
cascata inflamatória pulmonar	lung inflammatory cascade			1
cicatrização pulmonar	lung healing			1
cintilografia pulmonar inalatória	pulmonary inhalation scintigraphy		1	
circulação pulmonar	pulmonary circulation		4	
colapso pulmonar	pulmonary collapse		1	
complacência pulmonar	lung compliance			7
	pulmonary compliance		9	
componente pulmonar	pulmonary component		1	
comprometimento pulmonar	compromised lungs			1
	pulmonary involvement		1	
concentração pulmonar	pulmonary concentration		1	
congestão pulmonar crônica	lung congestion			1
crescimento pulmonar	pulmonary growth		1	
crise vascular pulmonar aguda	acute pulmonary vascular crises		1	
dano histopatológico pulmonar	microscopic lung injury			1
dano oxidativo pulmonar	oxidative lung damage			1
	oxidative pulmonary damage		2	
	pulmonary oxidative damage		1	
dano pulmonar	pulmonary injury		3	
	lung injury			1
	lung damage			1
dano pulmonar agudo	acute pulmonary damage		1	
dano pulmonar oxidativo	oxidative pulmonary damage		1	
dano tecidual pulmonar	pulmonary tissue damage		1	
defesas pulmonares	pulmonary defenses		1	

deposição pulmonar	pulmonary deposition		23	
	pulmonary (...) deposition		1	
	pulmonary deposit pattern		1	
	lung deposition			4
	is deposited in the lungs			1
	being deposited inside the lungs			1
	<i>NOT TRANSLATED</i>	1		
deterioração pulmonar	lung deterioration			1
disponibilidade pulmonar	pulmonary availability		1	
distúrbios pulmonares doença pulmonar	pulmonary disorders		1	
	lung disease			13
	lung pathology			1
	pulmonary disease		3	
doença pulmonar aguda	acute pulmonary disease		1	
doença pulmonar crônica	chronic lung disease			5
	obstructive lung disease			1
	chronic pulmonary disease		5	
doença pulmonar obstrutiva aguda	acute obstructive pulmonary disease		1	
doença vascular pulmonar	pulmonary vascular disease		1	
doença pulmonar obstrutiva crônica	chronic obstructive pulmonary disease		2	
	chronic obstructive lung disease			2
doenças infecciosas pulmonares agudas	acute infectious pulmonary diseases		1	
doenças pulmonares	lung diseases			2
drenagem anômala de veias pulmonares	anomalous pulmonary vein drainage		1	
edema pulmonar	pulmonary edema		5	
efeito vasodilatador pulmonar	pulmonary vasodilatory effect		1	
endotélio pulmonar	pulmonary endothelium		1	
enfisema intersticial pulmonar	interstitial pulmonary emphysema		2	
envolvimento pulmonar	pulmonary involvement		2	
	lung involvement			1
escore histopatológico pulmonar	pulmonary injury score		1	
estenose pulmonar	pulmonary stenosis		9	
estratégias de ventilação pulmonar protetoras	lung protective ventilation strategies			1
estratégias protetoras pulmonares	lung protective strategies			1
estruturas pulmonares	alveoli	1		
falência pulmonar aguda	acute pulmonary failure		1	
fibrose pulmonar	pulmonary fibrosis		5	
fluxo pulmonar alto	high pulmonary flow		1	
fluxo sanguíneo pulmonar	pulmonary blood flow		1	
forma pulmonar	pulmonary form		1	
formas pulmonares	pulmonary manifestations		1	
função pulmonar	pulmonary function		15	
	lung function			2
hemorragia pulmonar	pulmonary hemorrhage		3	
hilo pulmonar	pulmonary hilum		1	
hiperdistensão pulmonar	pulmonary hyperdistension		1	
hipertensão pulmonar	pulmonary hypertension		34	

	lung hypertension			1
hipertensão pulmonar primária	primary pulmonary hypertension		3	
hipofluxo pulmonar	low pulmonary blood flow		1	
	low pulmonary flow		1	
hipoplasia pulmonar	pulmonary hypoplasia		3	
imaturidade (...) bioquímica pulmonar	biochemical immaturity	1		
imaturidade pulmonar	pulmonary immaturity		1	
	lung immaturity			4
índice pulmonar	pulmonary (...) indices		1	
	pulmonary indicators		1	
infecção pulmonar	pulmonary infection		2	
	lung infection			1
infecções pulmonares secundárias	secondary pulmonary infections		2	
infiltrados pulmonares bilaterais	bilateral pulmonary infiltrates		1	
injúria pulmonar	lung injury			1
insuflação pulmonar	pulmonary inflation		2	
lavagem pulmonar	lung lavage			1
	bronchoalveolar lavage	1		
	pulmonary lavage		7	
leito capilar pulmonar	pulmonary capillary bed		1	
lesão pulmonar	lung injury			20
	pulmonary injury		3	
	pulmonary lesion		3	
	pulmonary lesions		3	
	<i>NOT TRANSLATED</i>	1		
lesão pulmonar aguda	acute lung injury			13
	acute pulmonary lesions		2	
lesão pulmonar iatrogênica	iatrogenic lung injury			1
lesão pulmonar primária	primary pulmonary lesion		1	
lesões pulmonares	pulmonary lesions		1	
malformação (...) pulmonar	pulmonary (...) malformations		1	
malformações (...) pulmonares	pulmonary malformations		1	
malformações pulmonares	pulmonary malformations		2	
manifestações pulmonares	pulmonary manifestations		1	
mecânica pulmonar	pulmonary mechanics		3	
	mechanics of the pulmonary system		1	
	pulmonary mechanical behavior		1	
metástases pulmonares	pulmonary metastases		1	
microvasculatura pulmonar	pulmonary microvasculature		1	
morbidade pulmonar	pulmonary morbidity		1	
neutrófilos pulmonares	pulmonary neutrophils		1	
nível pulmonar	pulmonary level		1	
	the lungs			1
NO pulmonar	pulmonary NO		1	
parênquima pulmonar	lung parenchyma			1
	pulmonary parenchyma		3	
participação pulmonar	pulmonary involvement		1	
patologia pulmonar subsequente	subsequent pulmonary pathology		1	

penetração pulmonar	pulmonary penetration		1	
perfusão pulmonar	pulmonary perfusion		1	
permeabilidade (...) endotelial pulmonar	endothelial pulmonary permeability		1	
permeabilidade epitelial (...) pulmonar	epithelial (...) pulmonary permeability		1	
pressão arterial pulmonar	pulmonary artery pressure		1	
	pulmonary arterial pressure		1	
pressão capilar pulmonar	pulmonary capillary pressure		3	
pressão capilar da artéria pulmonar	pulmonary capillary wedge pressure		1	
pressão vascular pulmonar	pulmonary vascular pressure		1	
pressões pulmonares	pulmonary pressures		1	
problemas pulmonares	pulmonary problems		4	
processo inflamatório pulmonar	pulmonary inflammatory process		1	
processos pulmonares graves	severe pulmonary conditions		1	
produção pulmonar endógena	endogenous pulmonary production		1	
proteção pulmonar	pulmonary protection		1	
ramos pulmonares	pulmonary branches		2	
rebaixamento pulmonar	pulmonary drift		1	
recrutamento pulmonar	pulmonary recruitment		3	
	lung recruitment			1
recrutamento pulmonar progressivo	progressive pulmonary recruitment		1	
região pulmonar dependente	gravitationally (...) dependent lung region			1
	dependent lung regions			1
região pulmonar não dependente	gravitationally non-dependent lung region			1
relaxamento vascular pulmonar	pulmonary vascular relaxation		1	
repercussões pulmonares	pulmonary complications		1	
reserva (...) pulmonar	pulmonary (...) reserves		1	
resistência arterial pulmonar	pulmonary arterial resistance		1	
resistência vascular (...) pulmonar	pulmonary vascular resistance		2	
resistência vascular pulmonar	pulmonary vascular resistance		2	
resistência vascular pulmonar lábil	labile pulmonary vascular resistance		1	
resistências vasculares (...) pulmonar	pulmonary vascular pressure		1	
resposta pulmonar	pulmonary response		1	
retorno venoso pulmonar anômalo total	total anomalous pulmonary venous return		2	
	TAPVR	1		
segmentos pulmonares	lung segments			2
	pulmonary segments		1	
seqüestro pulmonar	pulmonary (...) sequestration		1	
sibilância pulmonar	pulmonary wheezing		1	
	wheezing	1		
síndrome idiopática pulmonar	idiopathic pulmonary syndrome		1	
síndrome pulmonar hipertensiva	hypertense pulmonary syndrome		1	
sistema pulmonar	pulmonary system		1	
sistema pulmonar imaturo	immature pulmonary system		1	
sopro (...) de ejeção pulmonar	pulmonary ejection murmur		3	
sopro de ramos pulmonares	pulmonary branch murmur		2	
sopro pulmonar	pulmonary murmur		1	
surfactante pulmonar	pulmonary surfactant		3	
surfactante pulmonar exógeno	exogenous surfactant	1		

tecido pulmonar	pulmonary tissues		1	
transplante pulmonar	lung transplantation			1
tromboembolismo pulmonar	pulmonary thromboembolism		1	
tuberculose pulmonar	pulmonary tuberculosis		1	
unidades pulmonares	lung units			1
valvas semilunares (...) pulmonar	semilunar valves (...) pulmonary		2	
vasculatura pulmonar	pulmonary vasculature		5	
vasoconstrição hipóxica pulmonar	hypoxic pulmonary vasoconstriction		4	
vasoconstrição pulmonar	pulmonary vasoconstriction		1	
vasodilatador pulmonar seletivo	selective pulmonary vasodilator		4	
vasodilatadores pulmonares	pulmonary vasodilators		1	
veias pulmonares	pulmonary veins		2	
ventilação mecânica pulmonar	pulmonary mechanical ventilation		2	
ventilação pulmonar	pulmonary ventilation		2	
ventilação pulmonar mecânica	mechanical pulmonary ventilation		28	
	pulmonary mechanical ventilation		1	
	mechanical ventilation	5		
	ventilated	1		
	intubation	1		
	<i>NOT TRANSLATED</i>	1		
volume pulmonar adequado	appropriate lung volume			1
volumes pulmonares	adequate pulmonary volume		1	
	pulmonary volumes		1	
	pulmonary volume		1	
		17	369	106
			492	

Terms using <i>renal</i> or <i>renais</i> and their translations		No. instances		
		zero	ren	kid
alterações (...) renais	renal alterations	1		
alterações renais	renal conditions		2	
anormalidades renais congênicas	congenital renal abnormalities		2	
arteria renal	renal artery		1	
arteriografia renal	renal arteriography		1	
capacidade renal	renal capacity		1	
causas (...) renais	reasons (...) renal		1	
células renais	kidney cells			1
cicatriz renal	renal scarring		46	
	renal scars		2	
	renal scar		2	
	scarring	1		
cicatrices renais	renal scarring		19	

	renal scars		14	
	scars	1		
cintilografia renal	renal scintigraphy		14	
cintilografias renais	renal scintigraphies		1	
comprometimento renal crônico	chronic renal damage		1	
crescimento renal	renal growth		2	
dano isquêmico renal	ischaemic renal damage		1	
dano renal crônico	chronic renal damage		5	
déficit funcional renal	impaired renal function		1	
desenvolvimento renal	renal development		1	
deslocamento renal	renal dislocation		1	
disfunção renal	renal dysfunction		1	
displasia renal	renal dysplasia		4	
doença renal	renal disease		1	
doenças (...) renais	kidney diseases			2
doenças renais	renal disease		1	
	renal (...) disease		1	
	kidney diseases			1
dose "renal"	"renal" doses		1	
duplicação renal	renal duplication		1	
eliminação renal	renal elimination		3	
	renal (...) elimination		2	
	kidneys (...) eliminate it			1
envolvimento renal	renal involvement		1	
estenose de artéria renal	renal artery stenosis		1	
etiologia renal	renal etiology		1	
exclusão renal	renal failure		2	
exclusão renal ipsilateral total	total ipsilateral renal exclusion		1	
excreção renal	renal excretion,		6	
excreção renal baixo	low renal excretion		1	
fluxo sanguíneo renal	renal blood flow		1	
função renal	kidney function			1
	renal function		5	
	renal (...) functions		1	
	renal (...) function		1	
função renal debilitada	poor renal function		1	
função renal global	global renal function		1	
função renal ipsilateral desprezível	negligible ipsilateral renal function		1	
funções (...) renal	renal functions		1	
hipoplasia renal	renal (...) hypoplasia	1		
insuficiência (...) renal	renal insufficiency		5	
insuficiência renal	renal deficiency		3	
	renal insufficiency		13	
	acute renal insufficiency		2	
insuficiência renal aguda	acute (...) renal insufficiency		1	
	acute renal failure		2	
	chronic renal insufficiency		1	
insuficiência renal crônica	chronic renal failure		4	

insuficiências renal	renal (...) insufficiencies		1	
lesão renal	kidney damage			1
	renal lesion		2	
	renal lesions		1	
lesões renais	renal lesions		2	
massa renal	kidney mass			1
massa renal ipsilateral	ipsilateral renal mass		1	
metabolização (...) renal	renal metabolism		1	
parênquima renal	renal parenchyma		12	
pelve renal inferior	lower renal pelvis		1	
perda renal	renal loss		1	
perdas renais	renal (...) loss			
problemas (...) renais	renal disorders		1	
remanescente renal	renal remnant		1	
segmento renal inferior	lower renal segment		1	
segmento renal remanescente	remaining renal segmen		3	
segmentos renais remanescentes	remaining renal segments		1	
segmentos renais superiores	upper renal segments		1	
sistema renal	renal system		1	
substituição renal	renal replacement		1	
sutura renal	renal suture		1	
toxicidade renal	renal toxicity		1	
toxicidade renal grave	severe renal toxicity		1	
toxicidades (...) renal	renal toxicity		1	
toxicidades renal	renal (...) toxicity		1	
transplante renal	kidney transplant			1
trombose de artéria renal	renal artery thrombosis		1	
trombose venosa renal	renal venous thrombosis;		1	
túbulos renais	renal tubules		1	
ultra-sonografia renal	renal ultrasound		1	
	renal (...) ultrasound		1	
	ultrasound	1		
unidades renais	renal units		3	
	individual kidneys			1
vasoconstrição (...) renal	renal (...) vasoconstriction		1	
vasodilatação periférica renal	renal , (...) and peripheral vasodilation		1	
veia renal	renal vein		1	
veias renais	renal veins		1	
via renal	by the kidneys			1
		5	238	11
			254	

Terms using <i>cardíaco/a/os/as</i> and their translations		No. instances		
		zero	card	hear
anomalias cardíacas não verificadas	undiscovered cardiac anomalies		1	
área cardíaca	cardiac area		1	
arritmias cardíacas	cardiac arrhythmia		4	
	cardiac arrhythmias		3	
ausculta cardíaca	cardiac auscultation		11	
	auscultation	2		
baixo débito cardíaco	low cardiac output		8	
	cardiac output (...) low		1	
batimentos cardíacos	heart rate			1
bloqueio cardíaco congênito	congenital heart block			1
borda cardíaca inferior	lower cardiac border		1	
bulhas cardíacas	heart sounds			1
câmaras cardíacas	heart chamber			1
	heart chambers			2
células (...) cardíacas	cardiac cells		1	
cirurgia cardíaca	heart surgery			8
	cardiac surgery		5	
	operation on (...) heart			1
	operation	1		
cirurgia cardíaca radical	radical heart surgery			2
complicações (...) cardíacas	cardiac disorders		1	
comprometimento cardíaco	cardiac involvement		1	
condução cardíaca	cardiac conduction		2	
condução elétrica cardíaca	electrical transmission system	1		
contratilidade cardíaca	cardiac contractility		1	
débito cardíaco	cardiac output		16	
débito cardíaco maior	higher cardiac output		1	
defeitos cardíacos congênitos	congenital cardiac defects		1	
disfunção cardíaca	cardiac dysfunction		2	
doença cardíaca	cardiac disease		1	
doenças cardíaca	heart diseases			1
	cardiac (...) diseases		1	
doença cardíaca adquirida	acquired cardiac disorder		1	
doença cardíaca congênita	congenital heart disease			8
doença cardíaca congênita cianótica	cyanotic congenital cardiac disease		1	
doença cardíaca congênita grave	severe congenital heart disease			1
doença cardíaca isquêmica	ischaemic heart disease			1
doença (...) grave cardíaca	severe disorder, (...) cardiac		1	
duplo contorno cardíaco	double cardiac contour		1	
efeitos cardíacos	cardiac effects		1	
eixo cardíaco	cardiac axis		1	
estimulação cardíaca	cardiac stimulation		1	
estruturas cardíacas	cardiac structures		1	
	cardiac structure		1	
eventos cardíacos	cardiac events		1	

eventos cardíacos ameaçadores	threatening cardiac events		1	
falência cardíaca direita	right side cardiac failure		1	
	right-side heart failure			1
falência cardíaca esquerda grave	severe left-side heart failure			1
frequências (...) cardíaca	heart rates			1
frequência (...) cardíaca	cardiac rate		1	
frequência cardíaca	cardiac rate		7	
	heart rate			18
	heart beat			1
frequências cardíacas	heart rates			1
função cardíaca	cardiac function		1	
função cardíaca diminuída	diminished cardiac function		1	
função cardíaca direita	right-side cardiac function		1	
hipertrofia cardíaca	cardiac hypertrophy		2	
	cardiac (...) hypertrophy		1	
hipertrofia cardíaca crônica,	chronic heart hypertrophy			1
impulsões cardíacas	heart pumps			1
	cardiac pumps		1	
índice cardíaco	cardiac index		4	
insuficiência cardíaca	cardiac failure		4	
	cardiac deficiency		1	
	heart failure			8
insuficiência cardíaca avançada descompensada	advanced refractory cardiac failure		1	
insuficiência cardíaca avançada e descompensada	advanced refractory heart failure			1
insuficiência cardíaca avançada	advanced cardiac failure		1	
insuficiência cardíaca congestiva	congestive heart failure			2
	congestive cardiac insufficiency		1	
insuficiência cardíaca crônica	chronic heart failure			2
lesão cardíaca prévia	previous cardiac lesions		1	
	previous cardiac lesion		1	
lesões cardíacas	cardiac lesions		1	
lesões cardíacas congênitas	congenital cardiac lesions		2	
lesões cardíacas prévias.	previous cardiac lesions		1	
malformação cardíaca	cardiac malformations		1	
malformações cardíacas	cardiac malformations		2	
massagem cardíaca	cardiac massage		2	
miócito cardíaco	cardiac myocyte		1	
monitor cardíaco	heart monitor			1
monitoramento cardíaco criterioso	heart parameters (...) closely monitored			1
monitorização cardíaca	cardiac monitoring		1	
	heart monitoring			1
mortalidade cardíaca	cardiac mortality		1	
músculo cardíaco	cardiac muscle		1	
	heart muscle			1
origem cardíaca	cardiac		1	
parada cardíaca	cardiac arrest		4	
parada cardíaca repentina	sudden cardiac arrest		1	
pedículo cardíaco	pedicle	1		

pós-cirurgia cardíaca	post- heart surgery			1
pós-operatório cardíaco	post-operative care followin g cardiac surgery		1	
problemas cardíacos	cardiac (...) diseases		1	
processos inflamatórios cardíacos	cardiac inflammatory processes		1	
receptores adrenérgicos cardíacos	myocardial adrenergic receptors	1		
receptores adrenérgicos cardíacos β 1	myocardial β 1 (...) adrenergic receptors	1		
receptores beta-2 cardíacos	myocardial beta-2 receptors	1		
receptores cardíacos	myocardial (...) receptors			
receptores cardíacos 2	myocardial β 2 receptors	1		
receptores cardíacos β 1 bloqueados	myocardial β 1 receptors are blocked	1		
rendimento cardíaco	cardiac output		1	
repercussões cardíacas comparáveis	effects comparable	1		
ritmo cardíaco	rhythm	1		
	heart beat			2
	cardiac rhythm		3	
seqüelas cardíacas	cardiac sequelae		1	
silhueta cardíaca	cardiac silhouette		4	
sons cardíacos anormais	normal cardiac sounds		1	
sopro cardíaco	heart murmur			3
sopro cardíaco inocente	innocent heart murmur			1
	innocent murmur	1		
sopro cardíaco sistólico rude	intense systolic heart murmur			1
sopros cardíacos inocentes	innocent heart murmurs			2
tamanho cardíaco	cardiac size		1	
tamponamento cardíaco	cardiac tamponade		3	
transplante cardíaco	heart transplantation			5
	heart (...) transplantation			1
	heart transplant			2
	heart transplants			1
	cardiac transplantation		1	
válvulas cardíacas	heart valves			2
		13	141	91
			245	

Terms using <i>hepático/a/os/as</i> and their translations		No. instances		
		zero	hep	liver
abscesso hepático	liver abscess			2
acometimento hepático	liver involvement			1
	affected liver			1
	hepatic involvement		1	
	hepatopathy	1		
acometimento hepático intenso,	severe hepatopathy	1		
alterações hepáticas	hepatic abnormalities		1	
	liver (...) abnormalities			1
	liver abnormality			1
alterações hepáticas iniciais	early-stage liver abnormalities			1
anormalidades hepáticas	liver abnormality			1
atrofia hepática	atrophy of the liver			1
biópsia hepática	liver biopsy			11
	liver biopsies			1
bioquímica hepática	hepatic biochemistry		1	
borda hepática	liver edge			3
	hepatic (...) edge		3	
captação hepática	hepatic capture		1	
células hepáticas	liver (...) cells			1
colestase hepática	hepatic cholestasis		1	
comprometimento hepático	liver involvement			2
	liver compromise			1
	hepatic involvement		1	
conjugação hepática	hepatic conjugation		1	
DECH hepática	hepatic GVHD		1	
	hepatic (...) GVHD		1	
DECH hepática isolada grave	severe hepatic GVHD in isolation		1	
disfunção hepática mínima	minimal hepatic function		1	
doença hepática crônica	chronic liver disease			2
doença hepática significativa	significant hepatic disease		1	
doença venooclusiva hepática grave	severe hepatic venoocclusive disease		1	
doença(...) hepática	liver (...) disease			1
doenças (...) hepáticas	hepatic diseases		1	
doenças hepáticas	liver (...) diseases			3
ducto hepático	hepatic duct		3	
	ducts	1		
ducto hepático comum	common hepatic duct		1	
ductos (...) hepático comum	common hepatic duct		1	
ductos hepático comum	common hepatic duct		1	
eliminação (...) hepática	eliminated by the liver			1
eliminação hepática	hepatic elimination		1	
envolvimento hepático	liver involvement			3
enzima peroxissômica hepática não processada	unprocessed peroxisomal hepatic enzyme		1	
enzimas hepáticas	hepatic enzymes		3	

esteatose hepática	hepatic steatosis		2	
falência hepática	liver failure			1
fibrogênese hepática	liver fibrosis			1
fluxo sanguíneo hepático	hepatic blood flow		2	
	liver blood flow			2
função hepática	hepatic function		1	
	liver function			2
função hepática alterada	liver dysfunction			1
função hepática imatura	immature (...) liver function			1
funções hepática	hepatic (...) functions		1	
glucuronização hepática	hepatic glucuronidation		1	
histopatologia hepática	liver histopathology			1
	liver histology			1
imaturidade (...) hepática	hepatic (...) immaturity		1	
infiltração hepática	liver infiltration			1
insuficiência hepática	hepatic deficiency		1	
	hepatic insufficiency		1	
	liver deficiencies			1
	liver failure			6
insuficiência hepática aguda	acute liver failure			3
insuficiências (...) hepática	hepatic insufficiencies		1	
intoxicação hepática lesão hepática	liver toxicity			1
	hepatic lesions		1	
	hepatic lesions		1	
lipogênese hepática	hepatic lipogenesis		1	
lobo direito hepático	right hepatic lobule		2	
lóbulos hepáticos	hepatic lobules		1	
maior metabolismo hepático	increased liver metabolism			1
material hepático	hepatic material		1	
metabolismo (...) hepático	metabolism (...) hepatic		1	
metabolismo hepático	hepatic metabolism		2	
metabolização hepática	hepatic (...) metabolism		1	
necrose hepática	liver necrosis			1
necrose maciça hepática	massive liver necrosis			1
parênquima hepático	hepatic parenchyma		3	
	parenchymal	1		
passagem hepática	passing the liver			1
produção hepática	hepatic (...) production		3	
	production (...) by the liver			1
radículas hepáticas	hepatic radicles		1	
rápida inativação hepática	rapidly deactivated by the liver			1
reservas hepáticas	liver (...) stores			1
	hepatic reserves		1	
síntese hepática	hepatic (...) synthesis		1	
síntese protéica hepática	hepatic protein C synthesis		1	
tecidos hepáticos	hepatic tissues		1	
toxicidade hepática	hepatic toxicity		1	
toxicidades (...) hepática	hepatic (...) toxicity		1	

	hepatic toxicity		1	
toxicidades hepática	hepatic (...) toxicity		1	
trama fibrosa hepática	fiber-like tissue of the liver			1
trama hepática	tissue covering the liver			1
transplante hepático	liver transplants			3
transplante hepático pediátrico	pediatric liver transplant indications			1
variáveis histopatológicas hepáticas	histopathological hepatic variables		1	
		4	66	73
			140	

Appendix D – Tabulated results from *Pediatrics*

	Terms using <i>pulmonary</i> in <i>Pediatrics</i> corpus	No. Instances
1	chronic pulmonary insufficiency	1
2	elevated pulmonary artery pressure	1
3	focal pulmonary infiltrates	1
4	intractable pulmonary failure	1
5	leventhal's pulmonary cluster	1
6	mechanical pulmonary complications	1
7	neonatal pulmonary function	1
8	noncardiogenic pulmonary edema	1
9	normal pulmonary anatomy	1
10	persistent pulmonary hypertension of the newborn	1
11	postnatal pulmonary hypertension	1
12	preexisting pulmonary pathology	1
13	primary pulmonary hypertension	1
14	prolonged elevated pulmonary vascular resistance	1
15	pulmonary (...) disease	1
16	pulmonary aspiration	4
17	pulmonary cluster	1
18	pulmonary compliance	1
19	pulmonary cytokine production	1
20	pulmonary disease	1
21	pulmonary edema	5
22	pulmonary epithelial cell proliferation	1
23	pulmonary function	2
24	pulmonary function characteristics	1
25	pulmonary hypertension	4
26	pulmonary hypoplasia	1
27	pulmonary infections	1
28	pulmonary infiltrates	1
29	pulmonary malformations	1
30	pulmonary maturation	1
31	pulmonary maturity	1
32	pulmonary opacities	1
33	pulmonary shunt	1
34	pulmonary symptoms	1
35	pulmonary tuberculosis	1
36	pulmonary units	1
37	pulmonary vascular tone	1
38	pulmonary vasculature	1
39	pulmonary vasodilator	1
40	pulmonary vasodilators	1
41	relevant pulmonary hypertension	1
42	right-sided pulmonary edema	1

43	severe pulmonary hypertension	1
44	severe pulmonary hypoplasia	1
45	suspected pulmonary hypoplasia	1
46	therapy-resistant pulmonary hypertension	1
47	underlying pulmonary disease	1
48	unilateral pulmonary edema	1
49	unilateral pulmonary edema	1
50	unilateral pulmonary edema	1
	Total	61

	Terms using lung in <i>Pediatrics</i> corpus	No. Instances
1	american lung association asthma alert for teachers	1
2	chemical lung injury	1
3	chronic lung disease	21
4	congenital lung (...) malformation	1
5	critical lung development	1
6	dry lung syndrome	11
7	fetal lung fluid	1
8	heart- lung transplant	2
9	heart- lung transplantation	5
10	iatrogenic lung damage	1
11	impaired lung function	1
12	in utero lung injury	1
13	lung (...) weights	1
14	lung bases	1
15	lung disease	1
16	lung edema	2
17	lung fields	3
18	lung findings	1
19	lung function	4
20	lung hypoplasia	2
21	lung inflation	1
22	lung injury	2
23	lung lavage	2
24	lung maturation	1
25	lung :body weight ratio	1
26	lung -function tests	3
27	national heart, lung and blood institute and us pharmacopoeia	1
28	national heart, lung and blood institute clinical trials committee	1
29	national heart, lung , and blood institute	3

30	national heart, lung , and blood institute (nhlbi) guidelines for the diagnosis and management of asthma	1
31	national heart, lung , and blood institute national research service award	1
32	normal functional residual lung capacity	1
33	normal heart and lung development	1
34	progressive lung condition	1
35	reduced lung volumes	1
36	significantly improved lung function	1
37	the lung association of nova scotia	1
38	total lung capacity	1
39	underlying lung (...) disease	1
Total:		87

Terms using <i>renal</i> in <i>Pediatrics</i> corpus		No. Instances
1	abnormal renal size	1
2	chronic renal failure	1
3	cortical renal scintigraphy	1
4	fetal renal perfusion	1
5	follow-up renal sonography	1
6	follow-up renal ultrasound	1
7	gambro renal products	1
8	hereditary renal disorders	1
9	impaired renal function	1
10	pediatric chronic renal failure	1
11	reduced renal function.	1
12	renal (...) dysfunction	1
13	renal agenesis	1
14	renal dialysis	1
15	renal disease	3
16	renal diseases	1
17	renal duplication	1
18	renal dysfunction	1
19	renal electrolyte excretion	1
20	renal excretion	1
21	renal failure	1
22	renal function	1
23	renal function,	1
24	renal insufficiency	2
25	renal laboratory.	1
26	renal medullary cystic disease	1

27	renal organ dysfunction	1
28	renal salt handling	1
29	renal scarring	3
30	renal scars	1
31	renal section pharmacy	1
32	renal size	1
33	renal size	1
34	renal sonography	2
35	renal sonography	1
36	renal transplantation	1
37	renal tubules	1
38	renal ultrasonography	1
39	renal ultrasound	1
40	renal unit	1
41	renal units	8
42	renal vessels	2
43	renal weight	2
44	subsequent renal tubular dysfunction	1
Total		59

Terms using <i>kidney</i> in <i>Pediatrics</i> corpus		No. Instances
1	kidney (...) complications	1
2	kidney (...) weights	2
3	kidney damage	1
4	kidney diseases (1
5	monkey kidney	1
6	nih-national institute of diabetes and digestive and kidney diseases metabolism study section	1
7	polycystic kidney disease	1
Total		8

Terms using <i>cardiac</i> in <i>Pediatrics</i> corpus		No. Instances
1	acute cardiac emergencies	2
2	adolescent cardiac appointments	2
3	adult cardiac follow-up	1
4	adult sudden cardiac arrest	1
5	benign cardiac rhythms	1
6	cardiac (...) adjustment	1
7	cardiac (...) effects	1
8	cardiac activity	1
9	cardiac anatomy	1
10	cardiac appointments	7
11	cardiac arrest	12
12	cardiac arrest events	1
13	cardiac arrests	3
14	cardiac arrhythmias	1
15	cardiac assessment	1
16	cardiac assessment	2
17	cardiac catheterization	3
18	cardiac causes	1
19	cardiac center-based hospitalizations	2
20	cardiac chambers	1
21	cardiac conducting system	1
22	cardiac conduction	1
23	cardiac conduction delays	1
24	cardiac datacorp	1
25	cardiac deaths	1
26	cardiac defects	1
27	cardiac diagnoses	1
28	cardiac disease	3
29	cardiac dysfunction	3
30	cardiac dysrhythmias	1
31	cardiac echo-doppler	1
32	cardiac effects	1
33	cardiac electrical activity	1
34	cardiac etiology	1
35	cardiac events	1
36	cardiac examination	1
37	cardiac failure	2
38	cardiac follow-up	1
39	cardiac function	4
40	cardiac hypertrophy	2
41	cardiac malposition	1
42	cardiac medical care	1

43	cardiac medications	1
44	cardiac monitoring	1
45	cardiac morphology	1
46	cardiac muscle	1
47	cardiac output	2
48	cardiac patients	1
49	cardiac regulation	1
50	cardiac rhythm	1
51	cardiac rhythm abnormalities	1
52	cardiac rhythm disturbances	3
53	cardiac sequelae	1
54	cardiac source	1
55	cardiac surgeries	1
56	cardiac surgery	3
57	cardiac symptoms	1
58	cardiac syncope	1
59	cardiac syncope	2
60	cardiac transplantation	1
61	cardiac tumors	1
62	characteristic cardiac hypertrophy	1
63	complex cardiac disease	1
64	congenital cardiac abnormality	1
65	congenital cardiac conditions	1
66	conventional cardiac surgery	2
67	conventional cardiac surgery group	3
68	conventional cardiac surgery groups	1
69	conventional cardiac surgery patients	1
70	decreased cardiac contractility	1
71	depressed cardiac output	1
72	diminished cardiac output	1
73	echocardiographically diagnosed cardiac dysfunction	1
74	hospital for sick children cardiac clinic database	1
75	hsc cardiac clinic chart	1
76	hsc cardiac records	1
77	improved cardiac function	1
78	known cardiac arrhythmias	1
79	largest pediatric cardiac center	2
80	major cardiac malformations	1
81	more-recent adolescent cardiac appointments	1
82	neonatal cardiac catheterization	1
83	neonatal cardiac monitor	1
84	open-chest cardiac massage	1
85	out-of-hospital cardiac arrest	1
86	parasympathetic cardiac modulation	1
87	pediatric cardiac intensive care	1

88	pediatric cardiac surgeries	1
89	poor cardiac function	2
90	poor cardiac output	1
91	postoperative cardiac conduction	1
92	prehospital cardiac arrest	1
93	prehospital traumatic cardiac arrest	1
94	previous cardiac surgery	2
95	reported cardiac deaths	1
96	steady cardiac output	1
97	sudden cardiac death	1
98	sudden cardiac arrest	49
99	sudden vf cardiac arrest	1
100	suspected cardiac arrhythmia	1
101	toronto congenital cardiac center for adults	2
102	various congenital cardiac anomalies	1
103	vf sudden cardiac arrest	1
	Total	198

Terms using <i>heart</i> in <i>Pediatrics</i> corpus		No. Instances
1	abnormal heart rhythms	2
2	acquired heart disease	2
3	acyanotic heart disease	1
4	adult congenital heart center	2
5	american heart association	8
6	baseline heart (...) rate	1
7	baseline heart rate	1
8	bethesda conference on the care of the adult with congenital heart disease	1
9	bogalusa heart study	1
10	canadian adult congenital heart (cach) network	1
11	canadian adult congenital heart network centers	1
12	common abnormal heart rhythms	1
13	complete heart block	2
14	complex congenital heart disease	1
15	complex heart defects	1
16	congenital heart defects	1
17	congenital heart disease	13
18	congenital heart failure	2
19	congenital heart lesions	3
20	congestive heart failure	1
21	conventional heart surgery	3

22	conventional heart surgery group	2
23	conventional heart surgery sample	1
24	coronary heart disease	2
25	critical congenital heart disease	1
26	cyanotic heart disease	1
27	cyanotic heart failure	1
28	end-stage heart (...) disease	1
29	existing heart block	1
30	fetal heart rate	2
31	heart (...) rate	1
32	heart (...) transplant	1
33	heart (...) transplantation	4
34	heart aide	1
35	heart aide plus	1
36	heart attack	1
37	heart chambers	1
38	heart defect	1
39	heart disease	8
40	heart failure	1
41	heart frequency	1
42	heart health	1
43	heart rate	39
44	heart rate measurements	1
45	heart rate spectrum	1
46	heart rate variability	1
47	heart rates	1
48	heart transplant,	1
49	heart transplantation	1
50	heart transplantation	2
51	heart transplantation	3
52	heart transplants	1
53	heart -lung transplant	1
54	heart -lung transplant	1
55	heart -lung transplantation	1
56	heart -lung transplantation	4
57	heterotopic heart transplant.	1
58	hourly heart rate	1
59	hypoplastic left heart syndrome	3
60	instantaneous heart rate	2
61	lowest heart rate	1
62	mean heart rate	2
63	national heart , lung and blood institute	1
64	national heart , lung lung and blood institute clinical trials committee	1
65	national heart , lung, and blood institute	3
66	national heart , lung, and blood institute national research service award	1

67	normal heart (...) development	1
68	open- heart surgery	1
69	open- heart surgery	2
70	orthotopic heart transplant	1
71	postoperative congenital heart defect repair	1
72	regular heart rate	1
73	rheumatic heart disease	1
74	rheumatic heart disease	2
75	rheumatic valvular heart disease	1
76	severe congenital heart failure	1
77	stable heart rate	1
78	structural heart disease	1
79	the national heart , lung, and blood institute	1
80	third-degree heart block	3
81	your congenital heart defect	1
	Total	177

Terms using <i>hepatic</i> in <i>Pediatrics</i> corpus		No. Instances
1	common hepatic duct	1
2	decreasing hepatic bilirubin conjugation capacity	1
3	expected hepatic metabolism	1
4	favorable hepatic outcome	1
5	fulminant hepatic failure	1
6	hepatic (...) complications	1
7	hepatic cirrhosis	1
8	hepatic cytochrome p450 (CYP3A4) induction	1
9	hepatic fibrosis	1
10	hepatic glucose production	1
11	hepatic ketone production	1
12	hepatic metabolism	1
13	less advanced hepatic disease	1
14	Persistent Hepatic Glucose Production Related to Partial Insulin Resistance	1
15	serious hepatic problems	1
	Total	15

Terms using <i>liver</i> in <i>Pediatrics</i> corpus		No. Instances
1	abnormal liver function tests	1
2	advanced liver failure	1
3	advancing liver disease	1
4	chronic liver disease	2
5	fatal liver failure	1
6	liver (...) macrophages	1
7	liver (...) tissue samples	1
8	liver (...) weights	1
9	liver (weights)	1
10	liver biopsies	1
11	liver biopsy	3
12	liver disease	2
13	liver dysfunction	3
14	liver enzyme function tests	1
15	liver failure	2
16	liver function	2
17	liver function tests	3
18	liver recovery	1
19	liver toxicity	1
20	liver transplant	5
21	liver transplantation	4
22	liver -function tests	1
23	pediatric liver transplant program	2
Total:		41

Appendix E – Terms common to both corpora

Terms using <i>pulmonary</i> or <i>lung</i> in both corpora	frequency
chronic lung disease	21
pulmonary edema	12
pulmonary hypertension	9
lung function	9
lung transplantation	5
lung injury	4
pulmonary function	4
pulmonary hypoplasia	3
lung lavage	2
pulmonary disease	2
lung damage	1
primary pulmonary hypertension	1
pulmonary artery pressure	1
pulmonary compliance	1
pulmonary complications	1
pulmonary malformations	1
pulmonary tuberculosis	1
pulmonary vascular resistance	1
pulmonary vasculature	1
pulmonary vasodilators	1
lung disease	1
total lung capacity	1

Terms using <i>renal</i> or <i>kidney</i> in both corpora	frequency
renal units	8
renal disease	3
renal function	3
renal scarring	3
chronic renal failure	2
kidney diseases	2
renal insufficiency	2
renal ultrasound	2
impaired renal function	1
kidney damage	1
renal disorders	1
renal dysfunction	1
renal excretion	1
renal failure	1
renal scars	1
renal scintigraphy	1
renal tubules	1

Terms using <i>hepatic</i> or <i>liver</i> in both corpora	frequency
liver function	7
liver biopsy(ies)	4
liver failure	4
liver disease	3
liver dysfunction	3
chronic liver disease	2
hepatic metabolism	2
common hepatic duct	1
hepatic duct	1
liver toxicity	1

Terms using <i>cardiac</i> or <i>heart</i> in both corpora	frequency
heart rate(s)	54
sudden cardiac arrest	49
cardiac arrest	20
congenital heart disease	16
cardiac surgery	12
heart surgery	8
cardiac function	7
cardiac output	6
cardiac rhythm	6
heart failure	5
cardiac disease	4
cardiac dysfunction	4
heart transplant(s)	4
cardiac arrhythmia(s)	3
cardiac conduction	3
cardiac hypertrophy	3
heart transplantation	3
cardiac failure	2
cardiac contractility	1
cardiac events	1
cardiac malformations	1
cardiac massage	1
cardiac monitoring	1
cardiac muscle	1
cardiac sequelae	1
cardiac transplantation	1
congestive heart failure	1
heart chambers	1