Part I: General background

This part addresses translation and the comparison of languages; and the domain of tense and aspect in general.

First, I take up the question of the comparison of two languages, discussed briefly in Chapter 2. Even though the assumptions on language differences will have to bear on the definition of translation, and, as I will argue, actual translations are empirical semantic data, it is true that in general these two domains do not overlap. It is rare that general linguists touching upon the matter of language comparison talk about translation, while translation theorists almost never address language differences *per se*. It is thus justified that I separate, in this presentation, the question of comparing languages in general from the one of performing or studying translation, despite Jakobson's statement that "Any comparison of two languages implies an examination of their mutual translatability; widespread practice of interlingual communication, particularly translating activities, must be kept under constant scrutiny of linguistic science" (Jakobson, 1959:234).

I thus leave the matter of translation for Chapter 3, where, after a brief overview of some definitional issues, I put particular emphasis on the concept of translation mismatches. I devote some time, then, to studying in some detail the problems associated with a description of actually occurring translation pairs. Finally, I deal with the crucial issue for this dissertation: how can semantic data be elicited through the study of original texts and their (human) translations?

Finally, Chapter 4 presents an broad discussion of the tense and aspect domain, particularly in what concerns its semantics, by discussing general problems and some particular solutions suggested in the literature. It is not meant, however, as an overview of the huge literature on the subject, but as a presentation of my view on some issues of tense and aspect semantics. Since most of its motivation comes from literature directly concerning the study of English, I am going to discuss some points of the analysis of English tense and aspect as well.

Chapter 2: Languages in contrast

I start by depicting a general misconception pervasive in monolingual studies, namely the assumption that different languages convey explicitly the same things (often by corresponding grammatical constructs). Then I describe actual linguistic theories regarding language comparison, and critically assess some proposals dealing with tense and aspect.

2.1 A general misconception

As cited above, it has been claimed that "explanations of interlingual distinctions require a more refined machinery than the one needed in the non-comparative study of tense and aspect systems of single languages" (Kamp, 1991:64). This is easily explained if one accepts that languages are not isomorphic with respect to (any) dimension of information encoding, and, therefore, the differences involve more than the actual concepts pertinent to each language.

Many linguistic analyses, however, can be found in the literature that seem to assume that the information expressed by different languages is exactly the same. Let me quote some examples at random:

1. Karttunen (1974) argues in favour of two different senses of the English *until*, given that there are two prepositions that translate *until* in Finnish: "in arguing that there are two untils in English, I was trying to prove something that to me, as a native speaker of Finnish, seemed obvious at the outset" (Karttunen, 1974:293).

However, if one holds that grammatical words in one language get their sense in interaction with other mechanisms available (in this case, tense and aspect mechanisms) and that the distribution of tasks within each language is independent, there is absolutely no reason to attribute the same semantic load to prepositions in English and Finnish.

2. Moens (1987) uses the same (in my view, unsound) argument to suggest that the word *for* has two meanings in English, and on top of it, totally unrelated: "it is merely an accident of English that the same device is used to convey these [two distinct] meanings. In German or French, the two constructions are clearly distinct" (Moens, 1987:52).

Again, evidence from the other languages does not prove, in my view, that English *for* in the two cases cannot be assigned a clear common meaning, with the two interpretations resulting from a different wider context.

3. Mittwoch (1988) mentions the following piece of argumentation as a valid reason for the existence of a particular analysis of *for* with the present perfect: "If (4) were not a possible bracketing of (1), English would lack the means of expressing a concept that is expressible (by means of the simple present tense, sometimes with the addition of appropriate adverbials) in other languages" (Mittwoch, 1988:206).

However, for such reasoning to be sound, she must prove: (i) that all languages have the

same expressive capacity; and (ii) that, in fact, what she is referring to is not expressible by any other means in English.[1]

4.   Finally, the purpose of Kamp (1991) is to "explain the differences between the distinct ways in which different European languages use their tenses and temporal adverbs to express what appears to be the same information" (Kamp, 1991:64, my emphasis). Furthermore, Kamp describes his paper as an attempt to "compare the tense and aspect systems of French and English within the context set by the account of the French system that is proposed in [their book on French]" (Kamp, 1991:41), i.e., to put it bluntly, he tries to describe English in a theory empirically motivated by French.

The examples could be multiplied at will.

This attitude to data from other languages, which is often harmless as far as the particular monolingual studies are concerned, is commonly found in theoretical linguistics, but it is still more frequent in the computational community. For example, discussing multilingual applications in general, Sanfilippo et al. mention that "the key element of this approach to constructing multilingual lexicons [...] is the use of a common type system to encode syntactic and semantic properties of lexical items in the two languages" (Sanfilippo et al., 1992:3). This statement crucially assumes that syntactic and semantic properties are language independent, which is arguably not the case.

A special subfield where this issue necessarily had to come to the fore is machine translation, since two (or more) languages are involved. I will discuss its contribution in the next chapter, concentrating here rather on a general description of the approaches taken by linguists explicitly concerned with language comparison.

2.2 Linguistic theories of language comparison

The works quoted in the previous section are by scholars not directly concerned with language comparison. If, on the other hand, one looks into the works of those who are, one obviously finds a much more rigourous discussion of multilingual facts.

2.2.1 Three different standpoints

There are three theoretically possible (and existing) schools as far as this matter is concerned. I refer to them as the universalist, the typologist and the relativist views. Roughly, and disregarding the sophisticated machinery they use, I believe it is only fair to say that the universalists hold that all languages are the same (only unimportant details vary); the typologists contend that languages vary, but not randomly; and relativists assume that languages are fundamentally different, any similarities being due to sameness of the fundamental language uses. (In principle, this issue is orthogonal to genetic properties of language families and to

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[1] Incidentally, in the example mentioned, Mittwoch herself presents a possible way of expressing that very concept in English: Mittwoch's (1) is the sentence *Sam has been in Boston for 20 minutes* and (4) is the interpretation where the 20 minutes end in/overlap with "now". By using *last* in *for the last twenty minutes*, one conveys precisely what she claims to be lacking.

language contact, which are two cases that bring about similarity between languages without supporting or dismissing the various assumptions of any of the theories -- but see section 2.4 below for discussion.)

Of the three schools, only the typologists are actually interested in thoroughly studying and comparing many languages, because only to them is it an empirical question how much and how languages can diverge. To universalists and relativists alike, it is enough to present an (obviously disjoint) set of facts that illustrate respectively the sameness and the differences between unrelated[2] languages. An important difference between the work of these two schools emerges however in practice: while relativists will content themselves by studying each language *per se*, universalists may in fact gather a set of facts from different languages corresponding to the same phenomenon (according to them). So, they will also be liable to engage in multilingual data collecting, although in a way which is different from that of the typologists, given the different assumptions.

2.2.2 Examples of universalism: Smith and Dorr

To start with, let me note that the only empirical motivation for a universalist claim is *a posteriori*, i.e., through the relative success of the linguist in describing a set of unrelated languages in that way.

Smith (1991) represents the parametric approach to aspect: "Parametric variation occurs across languages in many domains, including the aspectual domain. [...] I will propose formal and substantive principles that underlie the domain of aspect in Universal Grammar. The principles provide the parameters that determine its realization in the grammar of particular languages. [...] the aspectual categories are not language dependent, but are based on human cognitive abilities" (Smith, 1991:xviiff). The book is concerned with English, French, Russian, Navajo and Mandarin Chinese, and puts forward the concept of situation type, and of the imperfective, perfective and neutral viewpoints as universal concepts.

My strong impression is, however, that what Smith actually succeeds in doing is devise a system appropriate for English, and analyse the other languages as deviating from it. Let me present just one example. According to Smith's analysis, there is in English a perfect match between the perfective viewpoint (indicated by the simple past) and situation type. In the other languages she analyses, there is no single viewpoint that matches situation type: the perfective viewpoint is either defective (it does not apply to all situation types) or changes situation type. This makes it hardly possible for us, non-native speakers of English, to believe that the universal system is so strikingly identifiable with English...

In fact, this thought has struck me in other cases of parametric approaches; cf. my discussion of Dorr's (1991) proposal: "LCS [Lexical Conceptual Structure] is used as the interlingual structure, and divergences between languages are parameterized. However, a closer

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[2] I use the term 'unrelated languages' to mean those genetically and areally unrelated.

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look reveals that English is certainly the closest to LCS, so divergences boil down to divergences to English" (Santos, 1992b:456).

2.2.3 Examples of typological investigations: Dahl and Slobin

Typologists, as mentioned above, are the most genuinely interested in language differences and similarities, and, therefore, their studies are strongly empirically motivated.

However, it is not a trivial matter to justify a relevant typology. First of all, it needs to have some predictive power, i.e., it needs to establish universals of behaviour for languages, of the form "if one language has this or that property, then it will have that and that". Then, there is not an obvious borderline between what actually derives from a typology (and is, therefore, in a way, universal) and what can be called a particular or idiosyncratic characteristic of a language. As Slobin (1994:12) put it, "typologies leak".

The typological approach to tense and aspect is here primarily represented by Dahl, who conducted a large study whose "primary aim [...] was to test the hypothesis that the TMA [tense-mood-aspect] categories that occur in the languages of the world can be reduced to a small set of cross-linguistic category types" (Dahl, 1985:2). Dahl's study was based on a questionnaire of 250 questions which was translated from English into 63 other languages. The answers to the questionnaire were then reduced to the particular TMA categories of the language. Crosslinguistic categories were elicited by statistical analysis. One of Dahl's most original assumptions was that universal categories would correspond to several meanings and uses, i.e., were prototypical instead of based on precise meanings; cf. "a set of universal TMA category types have been postulated, from among which language-specific categories are chosen. These universal categories are identified by clusters of semantic and morphosyntactic categories, which characterize their prototypical manifestations" (Dahl, 1984:3).

It is remarkable that one of Dahl's conclusions is precisely that "the 'semantic irrelevance' of TMA categories is particularly striking in a typological survey like the present one; in spite of the great similarities between TMA systems in different languages, and the obligatoriness of language-specific categories, there is hardly any distinction in the TMA field which is marked in all languages" (Dahl, 1985:13). He mentions, in addition, that a linguist studying one (or a small set of) languages may find rather rare examples of a category, distorting his way of looking at it.

However, in spite of the considerable care and the statistical apparatus used, it is also not guaranteed that Dahl's study was not too dependent on English (or Swedish, his native language). In fact, one could hold that what was in fact investigated was the relative crosslinguistic weight of aspectual notions like the English perfect and the English progressive.

First of all, Dahl himself acknowledges that translation is not the best way to elicit meanings. (This issue will be taken up in the next chapter.)

It is symptomatic, in my opinion, that the results of the study did not manage to stress any crosslinguistic category which is marginal to English or Swedish. On the contrary, English categories were always ranked high among the universal categories found. Dahl also notes that

the values for the Swedish perfect ranked suspiciously high in the PFCT (perfect) universal category.

The fact that the data were elicited through a questionnaire may make the "typical" cases depicted by the questionnaire language specific, and, therefore, will only illustrate representatively the languages in which those cases are important. Of course, care was taken to add distinctions not present in English that were already known beforehand to be of relevance, like witnessed versus unwitnessed assertion, but probably not frequently enough.

For a more concrete description of the English bias in Dahl's questionnaire, see my detailed analysis of his predictions about Portuguese, which are discussed in connection with the description of the Portuguese tense and aspect system (Chapter 6) and with the perfect (Chapter 12).

Another researcher that must be mentioned is Slobin, whose concept of "thinking for speaking" beautifully expresses many of my own beliefs on this matter, and which will thus be cited at length (Slobin, 1987:435, 439, 443):

The grammar of an individual language influences what is most easily and automatically said.
[...] Speakers so rarely make use of options that differ from the norm.
[...] Thinking for speaking goes beyond the choice of particular lexical items and grammatical morphemes in structuring a mental representation of an event for verbal expression. Here we see an indirect grammatical effect of the preferred structure of sequences of clauses into paragraphs.
[...] [Speakers seem] to be guided in how they choose to talk about experience by the most available grammatical means provided by their native language .

Slobin compares several languages (as regards aspect and motion) using an inventive method, that of asking children and adults to tell a story which is only rendered by drawings (i.e., has no text). By doing so, he claims to elicit original narratives in all languages.

He fails, however, to notice that the creation of the story also required "thinking for drawing" (or for telling the story), and that, therefore, he is studying the differences of the languages regarding English (or whatever Germanic language of the writer/drawer), and not original texts in themselves. (This is in addition emphasized by his requirement of (at least) one sentence per drawing. From his examples, most notably those of Slobin (1994:439-40), I believe it is clear that in some (maybe all) languages this does not lead to a "natural" narrative.)

So, I conclude that, however ingenious the processes of obtaining pure language data, they do not succeed in their goal, and that, therefore, the results of the two typological investigations above would more accurately be described as studies of the correlation/similarity between one designated language and various other languages. This does not, of course, diminish the obvious value of the studies described nor of the data gathered; it only suggests that their results be interpreted in a different way.

It seems, therefore, that only the relativist methodology is unbiased. Before I proceed to sketch my own version of it in Section 2.5, I turn to some examples.

2.2.4 Examples of relativist approaches: Whorf and Gawron,´ ska

The first and foremost tense and aspect study in a relativist vein is Whorf's well-known

work on American Indian languages, particularly Hopi. This work has been discredited by universalists, but has been vindicated by several scholars; see for example Lakoff (1987: chap.18) and Slobin (1987:435f). Whorf's interest in studying Hopi, which he considered a language better equipped to deal with reality than English, was the deep conceptual differences between the two languages (opposing "average European" to supposedly "primitive" languages); his best known and most controversial claim was that radical differences in linguistic structure lead to radical differences in thinking (and hence in behaviour). Cf. e.g. Whorf (1940:215ff):

It will be found that an "event" to us [English speakers] means "what our language classes as a verb" or something analogized therefrom. And it will be found that it is not possible to define 'event, thing, object, relationship,' and so on, from nature, but that to define them always involves a circuitous return to the grammatical categories of the definer's language. [...]

What surprises most is to find that various grand generalizations of the Western world, such as time, velocity, and matter, are not essential to the construction of a consistent picture of the universe. [...] Hopi may be called a timeless language. [...] Situation 1, where the speaker and listener are in contact with the same objective field, is divided by our language into the two conditions, 1a and 1b, which it calls present and past, respectively. This division is unnecessary for a language which assures one that the statement is a report.

Recently, Gawron,´ ska (1993) has studied translation between Polish and Russian on one hand and English and Swedish on the other, concentrating specifically on article choice when translating from the first to the second, and aspect choice when translating in the other direction. This work is highly relevant, since she combines clear theoretical insights with a practical concern, as her dissertation is framed within the context of a research machine translation system. Her points of departure, in both domains, are language specific categories; cf. Gawron,´ ska (1993:70f) and, also a later passage (ibidem:75f), which I cite here because it addresses precisely the question of aspect:

[...] article selection poses problems to MT even if the languages involved are typologically similar and make use of similar article systems (as English and German). There are therefore reasons to assume that the semantics of articles should be treated as language-specific and not directly translated into universally valid cognitive distinctions. There is obviously an interplay between universal cognitive categories and grammatical categories, but its nature cannot but be a matter of speculations, at least -- as stated previously -- as far as our knowledge of the human brain is so restricted as it is.

[...] The trouble with most universal aspect definitions is that, although intended to be language independent, they are as a rule constructed in relation to the morphologically marked verbal aspects in Greek and Slavic. [...]

The way of reasoning to be found in many studies on 'universal aspect' may be characterized as follows: assumptions about the nature of the 'typical' aspectual distinctions give rise to a search for similar distinctions in languages which lack a corresponding morphological aspect category. Since several features [...] can evidently be expressed by other means in other languages, the category of 'aspect' is claimed to be universal. Then, further investigations on the nature of the semantic distinctions between different predications in an 'untypical aspect language' (e.g. English) lead to reformulations of the 'universal' notion of aspect. This reformulated notion is in turn assumed to give an explanation of the 'typical', morphologically marked verbal aspect.

While the description above should be enough to make one rather suspicious of the empirical validity of such claims, Gawron,´ ska goes on to stress a noteworthy detail, well known by all Slavists: Slavic aspect is not a settled issue in (its own) literature, either. This means that even the apparently clear point of departure of the method depicted above is far from clear.

2.3 Contrastive studies

Somewhere midway between linguistic theorizing and translation practice, there is an old tradition of contrastive studies in which one can find a whole literature dealing with the

comparison of two languages, ranging from a purely scientific point of view to clear pedagogical or practical purposes. Contrastive linguistics is, in fact, a branch of applied linguistics (see e.g. James (1980)), even though it has a theoretical side as well; see e.g. Fisiak (1990).

The kind of contrastive studies I am referring to here are those with a practical orientation, usually characterized by a wealth of examples and detail unusual in linguistic studies with a theoretical objective. This happens precisely because, in general, their goal is not to prove or disprove a point, but to describe what actually is the case. One can usually trust the examples as being representative, instead of being tuned to a specific argumentative purpose. Another general property of these works is their attempt to be as encompassing as possible, rather than concentrating on a particular phenomenon.

Obviously, the part of contrastive linguistic studies that interests me most is the one that is based on real translations. Instead of presenting an abstract concept and their relation to the two languages (as for example Matte (1992)), the material is presented as 'What is usually said this way in language A tends to be translated/said that way in language B', or 'What sometimes gets translated this way in language B should rather be expressed this other way' (as examples of each, I cite Vinay and Darbelnet (1977) and Duff (1981), respectively). I am not the first to emphasize the value of such works as raw material for linguistic theories; cf. Salkie (1989), Dyvik (1994), Garnier (1994).

All sufficiently detailed studies carried out in a scientific vein which actually look at translation data, such as the quantitative studies of Soviet aspectologists, scrutinizing translation between Russian and English, in Maslov (1985); Clément's (1988) study of French imparfait translations into English; or Brinkmann's (1970) comparison of Portuguese present perfect with Spanish, Italian, and French, can, in addition to suggesting methodological or interpretative motivation, supply interesting actual data for language comparison, even though they concern different language pairs.[3]

2.4 Comparing related languages

I should perhaps note that so far the discussion has been centred around the general comparability of languages. But, as far as this dissertation is concerned, I am in fact comparing two related languages that belong to the same language family, Indo-European. So, it would not be unreasonable to expect that there are some similarities. Instead of universal features, we could speak of a common core. Many differences can be traced diachronically: The two languages evolved differently, and, at the present stage (at the stage this study is conducted), present many differences.

Are the differences merely formal, or also semantic? I.e., do the languages differ in the meaning they convey, or only in the form of conveying it? Lexical diachronic studies show

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[3] In fact, it was interesting to note how many contrasts are common to English-Russian and English-Portuguese, for example.

clearly that words do gain, or lose, particular meanings in the course of time. It is plausible to expect a similar situation for grammatical mechanisms. (Incidentally, typological studies on tense and aspect are now concentrating on precisely the patterns of change (or grammaticalization) in time, as can be seen in Bybee & Dahl (1989).)

In another study conducted on European and Brazilian Portuguese (see Wittmann et al. (1995)), it was noted that the two variants of the same language (undeniably closer than English and Portuguese) already differ in some aspectual distinctions.[4]

In a totally different setting, I note as well that the few papers published on machine translation systems between closely-related languages (Bemová et al. (1988), Dyvik (1990), Santos & Engh (1992)) have also claimed that the necessary machinery was qualitatively (although obviously not quantitatively) similar to that of MT systems between other pairs of languages.

My conclusion is that, even though languages of the same family must have properties in common, they can differ as much as any two unrelated languages along each dimension, even though it is to be expected that the total amount of differences should be smaller. It thus seems justified to use the same method and working hypotheses in the comparison of related and unrelated languages.[5]

2.5 My standpoint

I start from the assumption that languages are, in fact, different, in spite of the undeniable facts that translation occurs in practice and that there are many similarities between unrelated languages. Despite the way the present chapter was written, which may give the impression of my making an original claim, I hasten to note that even traditional scholars like Lyons in works of reference like his *Semantics* are willing to admit such a claim; cf. Lyons's (1977:238) discussion: "It is only too easy to be aware of the difficulties of translating from one language into another and yet to underestimate, or miss completely, the theoretical implications of the facts which give rise to these difficulties. [...] The meanings of words (their sense and denotation) are internal to the language to which they belong. This, as far as the vocabulary of languages is concerned, is what is meant by saying that each language has its own semantic structure, just as it has its own grammatical and phonological structure." In fact, this viewpoint is a direct consequence of the structuralist approach of viewing language as a system.

To further substantiate this point, let me refer to Keenan's (1978) -- now a mathematical

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[4] For example, the opposition *ir a* versus *ir para* does not apply in Brazilian Portuguese. Likewise, some constructions with aspectualizers involving the opposition between the Gerúndio and the construction *a* + Infinitivo are only operational in European Portuguese.

[5] Incidentally, all previously mentioned studies dealing with languages of more than one family, namely, Smith, Dahl and Slobin's have treated all languages alike, irrespective of genetic kinship.

linguist -- convincing argumentation: In order to comply with the efficiency requirement,[6] languages are shown to be, by nature, imprecise. Now, the imprecision does not have to be the same in all languages, and, in fact, it is not, as Keenan proves with an abundance of examples. Furthermore, if meaning is modelled as a two-part structure with a set of basic sentence types and a set of semantically significant operations, one can see that (i) the basic sentence types (trivially) differ; and (ii) the semantically significant operations (a) either differ; or (b) are the same "but languages vary considerably with regard to [their] domain of application" (Keenan, 1978:165). In any case, Keenan concludes that "it would surely be surprising, and a very strong empirical claim, that different languages using different means to express 'meanings' always arrived at <u>exactly</u> the same end" (Keenan, 1978:166).

The way I see it, linguistic objects (be they sentences or smaller units) are vague or unspecified and it is the context and the interpretation skills of the hearer/reader that decide (as much as is needed) what a particular linguistic object means. Thus, some part of the meaning is constrained by the linguistic medium, and some supplied by the intelligent user. The part constrained by each language does not have to be the same. Consequently, the part supplied by a native speaker of different languages is not necessarily the same, either.

In order to compare languages, one thus has to describe each language in its own right. One should not assume that all distinctions have to be made in all languages, nor that they have to be made through similar means. Rather, each natural language should be considered as an independent system of conveying information, with its own weaknesses and strengths. Citing Keenan (1978:189) again, "the question of concern [...] should be not whether we can say anything exactly in one language that we can say in any other, but how much languages differ with regard to the exact types of information they encode".

To move from one system of conveying information to another (i.e., to translate from one natural language into the other), one has to know how to map the information (albeit it is possible that this mapping will always be imperfect). Translations and translation knowledge show some bridges that can be made between two such languages, but, as already shown in Chapter 1, not in a direct or straightforward manner.

In the next chapter, I will deal with translation. What interests me more, but is unfortunately rarely considered in the literature, is language typology elicited by translation, and, conversely, translation practice logically derived from language differences.

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[6] Keenan proposes the following Efficiency Requirement: "A human language must permit the communication of thoughts in a way that is reasonably efficient relative to the lifespan and cognitive capabilities of human beings" (Keenan, 1978:160).