

PART THREE

Grammatical Blending in Wider Context

Chapter 8: Blending and translation

8.0 Introduction

In the previous chapters, I discussed the conceptual blending operations underlying the generation and interpretation of individual sentences in English (the Caused-Motion sentences discussed in chapter 2), and in Hebrew (the verbal *binyanim* system discussed in chapters 4-7). In this chapter, I will discuss translation examples of English caused-motion sentences into Hebrew, analyzing the *interaction* of the blending operations underlying the different grammatical constructions in each language. I will suggest that the translation process first requires a conscious operation of “de-integration” (or “un-packing”) of the source sentence into its conceptual and linguistic input structures, and then a “re-blending” operation of these structures into the target language's grammatical constructions. Translation “mismatches” result from differences in the grammatical blending operations conventionally employed in each language to communicate the same event structure.

As noted in the short review on translation studies in chapter 1 (section 1.2.7), one topic which has been extensively discussed in translation literature is the effect of *context* on meaning and translation: discourse context adds different “shades” of meaning to the “basic” (prototypical) senses associated with lexical forms (additional shades of meaning which often must be translated into the target language), and cultural context may influence the way the same event is conceived and communicated in different languages (see, for example, the discussion in Kay *et al.*, 1994, of language and translation as *situated*, or Nida and Reyburn's, 1981, extended discussion of meaning and translation across cultures). The setting of the communication situation and the attitudes of the participants also influence the translation. Larson (1984:225), for example, discusses the different

pragmatic functions associated with the passive construction in different languages. In East Africa, and some parts of Asia, the passive is used only when the speaker has negative feelings about what she is saying or when she wants to put an undesirable value on the content of the sentence (data from Filbeck, 1972:332). Similarly, in Thai, the passive is generally used to communicate a sense of unpleasantness. The translator must take these pragmatic functions into account when translating English passive sentences into East African and Thai languages.

The translation examples I will discuss in this chapter, however, will be translation of *isolated* sentences (with no textual context or pre-defined communication setting). The content of (most of) the translation examples in this chapter refers to everyday simple physical objects and activities (i.e., universal, language-independent human events). Cultural or textual context therefore does not play a role in the translation examples discussed in this chapter. The novelty of the discussion in this chapter is in the fact that the difficulty in translation in the examples discussed stems *only* from difference in the *grammatical constructions* of the source and target languages and *conventions of grammatical blending*, and not from any additional shades of meaning imposed by context.

It is particularly interesting to observe in this chapter the variety of translation solutions provided by a single translator to different instantiations of the same syntactic construction, each translation solution responding to the unique formal and conceptual blend (and the information it highlights or suppresses) in the source sentence. The translation process clearly does not follow strict, pre-defined cross-linguistic grammatical or dictionary transfer

conventions, but is a genuinely *creative* on-line process¹.

The analysis of translation examples in this chapter also provides an important and useful methodology for comparing different grammatical systems (of different languages), and how they guide and constrain the process of language generation. The task of translation elicits the generation of sentences in an almost natural setting, and provides clear judgment on what is grammatically accepted and not accepted in each language. The translation examples in this chapter also provide a unique glimpse into the working of the cognitive *prototype effect* - the automatic cognitive imposition of prototype scenarios on under-specified linguistic content (a process which we suggested play an important role in the emergent semantic structure of linguistic blends, see discussion in chapter 2). The impact of the prototype effect is reflected in the discussion in this chapter in the very similar *additional content* that different translators impose on the source text in the translations they provide.

8.1 Issues in translation theory

8.1.1 Defining 'translation'

Translation has been practiced for thousands of years, and debates on the nature of translation have been part of translation practice for almost as long. Translation theorists credit, for example, Saint Jerome, who lived around 400 A.D., with starting the 'literal' vs. 'free' debate on translation. The debate on translation practice goes back to the very

¹ Peter Newmark (1991) states that "Translation, like language, appears to be a rule-governed activity (you learn most from the rules). But, as in language, this is not always the case" (p.6). Newmark (1993:39) also notes that "the creative element in translation . . . hovers when the standard translation procedures fail, when translation is 'impossible'. It is the last resource, but. . . it is not infrequently called on."

definition of what translation is. In defining translation, theorists differ in their focus on the translation *product* or the translation *process*² .

Most definitions of translation found in the literature are *product*-oriented, centering around the notion of *equivalence* between the source and target texts (the target text being the translation product). Nida (1959:19) defines translation as follows:

Translation consists of producing in the target language the closest natural equivalent of the source language message, firstly with respect to meaning and secondly with respect to style.

Nida's definition does not specify however *what* exactly should be equivalent, and *how* equivalence is to be pursued (e.g., should equivalence with respect to meaning be pursued at the level of linguistic-semantic content or at the level of pragmatic implications). The definition of Nida also assumes that semantic equivalence is an achievable goal (a controversial supposition in itself, as will be discussed later in this section).

Catford (1965:21) suggests that the goal of translation theory is to define the *nature* of translation equivalence:

The central problem of translation practice is that of finding TL (Target Language, n.m.) translation equivalents. A central task of translation theory is that of defining the nature and conditions of translation equivalence.

Indeed, much discussion in the translation literature has focused on identifying *what* should be equivalent in a translation (for example, with regard to the linguistic form, discussion in translation literature has focused on whether equivalence is to be pursued at the level of words, clauses, or the entire text). The concept of *translation unit* has emerged

² Note that in English, as in many other languages, the same word ('translation') is used to refer to both the *process* (the cognitive activity) and the *product* (the produced target text). As English provides no other alternatives, I will also use a single word to refer to both senses. The meaning of each instance has to be disambiguated by the reader based on the context.

as a key concept in this discussion, particularly in translation theories which follow formal linguistics approaches. In these theories, the text is seen as a sequence of linguistic units, and the translation process as involving the substitution of this sequence by *equivalent* units in the target text. The task of the translator is first to select the translation units, and then to find their closest equivalents.

Later theories of translation have switched the focus when discussing translation equivalence from equivalence of *linguistic units* to equivalence of the *communicative function* of the text in relation to the translation receptor. These theories emphasize the notion of translation equivalence as *relative* to the receptors of the source and target texts. This view of translation equivalence was clearly expressed in Nida's concept of "dynamic equivalence" (Nida, 1964; Nida & Taber, 1969):

Dynamic equivalence is . . . to be defined in terms of the degree to which receptors of the message in the receptor language respond to it in substantially the same manner as the receptors in the source language. (Nida & Taber, 1982:24)

Gutt (1991) claims that the translator's goal is one of "communication", rather than "equivalence" of form or meaning. The translator "produces a receptor language text . . . with the intention of communicating to the receptors the same assumptions that the original communicator intended to convey to the original audience" (p.99). Hatim & Mason (1990:231) also focus on the "communicative goal" of the translated text, defining the goal of the translator as "making choices at the level of texture in such a way as to guide the target text reader along routes envisaged by the source text producer towards a communicative goal". The target text (translation) is therefore equivalent to its source language text only if it triggers the same "cognitive (or conceptual) route" with respect to the target text reader as it does with respect to the source text reader.

This view of translation best fits the blending description of translation I will suggest in this chapter. In the blending framework of analysis discussed in the previous chapters, the function of the linguistic structure (grammatical and lexical forms) is to trigger and guide the reader in reconstructing a conceptual representation which best parallels the communicative intentions of the speaker (where the process of mental reconstruction is the process of interpretation). A good translation, in this view, is a translation (or target text) which guides the target text reader in reconstructing a conceptual representation that is very similar to the one that the source text reader would reconstruct from the source text, and which is hopefully similar to what the source text author intended to communicate.

Only few translation theorists discuss translation as a cognitive *process* (rather than as a linguistic product). Jakobson (1966:23) defines translation as "the *interpretation* of verbal signs by means of another language". Sager (1993:122) notes in this regard that the term interpretation itself already incorporates "a whole series of cognitive processes which occur in the translator's mind". Sager defines these processes in generic cognitive terms of 'problem-solving, 'decision-making', and 'evaluation'. Neubert (1991:25) also defines translation in terms of a series of problem-solving processes: problem identification, comprehension, retrieval, monitoring, problem reduction, and decision taking (i.e., the actual generation of the target text).

Surprisingly, very little research exists on the *interface* between the *cognitive* and *linguistic* aspects of the translation process (i.e., the interface between the linguistic transfer operation and its mental representation). Thus far, the literature on translation has dealt principally with evaluation and perspective issues on how translation should be done (e.g., Larson 1984). In the seventies, the view of translation as linguistic science has led to the creation of formal models of the translation process (see, for example, the theory of

translation developed by Nida & Taber, 1969, which is based on concepts from transformational grammar). These formal models were also adopted in research on Machine Translation (for a review see Hutchins 1986, and the discussion in chapter 9 of this dissertation). The design of machine translation models has been primarily guided, however, by computational considerations rather than psychological ones (i.e., the goal has been to generate the most successful and economic computational model, rather than imitating human translation processes).

My analysis of translation examples in this chapter will focus on the *cognitive linguistic* operations involved in the process of translation, based on the linguistic blending analysis developed in the previous chapters. Translation, as Larson (1984:3) notes, is basically a process of change of *form*: i.e., the translation process consists of changing a text (form) in one language into a text (form) in another language. The text 'form' is the actual words, phrases, clauses, sentences, paragraphs, etc. which compose the text, and when we look at a translation example, what we see are the 'forms' of the source and target languages. However, from a conceptual blending point of view, these forms are the result of dynamic *conceptual and linguistic blending operations*. My goal in this chapter is to analyze the blending operations that underlie the *change of form* from one language to another. The questions of interest are: how is the change in form (the translation) accomplished? What determines the choice of form in the translation product, and what linguistic and conceptual operations are actually involved in the generation of the target text? The analysis identifies various 'translation strategies' which are guided by the blending operations that the source and target grammars license and the particular conceptual structures that are constructed in the process.

8.1.2 The 'literal' vs. 'free' translation debate.

Since any given text involves both (linguistic) form and (associated) meaning, there are basically two kinds of "translation strategies" that can be followed: one is *form-based* and the other is *meaning-based* (Larson, 1984:15). Form-based (or *literal*) translation attempts to stay as close as possible to the text being translated (that is, the translator attempts to follow the *form* of the source text as much as possible). In contrast, the main goal of a meaning-based (*free*) translation is to communicate the *meaning* of the source language text in a "natural" form in the target language (with no attempt to follow the words and syntactic forms of the source text).

Clearly most translations are a mixture of these two extreme translation strategies. Literal translation would almost always result in an unnatural text in the target language. Free translation, on the other hand, is often not acceptable either since the translator is expected to follow the form chosen by the source text author (assuming the choice of form by the author is significant, particularly in literary texts).

In analyzing translation examples in this chapter, we will notice a constant "tension" between (what seems to be) a tendency of (non-professional) translators to proceed with literal translation (staying as close as possible to the source text form), and the need to find translation solutions which would sound natural in the target language. The source of this tension will be analyzed in terms of the different blending operations underlying the source and target language grammatical systems.

8.1.3 On the possibility of translation

The very notion of translation assumes the existence of some language-neutral concepts (or meaning) which can be communicated to some degree in both the source and

the target languages. This basic assumption, however, has been challenged more than once on linguistic and philosophical grounds. The philosopher Quine (1960), for example, claimed that translation is possible only to the extent that there is identity across the linguistic systems of the source and target languages (identity in the set of concepts expressed by the language).

The main argument of scholars who question the possibility of translation has been that language and culture are intrinsically connected and thus cultural diversity makes translation impossible. If language is considered as the product of a particular society which inextricably links language and thought, then the re-expression of thought in another language is at best an interpretation, but not a translation (i.e., there could be no full equivalence in content). Nida and Taber (1982:24), who discuss the notion of 'dynamic equivalence' in biblical translation (section 8.1.1) maintain that while translation must aim at eliciting the same response to the target text as to the source text, "the response [of receptors to the target text] can never be identical [to the response of receptors to the source text], for the cultural and historical settings are too different".

Much of the 'cultural' arguments against the possibility of translation developed out of statements made by Sapir (1921) and Whorf (1956), who held that our ways of thinking and conceptualizing are determined by the language we speak. In its strongest form, this linguistic determinism would suggest that we are, in fact, prisoners of the language we speak and incapable of conceptualizing in categories other than those of our native language. However, the very fact that people are capable of learning a second language to a high degree of competence and fluency considerably weakens the hypothesis. And translators, are in fact, successful in relaying meaning from one language into another.

Sager (1993:131) makes the important point that "all the arguments for and against the

possibility of translation can be reduced to a question of the scope of the definition of the concept [of translation]". Sager points to a Coseriu's resolution of the dilemma: he denies the possibility of an abstract ideal translation, and refers instead to translatability as a *relative* concept: translations may be optimal for particular user groups, for particular purposes, and for particular historical situations³. If translatability is recognized as a relative concept, it is now possible to speak of *degrees* of translatability as defined by the existence (or absence) of units of equivalence between the source and target languages at different levels of analysis. In the translation examples I will discuss in this chapter, we will see that indeed it is very often the case that while complete translatability does not exist at one level (e.g., at the lexical and grammatical level), 'equivalence' may nevertheless exist at a 'higher' (more generic) level of linguistic and semantic analysis (e.g., at the level of semantic reconstruction from different grammatical forms).

Throughout this chapter, I will postulate the feasibility of translation and the existence of language-neutral concepts (at least with regard to the every-day basic event types that in the translation examples discussed in this chapter, and with regard to the source and target languages discussed -- English and Hebrew -- which I assume reflect quite similar cultures).

8.1.4 Translation mismatches

The problem of translation *mismatches* (or translation *divergences*) is central to the

³ This point has important implications in the field of Machine Translation: developers of computational translation systems have discovered that for practical use, even low quality translation may be valuable for some audiences (by providing only the "gist" of information in a fast and cost-effective way, see discussion in chapter 9).

literature of translation training and modeling. "Translation mismatches" refer to cases where *different forms* (linguistic forms) are used to express the *same meaning* in different languages. In Dorr's (1993:19) discussion, translation divergences are defined as cases where "the natural translation of one language into another results in a very different form than that of the original". Translation divergences are therefore roughly all the instances where a literal (approximately word-to-word) transfer of the source language into the target language does not result in a correct translation (i.e., one which is grammatical and communicates the same "meaning"). Note the use of the word *natural* in Dorr's definition of translation divergences: Dorr's definition implies that the *natural* translation process involves the linguistic transfer of the source text *form* into an equivalent target form. Only in exceptional cases such translation strategy does not work. These cases can be categorized under a single title of "translation mismatches".

In recent years, much research has been carried on with the goal of defining a "typology" of all the different types of translation divergences (e.g., Lindop & Tsujii, 1991, surveyed in Dorr, 1993)⁴. The most common form of translation "mismatch" discussed in the literature is the one resulting from differences in the lexicons of the source and target languages. For example, consider the following discussion by Martin Kay *et al.* (1994:22):

In translation, it is often difficult, if not impossible, to find a word or phrase in the target language that specifies just what is specified by a particular word in the source... So, for example, there is no French word that covers the same range of properties as the English word "chair". "Chaise" and "fauteuil" are both candidates, but both are more specific about whether the chair has arms, and whether

⁴ Some researchers have recently been claiming that defining such an exhaustive typology is impossible (e.g., Evelyn Viegas in e-mail communication, August 1996)

there is padding... [In this case] translating between English and French confronts the translator with a *translation mismatch*. A mismatch requires a translator to add or delete information.

When a precise translation of a word (or lexical idiom) in the source text cannot be found in the target language, the translator often has to expand the translation (the target form) to include semantic features from the source text which are not captured in the target lexical items, or to remove semantic components specified in the source text that become redundant in the target language. The translation in these cases results in "mismatching" forms.

In other cases, a word in one language can be translated in several different ways into the target language, depending on context. For example, the English word 'fish' is used to refer to either a living fish, or a dead fish ready to eat. Spanish, in contrast, makes the distinction obligatory. For the live, swimming fish, one would use the word 'pez', and for the cooked fish one would use 'pescado'. Larson (1984) summarizes the problem as follow: "Meaning components are 'packaged' into single lexical items, but they are 'packaged' differently in one language than in another". Larson includes in this description also grammatical affixes such as plurality marking, which in English occurs as a suffix (-s) on the noun, but is part of the verb stem itself in Aguaruna. A single word in the source language is therefore sometimes translated by several words, or with different morphological marking.

The different 'packaging' of meaning components into single lexical items in different languages is also relevant for the translation of verbs, as in examples (1-2) below:

- (1) English: He **limped** up the stairs
 French: il monta les marches en boitant.
 'he **climbed** the stairs **limping**'.

- (2) English: She **walked across** the street.
 French: Elle a traversé la route à pied.
 'she **crossed** the street **by foot**'.

Referring to translation divergence examples such as 1-2, and in connection to Len Talmy's findings (1991) on "conflation patterns", it has been suggested that translation mismatches may result from different "framing" of predicates in different languages. For example, while *motion* verbs in "verb-framed" languages (e.g., Romance, Semitic, Turkish) typically encode the *direction* of motion (or 'path'), "satellite-framed" languages (e.g., Germanic, Russian, Chinese) typically encode in their verbs elaborate shades of the *manner* of motion (as in 'scramble', 'trudge', 'slither', 'swoop', 'plummet'). In the "verb-framed" languages information about the manner or cause of the motion is often not marked at all, or is expressed separately in a gerundive or adverbial phrase. In "satellite-framed" languages, the path or direction of motion is encoded in particle satellites.

Note that what is common to the discussion of translation divergences reviewed in this section is the link of the source of the divergence primarily to the *lexicon* (i.e., to the lexical-semantic properties associated with individual words). For example, the difference in lexical "verb framing" across different languages (as suggested by Talmy) leads to translation "mismatches". These mismatches can be predicted in advance for the pool of lexical motion verbs. In this spirit, Dorr (1993) suggests that most surface-level distinctions across languages can be factored out through a set of universal principles that are parametrized at the lexical-semantic level for each language (see discussion on the lexical treatment of translation mismatches in Machine Translation in the next chapter, section 9.2.3).

While there is no doubt that the lexicon and lexical-semantic properties play an important role in the occurrence of translation "mismatches", in my analysis I will emphasize the role of *dynamic blending operations*, which, by construing an event from various perspectives via different grammatical constructions, lead to "unexpected" (from a lexical point of view) mismatches in translation. In particular, I will argue in this chapter against an analysis of translation data as the transfer of lexical *forms*, where particular lexical parameters may come into play and "interfere" with this natural process. Based on the grammatical blending framework developed in the previous chapters, I will suggest that the source and target texts must be understood as generated *independently by two separate conceptual and linguistic processes of blending* (which share only one input space representing the conceptual structure to be communicated). Whether the two blending processes result in similar or different linguistic forms in the source and target languages depends on the mapping operations licensed by the inventory of grammatical constructions available in each language. Different forms in the source text and target text should not be viewed as exceptional "mismatches", but rather as the natural outcome of two separate conceptual and linguistic processes. Clearly, the more the source and target languages are similar in their inventory and conventional usage of constructions, the more likely it is that the two blending processes will yield similar forms in translation.

8.2 The translation process from the grammatical blending point of view.

In chapters 2-6, I discussed the conceptual and linguistic operations involved in the generation and interpretation of individual sentences in English and Hebrew. I suggested that the process of sentence *generation* involves the *blending* of a conceptual structure

(representing a conceived event in the world) with an integrating grammatical construction. The resulting blend is the sentence communicated in language. In the process of *interpretation*, the *reverse* conceptual and linguistic operation takes place. The language receptor (hearer/reader) receives as an input the linguistic expression (the linguistic 'blend' generated by the speaker) and attempts to *reconstruct* the linguistic and conceptual blending operation performed by the speaker. A correct mapping reconstruction (as well as additional elaboration and semantic "pattern completion" of the blend) would (ideally) lead to the generation of conceptual constructs in the mind of the language receptor which are quite similar to the constructs from which the speaker generated the sentence. These conceptual constructs constitute the "interpretation" of the sentence.

Figure 8-1 depicts in schematic terms the blending operation underlying the *generation* of the English Caused-Motion sentence *The wind blew the ship off course* (see discussion in chapter 2):

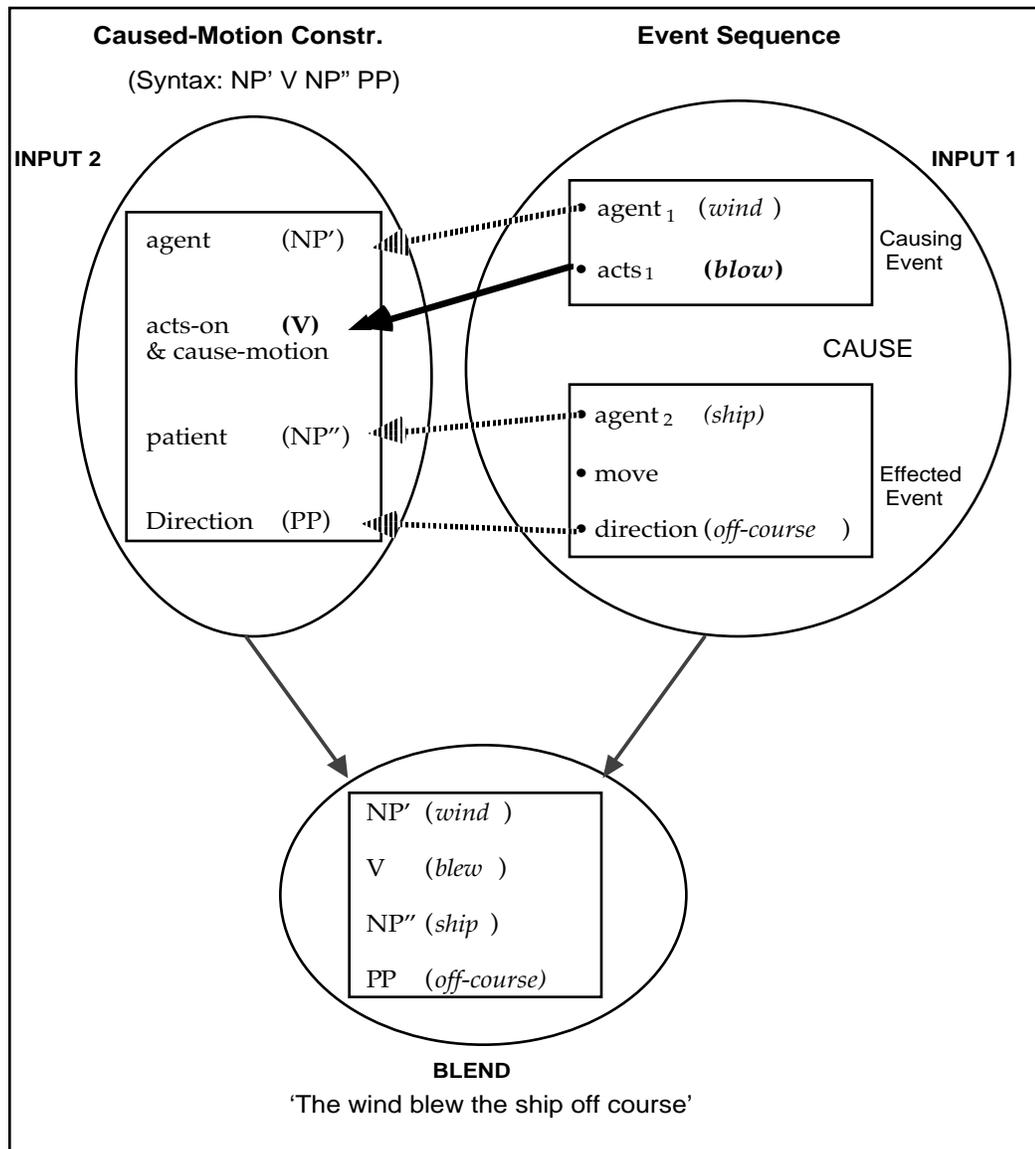


Figure 8-1: The blending operation underlying the generation of the English Caused Motion sentence *The wind blew the ship off course*

The language receptor hears (or reads) the blend (the sentence). The *interpretation* process involves a "de-integration" (or "un-packing") operation of the input blend (the sentence). The syntactic form of the sentence [NP V NP PP] evokes a generic schema of a Caused-Motion event structure (the left upper circle). The hearer attempts to reconstruct the conceptual mapping operation and the conceived event in the world (partially represented in the right upper circle of Figure 8-1), that led to the generation of the sentence. For example, the hearer would try to identify which aspect of the caused-motion event the verb 'blow' refers to (i.e., is mapped onto). Using general knowledge about the participants and physical forces specified in the sentence (winds, ships, etc.), the hearer would probably conclude that the verb 'blows' refers to the wind, and that the blowing of the wind is the *causing* sub-event, which thereby leads to the *motion* of the ship off its course. This reconstruction of the blending configuration occurs so quickly and automatically that language users are barely aware of it. Following immediately is a rapid "completion" of the conceptual representation (or interpretation) of the communicated caused-motion event. For example, the hearer would automatically infer a particular direction of motion (e.g., the ship is shifting *aside*), the substance making up the medium of motion (*water*), and so on. The hearer may also attach some emotional content to the event (particularly if such emotions are part of the hearer's own experience of similar events in the past). Prototypes play a major role in imposing the additional content. For example, the common interpretation of the sentence *the wind blew the ship off course* would be that the physical force of the wind 'pushed' the ship off its course (rather than, for example, indirectly leading the captain of the ship to decide to change direction).

Now, consider the translation process performed by the translator. The translator receives as an input the source text which is itself a linguistic blend. The translator

interprets the source text (i.e., performs the "de-integration" operation, as described above) and constructs some mental representation of the communicated event. The translator's goal now is to express the communicated event in the target language. Therefore, a new linguistic *generation* process takes place again, whereby the translator is linguistically *blending* aspects of the mental representation constructed from the source text into an integrating construction in the target language. The translation process is therefore composed, I suggest, of *two distinct* blending operations: one is the reverse blending ("de-integration") operation involved in the interpretation of the source sentence; the other is the integration operation involved in the generation of the target text⁵.

⁵ In actual practice, the translator moves back and forth from the source text to the target text, trying to reinterpret (or enrich the interpretation of) the source text and then regenerate the target text until a satisfactory solution is found. To simplify, I will discuss translation as consisting of only two processes of interpretation and generation.

Note that when we see a translation example (i.e., a pair of source and target sentences), what we analyze, in fact, is the *outcome* of *two independent blending processes* (Figure 8-2): i.e., the blending process involved in the generation of the source text (performed by the source text author) and the blending process involved in the generation of the target text (performed by the translator). The source and target forms are the two *blends* (the two bottom circles in Figure 8-2), and each may reflect a different mapping and integration operation. The aspects that each blend highlights in language may thus be very different. Therefore, I suggest that when discussing translation examples (and particularly, translation "divergences"), the analysis should not be of the relation between the source and target *texts* (the two blends), but rather of the link between the two *blending configurations* underlying (and motivating) the generation of the source and target forms.

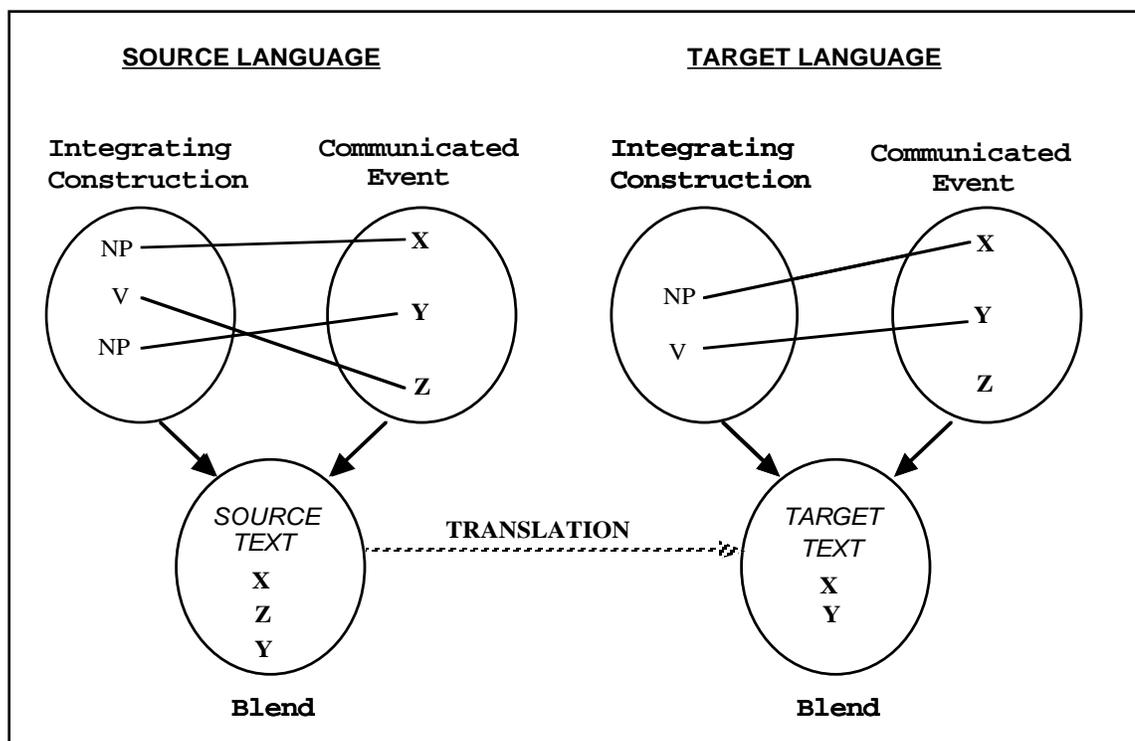


Figure 8-2: Translation is the outcome of two independent blending operations (one in

the source language and one in the target language)

In the following few paragraphs, I summarize the cognitive-linguistic operations that I suggest take place in the translation process (of a single, isolated sentence⁶):

The translator's first task is to interpret the source sentence. The source sentence itself is the result of a blending process (i.e., the sentence is formally a "blend"), generated by the source text creator (the author of the text). "Interpreting" consists of the *reverse* operation of blending, whereby the translator attempts to "reconstruct" the blending configuration (i.e., the particular mapping) that the author of the source text employed in generating the source text. The reconstruction aims at restoring the original conceptual structure which was linguistically "compressed" by the author into a single clause. As analyzed in chapters 2-6, the grammatical form of the source sentence typically provides only partial "instructions" for the reconstruction of the blending operation. The lexical items provide the content of partial aspects (participants and predicates) in the communicated event. An "interpretation" of a text thus typically involves the (automatic) imposition of *additional* information, based on prototypical remembered scenarios and "common-sense" knowledge.

After interpreting the source text (i.e., constructing a conceptual representation, which hopefully matches the event intended to be communicated by the source text author), the translator proceeds to generate the target text (the translation). The aim is to transfer the "meaning" of the sentence (i.e., the content of the generated conceptual representation) to

⁶ In this study, I analyze only individual de-contextualized sentences. Clearly, this is a simplification of everyday translation processes which involve texts or stretches of discourse in context, but to allow a detailed analysis of the cognitive operations involved, I have had to restrict the discussion to small and simple translation units.

the target reader. This is done by finding a linguistic expression in the target language which would evoke in the mind of the target language reader a conceptual structure as similar as possible to the one evoked in the mind of the translator reading the source text. From the linguistic blending point of view, the process involves finding a syntactic pattern in the target language whose associated semantic schema and "rhetorical function" best correlates with the conceptual event structure to be communicated (transferred), and the rhetorical effect the author of the source text intended to convey (as reflected in the choice of grammatical construction by the source text author)⁷. The generation of the target text now involves a *new* linguistic blending process (*independent* from, though clearly *guided* by, the blending performed in the source text), whereby particular aspects from the generated conceptual structure (the "meaning" of the source sentence) are mapped onto the slots of the integrating construction (with their associated lexical representation). These aspects are the ones that will be linguistically expressed in the target text (i.e., the surface form defined as the 'translation product').

At this stage of target text generation, the competition between the 'free' and the 'literal' translation strategies (section 8.1.2) comes into play. The overall goal of the translator is clearly to use linguistic forms (syntactic structures and lexical items) in the target language which "match" the linguistic forms chosen by the source text writer as much as possible⁸.

⁷ Typically, the same event structure may be communicated in a single language via more than one grammatical construction. The constructions differ in their "rhetorical" or "pragmatic" effect, and in the aspects of the event conventionally highlighted in the construction (as in the case of active vs. passive constructions).

⁸ What are *matching* (or equivalent) grammatical structures or lexical items across languages is in itself a fundamental problem in translation theory. First, it is not clear whether we can define universal grammatical parameters that can be "matched" across languages (for example, see my discussion of "imposition" of Indo-European grammatical categories on the Hebrew *binyanim* system, chapter 6). Second, even grammatical forms that seem to be universal are often associated with different *pragmatic* functions (for example, see the discussion in Larson, 1984:225, on the different pragmatic functions associated with

This strategy is favored not only because the translator is expected to be "loyal" to the form of the source text as much as possible (rather than "paraphrasing" the source text), but also, I believe, because the 'literal' translation strategy poses the least *cognitive load* on the translator (at least as a first step in the translation process). The problem with literal translations is that often they result in forms which do not sound natural in the target language (or may even be considered ungrammatical). In the next section, I will analyze translation examples from English into Hebrew and discuss what the actual parameters are that allow a word-to-word transfer in some cases, but not in others. The parameters will be defined in terms of different formal linguistic blending operations conventionally used in each language. The discrepancy or *mismatch* in the grammatical forms and lexical items used in the translations will be analyzed as the outcome of *alternate linguistic blending operations* performed in the generation of the source and the target texts.

8.3 The translation of English caused-motion sentences into Hebrew

In this section and the next, I will examine in detail various translation examples of English Caused-Motion (CM) sentences (of the form [NP V NP PP]; Goldberg, 1995) into Hebrew⁹. The translation data was collected from eight Israeli native Hebrew speakers, all

the passive construction, cited in section 8.0). In addition, a problem exists with the definition of equivalence of lexical items (for recent illuminating discussions, see Larson 1984, and Melby 1995). In this chapter, I will not discuss as much the issue of *lexical* equivalence, but will rather focus on discrepancies in *blending* operations licensed by *grammatical* constructions in different languages. In this respect, the lexical equivalence problem will play only a secondary role in my analysis of translation examples. I assume in my discussion of translation examples that there exists some conventional set of lexical equivalences defined in bilingual dictionaries (as Sager, 1993:222, notes: "Translations are guided by norms which establish permitted ranges of matches at conceptual and linguistic levels. The most commonly accepted equivalents at the lexical level are recorded in bilingual dictionaries").

⁹ All English sentences discussed in this chapter are from Goldberg's (1995) book on English constructions, and from Fauconnier & Turner's (1996) manuscript.

fluent in English as a second language. Thirty-five English sentences were given to each subject to translate. The sentences were provided as a list with no contextual setting, and no particular instructions were given on the translation procedure¹⁰. The same set of thirty-five sentences in English were given to each subject, but in different (random) order. Twenty out of the thirty-five sentences were Caused-Motion sentences (the rest were instances of other English constructions). The subjects (translators) were given as much time as they wanted to complete the task (in average subjects completed the translation of thirty-five sentences in about a week). The subjects could use dictionaries or any other reference books to perform the translation task, but they were asked not to consult each other, or discuss problems they encountered in the translation process.

8.3.1 "Mismatches" in the translation of English Caused-Motion sentences into Hebrew.

Below is a sample of translation examples of English CM sentences into Hebrew (1-4). The English examples (i) are followed by an Hebrew translation (ii), and a word-to-word transfer of the Hebrew version into English (iii). In addition, I provide in this section the *French* translation (iv) to the English sentences¹¹. The form of the French translations turns out to be very similar to the Hebrew ones. While in the rest of this chapter, I will discuss translation examples from English to Hebrew only, the French translations are given in this section as an indication that the translation processes to be discussed for Hebrew in the next

¹⁰ As mentioned before, the lack of context was meant to facilitate the running of the experiment and the analysis of its results, but in fact it provided an interesting glimpse into the working of the cognitive 'prototype effect' - the automatic cognitive imposition of prototype scenarios on under-specified linguistic content.

¹¹ The French translations were produced with slight variations by two native French speakers.

sections are in fact applicable to translation into other languages as well (including French, which belongs to a different language family).

- (1) (i) Frank **sneezed** the napkin off the table.
 (ii) *frank hepil(n.f.l-hif'il) et hamapit min hashulxan behit'atsho.*
 (iii) Frank **fall-CAUSE_{past}** ACC the-napkin off the-table **by-sneezing**.
 (iv) Frank **a fait tomber** la serviette de la table **en éternuant**.
- (2) (i) The wind **blew** the ship off course.
 (ii) *haruax hesita(n.s.t-hif'il) et hasfina mimaslula.*
 (iii) The wind **shift-CAUSE_{past}** ACC the-ship off-its-course.
 (iv) Le vent **a écarté** le navire de sa trajectoire.
- (3) (i) She **trotted** the horse into the stable.
 (ii) *hi hidhira(d.h.r-hif'il) et hasus letox ha?urva.*
 (iii) She **trot-CAUSE_{past}** ACC the-horse into the-stable.
 (iv) Elle **a fait trotter** le cheval dans l'écurie.
- (4) (i) Sam **helped** him into the car.
 (ii) *sam azar('z.r-pa'al) lo lehikanes lamexonit.*
 (iii) Sam **help_{past}** him **enter_{inf}** into-the-car.
 (iv) Sam **l'a aidé à monter** dans la voiture.

As can be seen in translation examples 1-4, the translation of English CM sentences into Hebrew (and French) results in very different grammatical and lexical forms than the original English form. Moreover, note that there is a wide variety of grammatical forms used within one target language in translating the *same* grammatical form in the source language (i.e., the English CM syntactic construction). Note also that in most of the translation examples above, the sense of the main verb in the Hebrew (and French) translation is very different from that of the main verb in the English source sentence. The

Hebrew verb (the main verb in examples 1-3, and the modifying verb in example 4) expresses motion, and has a clear *causative* sense, as manifested by the verbal stem *hif'il* in the Hebrew translations (and by the parallel French *faire-* construction). The large difference in the sense of the English main verb and its Hebrew counterpart suggests that translation of these examples *cannot proceed as a function of the source main verb and its argument structure* (as often suggested in translation theory and practiced in computational models of translation). The large variety of target forms produced as the counterpart of the same source form in English also suggests that no simple transfer rule (or set of lexical parameters) can predict the translation form of every instance of the English CM construction. As we will see in the next sections, this surprising variety of translation forms provided for a single source construction is clarified once the variety of blending operations associated with the causative constructions in each language is taken into account. It is the *interaction* between the different blending operations available in each language (the source and target language) that leads to this large variety of translation "mismatches".

But before analyzing the translation of caused-motion sentences from English into Hebrew, I will first examine the linguistic and cognitive processes involved in the expression of caused-motion event sequences in each language independently (sections 8.3.2 and 8.3.3 below)

8.3.2 Communicating caused-motion events in English

In chapter 2, I discussed the mapping and blending processes involved in the generation of Caused-Motion (CM) sentences in English (following Fauconnier & Turner, 1996). CM sentences in English describe a causal event sequence in which the *effected* (or

resulting) sub-event is an event of motion. As shown by Goldberg (1995), English possesses an independent syntactic pattern to express events of caused-motion. The (active) form of the construction is [NP V NP Directional-PP] (or [SUB V OBJ OBL]). As examples in Goldberg's study suggest, and as pointed out by Fauconnier & Turner (1996), English licenses speakers to blend (map) various predicates from the conceived caused-motion sequence of events into the verbal slot of the integrating CM construction (see discussion in chapter 2)¹². Consider, for examples, the CM sentences 5-10 below:

- (5) The audience laughed the poor guy out of the room.
- (6) She trotted the horse into the stable.
- (7) Rachel helped him into the car.
- (8) She threw the ball into the basket.
- (9) David hammered the nail into the door.
- (10) He Houdinied himself out of the barrel.

In the CM example 5, it is the *causing* predicate within the conceived causal sequence of events that is mapped onto (and expressed by) the verbal slot of the integrating construction. In example 6, it is the *effected* (or *resulting*) predicate (i.e., the motion of the horse), and in example 7, it is the predicate denoting the *causal link* (or 'force dynamics') between the two sub-events in the causal sequence. In example 8, the semantics of the verb itself (a *lexical* caused-motion verb) integrates the whole causal sequence (this is considered

¹² Goldberg (1995) discusses the link between the verb and the construction somewhat differently in terms of what verb classes can be associated with a given construction and the semantic link between the event-type designated by the verb and by the construction. The actual association of a verb and a construction is defined in Goldberg in terms of a *fusion* process between the argument roles of the verb and the participant roles of the construction.

to be the 'prototypical' use of the construction, from which other usages are derived¹³). Examples 5-8 seem to be the most common forms of usage (blending) associated with the CM construction¹⁴. In addition, we find instances of CM sentences whose main verb denotes other aspects of the conceived causal sequence, such as the *tool* used in the causing event (example 9). In example 10, the innovative denominative verb indicates a whole caused-motion event by metonymic reference to a person culturally identified with the communicated event.

8.3.3 Communicating Caused-Motion events in Hebrew

The Modern Hebrew lexicon possesses a couple of *lexical* caused-motion verbs just as in English (i.e., verbs whose root semantics integrates a whole causal sequence of events). These include verbs such as *daxaf*(d.x.f-pa'al)-'to push', *zarak*(z.r.k-pa'al)-'to throw', and *shalax*(sh.l.x-pa'al)-'to send'. These verbs occur in Hebrew with the same syntactic pattern as the English CM construction, i.e., the syntactic pattern [NP V NP directional-PP]. Note that as was predicted by the analysis of Hebrew *binyanim* in chapter 5, these lexical caused-motion verbs are *pa'al* verbs in Hebrew (in chapter 5, it was suggested that the *pa'al* morphology is largely associated with roots whose semantics integrates a *whole*

¹³ Goldberg (1995) defines the link between the verb and the construction in examples such as (8) as one whereby (the event-type designated by) the verb is a *subtype* of (the event-type designated by) the construction.

¹⁴ Goldberg (1995:65) defines a hierarchy of relation types between the event type designated by the verb (V) and by the construction (C):

1. V is a subtype of C.
2. V designates the means of C.
3. V designates the result of C.
4. V designates a precondition of C.
5. (to a very limited extent) V may designate the manner of C, means of identifying C, or the intended result of C.

causal sequence of events, thereby construing the causal event sequence as an integrated single event-predicate).

In addition we find in the Hebrew lexicon a few *pi'el* caused-motion verbs whose root designates an act which causes (i.e., forces, allows, or enables) the motion of a patient. This group includes verbs such as *shixrer* (*sh.x.r.r-pi'el*) and *xilec* (*x.l.c-pi'el*) - 'to set free or liberate', as well as force-dynamics "speech act" verbs (Talmy 1985) such as *geresh* (*g.r.sh-pi'el*) - 'to expel', 'to deport'. The root of the "speech-act" verbs designates a *linguistic* (communicative) act which causes (via epistemological or social force dynamics, rather than physical force, cf. Sweetser 1990) the motion of an affected patient. The caused-motion *pi'el* verbs are commonly used with a prepositional phrase (*me-* 'from') identifying the *source* of motion (as in 'to expel/deport/liberate someone *from* somewhere or someone')¹⁵.

In contrast to English, we do *not* find that the syntactic pattern [NP V NP dir-PP] has gained independent existence in Modern Hebrew to freely designate novel types of caused-motion events (as suggested by Goldberg 1995 for the equivalent English pattern)¹⁶. For example, sentences 11-12 are definitely ungrammatical in Hebrew:

- (11) * *hakahal caxak et hasaxkan mehabama.*
 the-audience laughed ACC the-actor off-the-stage.
- (12) * *hi azra lo letox hamexonit.*
 she helped him into the-car.

¹⁵ Stern (1994), in a note on the Hebrew verb *giresh* - 'expel', comments that the verb may also be used with a specification of the locative *goal* (i.e., 'to expel or deport someone *to...*'), though he could not find this usage pattern in his corpus (i.e., this pattern is not frequent). Stern defines this usage as *elliptic* (i.e., the origin of motion has been omitted).

¹⁶ Some evidence exists however for independent occurrence of Caused-Motion and Transfer constructions in *Biblical* Hebrew, as found in a paper by Rubinstein (1976) (see some discussion in chapter 5, and in Mandelblit, 1996).

To communicate caused-motion events in Hebrew (which are *not* lexicalized in a single root in the Hebrew lexicon) as an integrated single event (i.e., using a single syntactic construction and a single predicate), Hebrew speakers would make use of a more generic causative syntactic construction - the Basic Transitive Construction ([NP V *et* NP]). This construction (which was discussed in chapters 4-5) is associated with a generic causative semantic schema of an agent acting on and affecting a patient (see definition in section 4.1.1.). To express caused-*motion* events, the Basic Transitive construction may be used in Hebrew with one of the many *hif'il* verbs available in the current Hebrew lexicon, whose root designates an intransitive *motion* event (e.g., *heric* - 'cause to run'; *hepil* - 'cause to fall', *hoci* - 'cause to come out, bring out', etc.). As analyzed in chapter 4, the *hif'il* verbal morphology in Hebrew marks that the event indicated by its root, is an *effected* event in a causal sequence. This way, a whole causal sequence of events (with an effected event of motion) can be integrated into a single predicate, as in example 13 (discussed in section 4.1.1, Figure 4-2):

- (13) *hamefaked heric* (*r.u.c-hif'il*) *et haxayal* (*misaviv labasis*).
 the-commander run-hif'il past ACC the-soldier (around the-camp)
 'The commander made the soldier run (around the camp)'

Another option for the Hebrew speaker communicating a conceived causal sequence of events is to specify the *causing* event via the verbal slot of the integrating construction (using one of the many *pa'al*-root verbal combinations available in the formal lexicon). In this case, the *effected motion* event is left implicit unless it is specified in an independent (satellite) construction. As discussed in chapter 5, the *pa'al* pattern construes the event indicated by its root as an *autonomous, independent* event. Hence, to communicate the occurrence of a *causal* sequence, an explicit indication of the effected event is necessary.

The latter translation strategy results in a less "elegant" (i.e., longer and more cumbersome, though informative) target sentence compared to the use of an *hif'il* verb (compare, for example, translation examples 14a-15a vs. 14b-15b in the next section). In general, once a particular root-verbal pattern combination is chosen as the main verb in the translation, any other predicates (aspects) of the event which are considered important for the purpose of communication (or for the correct reconstruction of the event by the hearer) have to be expressed via *additional* clauses or adjunct adverbial phrases. We will discuss such instances in the translation examples of English CM sentences into Hebrew in the next section.

8.4 The core analysis: "strategies" employed in the translation of English Caused-Motion sentences into Hebrew

After identifying the possible ways to express Caused-Motion event sequences in English and Hebrew via a single clause construction (sections 8.3.2-3), I will now go on to analyze in detail translations examples of English caused-motion sentences into Hebrew, and identify the translation "strategies" that were employed. The examples discussed in this section are the translations provided by the eight Israeli subjects in my translation experiment. For each English source sentence I will discuss only two or three different translations which are representative of all eight translations produced in the experiment (the other translations being different from the ones discussed in the chapter only in choice of synonymous lexical items, or in the order of words when word order in the Hebrew integrating construction is variable).

The translation examples analyzed in this chapter suggest that the translators (in the experiment) were guided by (at least) three generic principles of translation:

- (1) Stay as close as possible to the *form* of the source text (and the particular aspects of the communicated event *highlighted* in the source text).
- (2) Keep the *communicative function* (or *goal*) of the source text (i.e., both its semantics and its pragmatic-rhetorical effect).
- (3) Create a sentence which sounds natural in the target language¹⁷.

¹⁷ Compare these three principles to Larson's (1984:6) statement that:

... the best translation is one which (a) uses the normal language forms of the receptor language, (b) communicates, as much as possible, to the receptor language speakers the same meaning that was understood by the speakers of the source language, and (c) maintains the dynamics of the original source language text. Maintaining the 'dynamics' of the original source text means that the translation is presented in such a way that it will, hopefully, evoke the same response as the source text attempted to evoke.

As will be evident in the translation examples discussed in this chapter, the eight translators who generated the Hebrew translations in the experiment must have had different priorities assigned to each of the general translation principles (1-3). For example, some translators provided a lot of explicit linguistic information in the target text (probably to assure principle #2), but this resulted in non-natural sentences in Hebrew (conflicting with principle #3). Other translators generated short elegant sentences in Hebrew (principle #3) which explicitly provided only minimal information, and were sometimes very different in form from the source sentence (conflicting with principle #1).

The analysis of translation examples in this chapter identifies various *translation strategies* defined in terms of the particular blending operation employed in the generation of the target sentence (the translation), as a function of the blending operations underlying the source sentence. The blending configuration of the source sentence defines the specific aspects of the communicated caused-motion event that are explicitly expressed (or "highlighted") in the language. The blending and "highlighting" pattern of the source text guides the translator in the generation of the target sentence (translation principle #1).

It is important to note that I *do not suggest* that the translators in this informal experiment proceeded according to *planned* translation strategies. The translation process looks more like a trial-and-error process, until a satisfactory solution (translation) is found¹⁸. However, in an 'ad-hoc' analysis of the final translation solution, we can identify

Note that in Larson's terms there is a division between the "meaning" of a text, and the response it evokes. In the blending analysis followed in this manuscript, in contrast, the "meaning" of a linguistic expression *is* the response it evokes. The "meaning" of an expression is the conceptual representation that the linguistic expression evokes. This conceptual representation includes not only the "truth-condition" semantics of the sentence but also its communicative effect, the emotion it evokes, and so on.

¹⁸ Mildred Larson (1984:476) describes a typical translation procedure as follows:

"In actual practice, the translator moves back and forth from the source text to the receptor text. Sometimes he will

general "translation strategies" which were followed unintentionally and non-sequentially by the translator. Defining such ad-hoc translation strategies helps to sort out the confusing range of translation divergences found in the translation data, and indicate the type of conceptual and linguistic processes involved in the translation process and their cognitive complexity. The strategies that will be defined for translation of English CM sentences into Hebrew (and their extension to the translation of additional constructions) can also be useful (at least as "rules of thumb") for constructing *automated* Machine Translation systems (see discussion in chapter 9).

All translation examples in this section will be presented in the following format: the English source sentence (numbered by Arabic numerals) will be followed by two or three Hebrew translations numbered by alphabetical letters (A, B, C,...). Each Hebrew translation consists of: (i) the Hebrew sentence in *italics*; (ii) a word-to-word transfer of the Hebrew sentence into English (including the *binyan* and tense of the main verb¹⁹); and (iii) an optional free translation, indicated by single quotes.

8.4.1 When the verb in the English CM source sentence "highlights" the *causing* predicate

be analyzing the source text in order to find the meaning, then restructuring this meaning in the receptor language, and moving back once again to look at the source text or the semantic analysis which he has done."

Sager (1993:214) similarly notes that "translators systematically move from source to target document and vice versa in order to both confirm and add new semantic and linguistic information and so build up a new text, which is provisional until a larger pragmatic unit is completed . . . [the process can be illustrated] as a series of circular movements of smaller and larger extension".

¹⁹ However, to simplify the coding, no other inflectional properties (e.g., the number and person inflection of the main verb) are marked.

The CM English sentences 14-(16) below all "highlight" (via the main verbal slot of the construction) the *causing* predicate within the conceived caused-motion sequence of events.

- (14) The audience laughed the poor guy off the stage.
- (15) The wind blew the ship off course.
- (16) Bill kicked the dog into the house.

Figure (8-3-A) describes the blending operation involved in the generation of English sentence 14.

common or prominent enough to be linguistically represented by a single verbal stem. Not surprisingly, we find that the Hebrew lexicon does not contain a single root to indicate these causal sequences either. Since an independent CM construction does not exist in Hebrew (see discussion in section 8.3.3), the translator is forced to make use of the Hebrew Basic Transitive Construction which is associated with more generic causative semantics (section 4.1.1), and map *one* sub-event from the causal sequence into the verbal slot of the construction. Other aspects of the event have to be expressed via satellite adjunct or coordinated syntactic structures, as can be seen in the translation data below:

(14) The audience laughed the actor off the stage.

A: *hakahal hivriax (b.r.x-hif'il) et hasaxkan mehabama becxoko.*
 the-audience run-away-hif'il_{past} ACC the-actor from-the-stage by-laughter.

'The audience chased the actor off of the stage by laughter'

B: *hakahal caxak (c.x.k-pa'al) vehivriax(b.r.x-hif'il) et hasaxkan mehabama.*
 the-audience laugh_{past} and-run-away-hif'il_{past} ACC the-actor from-the-stage.

'The audience laughed and chased the actor off of the stage'

(15) The wind blew the ship off course.

A: *haruax hesita(s.u.t-hif'il) et hasfina mimaslula.*
 the-wind shift-hif'il_{past} ACC the-boat from-its-course.

'The wind shifted the boat from its course'

B: *haruax nashfa(n.sh.f-pa'al) al hasfina vehesita(s.u.t-hif'il) ota mimaslula.*
 the-wind blow_{past} and shift-hif'il_{past} ACC the-boat from-its-course.

'The wind blew and shifted the boat from its course'

(16) Bill kicked the dog into the house.

A: *bill hixnis(k.n.s-hif'il) et hakelev habayta bebeitot.*

Bill enter-hif'ilpast ACC the-dog into-the-house by-kicking .

B: *bill ba'at(b.'t-pa'al) bakelev vehixrixa (k.r.x-hif'il) lehikanes habayta.*

Bill kickpast the-dog and-forcepast-it to-enter the-house

C: *bill geresh(g.r.sh-pi'el) et hakelev el tox habait.*

Bill "drive-away"past ACC the-dog to inside the-house.

'Bill "herded" the dog into the house.

Two prominent translation strategies are revealed in translation examples 14-16:

The first strategy is to map the *effected* motion predicate into the verbal slot of the Basic Transitive construction, and mark it by the *hif'il* stem (for discussion of the blending schema of *hif'il*, see chapter 4). Note that the effected motion predicate is not explicitly mentioned in the source text. This means that the translator must independently *infer* the type (or manner) of motion involved, and choose a consonantal root in Hebrew that expresses this type of motion and that is used in combination with the *hif'il* stem in the standard lexicon. The direction of motion is expressed via a prepositional phrase adjunct to the main integrating construction.

Following such a translation strategy means that information about the *causing* predicate (explicitly specified in the source text) is *not* part of the basic transitive clause in the target text. Several solutions are adopted by the translators in examples 14-16:

In translation examples 14-A and 16-A the causing event is indicated by an adjunct means *be*-phrase (*by*-phrase in English). The causing event is thus conceived and expressed as the *means* for inducing the effected event (indeed in language after language we find that causal agents and instruments or means are marked by the same preposition²⁰, a fact which suggest they are categorized together conceptually).

In translation examples 14-B, 15-B, and 16-B the causing predicate is indicated by a *coordinated* verb placed (temporally and spatially) *before* the linguistic indication of the *effected* predicate. This translation strategy achieves the communicative effect of the source

²⁰ For example, the same preposition *par* in French, or *by* in English, is used to mark both the "means" for achieving some state or effect (as in *prendre par la main* - hold **by** the hand), and to mark a causal agent (as in *Goliath fut tué par David* - Goliath was killed **by** David). In Hebrew, the preposition *be-* is used to mark both the means or medium (as in *halax baregel* - 'walk **by** foot) and the tool (as in *katav be'et* - 'write **with** a pen').

CM construction by drawing on a fundamental cognitive perceptual phenomena whereby events occurring in close temporal sequence are perceived to be in *causal* relation: the earlier event is perceived as causing the later event (this cognitive phenomena has been noticed and discussed by philosophers such as Hume and Kant). The translator can therefore assume that a sequential coordination of the causing and effected predicates in the target text would evoke in the mind of the target language reader a conception of the two events as a causal sequence. Note also that the very placing of the two predicates (the causing and effected predicates) in a *single* syntactic construction as coordinated verbs (rather than in two coordinated clause constructions) further construes the two events as directly linked to each other and part of a single tightly-integrated macro-event. Moreover, the linguistic integration of the non-causal (non-transitive) causative verb (e.g., the verb *caxak* - 'laugh' in example 14-B) within a *transitive* construction together with an *hif'il* transitive verb (by means of what is traditionally referred to as grammatical 'ellipsis') rhetorically gives a causative/manipulative "flavor" to the predicate 'laugh' itself, pointing to its manipulative/causative role in the macro-event.

As a third strategy, the translator may omit the explicit indication of the *causing* predicate in the translation, even though this information is highlighted in the source sentence. This is the case in translation example 15-A. The causing predicate (*blowing*) is completely omitted from the translation. The decision not to indicate the causing predicate is (probably) based on the assumption that this information can be retrieved independently by the target reader based on information explicitly provided in the translation and general world knowledge (about winds and their typical 'actions'). Note that translation 15-A contradicts translation principle #1 (defined at the beginning of section 8.4) stating that all information explicitly expressed in the source text should also be expressed in the target

text. On the other hand, by omitting information which can be retrieved by the target reader, the translator gains a translation which sounds more elegant and natural in the target language (translation principle #3).

A completely different translation strategy is exemplified in translation example 16-C. The translator in 16-C preferred to use a more generic *piel* verb *geresh*. This verb is primarily used with human patients, meaning 'to deport', 'to expel', or 'to divorce', referring mostly to speech act events which cause physical or metaphorical motion, but it can also be used to refer to physical actions intended to 'drive away' a patient (usually an animal). Since the verb *geresh* already denotes an event of caused-motion, it can be followed by a prepositional phrase indicating the direction of motion, which is then understood by the reader as the affected direction of motion of the patient. This generic caused-motion verb however is not as specific with regard to the actual causing physical force being used (e.g., 'kicking' in 16). In translation example 16-C, the information about the causing activity (kicking) is omitted from the translation.

Figure 8-3-B compares side by side the blending operations involved in the generation of one translation example: the English source sentence 14 and its Hebrew translation 14-A. The generation of the source English sentence is described on the left side of the figure, and the generation of the target Hebrew sentence is described on the right side of figure. Both blending operations start from the *same* conceptual structure representation (Input 1), but differ in the integrating syntactic constructions and their associated semantic schema (Input 2), as well as in the particular linguistic blending configuration employed in each language. The two blending processes therefore result in completely different surface linguistic forms (i.e., the two "blends", or the two bottom circles in Figure 8-3b). Note that without a detailed analysis of the grammatical blending options available in each language, it would have been extremely difficult to account for the widely diverging forms 14 and 14-A considered to be the "translation equivalents" of each other.

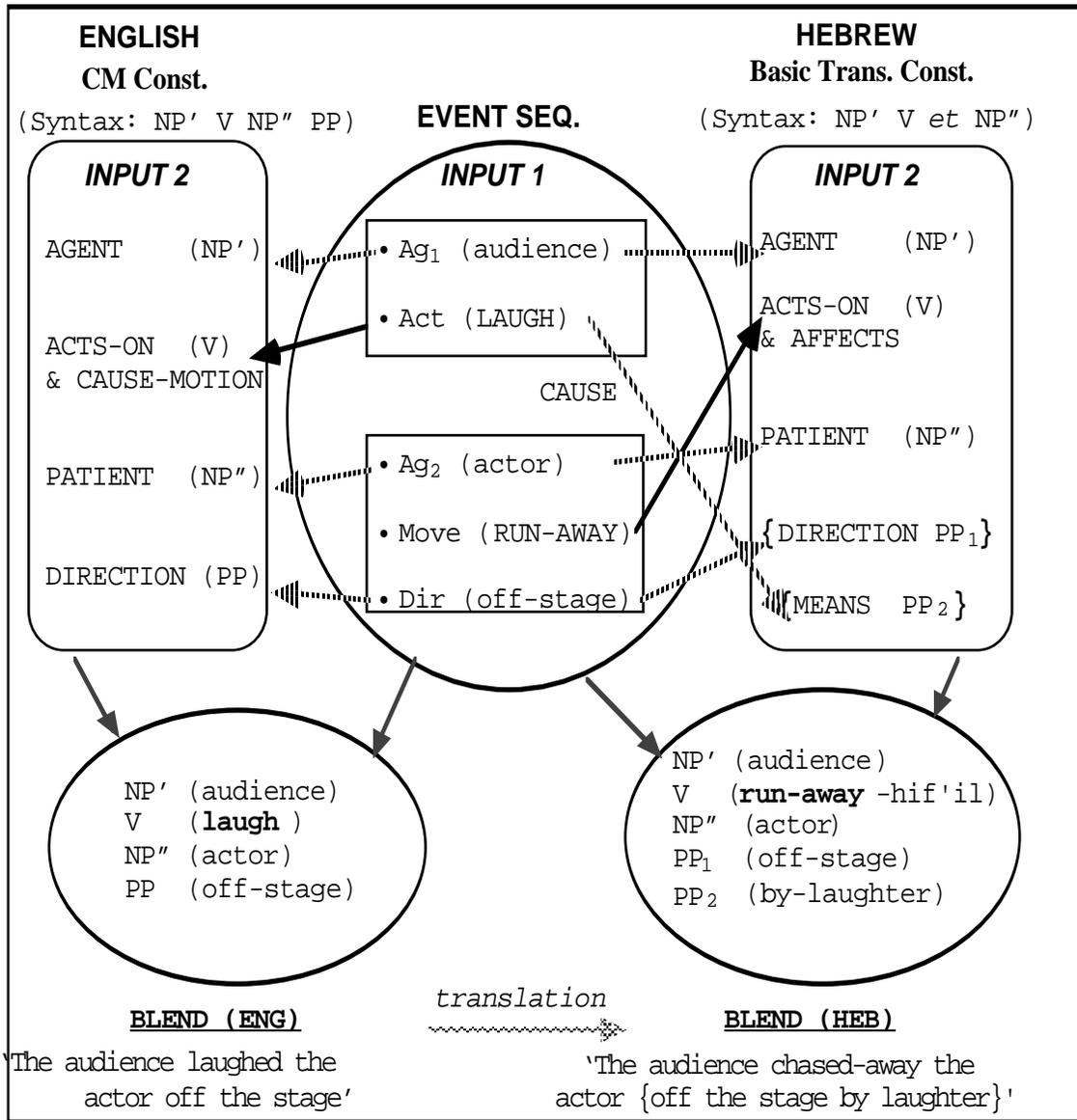


Figure 8-3-B: The blending operations underlying the translation of the English sentence *The audience laughed the poor guy off the stage* into Hebrew.

8.4.2 When the verb in the English CM source sentence "highlights" the *effected* predicate

A very different picture of the translation of English CM sentences into Hebrew is revealed in the translation of sentences 17-18:

(17) She trotted the horse into the stable .

A: *hi hidhira (d.h.r-hif'il) et hasus letox ha?urva.*
 She trot-hif'il_{past} ACC the-horse into the-stable.
 'She trotted the horse into the stable'.

(18) The company flew her to Chicago for an interview

A: *haxevara hetisa(t.u.s-hif'il) ota lechicago lere?ayon*
 the-company fly-hif'il_{past} ACC-she to-Chicago for-interview.
 The company flew her to Chicago for an interview

The CM English sentences 17-18 "highlight" (via the main verbal slot) the *effected* predicate within the conceived caused-motion sequence of events. Figure 8-4-A describes the blending operation involved in the generation of English sentences 17:

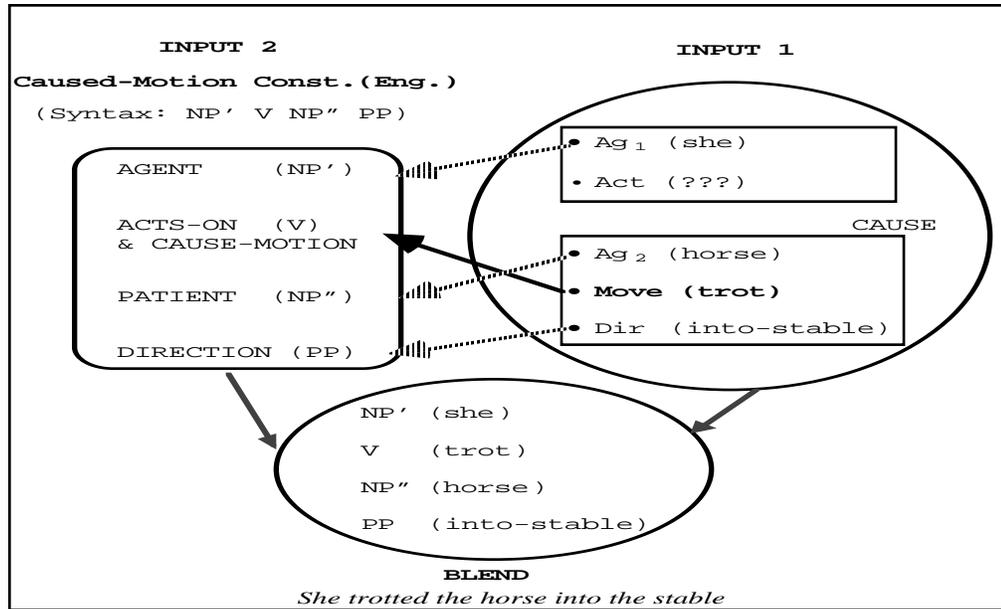


Figure 8-4-A: The blending operation underlying the generation of the English Caused Motion sentence *She trotted the horse into the stable*.

In contrast to the varied target forms produced as the Hebrew translations of English sentences 14-16, the translation of English CM sentences 17-18 into Hebrew is straightforward (almost a word for word translation). Moreover, all eight translators in the experiment provided exactly the same translation (target form) for each source sentence (17 or 18). Note that the only difference between the English source sentence and the Hebrew target sentence is that in Hebrew the main verb's morphological form *hif'il* explicitly indicates that the event denoted by the verbal root is an *effected* event within a causal sequence of events. This information is not linguistically marked in the English source sentence (i.e., nothing in the grammar of the sentence marks whether the main verb denotes the causing or the effected predicate in the caused-motion macro-event).

The direct translation of the CM English sentences 17-18 into Hebrew, which contrasts so sharply with the range of translation "mismatches" encountered before (examples 14-16), is naturally accounted for when considering the blending configurations in the English CM sentences 14-18 and those licensed by the integrating constructions of the target language (Hebrew). As discussed in section 8.3.3, the best strategy to communicate a CM event in a single verbal predicate in Hebrew (assuming no one lexicalized root exists in the lexicon which denotes the whole sequence) would be to map the event into the Basic Transitive syntactic construction (since no independent CM construction exists) and to use an *hif'il* verbal form (which marks an effected predicate in a causal sequence).

The translation "mismatch" between the source and target forms in translation examples 14-16 results from the fact that the English sentences highlight (or map onto the main verb) the *causing* predicate, while the Hebrew sentences map the *effected* predicate. The difference in the "highlighting" patterns in each language forces the translators of sentences 14-16 to come up with creative solutions which would be on one hand faithful to the

highlighting pattern of the source sentence and on the other hand responsive to the grammatical "blending tendencies" of the target language. The search for a creative solution results in the large variety of translation forms produced by the different translators to the *same* source sentence.

Translating the English CM sentences 17-18, in contrast, is straightforward. The source sentence highlights the *effected* predicate in the caused-motion event, and therefore matches the "blending tendencies" of the target language (Hebrew). No creative solutions are required as evident in the fact that all eight translators produced exactly the same target form (a word-for-word translation).

It is important to note that nothing in the grammatical or lexical properties of the source sentence itself can predict the form of the translation (whether direct or divergent from the source text). It is only through the analysis of the particular blending operations prompted by each source sentence that the form of the translation can be motivated (and predicted to some extent).

Figure 8-4-B demonstrates the (almost) *identical blending operation* involved in the generation of the source and target sentences in translation example 17. The two identical blending processes result in very similar surface linguistic forms.

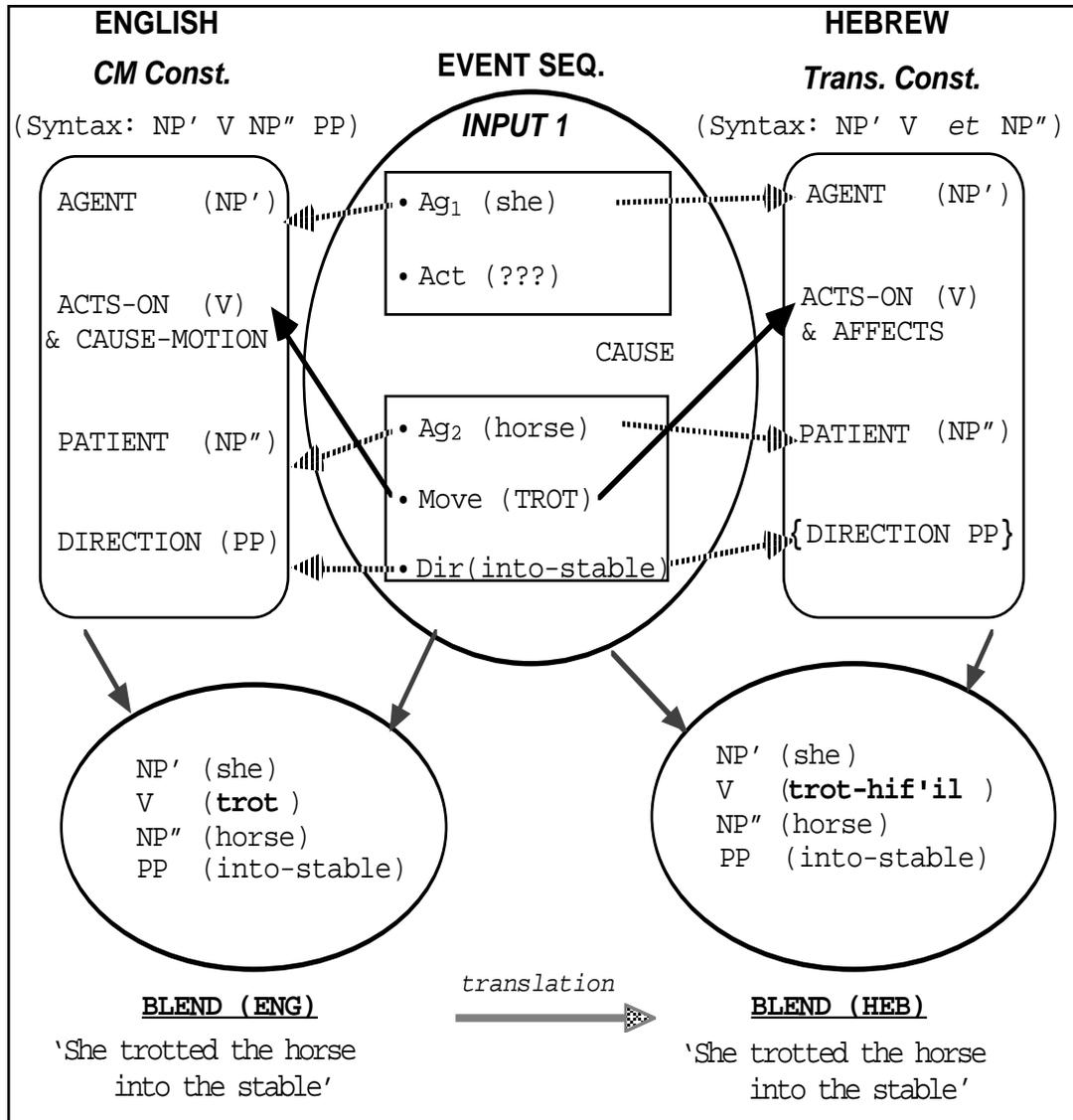


Figure 8-4-B: The blending operation underlying the translation of the English sentence *She trotted the horse into the stable* into Hebrew.

8.4.3 When the verb in the English CM source sentence semantically "integrates" the whole causal sequence

The translation of the English CM sentences 19-20 into Hebrew is even more straightforward than any of the examples discussed before. The source and the target forms are completely identical in word order, grammatical marking, and choice of lexical items. The main verb in the CM English sentences 19-20 integrates in its semantics a *whole* caused-motion sequence of events (i.e., the verb itself denotes the agent's causing action, the effected motion, and the causal force-dynamics). The *root* of the parallel main verb in Hebrew similarly integrates in its semantics a whole caused-motion sequence, and the verbal morphology (*pa'al*) construes the event as *autonomous* (i.e., not as part of a larger causal sequence, see discussion in chapter 5).

(19) He put the phone on the desk .

A: *hu sam (s.i.m-pa'al) et hatelefon al hashulxan.*

He put_{past} ACC the-phone on the-desk.

(20) She threw the ball into the basket.

A: *hi zarka(z.r.k-pa'al) et hakadur letox hasal.*

She threw_{past} ACC the-ball into the-basket.

Note that the lexical caused-motion verbs ('put', 'throw') in the English examples 19-20 indicate causal sequences which are common and elementary to human experience, and that is probably why they evolved to be represented linguistically by a single symbol in English. Since these caused-motion events ('put', 'throw') are universal, rather than culture-specific, it is not surprising that they are also represented by a single lexical *root* in the Hebrew lexicon (*s.i.m*, *z.r.k*), a fact which allows a direct word-to-word translation from English into Hebrew of examples 19-20.

Figure 8-5 demonstrates the identical mapping configuration involved in the generation of the source and target sentences in translation example 20. The two identical blending processes result in a one-to-one lexical and syntactic equivalence between the source and the target sentences.

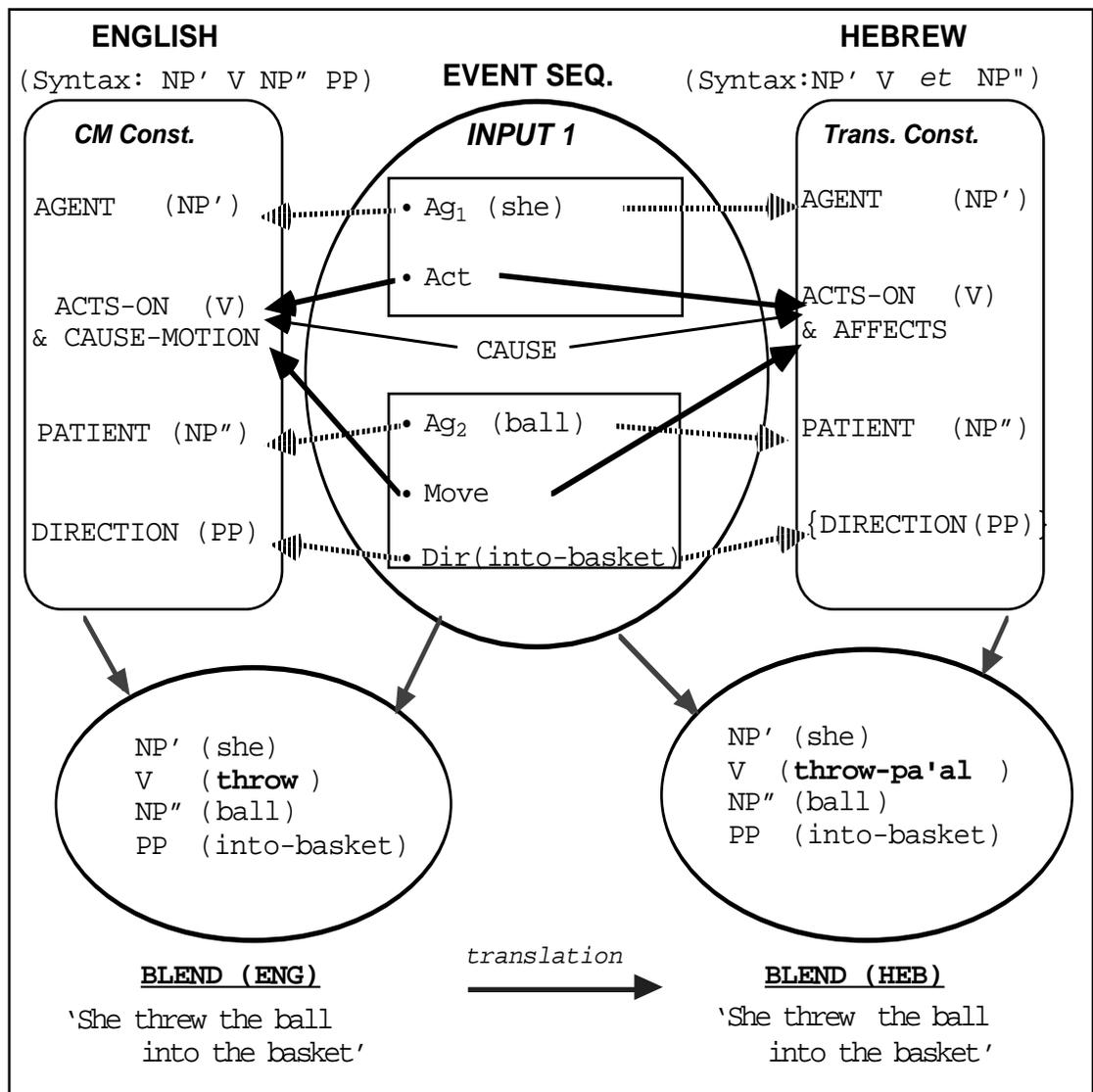


Figure 8-5: The blending operation underlying the translation of the English sentence
She threw the ball into the basket into Hebrew.

8.4.4 When the verb in the English CM source sentence "highlights" the *causal* predicate

The CM English sentences 21-23 "highlight" (via the main verbal slot) the *causal force-dynamics link* between the causing sub-event and the effected sub-event in the caused-motion macro-event. Note that the form of the Hebrew translation of these CM English sentences is different from the Hebrew translations discussed so far (examples 14-20).

(21) Rachel helped Sam into the car.

A: *raxel azra('z.r-pa'al) lesam lehikanes(nif'al) letox hamexonit.*
 Rachel help_{past} Sam enter_{infinitive} to-inside-of the-car.
 'Rachel helped Sam get into the car'.

(22) Sam allowed Bob out of the room.

A: *sam hirsha(r.sh.h-hif'il) lebob lacet(y.c.-pa'al) mehaxeder.*
 Sam allow_{past} DAT-Bob go-out_{infinitive} from-the-room
 'Sam allowed Bob to leave the room'.

B: *sam shixrer(sh.x.r.r-pi'el) et bob mehaxeder.*
 Sam released ACC Bob from-the-room.

(23) Sue let the water out of the bathtub

A: *sue natna(n.t.n-pa'al) lamaim lizrom(z.r.m-pa'al) el mixuc la?ambatya*
 Sue let_{past} the-water-DAT flow_{infinitive} to the-outside of-the-bathtub.
 'Sue let the water flow out of the bathtub'.

B: *Sue hoci?a(y.c.-hif'il) et hamaim min ha?ambtaya.*
 Sue go-out-hif'il_{past}. ACC water from-the-bathtub.

C: *Sue rokna(r.k.n-pi'el) et ha?ambtaya mimaim.*
 Sue emptied ACC the-bathtub of-water.

So far (sections 8.4.1-3) I discussed three major "strategies" to express caused-motion events in Hebrew via a single clause construction: the integrating construction in all was the

Hebrew *Basic Transitive construction*, with different predicates from the caused-motion macro-event mapped onto the main verb (and accordingly marked by a particular *binyan*): the first strategy involves the use of *hif'il* verbs whose root denotes an *effected motion* predicate (as in translation examples 14-18A); the second strategy involves the use of *pa'al* verbs whose root denotes the *causing* predicate, but since the *binyan* defines the predicate as autonomous, it must be followed by a coordinated verb whose root specifies the resulting (effected) predicate (as in translation examples 14-15B). The linear coordination triggers a reconstruction of the two predicates as causally related; the third strategy involves the use of lexicalized caused-motion verbs which integrate a whole causal sequence of events in their root semantics (as in translation examples 19-20A)..

The use of these three translation strategies is exemplified once more in translation examples 22B, 23B, and 23C below²¹, but we also find a new translation strategy exemplified in 21A, 22A and 23A, in which the translator makes use of a different integrating syntactic construction: the *Analytic Causative construction* in Hebrew [NP V *le* NP V-infinitive]. The Hebrew Analytic Causative construction (just like analytic causative constructions in many other languages) has *two* verbal slots: into the first verbal slot speakers conventionally map a root denoting the *causal* relation (verbs like *make*, *let*, *allow*, commonly in the basic *pa'al* stem in Hebrew), marked with tense, gender, and number; into the second verbal slot speakers map the root denoting the *effected* event in the causal sequence (marked in the infinitive form). Figure 8-6a describes the blending operation involved in the generation of an analytic causative sentence in Hebrew (such as example 21A).

²¹ Example 23C involves a different mapping of *participants* than the ones discussed before.

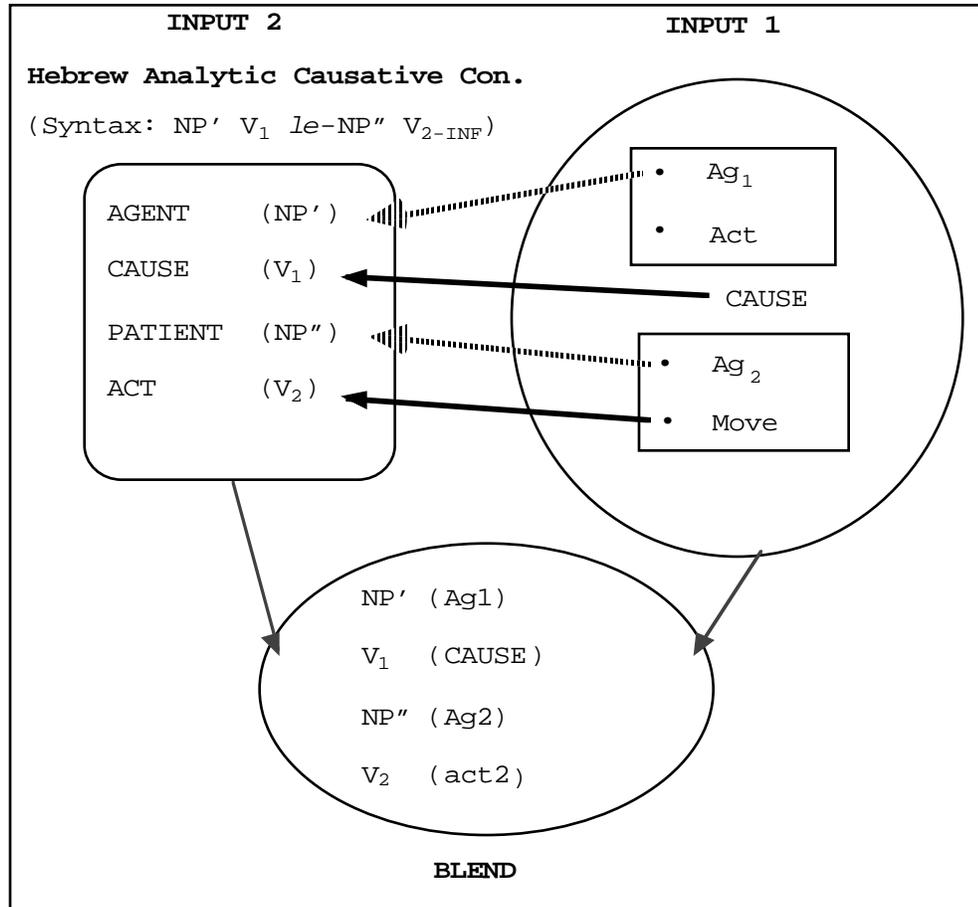


Figure 8-6a: The blending operation underlying the generation of an analytic causative sentence in Hebrew.

Hebrew (unlike many European languages) makes relatively little use of the Analytic Causative construction. As Berman (1982:175) notes (citing work by Baron, 1977), while the use of the analytic causative construction with generic causal verbs like 'make' and 'cause' in Hebrew is not strictly ungrammatical, such utterances are considered childish in style and older speakers prefer to use lexicalized integrated causative forms (e.g., *hif'il* or *pa'al* "lexical-causative" verbs). This usage fact explains why the Analytic Causative

construction has not been used in the CM translation examples discussed before (14-20). It is only when the source text *explicitly* denotes the causal (force-dynamics) predicate that the translator is led to use the analytic construction in Hebrew which allows the linguistic expression of the causal predicate as well (this translation strategy follows translation principle #1, defined in the introduction to section 8.4, which suggests that a goal of a translator is to keep the form of the source text, and "highlight" the same aspects in the communicated event).

In addition, pragmatic factors (associated with the Analytic Causative construction) seem to play a role in the translator's choice of this construction (over the Basic Transitive construction) as the integrating syntactic construction in the Hebrew translation. The analytic causative construction is associated with *less direct* causal relation between the causing and the effected events than the Transitive construction (since the Transitive construction is used with *lexicalized* integrated causative forms that are associated with maximal conceptual causal integration, as suggested, for example, by Lakoff 1987). Hence, it is only when the English source sentence *explicitly* specifies a causal relation predicate which is understood by the translator as less physically direct (as in 'help' or 'allow') that a construction in Hebrew associated with less direct causal relation as well is employed (i.e., the analytic causative construction).

Note also an additional consideration in the choice of the integrating target syntactic construction, as exemplified in the translation of sentence 23 vs. 21. While in 23, a translation using a transitive construction (and a causative *hif'il* or *pi'el* verb) is acceptable (as in 23B-C), this same translation strategy is questionable in 21 (and indeed all translators in my experiment provided an analytic-causative translation for 21). The explanation I suggest is that in 23, a *prototypical* causal scenario is automatically imposed on the

interpretation of the sentence (i.e., that Sue let the water out off the bathtub by removing the bathtub plug). This (almost inevitable) imposition is an outcome of the daily experience readers have with this particular event, and thus the translator can assume this interpretation would be evoked for whatever grammatical construction is used. In sentence 21, in contrast, there is no one prototypical causal scenario associated with the event (causing a person to move out of a car may be achieved by different means: e.g., by exerting direct physical force on the patient, by offering direction, by opening the car door, etc.). The use of a transitive *hif'il* form in Hebrew (such as *hoci* - 'cause to move out') will impose a direct physical force interpretation, which is different from the interpretation evoked by the verb 'help' in the English sentence. The translator is therefore driven to use the analytic construction (*help+V*) (which is associated with less direct causal force-dynamics in Hebrew) to evoke in the translation the same non-direct causal interpretation evoked by the source text.

To summarize, an important point demonstrated in translation examples 21-23 is that knowing the grammatical form of the source sentence is still not enough to define the grammatical form of the translation to be generated. The particular constructions available in each language, the semantics associated with each, and the blending operations each construction licenses only provide the starting point for analyzing and predicting the translation strategies employed. To account for actual translation examples, a detailed analysis of prototypical semantic structures that may be imposed by readers on the text is required. As discussed in this section, when several interpretations may be evoked by the same linguistic form (as in example 21), the translator must practice extra care in following the form and blending configuration of the source text, by taking into account saddle semantic and pragmatic properties associated with each construction, and trying to find a

target form which would evoke the same interpretation in the mind of the target language reader as the source text does in the mind of the source language reader. Such extra caution is not necessary when a single prototypical interpretation is expected to be evoked by minimal explicit information.

Figure 8-6-B demonstrates the different blending operations associated with the generation of the English source sentence 21 and its Hebrew translation 21A. The different blending configurations in the source and target languages result in different linguistic forms (i.e., in translation "mismatch"). Note that the translation process requires that the translator infer information not explicitly provided in the source text: the effected motion event ('enter') is only implicit in the source sentence, but its specification is required in the target Analytic Causative construction.

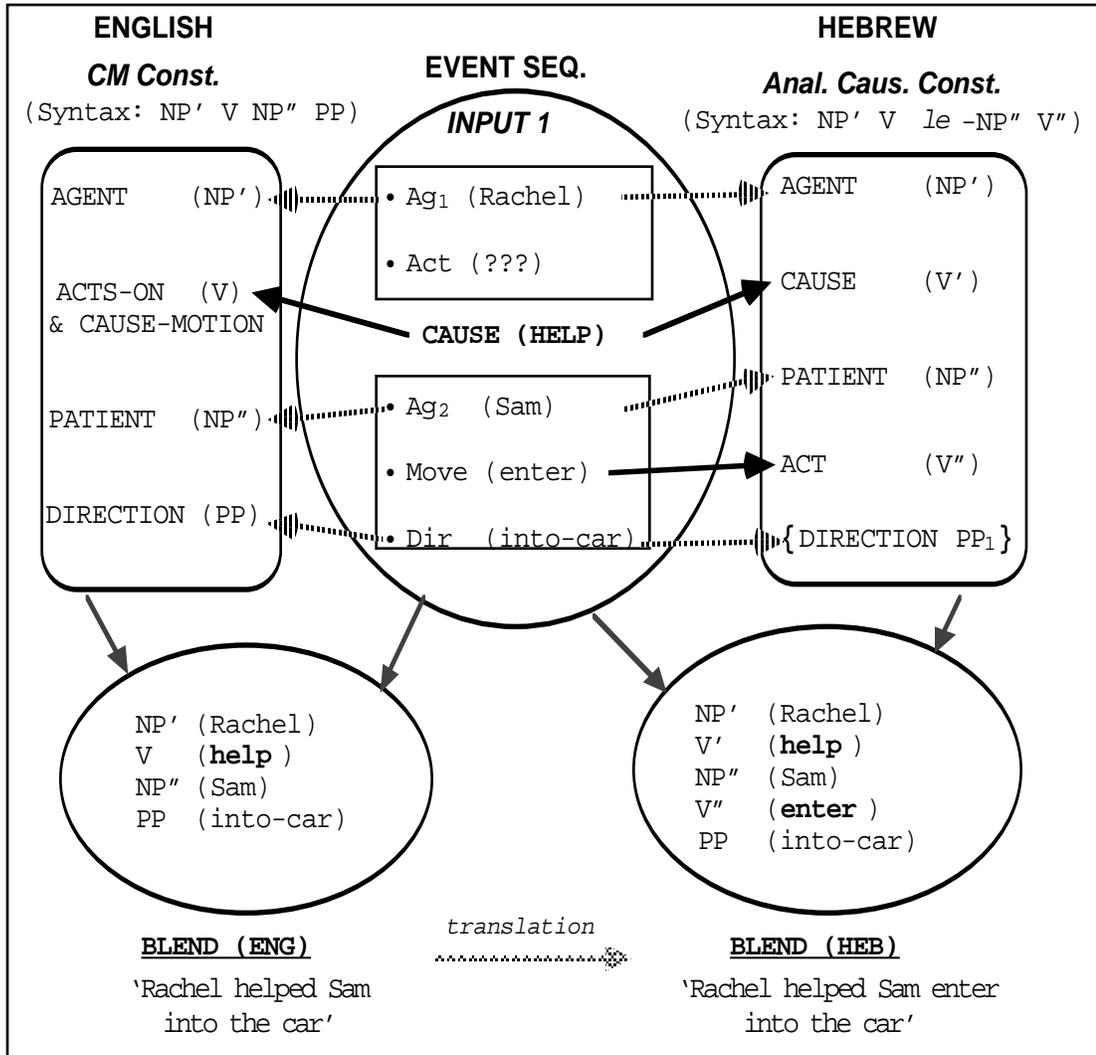


Figure 8-6-B: The blending operations underlying the translation of the English sentence *Rachel helped Sam into the car* into Hebrew.

8.4.5 When the verb in the English CM source sentence is derived from a *noun*

English CM sentences can map a *noun* into the verbal slot of the integrating construction. Such is the case in example 24, where the noun *hammer*, identifying the *tool* used to carry on the causing sub-event, is mapped onto the verbal slot of the integrating construction generating a "denominative" verb *to hammer*. In example 25, the innovative denominative verb *Houdini* communicates a whole causal sequence of events by metonymic reference to a person culturally associated with this causal sequence.

(24) David hammered the nail into the door.

(25) He Houdinied himself out of the barrel.

The translation of English CM sentences 24-25 into Hebrew is especially difficult. The Hebrew morphology does not allow as free derivation of verbs from nouns as English does. To derive a verb from a noun in Hebrew, three or four consonants from the noun must be extracted and combined with one of the verbal patterns (*binyanim*) in the Hebrew verbal system. This process is especially problematic when the noun itself is not based on a tri-consonantal Hebrew root, as in the case of the name *Houdini* (example 25)²².

To translate sentences 24-25, the translator must infer one major predicate from the intended communicated sequence of events and map it onto (i.e., express it in) the verbal slot of the integrating causative construction (e.g., the predicates 'hit' or 'set free' in examples 24B and 25B below). In addition, in order to provide in the target text the information expressed by the denominal verb in the source text, an adjunct (prepositional)

²² Deriving denominative verbs from loan nouns is a productive process in Modern Hebrew (as restricted by phonological factors). For example, from the noun *fax* the Hebrew verb *fixses* (*pi'el*) - 'to fax' is derived, and from *sympathy*, the verb *simpet* (*pi'el*) - 'to sympathize' is derived.

phrase must be added, specifying the nominal source of the verb in English, and its (inferred) link to the caused-motion event (e.g., as a tool in 24, or as a source of metonymy in 25²³). These translation strategies are exemplified in the translations provided by the translators in my experiment (24A-B and 25A-B below). Figure 8-7 describes the blending operation underlying the generation of sentence 24 and its Hebrew translation 24A.

(24) David hammered the nail into the door.

A: *david daxaf(d.x.f-pa'al) et hamasmer letox hadelet im patish.*

David push_{past} ACC the-nail into the-door with hammer.

B: *david dafak(d.f.k-pa'al) al hamasmer bepatish ad shehamasmer nixnas letox hadelet*

David hit_{past} on the-nail with hammer until the-nail enter_{past} into the-door.

(25) He Houdinied himself out of the barrel.

A: *hu xilec(pi'el) et acmo min haxavit kmo hudini*

He set-free_{past} ACC himself from the-barrel like Houdini.

B: *hu hoci(hif'il) et acmo min haxavit kehudini bishe'ato*

He come-out-hif'il_{past} ACC himself from the-barrel like-Houdini at-his-time.

²³ In translations 25A-B, *Houdini* is introduced by a prepositional phrase 'like Houdini'. The translation makes explicit the metonymic connection between Houdini and the (caused-motion) activity he is associated with (setting himself free), a metonymic link which is only implicit in the source text.

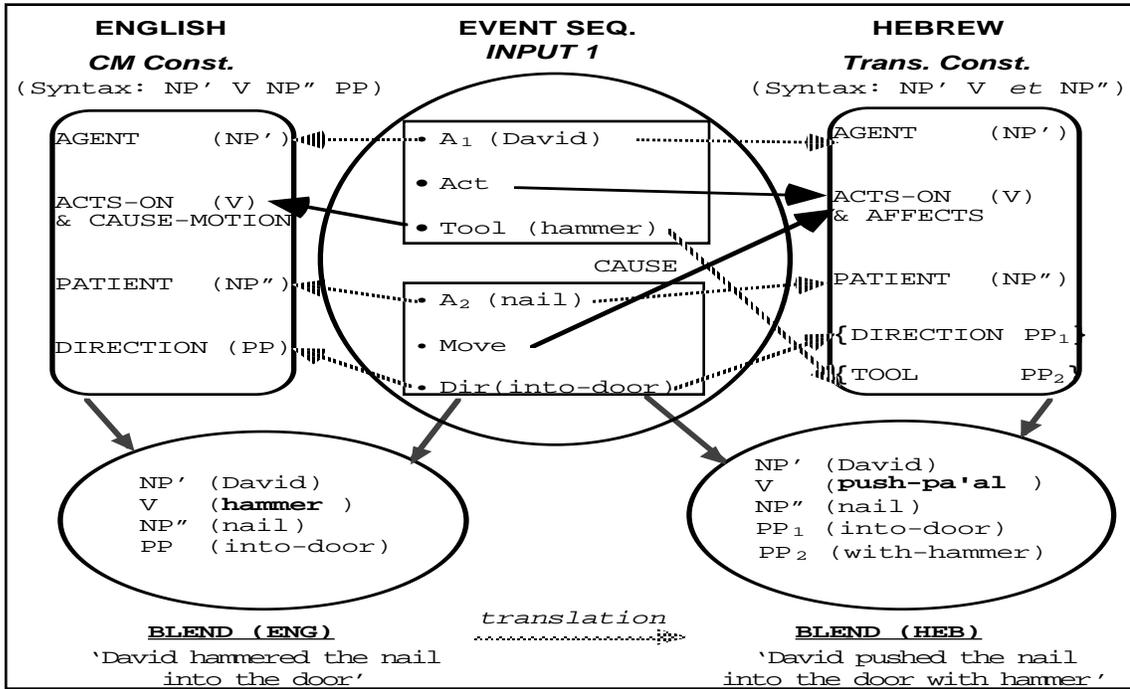


Figure 8-7: The blending operations underlying the translation of the English sentence *David hammered the nail into the door* into Hebrew.

8.4.6 When the English CM source sentence conveys a *metaphorical* caused-motion event.

Some English CM sentences communicate *metaphorical* caused-motion events: i.e., the intended effected event involves metaphorical rather than physical motion. These instances of the CM construction are usually based on more general entrenched metaphorical mapping systems such as the MENTAL STATES ARE PHYSICAL LOCATIONS metaphor. This metaphor is evident in English expressions such as: *I am in a bad mood today* or *He was depressed, but she got him out of it*. The metaphor consists of the following conceptual mapping: mental states are mapped onto physical locations, and changes in mental states are mapped onto physical motion from one location to another. A caused change in mental state can therefore be mapped onto the CM syntactic construction, where the resulting mental state is the goal of (the direction of) motion. This metaphorical mapping is exemplified in sentences 26-27:

(26) Rachel intimidated her into a panic.

(27) Her father drove her to a nervous breakdown.

Example 28 is based on another conventional metaphorical mapping whereby a temporal event is understood as a journey through space (see the LIFE IS A JOURNEY metaphor in Lakoff & Johnson, 1980): the temporal stretch of the event is conceived as a physical stretch of space, through which the participants in the event (and sometimes the "ghost essence" of the event itself) physically move from a starting point to an end point. In example 28, the causing event (the laughter) causes the conversation to "move" towards the end point.

(28) We laughed our conversation to an end.

When translating metaphorical sentences from one language to another, the translator must first determine whether the target language possesses a similar conventional

metaphorical system. If not, the translator may want to generate the literal meaning of the source sentence in the target language, or substitute the source language metaphor with one of the conventional metaphorical mapping systems in the target language. Even if the target language seem to possess the same general metaphorical mapping as in the source text, careful attention must be given to the particular lexical items conventionally used in the target language's metaphorical expressions. It is often impossible to translate a "dead" (entrenched) metaphorical expression from one language to another if it does not exist already in the target language.

Various idiomatic expressions in Hebrew suggest that Hebrew possesses the same metaphorical mapping system used in the English sentences 26-28 (i.e., the MENTAL STATES ARE PHYSICAL LOCATIONS metaphor, and the EVENTS ARE JOURNEYS metaphor), as exemplified in 29-31:

- (29) *hu nixnas(k.n.s-nif'al) lelaxac*
 he enter_{past} into-panic
 'he panicked'
- (30) *hi yac?a(y.c.'-pa'al) mehadika?on*
 she move-out_{past} from-the-depression
- (31) *hapgisha higi'a(n.g.'-hif'il) lesiyuma*
 the-meeting reach_{past} to-its-end.

A change in mental state (or the "journey" of an event) may be construed as the outcome of another causing event (and an external causing force). In this case the verb will be in *hif'il* , as in 32-34:

- (32) *hu hixnis(k.n.s-hif'il) ota lelaxac*
 he enter-hif'il_{past} ACC-she into-panic
 'he got her panicked'
- (33) *hi hoci?a(y.c.'-hif'il) oto mehadika?on*
 she move-out-hif'il_{past} ACC-he from-the-depression

'She got him out of it (the depression)'

- (34) *dvarav hevi?u (b.u.?-hif'il) et haggisha lesiyuma*
his-words come-hif'il_{past}ACC the-meeting to-its-end.
'His words brought the meeting to an end'

Since Hebrew seems to possess the same metaphorical mapping systems as English (at least with regard to the English metaphors discussed in 26-28), it is expected that the translation of sentences 26-28 into Hebrew would proceed just like the translation of *non-metaphorical* CM sentences (with the metaphorical content extracted independently by the source and target text readers). Indeed, we find that the translation strategies observed in the translation of non-metaphorical CM sentences into Hebrew (sections 8.4.1-5) are also used in translating the metaphorical sentences 26-28, with additional constructs employed to overcome differences in idiomatic expressions between the two languages:

(26) Danny intimidated Ruth into a panic.

A: *dani hifxid(p.x.d-hif'il) et rut vehixnis(hif'il) ota lepanika.*

Danny afraid-hif'il_{past} ACC Ruth and enter-hif'il_{past} her into-panic.

'Danny intimidated Ruth, and sent her into a panic'

B: *dani hifxid(p.x.d-hif'il) et rut ad-kedei panika.*

Danny afraid-hif'il_{past} ACC Ruth up-to (or as far as) a state of panic

'Danny intimidated Ruth so much that she was in (utter) panic'

(27) Her father drove her to a nervous breakdown.

A: *aviha hevi ota liydei hitmotetut-acabim.*

her-father come-hif'il_{past} ACC-she to (the-hands-of) nervous-breakdown.

'Her father brought her to a nervous breakdown'

(28) We laughed our conversation to an end.

A: *hevenu et sixatenu lesiyuma becxokenu haram*

we-come-hif'il_{past} ACC the-conversation to-its-end with-our-laughter loud'.

'We brought the conversation to its end with our loud laughter'

B: *cxokenu hevi (hif'il) et hasixa lesiyuma.*

our-laughter come-hif'il_{past}. ACC the-conversation to-its-end

'Our laughter brought the conversation to an end'

C: *caxaknu (pa'al) ad kedei kax shesixatenu nifseka(nif'al).*

we-laugh_{past} so-much that-our-conversation ended.

In the English CM example 26, the main verb denotes the causing sub-event in a causal sequence: Danny intimidating Ruth (with the resulting event of Ruth becoming afraid, i.e. "moving" into a state of fear). The translation strategy employed in 26 is similar to the one discussed before with regard to the translation of non-metaphorical CM sentences: making use of an *hif'il* verb whose root denotes the effected predicate (the *hif'il* form *hifxid* - 'cause to be afraid', in 26A-B). However, the form *hifxid* does not incorporate a metaphorical *motion* sense (and therefore the verb cannot be followed by a *directional* prepositional-phrase). The solution of the translator in 26A was to append to the verb *hifxid* another *hif'il* verb whose root denotes motion (*hixnis* - 'cause to move in'), and then directly translate the directional prepositional phrase from English ('into panic'). In 26B, another translation strategy is employed: note that the mental state to which the patient "is moving" in 26 (i.e. 'panic') is in fact an extreme form of the expected effect of the verb 'intimidate' (i.e., the effect of 'fear'). Since the Hebrew *hif'il* form *hifxid* already incorporates the resulting predicate in its root semantics (*p.x.d*-'fear'), the translator in 26B specified the resulting state itself ('panic') using a scale preposition ('up-to') thus indicating that the resulting state of 'panic' is an extreme case of the general effected predicate.

In the English CM example 27, the main verb *drive* is an entrenched caused-motion lexical verb in English (i.e., a verb that conventionally integrates a whole causal sequence of events, like 'push' or 'throw'). The translation is thus expected to be a word-to-word translation, using a parallel lexical caused-motion verb in Hebrew (as in examples 19-20, section 8.4.3). However, while in English the verb *drive* is conventionally used to express causation of *metaphorical* motion (i.e., motion of a patient into a new state, as in example 27), in Hebrew the parallel verb *hisi'a* is not used in the metaphorical sense. Thus, the translator had to use another general *hif'il motion* verb (*hevi* - 'bring' or 'cause-to-come',

in example 27A) which is conventionally used in such metaphorical contexts (see example 34 above).

In sentence 28, the main verb denotes again the *causing* predicate ('laugh'). The general translation strategy employed in 28A-B is again to specify the *effected* motion predicate using an *hif'il* verb. In 28A, the causing predicate ('laughing') is expressed metonymically as the causal agent ('laughter'). In 28B, the causing predicate is added in an adjunct phrase (marked as the means or tool for the effected event, just as in the translation of literal CM sentences, examples 14A or 16A). Finally, in 28C, a new translation strategy is employed: the translator communicates the causal sequence as two distinct sub-events ('we laughed', 'the conversation ended'). The predicates in the two sub-clauses are represented as autonomous (using the *pa'al* and *nif'al* stems), but the two sub-clauses are causally connected by the conjunction 'so-much-that'.

In summary, the analysis in this section suggests that the translation of metaphorical English CM sentences into Hebrew is not very different from the translation of non-metaphorical (literal) instantiations of the construction: the same general translation strategies are employed. This is made possible by the prevalence in Hebrew and English of similar metaphorical mapping systems, which are extended to express metaphorical caused-motion events. The difference in form between the source and target texts (the translation mismatch) in examples 26-28 is mainly due to the different grammatical constructions and blending operations conventionally employed in each language, as well as differences in entrenched metaphorical senses of particular lexical items, rather than due to deep cultural differences in the metaphorical conceptualization of events (which are often discussed in literature on metaphor translation, e.g., Newmark, 1985).

Figure 8-8 illustrates the blending operations underlying the generation of the

metaphorical English Caused-Motion sentence 28 and its Hebrew translation 28A. Compare Figure 8-8 to Figure 8-3-B which represents the blending operations underlying the generation of a non-metaphorical English CM sentence and its Hebrew translation. The blending configurations in Figure 8-8 and 8-3-B are exactly the same.

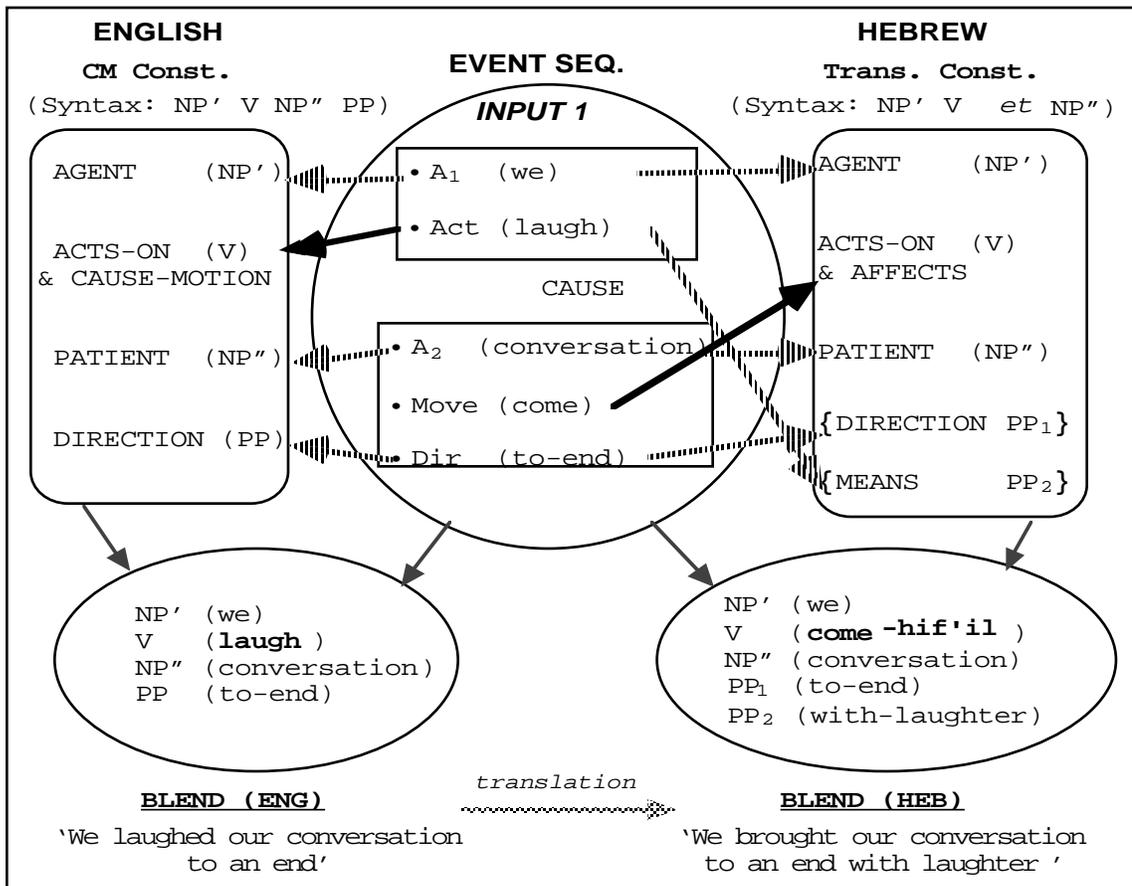


Figure 8-8: The blending operations underlying the translation of the English sentence *We laughed our conversation to an end* into Hebrew.

8.5. Conclusions

In this chapter, I analyzed translation examples of English caused-motion sentences into Hebrew. A large variety of target forms is revealed in the Hebrew translation of the *same*

generic grammatical structure in English (i.e., the Caused-Motion construction). The analysis suggests that the large variety of translation forms in Hebrew is an outcome of the *interaction* between different blending configurations employed in the source sentences and the grammatical blending conventions of the target language (Hebrew). While English allows integration of novel caused-motion sequences into the caused-motion syntactic construction (NP V NP PP), in Hebrew the use of this syntactic pattern is limited to a set of *lexical* caused-motion verbs in the standard Hebrew lexicon. Thus, a word-for-word translation is possible only when the blending configuration employed in the source sentence fits one of the conventional blending configuration associated with Hebrew lexical items. Most often, the translation of English caused-motion sentences into Hebrew requires a creative solution from the translator, in an effort to provide a translation which highlights the same aspects of an event as the source sentence does, but within the blending conventions of the Hebrew syntax, morphology and lexicon.

The translation process, I suggest, involves in fact *two independent conceptual and linguistic processes of blending* in the source and target languages. What we see (in translation data) is only the surface forms of complex cognitive operations taking place in each language. The interaction between the various blending configurations licensed in each language gives rise to the wide variety of translation forms and translation "mismatches" observed in translation data. Different forms in the source and target text therefore should not be viewed as *exceptional* "mismatches", but rather as the 'natural' outcome of two separate conceptual and linguistic processing.

The analysis in this chapter also suggests that attempts to define a 'static' list of translation divergences across languages is impossible. Rather, the particular blending operation involved in each instance of a construction in the source text must be analyzed to

identify the particular "translation strategy" to be employed. Parameters such as entrenched lexical items, morphological restrictions, similarity of metaphorical systems, and the blending configurations and pragmatics conventionally associated with each construction in the source and target languages play a role in the translation process. The analysis also suggests that very often additional information must be inferred by the translator during the translation process, information which is not made explicit in the source text but is required by the constructions and blending conventions of the target language. Implications of the analysis in this chapter for research on Machine Translation will be discussed in chapter 9.