

2 An emerging multilingual repertoire

2.1 A case study

The present chapter examines the emergence of the linguistic repertoire in an individual speaker in a multilingual setting. It traces the gradual development of constraints on the selection of structures within the repertoire and the acquisition of strategies to manage that repertoire. These strategies constitute the foundations on which bilinguals draw when alternating between languages. They also form the background and the pre-requisite for any contact-induced change. By surveying the bilingual child's strategies of managing the linguistic repertoire, we obtain a picture of the potential effects of language contact on speakers, on language use, and on the shape and structure of language.

I base this chapter on informal observations of the language acquisition process of a trilingual child, whom we shall call 'Ben'.¹ Born and raised in England in the late 1990s, Ben is exposed to two languages in the home: German, which he hears from his mother, and Hebrew, which he hears from his father. Both parents speak their respective languages consistently to Ben, consciously trying to avoid mixing. Between the ages of 0:4 and 4:4, input is balanced: During the first two years of his life Ben spends four days a week with an English-speaking child minder. He is cared for at home during roughly half of the working week primarily by his father, and during the other half primarily by his mother, while weekends are spent with both parents. At the age of 1:11, Ben's parents move into separate households, in separate towns. Ben stays primarily with his mother, spending three to four working days at an English-speaking nursery, while six days out of a fourteen-day cycle are spent with his father. Holiday time is spent equally with each of the parents. Most of the holiday time with the mother is spent in Germany, and around half the holiday time with the father is spent in Israel – in both countries with family and relations. On the whole, between the age of 0:4 and 4:4, Ben spends roughly equal amounts of time with each of the two parents (each speaking his/her language consistently) and at the English-speaking nursery, with exposure during holidays to monolingual contexts of German and Hebrew.

2.2 Lexical development

Ben's active language acquisition history begins at the age of 1:3. His first words are typically direct repetitions of words directed at him by a parent. For example, ['bada] follows the father's offer in Hebrew of *banána* 'banana', and ['ɛtɛ] follows the question in Hebrew *et-zé?* 'this one.ACC?' ('Do you want this one?'). At 1:4, words begin to appear on a more regular basis, and are no longer limited to direct repetitions. A number of onomatopoeic items are used, such as [ba:] for 'sheep' and [ʔufʔuf] for 'dog', [pək] for 'toaster' and ['tita] for 'clock' (*tick-tack*). Just like the lexical words, they too are introduced by the parents. While some of these sound-symbols – *tick-tack* for instance – might be regarded as universal, others actually differ from more conventional language-specific baby-talk, for instance from German *mäh* for 'sheep' or Hebrew *hau-hau* for 'dog'. The sound-symbol [ba:] for 'sheep' in fact originates in direct imitation of sheep during a countryside holiday. Some forms, such as [pək] for 'toaster', are entirely improvised. The onomatopoeic set thus constitutes a kind of 'family speech'. Significantly, both parents continue to use the same onomatopoeic sound sequence once it is established for a particular referent. The 'multilingual' child is thus exposed at this early stage in the development of his linguistic resources to a set of labels – 'words' – that are used by both parents,² alongside another inventory of words that are specific to each of the parents (i.e. 'proper' words belonging to each of the two languages). The child's active repertoire of 'proper' words contains from the very beginning items from German – e.g. [da] for German *da* 'there', [bal] for *Ball* 'ball', ['bada] for *Badewanne* 'bathtub' – and from Hebrew – e.g. ['baji] for Hebrew *garbáyim* 'socks', ['ʔəxa] for *yaréax* 'moon', [bajt] for *naaléy báyit* 'slippers'. Significantly, at this stage, only a single word is used actively per referent/object. There are, in other words, no active 'bilingual synonyms' – different words, deriving from different languages, which are used alternately to represent the same referent/object. This is well in line with general observations on early stages in bilingual first-language acquisition (see Chapter 4), as well as with a more general assumption that infants show a 'mutual exclusivity bias' in acquiring labels for referents (cf. discussion in Bloom 2000).

At the age of 1:6, Ben's repertoire already consists of an active vocabulary of around 40 words that are used regularly. In addition, the child is familiar with some ten names of persons (three of which are mainly used to refer to persons that appear on photos contained in a family photo album). By and large, lexical tokens that have been 'acquired' – meaning that they have been used actively by the child in communicative interaction and not just as one-off, on-the-spot repetition of adult utterances – continue to be used consistently by the child, irrespective of the identity of the parent-interlocutor. The child's active use of vocabulary tokens in any given situation thus consists of a mixture of German- and Hebrew-derived items: we find for example [man] for German *Mann* 'man',

[kek] for *Keks* ‘biscuit’, [fau] for *Frau* ‘woman’, alongside [tik] for Hebrew *tik* ‘bag’, [ʔan] for *náal* ‘shoe’, [kɔwa] for *kóva* ‘hat’. The English child minder (who has no knowledge of either German or Hebrew) even learns the meanings of some of these words through her contact with the child. It is therefore clear that the child does not apply constraints on the selection of words, in any particular setting.

A significant number of tokens that form part of the child’s repertoire tend to be used ‘universally’ by the child’s adult interlocutors as well, at least so far as their speech is directed at the child. Thus, [‘bagi] (‘buggy’) is used for ‘pushchair’ by both parents, as are the words for ‘mommy’ and ‘daddy’ – [‘mama] from German *Mamma*, [‘ʔaba] from Hebrew *ába* –, [‘tedi] for ‘teddy bear’, [‘ba:j] for ‘bye’, as well as the names of individual persons, similarly an integral part of the child’s modest active linguistic repertoire. Add to these several similar-sounding words such as those for ‘bus’ (German *Bus*, Hebrew *ótobus*), ‘banana’ (German *Banane*, Hebrew *banána*), and ‘guitar’ (German *Gitarre*, Hebrew *gitára*), all of which are part of the child’s active vocabulary, and we can establish that, as the use of family-coined onomatopoeic formations declines, there is nevertheless a continuous presence of vocabulary tokens in the input directed at the child which are used indiscriminately of ‘language’-context. In a sense, then, despite the fact that both parents are consistent in avoiding language mixing when communicating with the child (and the child-minder is monolingual), the child is, to some extent at least, confronted with ‘mixed messages’ as far as the situation-bound separation of sets of tokens is concerned: Some labels are exclusive to the interaction with a particular parent, others are not.

Both parents know all three languages. As hearers they can understand and react to the child’s choice of vocabulary, irrespective of language. At the same time they each use their respective language very consistently with the child. In response to ‘wrong’ language choices made by the child, even at the very early stages, they generally adopt what Lanza (1997) refers to as the ‘expressed guess strategy’: confirming that they have understood the child’s intention, but repeating the word in the ‘correct’ language, thereby prompting the child to conform to the expected rules on language selection. Gradually, the child’s experience extends to cover a wider range of communicative situations: The language used among the parents is German, which is also the language used with a family friend who is a regular visitor, often several times a week. Both parents use English in the presence of the child when speaking to the child-minder as well as to most other visitors and in interaction in shops or other public places. At the age of 1:5, Ben’s Hebrew-speaking grandmother arrives for a visit of several days, and at the age of 1:6 he spends a three-week holiday with the mother visiting the German-speaking grandparents in Germany, during which there is no exposure to either Hebrew or English. Parallel to the expanding repertoire of linguistic forms, the repertoire of communicative settings is thus undergoing expansion as well. The child develops the ability to associate clusters of lexical items with particular settings and groups of settings. The principal factor defining these

settings remains, however, the presence of one of the three adults who play the principal roles in his life.

First signs of active attempts to use vocabulary tokens discriminately appear around the age of 1:8. In the 'English' context, i.e. with the child-minder, the tokens [ka:] 'car' and ['dædi] 'daddy' are used. Both words have equivalents that are used in the parental household, though interestingly there is, for both, only a single 'family' synonym that is used with both parents: ['ʔato] 'car' represents in all likelihood both German *Auto* and Hebrew *óto*, while ['baba] is used for 'daddy', based on both parents' use of Hebrew *ába* in the family context. By the age of 1:9, bilingual synonyms already cover a notable portion of Ben's active vocabulary. The child is clearly making some effort to select 'appropriate' items when communicating with the parents, and this effort is extended to other situations as well: During a three-week holiday in Israel at the age of 1:9, Ben is accompanied by both parents. But spending some hours on his own with local family members, he appears consistent in favouring Hebrew words. The exposure to new interaction settings, in which none of the three main adults is present, confronts the child with new challenges as far as selection from the linguistic repertoire is concerned. Maintaining demarcation boundaries between subsets of the repertoire becomes a more universal need, not just a task that is directed toward a particular individual.

The total number of active vocabulary items recorded at this age is 218.³ Of those, 96 derive from German, 76 from Hebrew, 5 from English, and the rest represent items that can be assigned to more than one language.⁴ Together they represent a total of 176 'concepts' or lexical meanings. Double or triple items – 'bilingual synonyms' – exist for only 46 concepts – roughly a quarter of the lexical 'concepts'. (Given that some items can be assigned to more than one language, the actual number of bilingual synonyms is potentially somewhat higher; see Figure 2.1.) The remaining lexical 'concepts' are each represented in the active vocabulary by just a single lexical item, from just one language. Despite the noted ability to associate settings with a particular subset of items from the repertoire, it is nevertheless clear that, for the bulk of the lexicon, the child continues to rely on the indiscriminate use of a single word per concept. This interim stage in the development of the child's multilingual repertoire therefore merits closer examination.

Let us first recapitulate: By the age of 1:9 the child has acquired an inventory of many dozen words in both languages, German and Hebrew, and at least a few words from English as well. A transition is ongoing between passive and active vocabulary use. This can be seen in the ability to activate vocabulary without explicit prompting, while on the other hand the child continues to repeat words and short phrases as situation-bound utterances. Aside from those, it is now possible to identify two different types of vocabulary items in the child's active repertoire. The first and larger group consists of words that are used by the child irrespective of addressee, and which therefore represent consistent preferences for the expression of certain concepts. The second type involves

Word class/ semantic domain	Number of referents for which active words exist	Number of referents for which bilingual synonyms exist	Number of referents for which words in two or more languages have similar shape	Proportion of referents for which bilingual synonyms exist	Proportion of referents with bilingual synonyms and same-shape words
Adjectives	13	7	0	61%	61%
Plants and nature	4	2	0	50%	50%
Animals	25	11	7	44%	72%
Misc. fiction- related	9	4	1	44%	55%
Vehicles	15	6	4	40%	66%
Locations	16	5	1	31%	38%
Adverbs and Particles	8	2	1	25%	38%
Persons	9	2	2	22%	44%
Food	17	2	11	12%	76%
Verbs	9	1	1	11%	22%
Household utensils and toys	37	3	7	8%	27%
Clothes and body utensils	14	1	2	7%	21%
Total	176	46	37	26%	47%

Figure 2.1 *Bilingual synonyms by semantic domains and word classes (age 1:9).*

word pairs (and in some cases triplets) that are used discriminately with each parent.

The lexical domain is enriched during this stage by the appearance of verbs, from both major languages: ['apibi] 'to wash up' from German *abwaschen*, ['kuken] 'to look' from German *gucken*, ['ʔedət] 'to descend' from Hebrew *larédet*, [kum] 'to stand up' from Hebrew *lakúm*, and more. Verbs are generally used in a modal sense, expressing the wish for an activity. They are

Form	Source word	Language	Meaning
'tiken	trinken	G	drink
ʔot	lištót	H	drink
kɔm	komm!	G and E	come!
ʔan	an (kommen -)	G	arrive
'ʔeðe	larédet	H	go down
'kuken	gucken	G	look
ma:ən	malen	G	paint
kum	lakúm	H	stand up
'la:pə	laufen	G	walk, run
'ʔapibi	abwaschen	G	wash up

Figure 2.2 *Verbs (at age 1:9). Dark-shaded areas represent bilingual synonyms, faintly shaded areas represent words that have identical or similar shape in two or more languages.*

usually based on the infinitive form of the respective language, which in both languages is the form that accompanies modal verbs.⁵ Some adjectives are also used. When accompanying nouns, they follow the word order rules of the respective languages: Adj-N with German [kajn 'ato] 'a small car' (*[ein] kleines Auto*), but N-Adj with Hebrew [buk tan] 'a small bottle' (*bakbúk katán*). Thus, some degree of 'language separation' appears in both lexicon and grammar. Nonetheless, the bulk of the vocabulary remains, as mentioned, undifferentiated for setting, context, or addressee.

A closer look at the breakdown of lexical items into word classes and semantic groups reveals something about the process through which the child is gradually learning to set demarcation boundaries within his linguistic repertoire (Figure 2.1). Ben has bilingual synonyms for most adjectives. Bilingual synonyms are also more frequent among concepts that relate to his physical environment, such as landscape and locations within and around the house, and among terms for animals and vehicles.

Terms for persons occupy a somewhat ambiguous position. They include a large proportion of proper names – 'grandma', 'grandpa', 'mommy' – which represent unique referents and are not differentiated for language in child-directed adult speech, either. The exception is the word for 'daddy'. Hebrew *ába* is the uniform term in the family context. But since it is usually the father who picks up the child from the child minder, the child is also exposed to the child minder's use of *daddy*. The word *baby* is common to both English and German. This leaves

Form	Source word	Language	Meaning
bal	Ball	G and E	ball
bu:k	Buch	G and E	book
'bagi:	buggy	G, H, and E	buggy
'tara	gitára	G, H, and E	guitar
'tedə	teddy	G, H, and E	teddy
tik	tik	H	bag
'bəkala	Luftballon	G	balloon
pəχ, pak	pax	H	bin
'ʔarma	Eimer	G	bucket
tu:l	Stuhl	G	chair
ha:ke	Hacke	G	hoe
'lampe	Lampe	G	lamp
tav	mixtáv	H	letter
ton	itón	H	newspaper
ʔon	iparon	H	pencil
tɔp	Topf	G	pot
zi:p	Sieb	G	sieve

Figure 2.3 Selection among words for household utensils and toys (at age 1;9).

only a single unambiguous bilingual synonym in this domain, namely [man] (German *Mann*) and [ʔit] (Hebrew *iš*) for 'man'.

By contrast, bilingual synonyms make up only a small proportion of the words for household utensils and toys, and for clothes. Verbs occupy a similar position. Among the relatively few verbs in the active vocabulary there is only one straightforward pair of synonyms – the words for 'drink' – and an additional form shared by German and English, for 'come' (Figure 2.2). This marginality of synonyms might just be a product of the marginal position of verbs in the vocabulary; but it could also indicate greater difficulty in separating *label* and *concept* in connection with modality (volition or manipulation), which is the primary function of the child's use of verbs at this stage. Among the nouns, terms for clothes, toys, and utensils represent objects that have a kind of 'institutionalised' role in the child's life and a continuous physical presence in his immediate world (see Figures 2.3 and 2.4). It appears that the child has a strong need to

Form	Source word	Language	Meaning
'loke	Socke	G	sock
'baji(m)	garbájjim	H	sock
'ʔeme	Crème	G and H	crème
tatts	tayts	H and E	tights
luk	xalúk	H	bathrobe
'tipe	Stiefel	G	boots
'kōut	coat	E	coat
'nubə	Schnubbel	G	dummy
'bīlə	Brille	G	glasses
'kōwa	kóva	H	hat
'lake	Jacke	G	jacket
ʔit	karít	H	pillow
ʔip	tša'íf	H	scarf
bart	(naayley) bayit	H	slippers
da	afudá	H	vest

Figure 2.4 *Words for clothes and body utensils (at age 1:9).*

continue to identify each of them as a unique and unambiguous referent. This need overrides the motivation to accommodate to adult expectations on the use of labels belonging to the appropriate subset of the lexicon – i.e. to choose the ‘correct language’ – in a given interaction setting. Animals and vehicles, which are largely the objects of fiction (e.g. pictures in storybooks), narration, and more remote observation, appear to be easier candidates for the separation of label and concept/referent, as are expressions of orientation (location) and evaluation (adjectives).⁶

The child’s adoption and use of synonyms is motivated by the wish to comply with the communication norm set by adults. It is a pragmatic skill which the child acquires as he becomes more sensitive toward the reactions and expectations of his adult interlocutors. For the multilingual speaker, accommodating to interlocutors’ expectations in regard to language choice will remain a lifelong pattern. We see, however, already at this early stage, that obstacles appear on the path toward complete control of the repertoire and the choices among repertoire items. These obstacles are inherently connected to the roles and functions that

linguistic structures and categories assume in triggering mental processing operations. The semantic splits that we find in Ben's bilingual vocabulary at the age of 1:9 are indicators of a functional split between the processing of immediate and unique referents and the processing of more abstract, fictional, and remote entities. These word class splits represent different ways of handling orientation and evaluation on the one hand, and modality and manipulation of situations on the other. It is only with greater maturity that the child is able to overcome these obstacles, and the pragmatic motivation to accommodate to adult language-choice patterns takes over across the board. Within a few months, the child acquires a double set of lexical items for most concepts, and by the age of 2:0, single-language items have become the exception.

2.3 Controlling the selection mechanism

At the age of 1:11, Ben moves with his mother to a different house, in a different town, spending long weekends and several weeks during the summer holidays with his father. The separation gives rise to a more consistent separation of communicative settings. Each language is now used in a different location, in a different household, for a relatively intense period. German and Hebrew are now also associated with even wider contexts in each of the separate locations, as the mother and father each interact quite frequently with their respective fellow countrymen. English plays a role, to some extent, in both settings, as it continues to be associated with interactions in certain outdoor activities and during visits from friends and neighbours. Exposure to English is now also more intensive as the child spends four to five long days a week at nursery. The child is thus confronted even more strictly than before with monolingual settings and is experiencing even greater pressure to accommodate to them. His verbal communication with the parents becomes predominantly monolingual in the choice of vocabulary forms, with very few exceptions. Even his language of play when he is on his own tends to be monolingual: predominantly German when in the care of the mother, and predominantly Hebrew when staying with the father. Language selection has thus become not just addressee-oriented; it now helps define the child's environment and the setting of his activities, and it is even constitutive of the verbal organisation of his internal world. At 2:1, following a visit to an aircraft exhibition at the Science Museum, he expresses a metalinguistic awareness of the contextual separation of languages:⁷

- (1) mama *Hübschrauber*, ába helikópter
 mommy helicopter [German] daddy helicopter [Hebrew]
 'Mommy [says] *Hübschrauber*, daddy [says] *helikópter*'

Ben's functional repertoire of structures continues to expand, of course. At the age of 2:0 he is beginning to use finite verbs, first in German, then, within a couple of weeks, in Hebrew too. Definite articles and negation forms appear in both languages at 2:1, (Hebrew) pronominal endings at 2:3, and 3rd person pronouns as well as inflected past tense forms in both languages at 2:4. At this age, various clause-combining structures also emerge. During a weekend with the father, the child is inspecting the back garden in search for snails and makes the following remark:

- (2) mistakél *ob* xilazón *da* *ist*
 look.SG.M whether [German] snail there [German] is [German]
 'I am looking/ want to see *whether* [the/a] snail *is there*'

The chosen language of the utterance is Hebrew, in compliance with the setting, and the selection of the lexical items that are the principal carriers of the proposition follows this choice. But the clause-combining strategy expressing indirect condition or 'option' is German (*ob* 'whether'). The child has recently acquired this particular conjunction in German, along with its semantics and distribution rules. He is missing an equivalent construction in Hebrew. In fact, Hebrew lacks a specific construction for this function, as option clauses are formally grouped together with conditional clauses, both being introduced by the same conjunction, *im*.

With the acquisition of the German conjunction *ob*, the child's repertoire now contains an adequate construction to express a very specific semantic relation – that of indirect (embedded) condition or 'option'. Behind the mixing in (2) is a (non-reflected) motivation on the part of the child to make optimal use of his repertoire in order to express his thoughts as precisely and as effectively as possible. This motivation apparently overrides his attempt to remain within the constraints set by the interaction setting, which require selection from only a particular subset of the repertoire. This explains the insertion of *ob* into the Hebrew utterance. The mixture in the remaining part of the utterance is in a sense a mere by-product. The child does not simply select a German conjunction. Rather, he activates his knowledge of the only construction available in his repertoire for expressing the semantic relation of 'embedded options'. This includes the entire mode of anchoring the predication that is contained in the construction. Like other German subordinations, *ob*-clauses require the appearance of the finite verb in final position. Once again, replication of this rule in Hebrew is difficult, partly perhaps due to the absence in Hebrew of a present-tense finite copula. The selection of a German predication mode thus triggers the selection of the German predicate *da sein* 'to be present'. A remote parallel in Hebrew might be the uninflected, impersonal *yeš* 'there is'. But *yeš* denotes existence, normally of unspecified, newly introduced or indefinite entities. It is not equivalent to German *da sein* 'to be present [at a given location that is known to the interlocutor]'. Moreover, due to its co-appearance with subjects that have not been established in the preceding discourse, *yeš*, unlike normal Hebrew predicates, must always take

the position preceding the subject. There is, thus, a Hebrew constraint disallowing its appearance in sentence-final position. All this adds to the motivation to select the German predicate once the overall blueprint of the subordinated construction has been adopted in the utterance. In line with German word-order rules, the predicate appears in the final position: . . . *da ist*.

Mixing of this kind is often regarded as motivated by ‘gaps’ in the child’s competence in one of the languages – in this case Hebrew. The notion of a ‘gap’ somewhat obscures the fact that Hebrew does, in fact, possess a structure that can adequately render the intended semantic relation and that this structure is probably accessible in principle to the child (who knows how to form subordinate clauses in Hebrew, and who is familiar with Hebrew conditional clauses as well). The crucial factor is the recent addition of a highly specialised construction to the child’s repertoire – the *ob*-clause as a unique expression of embedded options. The motivation to make use of this newly acquired structure illustrates that the child’s verbal communication is serviced by an entire repertoire of linguistic forms and constructions, which the child has at his disposal.

Two motivations thus compete when the child is structuring his discourse: The first is to exploit all available elements of his repertoire in order to express himself as effectively as possible – and this includes using unique constructions wherever they are available for specific semantic relations. The other is to comply with expectations on appropriate choices in individual communication settings. Language mixing of the kind seen in (2) is a functionally motivated compromise between the two. A German construction is selected – the *ob*-clause – which triggers the use of not just one, but several features of German grammar and lexicon in the utterance. At the same time, we do not see a complete switch of convenience into German, but rather the selection of Hebrew *xilazón* to reinforce accommodation to the (Hebrew) speech setting. Mixing, by this stage at least, is thus not arbitrary, but functional to the pursuit of a range of communicative goals.

By the age of 2:4–2:6, Ben has a fairly fluent command of both his domestic/parental languages, German and Hebrew, with English lagging somewhat behind in active use. He is fully aware of the context-bound separation of languages, and pursues it consistently. Any lapses deserve careful consideration. In situations immediately following the transition from one parental household to another, i.e. within a few hours or on the first day, or in other situations in which the speech setting is ambiguous, notably when speaking on the phone to one parent while in the care of the other, insertions from the other language occasionally appear. The inserted material derives either from the language of the parent with whom the child had been spending the past few days prior to the transition, or, in the case of phone conversations, from the language of the parent at whose house the child is currently staying. I will, in the following, refer to these insertions as bilingual ‘slips’, or speech production errors because they are, quite clearly, unintentional. Nor are they motivated, as was the case

in Example (2), by the need to supplement material from one language when communicating in another (i.e. by so-called ‘gaps’, or rather by an urge to fully exploit all possible constructions available within the entire linguistic repertoire regardless of the constraints imposed by the interaction setting). Indeed, sometimes the insertions are noticed and self-repaired by the child. Quite often, however, they remain unnoticed by the child, and usually uncommented on by the hearer.

The interesting aspect of these bilingual slips is the fact that they involve almost exclusively a particular class of functional elements: discourse particles, interjections, and connectivity markers. Frequently affected are the particles ‘yes’ (Hebrew *ken*/German *ja*) and ‘no’ (*lo/nein*), the conjunctions ‘because’ (*ki/weil*), ‘and’ (*ve/und*), ‘or’ (*o/oder*), and ‘but’ (*avál/aber*), fillers and tags, interjections, and occasionally focus particles such as ‘too’ (*gam/auch*), ‘even’ (*afilu/sogar*) or ‘at all’ (*bixlál/überhaupt*):

- (3) Hebrew; age 2:3, first few days in the father’s care after the child’s return from a 3-week holiday in Germany; inspecting the shell of a snail in the garden:
 báyit šel xilazón *aber* éyn xilazón bifním
 house of snail but [German] is-no snail inside
 ‘A snail-shell, *but* there is no snail inside’
- (4) German; age 7, on the phone to the mother while at the father’s house, describing a collection of insects:
 dann gibt’s Butterfly, *ve/* und zwei Craneflies
 then is and [Hebrew] and two
 ‘Then there’s a butterfly, *and/* and two craneflies’
- (5) Hebrew; age 7:2, on the phone to his father while on holiday in Germany, about a sports event shown on television there:
 Jan Ulrich hayá be’érex mispár šéva *oder* šmóne/ o šmóne
 was approximately number seven or [German] eight or eight
 ‘Jan Ulrich was about number seven *or* eight/ *or* eight’

Language choice errors of the type illustrated in (1)–(4) occur in both directions – German connectors in Hebrew utterances and vice versa – especially during the age period 2:3–4:6, but, as seen in (4)–(5), also later. Of particular interest is the history of the adversative conjunction, Hebrew *avál*, German *aber*, at an earlier phase during this period. Both language forms of the conjunction (as well as the English form) had been acquired and used regularly in the individual languages before the age of 2:6. At 2:6, Ben spends a three-week holiday with his mother in Germany. Upon his return, and for the next three months, German *aber* consistently replaces the Hebrew adversative conjunction in Hebrew discourse. It appears as though the two languages have undergone a *fusion* of the structure expressing contrast between propositional units in discourse.⁸ The demarcation

line between the repertoire components collapses around the particular processing operation of contrast, allowing *aber* to function independently of context or setting and so independently of ‘language’ selection. This situation prevails until the age of 2:10, when Ben leaves for a three-week holiday with his father to Israel. Within a week of interacting in the monolingual Hebrew environment, Hebrew *avál* is reinstated in Hebrew discourse. Then, upon Ben’s return home, and for the next two to three weeks, *avál* replaces *aber* in German discourse. A repetition of the process of fusion thus takes place, with the languages in reverse roles.

Recall that this kind of mixing accompanies the transition between settings. Such transitions require re-orientation between contradicting sets of constraints on the selection of particular elements within the linguistic repertoire. While the child is on the whole able to adapt and accommodate to the new setting very quickly and to control the selection of linguistic structures in communication, there is a class of items that frequently escapes that control. These are the elements mentioned above: connectors, discourse markers, focus particles, interjections, fillers, and tags. They all belong to the class of structures that help frame utterances and process the hearer’s expectations and likely reactions to them. They are part of the monitoring-and-directing apparatus that is employed by the speaker to regulate the interaction. Why do these elements in particular escape the young bilingual speaker’s control over language selection, even at the more mature age of 6–7?

However natural and intuitive the switch among languages in different settings has become for the child once his language skills are fully developed, it remains a strongly analytical mental task to maintain the demarcation boundaries within the linguistic repertoire. It seems, however, as though the elements on which the speaker relies in order to monitor and direct the hearer through the processing of the discourse are not processed exclusively at the analytical level. Discourse operators and the like are in some ways verbal gestures, the insertion of which carries with it certain aspects of a situational reflex (I shall return to this point in Chapter 4). Consider some of the other structures that are subject to language selection errors of this kind:

- (6) Hebrew; age 6:3, immediately after arrival at the father’s home for the weekend; when asked what he did at school that day:
Ach, *šum davár meyuxád*
 oh [German] nothing special
 ‘Oh, nothing special’
- (7) Hebrew; age 2:7, after returning from a three-week holiday in Germany; asking about an unidentified car that had been parked in front of the father’s house.
éyfo óto? ich mein lo óto šelánu, óto axér?
 where car I [German] mean [German] not car ours car other
 ‘Where is [the] car? I mean, not our car, [the] other car?’

- (8) Hebrew; age 6:3, after returning from holiday in Germany; confronted with a request by the father, replies in German (the utterance is then followed by a self-repair in the form of a non-lexical filler – *eh* – and a head and face gesture):
Wie bitte?
 ‘Pardon me?’
- (9) Hebrew; age 5:2, reaching to inspect his trousers while planning a game in which a toy is to be hidden in a pocket:
 yeš li *überhaupt* kis?
 there.is to.1SG at all [German] pocket
 ‘Do I have a pocket *at all*?’

All the elements in question are essentially interaction-regulating gestures: In Example (6), German *ach* indicates the speaker’s self-prompting to provide a reply. The German insertion appears to go unnoticed by the child, who quite possibly does not identify *ach* as a ‘word’ in the conventional sense and so does not consciously associate it with any particular set within the repertoire, but treats it, rather, as a ‘universal’ device. The hearer does not comment on the insertion.

The other examples show lexical material that is clearly attributed to a particular ‘language’. In Example (7), German *ich mein* ‘I mean’ introduces a self-repair. Despite the clear affiliation of the phrase to the German component of the repertoire, this insertion too appears to go unnoticed by the child, at this early age, and is treated more like a gesture than a phrase. In (8), German *wie bitte* ‘pardon me?’ prompts repetition of the hearer’s utterance; it is in other words a device that operates strictly at the level of the interaction management. The child notices the wrong choice of language, and laughs in embarrassment after completing the utterance. His reaction in (9) is similar. Here, German *überhaupt* ‘at all’ represents a somewhat different class of items: The particle indicates the speaker’s negative expectation concerning the outlined state of affairs. Nevertheless, indirectly, it too serves as a gesture, as it invites the hearer to share the speaker’s sceptical attitude surrounding the proposition. It thus assumes a role in processing the attitudes of both participants in the interaction against a shared presuppositional basis. This is not dissimilar to connectives, and especially to contrastive markers. The latter alert the hearer to an upcoming difficulty in accepting a broken causal chain (cf. Rudolph 1996), while at the same time reaching out to the hearer to accept the speaker’s proposition. This ‘bear-with-me-effect’, which the speaker is trying to impress upon the hearer, is evidently a source of tension in the speaker’s mental planning of the utterance.

It is likely that this tension is a contributing factor in disturbing the speaker’s ability to control the selection mechanism and discriminate among the repertoire components that are socially acceptable in the current speech setting. The behaviour of contrast is similar to, but more extreme, than that of the other connectivity markers. Contrastive markers are not only inserted from the ‘wrong’

language, but, as we saw earlier, they even tend to replace an established marker, at least for a certain period. We thus see a connection between speech production at the synchronic, local level of discourse interaction, and the diachrony of, in this case, the child's idiosyncratic speech: Pressure on speech production may lead to language change.

It is important to note that the child's difficulty in maintaining separation between repertoire components in the domain of monitoring-and-directing operations is not due to the overall dominance of any single set of linguistic structures (i.e. one particular 'language'). Rather, 'dominance' or loyalty to a particular set of structures is variable and fluid. We see this in particular in the fate of the contrastive marker between the age of 2:6–2:11. It is, in a way, this changing loyalty, accompanying the accommodation to changing settings, that triggers the confusion in the first place. Re-directing his attention toward an alternate subset of his repertoire seems easier for the child in connection with some processing functions of language, more than for others. For the less analytical, more gesture-like functions, the pragmatic orientation toward a particular subset, arising from the previous setting, remains dominant for a while, until the child has become fully accustomed (in his mental processing of language) to the new setting. I refer to this phenomenon as the *pragmatically dominant language* – the language that has been the target of the speaker's accommodation efforts until shortly before the latest change of interaction setting (see Matras 1998a).

In this section we saw that even a bilingual child who is exposed to consistent domain separation between the languages, who has a high level of linguistic awareness, and who generally avoids mixing, encounters certain difficulties in keeping apart two of his languages around certain monitoring-and-directing functions of language. There is a difficulty, in situations of relative ambiguity which surround the transition between settings, in disassociating the relevant linguistic structures from the pragmatically dominant language – the language in which communicative performance took place until the transition. This leads to an instantaneous or temporary *fusion* – i.e. non-separation – of the subsets within the repertoire around the structures that represent the relevant function.

2.4 Combining repertoire components

In the previous section I dealt with the variable selection of word-forms or linguistic 'matter' from the multilingual repertoire. In this section we examine how elements from both repertoire components are integrated by combining linguistic matter or word-forms belonging to one subset of the repertoire, with organisation patterns and meanings belonging to another. This is a strategy with which the child speaker creates hybrid constructions that do not exist

in adult speech. Consider first the blending of German word order rules with Hebrew lexical items in the following example:

- (10) Hebrew; age 2:1, describing a museum exhibit that showed a wounded man lying down and a woman standing nearby:
 iš ten, išá ten lo
 man sleep woman sleep⁹ no
 ‘The man is sleeping, the woman is not sleeping’

In (10), the Hebrew negator *lo* follows the verb (which in this instance, at this age, is both phonologically reduced, and lacks proper gender agreement with the subject noun). The rule in adult Hebrew is for the negator to precede the finite verb: *lo yašén* ‘does not sleep/is not sleeping’. The structure is replicated from German, where the negator in main clauses follows the finite verb: *schläft nicht* ‘is not sleeping’. What is the trigger for the hybrid construction? It is possible that the child is trying to implement a structure that he has recently acquired through communicative experience in the German setting as a unique way to express negation: placement of a negative particle after the finite verb. Conscious of the need to select appropriate matter in the Hebrew setting, he attempts to implement the new structure in the Hebrew setting by complying with the selection constraint, inserting a Hebrew negation particle in place of the German one. The separation of subsets of matter thus appears easier to maintain than the separation of the more abstract organisation patterns of the construction.

Postverbal negation continues to appear in the child’s Hebrew sporadically even until the age of five. Particularly consistent is the child’s negation of the possessive construction. In Hebrew, the possessive is expressed by impersonal *yeš* in the positive, and by its suppletive counterpart *eyn* in the negative, with the possessor appearing as a prepositional object: *yeš lánu* ‘we have’ (there.is to.us), *eyn lánu* ‘we don’t have’ (there.is.not to.us). The child frequently uses *yeš lánu lo* by analogy to German *wir haben nicht/ wir haben kein-*. The irregular nature of the Hebrew possessive construction – the fact that it is both an impersonal construction, which is rare in a predication, and that it has a suppletive negative form – appears to prompt the child to create an alternative. This alternative is constructed by analogy to a negative possessive construction that already exists in his repertoire – the German *haben + nicht/kein* – drawing on lexical material that is available in Hebrew and is therefore permissible in the Hebrew-language setting.

Non-separation or fusion of sentence organisation patterns appears in various other constructions:

- (11) Hebrew; age 2:1, commenting on the father’s remark during an activity:
 ába “oops” amár
 daddy oops said.3sg.M
 ‘Daddy said “oops”’

- (12) Hebrew; age 2:7, Ben tells a story that he made up. The father asks questions about the story, and the child replies:
- a. Father: lama hu amár “ma”?
why he said.3SG.M what
- b. Child: ki ha-migdál kol ha-zman “tralala” omér
because the-tower all the-time tralala says.SG.M
- a. Father: ‘Why did he say “what”?’
- b. Child: ‘Because the tower always says “tralala”’

In (11), the content verb ‘said’ is placed in final position, replicating the German pattern for the use of the perfect tense (subject + auxiliary + object + lexical verb; cf. *Aba hat ‘oops’ gesagt*). In (12b), word order features the German rule on the placement of the finite verb in final sentence position in subordinate clauses. Both examples show that in these instances, the child’s planning of the information structure of the utterance does not take into account the unique rules that accompany each subset within the repertoire, despite the fact that the selection of linguistic matter is consistent and complies with the constraints of the context and setting.

As the child grows older, especially after he starts attending school, and English gradually becomes the dominant language for both play and verbal reasoning, English construction patterns begin to appear in both German and Hebrew. In (13)–(14), English preposition stranding is applied in *wh*-constructions in German (13) and in Hebrew (14):

- (13) German; age 6:0, addressing both parents, commenting on their conversation (which is conducted in German):
Was redet ihr über?
what talk.2PL you.PL about
‘What are you talking about?’
German: *Worüber/Über was redet ihr?*
- (14) Hebrew; age 6:0, asking to see the content of a present bought for a friend:
aní rocé lir’ót eyx ze nir’á kmo
I want.SG.M see.INF how this looks.SG.M like
‘I want to see what it looks like’
Hebrew: *aní rocé lir’ót eyx ze nir’á*

Example (15) shows the child’s usual expression, during this period, for ‘I am cold’:

- (15) From around age 5:0, lasting until around age 8:0:
- a. Hebrew:
aní kar
I cold.SG.M
‘I am cold’

- b. German:
 ich bin kalt
 I am cold
 'I am cold'

Note that both languages have dative-experiencer constructions: Hebrew *kar li*, German *mir ist kalt* (both literally '[it] is cold to-me'). Here too, then, it is the abstract construction pattern that is generalised for the repertoire as a whole, or rather, the pattern of a construction that has been acquired and used in a particular set of contexts (i.e. the English-speaking settings) is activated in other contexts as well, but linguistic matter is selected in line with the constraints of those other contexts. Moreover, the replicated pattern itself is also adjusted to cater to the structural constraints of the selected language. Thus in Hebrew, no present-tense copula form appears, and the existential predication assumes the structure of a nominal sentence. It is therefore incorrect to speak of the 1:1 replication of an entire construction. Instead, it is the principal or pivotal feature of the construction that is selected; it is then matched with a structure representing a similar function in the other language. The process of 'pivot-matching' (see Chapter 9; cf. also Matras and Sakel 2007a) is subject to the constraints of the replica language. In (15), the selected pivotal feature is the use of the existential construction with the experiencer as subject.

In many cases the child demonstrates creativity in assigning new functions and meanings to existing structures in order to reconstruct patterns drawing on linguistic matter from the 'appropriate' language. In (15) it is the distribution context of the existential construction that is extended, meeting one of the criteria for grammaticalisation as described for contact-induced change by Heine and Kuteva (2005). But meaning and indeed even category or class affiliation of words may be adjusted as well:

- (16) a. Hebrew; age 4:6, commenting on a drawing:
 ze avál yafé!
 this but nice
 'This is very nice indeed!'
- b. German model:
 Das ist aber schön!
 this is PART nice
 'This is very nice indeed!'

In (16), the child has just recently begun to use German modal particles. The individual particle forms are identified by the child as belonging to the German subset of his repertoire. Nonetheless, the child treats the construction type 'modal particles' as part of his overall repertoire of modes of expression, not specifically bound to the German component. He attempts to implement the newly acquired construction in all possible contexts and interaction settings. Conscious of the

constraints on matter-selection, and not having heard a (native) Hebrew representation of the construction which he can imitate, the child makes his own creative effort to accommodate the construction to the Hebrew setting by modifying the meanings of existing Hebrew word-forms. This process, which we might call 'replication' of the construction pattern in the Hebrew context, once again involves the selection of pivotal features and their mapping onto Hebrew items. The pivot in this case is German *aber*, which is a modal particle in the construction under scrutiny, but is identical in form to the German conjunction 'but'. Thus, polysemy is the key to the pivot-matching procedure. It inspires the child to select the translation equivalent in Hebrew, the conjunction *avál* 'but', and to assign to it the pivotal role in the modal particle construction. The process is reminiscent of what Heine and Kuteva (2005) refer to as 'replica grammaticalisation': the analogous promotion of an item up the grammaticalisation chain – in this case from conjunction to particle.

Pivot-matching does not, however, necessarily follow the grammaticalisation pathway, as can be seen from the following example (see also Matras and Sakel 2007a for a discussion). Around the age of four, the child acquires a new construction in German – the politeness term of address *Sie*. The German second-person polite form *Sie* is identical to the 3PL pronoun *sie*, and carries the same 3PL agreement marker on the verb. The context in which the child acquires this construction is a game which he plays with his mother, in which the child is a storekeeper and the mother is a customer coming to the shop, who addresses the shopkeeper in the polite form when enquiring about certain products (*haben Sie X?* 'do you.POLITE have X?'). The child's acquaintance with the German politeness form is, at this stage, limited to this particular context. Strictly speaking, he does not acquire a politeness marker as such, but a construction that is employed in a particular slot within the pre-defined pattern of speech activities that characterises the game 'shop'.

By acquiring this new construction, the child has extended his overall communicative repertoire. In this case, this is a more accurate description than to suggest that he has learned a new 'structure', since he is already familiar with the form of the 3PL pronoun and agreement marker, and it is only the use of the structure to refer to the addressee under strictly defined communicative circumstances that is novel to him. When the child is spending time with his father, a similar game is played in Hebrew. Note that the 'generic' shop-game, from the child's perspective, is played with the mother, and that it is in her household that the child has a range of accessories, including a toy counter and till, to facilitate the game. The shop-game in the father's household is thus a 'replica'. Having enriched his linguistic-communicative repertoire as part of mastering the shop-game, the child is eager to repeat the acquired pattern of activity associated with it. This includes the organisation of the question which he, now playing the role of the customer, puts to the storekeeper, this time the Hebrew-speaking father:

- (17) a. Hebrew; age 4:1, during role-play as a customer addressing a grocer:
 yeš lahem tapuxím?
 there.is to.3PL apples
 [Intended meaning]: ‘Do you have apples?’
 [Actual meaning]: ‘Do they have apples?’
- b. German model construction for polite form of address:
 haben Sie Äpfel?
 have.3PL you.POLITE/3PL apples
 ‘Do you have apples?’

Hebrew lacks a politeness pronoun. The child replicates the German construction by employing a Hebrew possessive construction in the 3PL. Once again, the child is picking up a single – albeit ‘pivotal’ – feature of the German construction, namely the use of the 3PL. This is employed as a term of direct address, or listener-deixis, and so in effect it is a case of de-grammaticalisation (from anaphora to deixis).

In Chapter 9 we will see how pattern replication through pivot-matching is a common process in contact-induced language change. In the linguistic experience of an individual speaker, such a process may occupy various positions on the synchrony–diachrony continuum of the particular idiolect. The adoption of an English-based pattern in (15) in both German and Hebrew is long-lasting in the child’s speech, and illustrates the potential contribution of pivot-matching to language change – the only limitation here being the fact that we are dealing with an individual’s idiolect, and not with the collective speech form of a speech community. The structure seen in (17) is a single occurrence, but this is due largely to the fact that it is embedded into a particular slot in a fixed discourse pattern. We might assume that frequent repetition of the role-play would in all likelihood lead to a regularisation of the structure in this particular discourse organisation. But the mechanism of pattern-matching itself is activated spontaneously as a solution to on-the-spot, immediate, and local communicative needs. Consider the following example:

- (18) Hebrew; age 7:3, while watching a football match broadcast (in English) on television:
- a. Child: *Penalty shot!*
- b. Father: me ha-nekudá ha-levaná . . .
 from the-spot the-white.SG.F
 ‘From the white spot . . .’
- c. Child: ze ma še *penalty shot*.
 that what REL
 ‘That’s what a *penalty shot* is.’

In his explanation of the term ‘penalty shot’ (replicated in English as a technical term), in segment (c), the child uses a cleft construction. It is modelled structurally on the Hebrew cleft construction, which assumes the form {this + what + COMP + verb}, as in *ze ma še aní amárti* ‘that [is] what {COMP} I said’. In the absence of a present-tense copula form, the Hebrew cleft construction is incompatible

with present-tense existential predications. The child attempts to reconcile the semantic function and distribution of an English cleft construction – ‘that’s what a penalty shot is’ – with the structural features of Hebrew cleft constructions. The result is an ad hoc extension of the Hebrew structure. The construction used by the child in segment (c) does not exist in native adult Hebrew.

So far, we have seen how pattern replication is motivated by the need to employ a newly acquired semantic-pragmatic construction irrespective of interaction setting, adapting it to the relevant context through pivot-matching and the use of context-appropriate linguistic word-forms. The fact that the child is able to engage in such complex, creative procedures is a sign of growing linguistic maturity as well as of a strict awareness of the setting-bound constraints on the selection of overt linguistic matter. Pivot-matching is thus, essentially, an opportunistic strategy, which allows the speaker to make maximum use of his full linguistic-expressive resources while at the same time conform to the expectations on word-form selection in the particular conversational setting. With growing linguistic proficiency and expressive skills, especially at school age (after the age of five), when use of the individual languages becomes unbalanced and exposure to English takes on a leading role,¹⁰ we see evidence of occasional difficulties in keeping apart repertoire components, particularly around certain types of constructions. While there is hardly any confusion at this stage around, for example, inflectional morphology or word order, vulnerable categories include the choice of prepositions modifying objects and adverbial modifications:

- (19) Hebrew; age 8:2, while the child is busy playing with a favourite jigsaw puzzle, in response to the father’s suggestion that they should play music together:

lo sixákti et ze kvar le/ harbé zman
 NEG played.1SG ACC this already for much time
 ‘I haven’t played this for a long time’

- (20) Hebrew; age 8:5:

šaxáxti al ze
 forgot.1SG about this
 ‘I forgot about it’

In (19), the child begins to replicate the English model construction *for a long time*, by selecting, as a ‘pivot match’, the Hebrew benefactive object preposition *le*, though the construction is then interrupted by a self-repair (the proper Hebrew construction lacks a preposition here). It is the self-repair that provides an indication that pivot-matching in this case is motivated by a certain degree of insecurity in selecting appropriate constructions. One can assume a similar motivation in (20), resulting in the replication of the English prepositional object through the use of Hebrew *al* ‘about, on’ (instead of the expected Hebrew direct object preposition *et*). In this case, the replication goes unnoticed by the speaker (and un commented on by the hearer). Lexical semantics are particularly prone to such processes:

- (21) German; age 5:8, offering the mother a taste of a dish he is having:
 Willst du schmecken?
 want.2SG you taste
 ‘Would you like to taste?’
- (22) Hebrew; age 6:4, in response to the father telling about an interesting film which he saw on television:
 lakáxta et ze/ hikláteta et ze?
 took.2SG ACC this recorded.2SG ACC this
 ‘Did you take it/ did you record it?’

In (21), German *schmecken* ‘taste’ (an intransitive verb meaning ‘to be tasty’) is used as a transitive-agentive verb in a meaning modelled on English ‘taste’ (both intransitive and transitive); the appropriate German verb would be *probieren*, lit. also ‘to try out’. In (22), the start of the utterance reveals a plan toward the selection of a lexical construction modelled on the German *aufnehmen* ‘to record’, which is composed of the lexical item representing the concept ‘to take’ and an added component, a so-called ‘verbal particle’ *auf*, an aktionsart modifier derived from the preposition ‘on, onto’. We see an attempt to match the meaning onto a similar component, integrating the Hebrew verb *lakáx-* ‘to take’. The selection of the Hebrew past tense requires the insertion of finite verb inflection; the first part of the verbal construction having then been completed, once the direct object is inserted a search is presumably triggered for a match for the supplementary verbal particle *auf*.¹¹ When none is found, the speaker self-repairs and retrieves the relevant Hebrew lexical item, *hikláteta* ‘you recorded’. These examples illustrate how word forms of the individual repertoire components are easily kept apart, but their semantic fields are sometimes fused, making accommodation to the setting (and so language choice) a straightforward, almost mechanical procedure of substituting one item by another, irrespective of any semantic-contextual constraints. Further examples are seen in (23)–(24), where replication targets an extended meaning of the respective lexical item:

- (23) a. German; age 4:6, addressing the mother, having made a witty comment that confused her:
 ich habe dir einen Trick gemacht
 I have.1SG you.SG.DAT a.ACC trick done
 ‘I played a trick on you’
- b. Hebrew model:
 asíti lax trik
 did.1SG to.2.SG.F trick
 ‘I played a trick on you’
- (24) a. Hebrew; age 4:6, in response to the father assuring him that a story he told him was true:
 ani xošév lexá et ze
 I think.SG.M to.2SG.M ACC this
 ‘I believe you’

b. German model:

Ich glaube es dir
 I think.1SG it you.SG.DAT
 'I believe you'

Once again, the process of accommodation testifies to the communicative maturity of the speaker: Replication of the construction is constrained in both examples by the morpho-syntactic rules of the accommodating language, represented by the selection of tense, case marking, and word order rules. It is once again the abstract organisation pattern of the construction that is replicated, and in both cases specifically the extension of the meaning of a lexical verb along with its argument structure: Hebrew {'to do' + benefactive + 'trick'} in (23), German {'to think' + direct object + benefactive} in the sense of 'to believe' in (24). In essence, a verb is identified as a match for the verb of the model construction, and inserted into an argument structure environment that similarly matches the model, resulting in an extension of meaning of the targeted verb.

Frequent candidates for such semantic extensions are verbs with a specification of local relations:

- (25) Hebrew; age 8:5, referring to the absence of the class teacher, in reply to the father's question why no merit certificates had been distributed to the child's classmates at that day's school assembly:
 ki Miss Preston lo haytá šam
 because NEG was.3SG.F there
 'Because Miss Preston wasn't there'
- (26) a. Hebrew; age 5:8, while taking a walk with the father, reaching the end of a path at the edge of a field:
 pašút neléx dérex
 simply go.1PL.FUT through
 'Let's simply cross [it]'
- b. German model:
 Gehen wir einfach durch
 go.1PL we simply through
 'Let's simply cross [it]'
- (27) Hebrew; age 5:10, after playing outdoors for a while:
 aní rocé laléxet le-tox
 I want.SG.M go.INF into
 'I want to go inside'
- (28) Hebrew; age 5:10, looking out of the window on a cloudy day:
 ha-šémeš bá'a ha-xúca
 the-sun came.3SG.F outside
 'The sun came out'

In (25), a replica is sought for the English expression 'to be there', representing presence at a contextually identifiable location (also German *da sein*). In Hebrew, this function is simply covered by the plain copula (thus *lo haytá* 'she wasn't

[there]’), with the location being contextually inferred rather than anaphorically specified. The Hebrew remote place deixis *šam* ‘there’ is employed to replicate the model construction and support the meaning extension of the main verb, *haytá* ‘was’. In (26), the German composed verb meaning ‘to cross’, consisting of a main verb stem with the meaning ‘to go’ and a directional specification in the form of a verbal particle, is replicated by creating a Hebrew composition out of the verb ‘to go’ and the preposition ‘through’. Both elements are recruited because they can serve as lexical translations of the respective German components of the construction when those appear in isolation.

The underlying assumption is therefore that the rules of combining separate forms into composite and derived meanings apply irrespective of the interaction setting and repertoire subset that is activated (i.e. independently of ‘language’). The speaker is drawing on what is perceived as an integrated, universal inventory of rules of deriving lexical meanings in this fashion, exempting those rules from the otherwise stable demarcation boundaries separating subsets of linguistic forms and constructions. Similar procedures are documented in (27)–(28), where composites of verb + directional expression are used to convey meanings which in Hebrew are normally expressed by independent lexical stems – *lehikanés* ‘to enter’, *yac’á* ‘came out’. While in (28) the use of the adverb *haxúca* ‘outside’ is at least permissible in such a context in Hebrew, in (27) the preposition *letóx*, which normally must precede a noun or carry a pronominal ending, is promoted to an adverbial directional expression or verbal particle modifying the lexical meaning of the verb.¹²

As we saw above, pattern-matching takes into account morpho-syntactic constraints of the replica language. This applies to the modification of lexical semantics as well:

- (29) Hebrew; age 6:2:
 ze osé li laxšóv al ..
 it makes.SG.M to.1SG think.INF about
 ‘It makes me think of . . .’
- (30) Hebrew; age 6:2:
 nafálti lišón
 fell.1SG sleep.INF
 ‘I fell asleep’

In (29), an analytical causative construction is modelled on English, filling the function of the Hebrew *ze mazkír li* ‘it reminds me’. But note that the benefactive is expressed by the Hebrew prepositional object *li*. The child does not employ a Hebrew direct object pronoun (**otí* ‘me’). In (30), the complex construction, modelled on English, substitutes Hebrew *nirdámti* ‘I fell asleep’, but the modifying component is not, as in English, an adverb, but the Hebrew infinitive ‘to sleep’.

Finally, idiomatic expressions constitute a frequent target for pattern replication:

- (31) Hebrew; age 9:5, describing a family friend:
 hi me'ód letóx kadurégel
 she very into football
 'She is very much into football'
- (32) Hebrew; age 9:7, reaching a footpath junction while taking a walk:
 éyze dérex?
 which way
 'Which way?'

Once again, there is an underlying assumption on the part of the child-speaker that pragmatically inferred meanings are universal, and not language-dependent. Thus in (31) the Hebrew preposition *letóx* 'into' is used in its metaphorical extension in the sense of 'interested in', while in Hebrew proper it has only a literal, spatial meaning, and fondness is expressed by verbs such as *le'ehóv* 'to like'. In (32), the request for instructions relating to the direction would be formulated differently, e.g. *le-éyze kivún?* lit. 'to which direction?'

Thus we still encounter, at an advanced age and linguistic maturity, conflicting motivations in the child-speaker: on the one hand, the wish to comply with the social expectations of the interlocutor and select only those items that are deemed appropriate in the particular setting. Compliance with this 'selection constraint' has become a badge of identity that defines the child's relationships with regular interlocutors as well as with patterns of activities and situations. On the other hand, there is a need to exploit as effectively as possible the full inventory of linguistic-communicative resources that the child has at his disposal, in order to maximise his ability to articulate intricate and highly differentiated meanings. Pattern replication based on a pivot-matching procedure offers a possible resolution to these conflicting motivations. It enables the child to employ constructions that represent a range of differentiated meanings without defying the 'selection constraint'.

The success of this strategy appears to depend on two conditions. The first is comprehensibility of the child's creative constructions. In our case study, comprehensibility is guaranteed in most cases. Once English has become the dominant language, creative pattern replication appears mainly in German and Hebrew; the principal interlocutors for these languages – the parents – understand all three languages. The child's innovative constructions are therefore seldom an obstacle for effective communication. The second condition is acceptability of the innovation. Once again, in what is in principle a supportive communicative environment, neither of the main interlocutors – the parents – will subject the child to any sanctions, ridicule, or refusal of cooperation in the interaction on the basis of the child's use of innovative constructions that do not comply with the adult or monolingual norm. On the whole, then, such constructions serve their communicative purposes and remain uncommented on by the parents. Occasionally, a parent might introduce the 'proper' construction, giving

the child support in acquiring an alternative to the improvised one. In the long run, the liberty to continue to replicate constructions will depend largely on the consistency of adult feedback and, later on, on the extent of exposure to other communicative settings, involving a larger range of interlocutors. Those would, one should assume, help the speaker extend the range of language-specific constructions at his disposal and consequently reduce his tendency to generalise just one construction pattern per communicative function, irrespective of setting. At the same time it would limit the acceptability and perhaps even the comprehensibility of such pattern replications, creating an incentive to avoid them.

2.5 Conscious exploitation of the full linguistic repertoire

In Sections 2.2 and 2.3 we saw that the child acquires the ability to activate elements within his repertoire selectively as a behavioural skill, which is part of the skill of accommodating to the interlocutor's expectations in particular interaction settings. The successful acquisition of this skill is to a considerable extent dependent on the behavioural model and the guidance that are provided by the parents (and where relevant by other interlocutors). The connection between domain or setting separation and language choice eventually becomes part of the child's identity and personality (see Chapter 3). As the child matures and his overall communicative confidence grows, he is able not only to control the selection of structures from his linguistic repertoire, but also to manipulate it. The stricter the expectations of his interlocutors become with regard to language separation, the more confidence is required on the part of the child in order to defy the selection constraints while winning over the hearer for the special effect that such defiance creates.¹³

In (33)–(34), the child is using events from school life as points of reference. The school is an English-speaking environment, key elements of which are institutionalised as unique referents. Although the child is in principle able to come up with translations or paraphrases for the relevant concepts in each of his other two languages, direct replication of the English form amounts to an activation in context of the world of associations represented by the original term. It is a discourse device that supports the transposition of the original scene or event into a specific setting; it has the effect of bringing to life the scene or event that the English term represents:

- (33) Hebrew; age 6:10, reporting on an event that took place at school:
 ze hayá be *assembly*
 that was.3.SG.M at
 'That was at *Assembly*'

- (34) German; age 7:6, when reminded of a past event:
 Da war ich noch in *year one*
 DEIC was.1SG I still in
 'I was still in *Year one* then'

In order to take the liberty to defy the subset selection constraint and employ English terms in a setting defined as 'Hebrew' or 'German', the child must be able to anticipate his interlocutor's acceptance of the English insertion. In (33)–(34) the insertion of English terms activates a world of associations that is connected to the English-speaking school environment. *Assembly* can be regarded as a unique institution, since neither the child nor the parents have experience of an equivalent activity carried out in a language other than English. *Year one* similarly has the unique referential status of an institution term, since it can only be paralleled in the other languages by a system of counting grades, literally ('first year', etc.). However, any parental model for such constructions in the other languages is impeded by the lack of a one-to-one correspondence between what is, primarily in terms of age but also in terms of succession of years, considered the 'first' year of school in the English system and in the respective foreign systems. The English term is therefore the most accurate portrayal of the specific phase within the English school system, and hence uniquely referential.

The acceptance of insertions of this kind by the parent-interlocutors, and indeed the adoption of similar insertion patterns by the parents themselves, creates a general licence for the free selection of institutional terminology within the repertoire irrespective of the setting in which it was acquired and is normally used, i.e. irrespective of its 'source language'. In terms of the child's language development one might be tempted to speak of a wholesale 'borrowing' of English institutional terminology into the other languages. In practice, the relevant class of lexemes is simply exempt from the selection constraint.

A more complex issue is the insertion of phrases. Unlike institutional reference terms, phrases are less likely to establish a stable reference to an unambiguous, unique entity. Finer-tuned judgement on the part of the child-speaker is called for in respect of the contextual effects of phrase insertions:

- (35) Hebrew; age 6:10, addressing a somewhat younger bilingual (Hebrew-English) child, while walking on a low stone boundary on the edge of a footpath:
 káxa aní yexól *to keep my balance*
 thus I can.SG.M
 'This way I can *keep my balance*'

The switch into English is effectively a product of the child allowing himself to defy the selection constraint, anticipating that the special effect of the insertion will make the 'inappropriate' language choice acceptable to the hearer. Such choices are often a gamble on the part of the child. They require a careful assessment of the inferences that the interlocutor is likely to make about the

tone and key of the message as a whole. In (35), the English insertion serves to activate associations with the play context among peers. The replication of the routine phrase comes more naturally than a cumbersome attempt at a translation. The child is evidently counting on the acceptance of his language choice by his younger interlocutor, who, however conscious of language separation herself, is similarly exposed to English in the school and peer settings and is likely to have a similar world of associations in respect of play and exercise routines of this kind.

When the interlocutor is an adult or parent, it is more difficult for the child to anticipate that a violation of the selection constraint will be accepted. An overt emphasis of the message key is crucial for the switch to be understood as stylistically motivated, rather than be interpreted as the child's communicative ineptness:

- (36) Hebrew; age 8:2, in a theatrical tone, in response to the father, who is cleaning the house and suggests to throw away a particular decorated cardboard box with which the child used to play at an earlier age:
 im atá tizrók otá, *I shall make a complaint*
 if you.M throw.2.SG.M.FUT ACC.3SG.F
to the government
 'If you throw it out, *I shall make a complaint to the government*'

The humour is evident in the mere content of the English phrase – notably the fact that the child pretends to be able to threaten the parent with sanctions of any kind. Note also the fact that by using *I shall* the child is mimicking a formal style that is entirely alien to the setting and indeed to any communicative interaction in which the child is likely to be involved. The entire utterance is thus a spontaneous, theatrical role-play. The choice of English as the language of the quasi 'threat' marks out the humour and shows that the child has learnt to manipulate language choice for stylistic-conversational effects such as humour or imitation of roles and styles. Once again, such manipulation – merely daring to issue an unrealistic threat knowing that the interlocutor will not take it literally, but will instead appreciate its entertainment value – requires a level of maturity and self-confidence in the overall handling of linguistic-communicative tasks.

Not only language choice, but also language itself can at this stage be used as an instrument for the creation of humour and conversational entertainment.

- (37) Hebrew; age 6:1, discussing an event that had happened over a year earlier:
 ze hayá kše fangti *year one an.*
 that was.3.SG.M when began [German].1SG [Hebrew] PART [German]
 'That was when I *started year one.*'
- (38) (Hebrew-defined context and setting); age 8:6, calling to his father from the bathroom when washing his face before going to bed in the evening (insertions in segment (c) from German):

- a. Child: Aba!
- b. Father: Hmm.
- c. Child: Where do I get a *Lappen* so I can *wisch* my *Gesicht*?
- a. Child: Daddy!
- b. Father: Hmm.
- c. Child: Where do I get a *wash cloth* so I can *wipe* my *face*?

Examples (37)–(38) document more than just plain insertions or switches. This is deliberate and conscious language mixing. The child and his interlocutor are both aware that this kind of mixing is dysfunctional and unacceptable in everyday casual conversation. While the insertion of English *year one* in (37) is again an indication of how established or ‘licensed’ insertions of institutional terminology are (see Example (34)), the insertion of German *anfangen* ‘to start’ involves complex adjustment of the Hebrew sentence: the addition of suffixed person/tense inflection *-ti* to the main verb stem, complying with Hebrew morphology, the consequent isolation of the German verbal particle *an* (as in finite forms of German complex verbs) and its accommodation at the end of the clause, complying with its position in the German main clause containing a finite complex verb (cf. *ich fange an* ‘I start’). The grammatical accommodation is, in all likelihood, spontaneous and not reflected, nor is the insertion of a German verb form pre-planned. Yet this pattern is entirely unknown in either the child’s language use or in that of the parents.¹⁴ It is safe to assume that the child was in this instance simply quicker to recall the German lexical item. But the confidence to produce an utterance that incorporates the German word, rather than delay the utterance until the Hebrew item is retrieved, indicates a willingness to engage in playful linguistic creativity.

In (38), the choice of English (rather than Hebrew) in segment (c) as the language of the utterance directed at the Hebrew-speaking father already defies the normal setting constraint on language selection. The immediate effect is to highlight the utterance as distinct from an ordinary utterance, in this case to qualify the speech act as carrying a humorous key. In fact, the utterance contains a genuine request. The humour is an ornament, aimed at neutralising the possible alienating effect that a reading of the request as a complaint might have. The father has instructed the child to wash, but has failed to make the necessary arrangements and provide him with a cloth (which is the usual evening procedure). The choice of English as the carrier language for the utterance is thus in Myers-Scotton’s (1993a) terms a ‘marked’ choice. The distance it creates neutralises possible dispreferred inferences. German too would have been a marked choice. However, being reserved to everyday household communication with the mother, German is an intimate language, unfit to convey distance. English, by contrast, is the default language of the outside world, fit for any purpose other than default communication with the parents or family relations. Moreover, in choosing English the child is also imitating both parents’ (and especially the father’s) occasional use of English to mark out phrases as humorous, presenting

them as quasi-citations and thus creating the same kind of distance or demarcation between real-world communication and the special effect of the marked utterance. The child's own creative innovation is in going beyond the mere choice of English here. He inserts German content words into the English utterance, thus contributing further to lending the utterance an unreal appearance. Such conscious language mixing – deliberate manipulation of the demarcation boundaries within the multilingual repertoire – provides us with an illustration of the likely roots of community-level language mixtures of the type that will be discussed in Chapter 10.

2.6 Implications for the study of language contact

From the perspective of the individual multilingual speaker, 'language contact' is not about systems influencing one another. Rather, it is about the challenge of employing a repertoire of communicative resources, acquired in a range of different settings or from different interlocutors, in such a way that will comply with the expectations of audiences and interlocutors in various interaction settings. The bilingual speaker faces the task of maintaining strict demarcation boundaries among subsets of his or her linguistic repertoire in order to be able to communicate in monolingual settings. Failure to maintain such demarcation might inhibit communication in monolingual settings quite severely. Complying with the 'selection constraint' is therefore paramount, especially in environments in which languages have separate functions and separate social meanings.

The acquisition and maintenance of demarcations within the multilingual repertoire is motivated by the need to gain the approval of socially dominant interlocutors: initially the parents, and later also peers. But the ability to select context-appropriate structures depends not only on the input and expectations of the interlocutors. It is also sensitive to the function of individual linguistic structures, i.e. to the contribution that linguistic structures make to the mental processing and the organisation of discourse. Control over selection appears more difficult to maintain for some functions of language than for others. This suggests that language 'mixing' can be triggered not just by social factors such as language attitudes, or by material factors such as the presence of an object in one set of interaction settings but not in another. It is also triggered by cognitive factors. The infant acquiring bilingual synonyms, for example, appears to have greater difficulties applying the principle of multiple labels to salient objects and utensils of the immediate environment, which continue to be treated as unique referents for a longer period. The young child who has mastered the separation of languages shows lapses in the ability to control language selection around discourse markers and other structures belonging to the monitoring-and-directing apparatus especially in situations involving transitions between settings.

From the early stages of bilingualism onwards, the speaker has to balance potentially conflicting motivations on the way toward sustaining most effective communication. On the one hand there is a need to comply with the expectations of the interlocutors in selecting structures that are acceptable to them. On the other hand there is the need to exhaust the full resources of the linguistic repertoire in order to ensure maximum expressiveness. Early patterns of language mixing can be interpreted as attempts to exploit expressive resources, at the expense, sometimes, of compliance with hearer expectations. But as control and awareness of the structures and rules of language and of the social constraints on language choice increase, the speaker is in a position to try and bridge the two motivations. While linguistic matter – overt phonological representations – is more easily assigned to a particular subset, construction patterns and meanings are often treated as universal. The speaker will often try to employ constructions irrespective of the interaction setting, while still respecting the subset selection constraint with regard to matter (form or shape; including choice of lexemes, morphology, and morpho-syntactic rules).

Pattern replication through ‘pivot-matching’ thus rests on several pre-conditions. The first is a more rigid and conscious commitment on the part of the speaker to subset demarcation, greater social and audience sensitivity, and a greater fear to lose face in the event of violating hearer expectation on subset selection. In our case study, pattern replication emerges at a stage when the overall repertoire is expanding rapidly and new constructions are being acquired. But domain specialisation is also increasing, leading to an unequal expansion of the repertoire (both lexicon and grammar) in various settings. In other words, certain expressive skills are being developed in one language but not in the others. This gives rise to the need to ‘import’ constructions across languages. Finally, engaging in pivot-matching and pattern replication is a creative process, through which the young speaker produces forms that have not yet been heard. This requires skills in navigating through the rules of the language, obeying formal-grammatical constraints. It also requires self-confidence to confront the adult listener with structures that have not been ‘tested’ before; while on the other hand it presupposes a somewhat naïve appreciation of language separation according to which correct selection is manifested primarily through linguistic matter (and certain formal rules on conjoining matter), while abstract patterns and meanings assigned to matter may be flexible or even universal.

From the very beginning of the language acquisition process, the child-speaker learns that some linguistic items are ‘universal’, that is, they can be employed irrespective of setting or interlocutor. This principle of the existence of unique referents within the repertoire continues to accompany the bilingual speaker even in later stages. Even the more mature communicator entertains the notion that certain items are exempt from the need to select among repertoire subsets. In order to qualify for universal status, such items need to be both comprehended and accepted by key interlocutors as unique referents. Inevitably, acceptability is not evenly distributed among the different interaction settings and populations of

interlocutors; only terms deriving from certain activity domains have a chance of becoming accepted, and then only among a certain circle of interlocutors who have potential access to the setting in which the terms are used. In our case study, English terms relating to certain institutions of school life, for example, may be used in conversation with the parents.

With even greater maturity and self-confidence, the young speaker is able to assess interlocutors' reactions and to try and exploit language mixing in conversation in order to win over the hearer for a special conversational effect or key. The motivation to manipulate language boundaries emerges along with greater complexity in the speaker's conversation and a need for a variety of forms of expression. The background against which the speaker may engage in language play or language manipulation of this kind is a strong enough social basis and intimate bond with an interlocutor audience to allow for mimicry and other theatrical acts of speech without alienating the hearer.

Against the background of the patterns of bilingual behaviour described in this chapter, we can understand a range of language contact phenomena: Bilingual first-language acquisition, domain separation of languages in individuals and in multilingual communities, 'accidental' language mixing and bilingual speech production errors, (stylistically motivated) conversational code switching, deliberate language mixing, language convergence, and the import of linguistic structures from one language into another ('borrowing'). Both the synchronic phenomena, and those that give rise to language change, arise from the conversational behaviour of bilinguals at different stages of their language-acquisition history – bilinguals who navigate between the need to maintain demarcation boundaries among subsets of their repertoire in order to satisfy social expectations on communicative behaviour, and the urge to make use of the full repertoire for maximum expressiveness.