# 1 Introduction

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What Is Language Transfer?

The word *transfer* has had many specialized uses and not just in linguistics: for instance, *transfer* and *transference* have long appeared in psychology, with different movements (e.g. psychoanalysis and behaviorism) using the words as terms with quite different meanings. Likewise, in linguistics the technical meanings of *transfer* are far from uniform. Some of the varying uses will be mentioned a little further on, but for now, the working definition that will inform this chapter is as follows: 'Transfer is the influence resulting from the similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired' (Odlin, 1989: 27).

The definition deliberately includes 'any other language' because there are many cases of people learning not only a second language (L2) but also a third (L3). For example, in China many native speakers of Uighur (a Turkic language) have Mandarin Chinese (a Sino-Tibetan language) as their L2 when they begin to study English as their L3, and so similarities and differences between Chinese and English as well as similarities and differences between Uighur and English might affect such learners' acquisition of the L3. Although relatively little study has yet been done on this particular trilingual situation, the steadily growing research field dealing with multilingual settings has documented many cases of both first language (L1) and L2 influence on an L3 as well as the influence of an L3 on an L4, etc. (De Angelis, 2007; De Angelis & Dewaele, 2011; Gabryś-Barker, 2012; Hammarberg, 2009). In our volume, Chapters 3, 11 and 13 consider trilingual or multilingual cases, but the other chapters focus on L1 → L2 transfer.

Even when only two languages are involved, cross-linguistic influence (which is a synonym for transfer) can be manifested in different ways, as will be seen. Moreover, while an L1 can influence an L2, the reverse is also
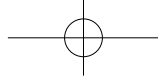
common (thus constituting L2 → L1 transfer). For instance, Porte (2003: 112) investigated the English of several native speakers of English who were teaching English as a foreign language (EFL) in Spain and found many examples of L2 → L1 influence: e.g. *I was really shocked when I first saw how molested some teachers got at my criticising the system*, where *molested* has the less pejorative meaning of Spanish *molestar* ('annoy') as opposed to the English *molest*, which is often used to denote criminality (e.g. *child molester*). The teachers in Porte's study seem to have been influenced both by some direct knowledge of Spanish and by their relatively long residence in Spain, especially since the *molested* example could just as easily come from a native speaker of Spanish using English (Nash, 1979). It is also clear that L2 → L1 influences in grammar are rather common. For example, Pavlenko (2003) found that Russian speakers residing in the USA sometimes used the perfective/imperfective system of verbs in Russian in ways quite different from monolingual speakers in Russia and in ways quite like those found in the L2 Russian of L1 English speakers. Sometimes, the difference between the L2 → L1 influence and what is called code-switching is subtle or even non-existent, and there likewise exists a large body of research on codes-witching (e.g. Isurin *et al*., 2009), though none of the chapters in our volume focuses on that phenomenon.
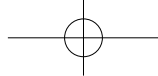
In many immigrant situations, both L2 → L1 and L1 → L2 transfer are likely in the same community, but an opportunity to study a different kind of bidirectional transfer comes from international schools, where, for example, Italian children who might or might not become permanent residents of England study English, and where English-speaking children study Italian in international schools in Italy. Rocca (2007) investigated just this kind of parallel transfer (L1 Italian influence on L2 English, L1 English influence on L2 Italian) with regard to tense and aspect structures in the target language.

The most typical cases of transfer—and usually the ones that preoccupy language teachers—involve divergences between the source language (whether the L1 or perhaps the L2 in cases of L3 acquisition) and the target language (i.e. the language that learners are seeking to acquire). Such divergences can result in negative transfer, which is often evident in vocabulary problems as when a native speaker of Spanish uses *molest* in English as a synonym for *annoy*. Along with such vocabulary problems, negative transfer is often evident in syntactic structures, as in the following sentence from a native speaker of Vietnamese: *She has managed to rise the kite fly over the tallest*

building (=*She has managed to fly a kite over the tallest building*), where the use of *rise…fly* indicates the influence of Vietnamese grammar (Helms-Park, 2003). The pronunciation and spelling patterns of L2 learners likewise show many instances of negative transfer related to pronunciation problems, as seen in a spelling error of a Finnish student who writes *crass* instead of *grass*. The Finn's misspelling of *grass* with either the letter <c> or the letter <k> reflects a phonological fact about the native language: Finnish does not have a phonemic contrast between /k/ and /g/, and learners of English in Finland thus have to learn a new consonant contrast.[1]

While divergences involving pronunciation, vocabulary and grammar naturally compel teachers' attention, a topic just as important for anyone wishing to understand transfer is the complementary phenomenon of positive transfer, which does *not* involve errors. For example, it now seems clear that some errors such as omitting articles are less likely to come from speakers of some L1s in comparison with others (e.g. Luk & Shirai, 2009; Master, 1987; Oller & Redding, 1971). Such research indicates that although speakers of languages with articles may still have problems with articles in a new language, they have fewer than do speakers of languages that do not have any articles. In other words, omissions and other article problems are less characteristic of some groups, as in a sentence taken from a corpus of EFL writing[2] that focused on events seen in a film: *Old woman say to baker: Girl take it, not man* (with four articles being omitted along with the problems of punctuation and the erroneous verb forms). In principle, omissions might be found among any L1 group, but in reality they are much less common among native speakers of Swedish, a language that has articles, than among native speakers of Finnish, a language that does not. The example just given comes from a speaker of Finnish, whereas the facilitating influence (i.e. positive transfer) of L1 Swedish is reflected in many passages in the same corpus, cases that would not, as far as article use is concerned, cause any concern for language teachers: e.g. *But the old woman came and she said to the man that it was the woman ho tok [took] the bread*. The advantage of L1 Swedish speakers over Finnish speakers in regard to the positive transfer of articles is now amply documented (e.g. Jarvis, 2002; Odlin, 2012a; Ringbom, 1987).

A number of researchers including Corder (1983: 92) have criticized the term *transfer* for its metaphoric suggestion when in fact 'nothing is being transferred from anywhere to anywhere'. The notion of movement inherent in *transfer* has sometimes been seen as one manifestation of a larger group

of metaphors which Reddy (1979) dubbed 'the conduit metaphor'. Corder's criticism might be best viewed as a warning against an unreflective use of metaphors, which can indeed cause misconceptions, as discussed by various specialists (e.g. Lakoff & Johnson, 1980, 1999; Vervaeke & Kennedy, 2004). Even so, *transfer* has long served as a useful cover term for a variety of phenomena that require detailed non-metaphoric analyses. The conduit metaphor is also evident in two other terms: *translation* and (somewhat ironically) *metaphor*. The latter seems less closely related to *transfer*, but Dechert (2006) observes that the etymologies of both *transfer* and *metaphor* suggest that something is carried from one place to another, *transfer* coming from the Latin *trans* (across) and *ferre* (carry) and *metaphor* from the Greek *meta* (across) and *phor* (carry). The verb *translate* has essentially the same etymology as *transfer*, since the word *latus* is a participial form of the irregular Latin verb *ferre*. Of course, there are undeniable differences between the phenomena of transfer, translation and metaphor; nevertheless, the semantic kinship of the terms seems significant. Specialists such as Lakoff and Johnson have emphasized that metaphors permeate the everyday use of language, as people often seek to comprehend the world and their own lives, and it is thus not surprising that the image of carrying over has seemed useful to both specialists and non-specialists in discussing language, whether the topic is translation or transfer (Odlin, 2008).

The phenomena of translation and transfer do in fact show more than simply an etymological overlap. The *molest* example given above illustrates a pitfall for both translators and language learners, who are often warned about 'false friends'. Sometimes, the overlap is more subtle, as in the prepositional error seen in *They sit to the grass* (=*They sit on the grass*), which was written by a native speaker of Finnish in describing a scene in a film and which reflects the semantic influence of a Finnish inflection—*lle* (meaning 'to' or 'onto') as in the word *nurmikolle*, translatable literally as 'grass-to' (Jarvis & Odlin, 2000). Yet, even though many cases of lexical and grammatical transfer involve some kind of translation or, as Weinreich (1953) preferred to phrase it, some 'interlingual identification', it would be a mistake to conclude that the two phenomena are really one and the same thing. Not all transfer behaviors involve translation. For example, hypercorrections such as a Finnish writer's use of *gomes* (=*comes*) differ in a remarkable way from the error *crass* discussed earlier. As already noted, Finnish has a voiceless velar /k/ but no voiced counterpart /g/. The *crass* example involves a simple carrying

over, so to speak, of the voiceless /k/ to an inappropriate target language context, but the use of the letter <g> in *gomes* represents a rejection of both the Finnish letter <k> and the Finnish phoneme /k/, even though *comes* or even the misspelling *komes* would constitute a valid interlingual identification between an English and a Finnish phoneme. Unlike translation errors such as *molest* and *to the grass*, where learners overestimate the similarity between the L1 and L2, hypercorrections arise when learners underestimate the actual similarity.

Although errors involving mistranslation or hypercorrection naturally loom large in the concerns of language teachers, some manifestations of negative transfer lie on the borders of language itself. One such area involves what is sometimes called *contrastive rhetoric* and sometimes *contrastive pragmatics*. For example, Blum-Kulka (1982) found that requests in L2 Hebrew by L1 speakers of English were often too indirect by the norms of the target language. Such research entails comparing cultural norms, which, of course, vary a great deal from one society to the next. Not surprisingly, the norms sometimes prove challenging to study, due in part to the fact that they can vary over time, as seen in a study of Chinese rhetoric through the centuries (Bloch & Chi, 1995). Along with the cross-linguistic variation in rhetoric and pragmatics (aka discourse), the complexities of cultural norms are also manifest in paralinguistic behaviors, with the variation sometimes conducive to transfer as evident in recent work on L2 gestures. A wide repertory of gestures is typically available to native speakers as when, for instance, French speakers often provide information about the path of a moving object, a pattern in contrast to that of Dutch speakers, who tend to provide information about the object as such (Gullberg, 2011). Transfer of L1 gestural patterns has been evident in a wide range of studies discussed by Gullberg (2008), and as might be expected, L2 → L1 influences are also evident (Brown, 2007).

When Did Interest in Transfer Begin?

SLA research frequently shows references to a book by Robert Lado (1957), who does indeed use the word *transfer*; however, use of this word as a term for cross-linguistic influence occurs well before Lado's book, as seen, for instance, in a book by Uriel Weinreich (1953), whose work Lado cites. In fact, the term *transfer* goes back at least to the 1880s and two German words that correspond to it are likewise evident in the 19th century. The earliest discussion of transfer as a psycholinguistic phenomenon may be in a work
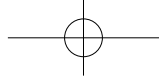
published in 1836 that ponders the relation between language and mind. Its author, Wilhelm von Humboldt (1767—1835), briefly considered second language acquisition (SLA) with regard to the cognitive effects involved in learning a new language, and he used the term *hinübertragen*, the literal translation of which (over-carry) clearly resembles the Latin *transferre*, which was discussed in the preceding section. A related term, *übertragen*, appears occasionally in an 1884 study by Hugo Schuchardt (1842—1927), looking closely at the German and Italian used by speakers of certain Slavic languages including Czech, Polish and Slovenian. Clearly a pioneer in SLA research, Schuchardt ([1884] 1971: 150) may have also been the first linguist to note the possibility of multilingual transfer (e.g. an L2 influencing an L3) as part of the phenomenon of cross-linguistic influence.

The earliest use of the English form *transfer* to designate cross-linguistic influence may be in an 1881 article by William Dwight Whitney (1827—1894), but a variant of the term, *transference*, also appeared shortly thereafter in a review of Schuchardt's book published in 1885 in the *American Journal of Philology* (and the review is reprinted in the 1971 edition of Schuchardt's work cited above). The author of the review, Aaron Marshall Elliott (1844—1910), also used *transfer* in an 1886 discussion of language contact in Canada. It seems quite possible that the two American linguists' use of *transfer* came about as translations of *übertragen* or *hinübertragen*. Both men had studied in Germany (Marshall in Munich and Whitney in Berlin and Tübingen), where the topic of language contact had become increasingly prominent in historical linguistics. The 19th-century uses of *transfer* show that, contrary to the beliefs of some SLA researchers, the term did not originate in the 1950s. Moreover, the word *transfer* in the sense of cross-linguistic influence also appears in introductions to linguistics by Edward Sapir (1921) and Otto Jespersen (1922), and so there is clear continuity in its use from the 19th to the mid-20th century.

Even a casual look at the writings of Humboldt, Schuchardt, Whitney, Elliott, Sapir and Jespersen will show that linguists were using *transfer* (and translation equivalents) without reference to any particular theory of psychology. This point matters because the behaviorist use of the word *transfer* (e.g. Osgood, 1949) is sometimes equated with its use in linguistics, thus leading to a mistaken conclusion that the theoretical foundation for ideas about transfer is to be found in behaviorist psychology. It is true, however, that Lado took a behaviorist stance, as Selinker (2006) observes, but Selinker
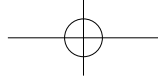
also studied with Lado's mentor Charles Fries, and he states that Fries did not subscribe to behaviorism. In his preface to Lado's book, Fries did refer to the 'habits' arising from a learner's L1 in relation to transfer, and so it is not surprising that in the challenge to behaviorism that arose in the 1960s, Fries and Lado would both be considered behaviorists. Nevertheless, other structural linguists who were not behaviorists also found the words *habit* and *habitual* convenient for alluding to the psychology of language (e.g. Edward Sapir and Benjamin Lee Whorf). Like *transfer*, then, the word *habits* had a life in linguistics quite independent of its uses in psychology.

Well before Humboldt, there was some interest in cross-linguistic influence, although the interest seems to have focused less on psychological and more on historical questions such as why Romance languages such as French and Italian differed so much from Latin: perhaps there were linguistic influences from groups subjugated by the Romans on the language of the conquerors (Odlin, 1989). In any case, the field of language contact has maintained a strong interest in transfer from the earlier studies reviewed by Weinreich to recent studies of both creoles, which are usually viewed as new languages that have arisen in bilingual or multilingual environments (e.g. Migge, 2003), and certain dialects viewed as varieties of an already existing language (e.g. Filppula *et al*., 2008; Klee & Ocampo, 1995). Such work focuses on social as well as historical contexts that foster cross-linguistic influence. While arguably different in their main orientations, SLA and contact linguistics remain connected. Contact research (e.g. Mufwene, 2010; Siegel, 2012) naturally draws on psychologically-oriented studies of transfer, and some SLA research (e.g. Helms-Park, 2003) has likewise put contact studies to good use.

How Can Any Effects of Transfer Be Demonstrated?

The skepticism about transfer that developed in the 1960s and 1970s has been closely examined elsewhere (e.g. Larsen-Freeman & Long, 1991; Odlin, 1989), and so there will not be a lengthy consideration here. Nevertheless, one especially relevant detail of that history warrants attention here: the methods employed by skeptics four decades ago. A book by Heidi Dulay, Marina Burt and Stephen Krashen published in 1982 marks, it can be argued, the high-water mark in the tide of skepticism. Much of their case against transfer relied on studies that compared speakers of quite different languages, such as Chinese and Spanish, on their success (or lack of success) in using
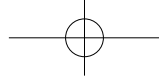
grammatical morphemes such as plural inflections, definite and indefinite articles, and the possessive on English nouns as in *the child's stories*. Dulay *et al*. (1982) claimed that the developmental path for acquiring such morphemes did not vary significantly for speakers of any L1 background, and therefore speakers of a language such as Spanish would have no advantage with articles or plurals despite the presence of quite similar structures in their L1. Several developmental studies in addition to those of Dulay *et al*. (1982) seemed to provide convincing evidence (which, however, some contemporaries disputed). Nevertheless, in the last three decades, the counter-evidence to the claims of Dulay *et al*. (1982) has increased steadily. Luk and Shirai (2009), for example, have reviewed several studies looking at speakers of Chinese, Japanese and Korean and conclude that articles and plural morphemes prove consistently more difficult for speakers of these languages (which do not have articles or plurals) in comparison with speakers of languages such as Spanish. Furthermore, the same research indicates that the possessive morpheme of English proves easier for speakers of the three East Asian languages (all of which have similar possessive structures) when compared with speakers of Spanish (a language with no close parallel to English in this area).

Findings such as those of Luk and Shirai do not discredit all developmental analyses, but the method of comparing at least two distinct L1 groups has been used effectively to demonstrate transfer in many instances, as in the study by Helms-Park (2003) cited above, where speakers of Vietnamese were compared with speakers of Hindi and Urdu (two closely related Indic languages). The comparison showed that only speakers of Vietnamese were at all prone to producing serial verb constructions such as *She has managed to rise the kite fly over the tallest building*. Since Vietnamese has serial verb constructions, whereas Hindi and Urdu do not, the conclusion of Helms-Park that transfer explains the intergroup difference is hard to refute. In an earlier study, Helms-Park (2001) used the same comparative method to demonstrate positive transfer in causative verb patterns that are sometimes similar between Vietnamese and English and, crucially, not similar between Hindi/Urdu and English. So-called periphrastic causative constructions, such as *The man made the lion jump through the hoop*, proved relatively easy for speakers of Vietnamese to use but not for speakers of Hindi/Urdu.

Such comparative studies are not the only way to make a strong case for transfer. Selinker (1969), for example, used a different approach in comparing the placement of adverbs by native speakers of Hebrew, native speakers of

English and learners of EFL with Hebrew as their L1. He found a greater statistical similarity of the EFL patterns to those of the L1 Hebrew than to those of the L1 English group. An especially powerful method of verification comes, however, from combining the two methods, that is, by considering both the differences between native and non-native speakers and the differences between L1 groups, as Jarvis (2000) has demonstrated. In effect, his approach relies on five databases, one each for native speakers of Finnish and Swedish writing in their native languages, one each for speakers of these languages writing in EFL and one for native speakers of the target language (English). Not many SLA researchers may be in a position to collect so much data or to compare such closely matched groups as the Finnish and Swedish participants in the work of Jarvis, and less extensive data collection can still result in persuasive demonstrations of transfer. Even so, the approach advocated by Jarvis offers an especially strong methodology to forestall many of the conceivable counterarguments against transfer analyses.

The first use of such a method relying on five corpora (i.e. databases of text) involved lexis (Jarvis, 1998), but the usefulness of the method for morphosyntactic structures such as articles and prepositional phrases is also evident (e.g. Jarvis, 2002; Jarvis & Odlin, 2000; Odlin, 2012a). Lexical research remains, however, an important source of methodological advances. Jarvis and colleagues have refined a technology to study corpora gathered from speakers of several languages, including Finnish, Swedish, Spanish, Portuguese and Danish (Jarvis & Crossley, 2012). In one sense, however, the technological refinements evident in the Jarvis and Crossley volume still suggest continuity with earlier demonstrations of lexical transfer (e.g. Ard & Homburg, 1993) since in both the recent and the earlier investigations, the focus has been on intergroup differences.

Although English remains the most widely studied target language in regard to cross-linguistic influence, researchers have also looked at transfer in the acquisition of other target languages and have recognized the methodological significance of intergroup differences. Convincing evidence for transfer is indeed available in work on the acquisition of Arabic (Alhawary, 2009), Chichewa (Orr, 1987), Danish (Cadierno, 2010), Dutch (Sabourin *et al*., 2006), Finnish (Kaivapalu & Martin, 2007), French (Sleman, 2004), Hebrew (Olshtain, 1983), Japanese (Nakahama, 2011), Spanish (Montrul, 2000) and Swedish (Hyltenstam, 1984), to mention just some of the available studies.
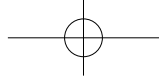
What Is the Place of Language Transfer in Theories of SLA?

Virtually every model of how learners acquire an L2 (or L3, L4, etc.) discusses transfer. Even skeptics such as Dulay *et al*. (1982) conceded that it had some role although, as discussed above, their overall position on transfer is now discredited. In the last three decades, cross-linguistic influence has been ascribed a greater role in theories of acquisition such as the competition model (e.g. MacWhinney, 2008), processability theory (PT; Pienemann *et al*., 2005) and universal grammar (UG; White, 2003). A detailed summary of the perspectives on transfer in each of those models is beyond the scope of this chapter. However, it is important to note that each approach has its own emphases with regard to transfer, with varying amounts of attention to concerns such as linguistic typology, the frequency of particular structures in the source language(s) and the target, and the readiness of learners to acquire a particular target language structure. Along with the wider-ranging theoretical frameworks just cited, some approaches focus on more specific theoretical issues such as linguistic relativity in the approach known as thinking for speaking (e.g. Han, 2010; Slobin, 1996; Yu, 1996), while others have developed models that examine specific dimensions of transfer such as the implications of the differences between L1 writing systems (e.g. Wang *et al*., 2003) and the implications of only partial lexical correspondences as where, for instance, German *Tasche* can translate into English as either *bag* or *pocket* (Elston-Güttler & Williams, 2008).
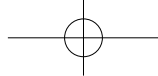
No single theory really attempts to model the full complexity of the phenomenon of cross-linguistic influence. The limited reach of theory building with regard to transfer is not surprising, given that the myriad concerns in complex domains (for example, discourse analysis) overlap only partially with the immediate concerns of transfer research. For those whose primary aim is to understand the multifaceted phenomenon of cross-linguistic influence, it is important to consider any empirical findings not only with regard to the theories invoked by researchers responsible for the findings but also with regard to alternative analyses. Two recent studies of transfer in grammatical gender can illustrate the potential value of considering alternative analyses. Sabourin *et al*. (2006) and Alhawary (2009) came to similar conclusions that when speakers of a language with grammatical gender (e.g. French) attempt to acquire one that also has grammatical gender (e.g. Arabic), these learners

will have an advantage over speakers of a language (e.g. English) that does not have grammatical gender. Apart from the focus on transfer, however, the theoretical concerns in the two studies were quite different: UG in the study of Sabourin *et al*. and PT in the study of Alhaway (who is actually skeptical about PT as opposed to UG). Yet, while the issues foregrounded in UG and PT are important, neither model speaks directly to the questions of why any language has grammatical gender in the first place or why French learners, for example, might try to use their L1 knowledge to deal with the challenges of grammatical gender in a new language. Although UG and PT have virtually nothing to say on the possible communicative motivations for grammatical gender, linguists using other theoretical approaches have offered explanations that may prove helpful (e.g. Corbett, 1999; Senft, 2007). Corbett (1999: 17), for instance, has viewed gender as a subtype of an agreement system and, in general, the usefulness of such systems lies 'in allowing the speaker to keep track of referents in a discourse by means of the agreement categories'. There does not yet seem to be much SLA research focusing on this specific claim, but clearly such work could build on transfer research that has looked closely at how speakers with different L1 backgrounds try to maintain topic continuity in discourse (e.g. Jarvis, 2002).

Can Linguists Predict when Transfer Will Occur?

Several decades ago, contrastive analysts such as Lado (1957: v) confidently assumed that 'we can predict and describe the patterns that will cause difficulty in learning, and those that will not cause difficulty, by comparing systematically the language and culture to be learned with the native language and culture of the student'. However, the skepticism about contrastive analysis in the succeeding years resulted in very different—and widely accepted—assessments such as the following:

> Ideally, the psychological aspect of the Contrastive Analysis Hypothesis[3] should deal with the conditions under which interference takes place. That is, it should account for instances when linguistic differences between the first and second languages lead to transfer errors and instances when they do not. It is because it is not possible to predict or explain the presence of transfer errors solely in terms of linguistic differences between the first and second languages that a psychological explanation is necessary. What are the non-linguistic variables that help determine whether and when interference occurs? (Ellis, 1985: 24)

Like many others, Ellis doubted that linguists could make good predictions of the kind that Lado envisioned (and like many others, Ellis emphasized negative transfer—'interference'—over positive transfer in his assessment). However, in the three decades since, two significant changes have occurred. First, a large number of SLA studies that compare different L1 groups, as in the case of studies of articles, offer evidence that L1 groups having a native language with articles (e.g. Swedish) normally have an advantage over groups having a native language without articles (e.g. Finnish). Second, many linguists (both SLA specialists and researchers in other fields) now try to include a 'psychological explanation', as Ellis phrased it, in their analyses. Accordingly, predictions that build not only on earlier transfer research (e.g. on articles and gender) but also on psychological explanations (e.g. reference tracking) may prove to be very robust. For example, while there does not yet appear to be any empirical validation of it, the following prediction seems quite plausible: Speakers of Finnish as a group will have greater difficulty with the articles of Portuguese than will speakers of Swedish as a group (Odlin, 2014). It also seems reasonable to predict that Swedish learners as a group will do better with Portuguese articles than will English speakers because, unlike English, Swedish has grammatical gender (even though English speakers would probably outperform Finnish speakers in at least supplying articles).

There might be, of course, individual exceptions to the group tendency in the prediction if some Finns happen to be more successful than some Swedes. Yet, the focus on group tendencies allows for statistical inferences if tests such as an analysis of variance (ANOVA) are employed. When such measures do indicate group differences, it becomes hard to deny that positive transfer plays an important role. Even so, individual differences still matter and, as Jarvis and Pavlenko (2008: 33) observe, it is also necessary 'to uncover as many specifics as possible about how CLI [cross-linguistic influence] manifests itself in the language and cognition of real individuals'. Even in groups, of course, it is always an individual who is making a (necessarily) subjective assessment about the similarity of something in the source and something in the target languages. One example of where such individual assessments matter involves the transferability of idioms. Kellerman (1977) found that Dutch students often seemed skeptical that certain phrases such as *dyed-in-the-wool* were genuine English idioms, and the reason for their skepticism appears to have been that the sayings have close equivalents in Dutch—in other words, the resemblance

seemed to many students to be too good to be true. Even so, the graphs and figures in Kellerman's (e.g. 1977: 119) study indicate considerable individual variation: while some learners seemed quite skeptical about the transferability of Dutch idioms, some seemed more inclined to view such idioms as transferable. The finding about learner skepticism is indeed significant, but it would be mistaken to conclude, as some readers of Kellerman's study have done, that there is some absolute 'constraint' on the transferability of idioms.

Discussions of transfer have often considered the issue of constraints of one kind or another, including alleged constraints on the transfer of word order, bound morphology and article systems. However, counter examples to the claimed constraints are relatively easy to find in the literature on language contact and SLA (Odlin, 2003, 2006), and so predicting when a structure will *not* transfer is, if anything, more perilous than making predictions about when transfer will occur. Predictions about supposed 'processing constraints' on transfer (e.g. Pienemann *et al*., 2005) are likewise questionable since there exist individual exceptions to deterministic models of acquisition that posit strict developmental sequences (Odlin, 2013). Such facts do not rule out the possibility of constraints, however. As with predictions such as the one about Portuguese articles, it may prove viable to specify what is less likely to transfer in large groups as long as any predicted constraint acknowledges that at least a few individuals might depart from the group tendency. The importance of individual variation also urges caution in how statistics are reported. When the stated results focus mainly on differences in group means, as in ANOVA and other inferential statistics, such reporting may invite the conclusion that individual differences are trivial, when in fact they may be crucial to understand the entire range of possibilities for the ways that cross-linguistic influence can work. Research in other areas of SLA (e.g. Dewaele, 2009: 639-640) has noted the need for more care about inferences from statistical results, and the need is no less great in transfer research.

Aims and Focus of the Book

Any serious attempt to understand SLA requires close attention to cross-linguistic influence. Naturally, sound insights about transfer in SLA and multilingualism can aid teachers and program designers in their efforts to improve instruction, and the study of transfer is also important in its own right, as it offers unique perspectives on human cognition. As Jarvis and Pavlenko (2008: 11) put it, the ultimate goal of transfer research is 'the explanation of
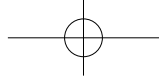
how the languages a person knows interact in the mind'.

The purpose of this volume is threefold: (i) to bring together several data-based studies presenting new findings on language transfer; (ii) to offer new theoretical perspectives on transfer, some in the empirical studies and some in other chapters; and (iii) to provide an in-depth look at transfer phenomena in a one language-contact setting, namely, China: six of the chapters in the volume examine either L1 Chinese influence on the acquisition of L2 English or (in Chapter 8) L1 English influence on L2 Chinese. Among the theoretical issues addressed are the interaction of transfer with comprehension and production processes, the interaction of the age of the learner and the influence of the L1, the role of social contexts in acquisition, the structure of the L2 lexicon, the relationship between transfer and perceptions of acceptability and the use of transfer research today to shed light on language contact situations in the past.

The volume consists of four sections considering lexical, syntactic, phonological and cognitive perspectives, and summaries at the beginning of each section will help readers to note the similarities and differences in the chapters. In addition, two other chapters offer overviews of transfer beyond this introduction: Chapter 13 (by Terence Odlin) provides a retrospective look at the other chapters in the volume, and Chapter 2 (by Scott Jarvis) addresses problems of transfer relevant to all four sections as well as to problems considered only briefly in this introduction. Jarvis focuses on the following concerns: empirical discoveries, theoretical advances, methodological tools and argumentation heuristics.

Notes

(1) Here and in other parts of the chapter, we follow the convention of historical linguists in employing angled brackets to refer to orthographic symbols and slashes to refer to phonemes. Thus, a <k> represents the letter in the alphabet while a /k/ represents the voiceless velar stop.

(2) The examples of English used by Finnish- and Swedish-speaking students (including the earlier example with *crass*) come from a database compiled by Jarvis (1998). Some details about the corpus are also given in Chapter 11 of this volume.

(3) Many SLA specialists along with Ellis have used the term *contrastive analysis hypothesis*, but definitions of the so-called hypothesis vary to the point of making the term quite nebulous (Odlin, 2012b).

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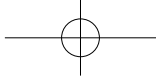
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