
Some Input on the Easy/Difficult Grammar Question: An Empirical Study

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The purpose of this study was to determine whether it is possible to distinguish between “difficult” and “easy” constructions for second language (L2) learners by examining characteristics of the structures as they occur in aural input. In a multidimensional analysis of 3 English structures with different acquisition profiles—the simple past, possessive determiners *his/her*, and the progressive aspect—we examined the phonological, morphosyntactic, and lexicosemantic characteristics of the forms as they occurred in a 110,000-word corpus of instructional talk to L2 learners. We analyzed the type/token distributions of the forms, their lexical properties, and their perceptual salience. Our findings revealed key input factors that distinguished between the early-acquired progressive, on the one hand, and the later-acquired past and *his/her* determiners, on the other hand. These results lend support to theoretical accounts of the input-acquisition relationship and also generate hypotheses for manipulating instructional input to increase the salience of opaque constructions.

WHAT CONTRIBUTES TO MAKING A LINGUISTIC structure easy or difficult to acquire? More

specifically, what can a close examination of the spoken input to which learners are exposed tell us about this easy/difficult conundrum? To address this issue, we took a multidimensional approach to the analysis of a 110,000-word corpus of teacher talk to second language (L2) learners, in contexts where the classroom constituted the

students' primary contact with the target language. Three English structures with known acquisition profiles were examined in detail: two that fall at the more difficult end of an easy-to-hard continuum (the perfective simple past and the possessive determiners [PDs] *his* and *her*) and one that falls more toward the easy end (the progressive aspect). We examined the phonological, morphosyntactic, and lexicosemantic characteristics of the forms as they occurred in the corpus. The resulting "opacity" profiles (Goldschneider & DeKeyser, 2001) were compared with the acquisition evidence for the forms; they reveal key input factors that may conspire to make some constructions more difficult to learn than others. The findings are discussed in terms of their implications for theoretical accounts of the input-acquisition relationship, as well as for L2 pedagogical practices, notably the identification of properties meriting instructional attention and the types of tasks that may be useful for focusing on these properties.

WHAT IS A DIFFICULT CONSTRUCTION?

The issue of what makes a language form difficult¹ has been approached from a variety of perspectives within the second language acquisition (SLA) literature. Although there is some overlap and some studies take more than one perspective into consideration when designating a target feature as difficult (e.g., Housen, Pierrard, & Van Daele, 2005; Kupferberg & Olshtain, 1996; Robinson, 1996), it is possible to distinguish four broad approaches to the issue: (a) a focus on learner behaviour (the acquisition perspective); (b) a focus on language characteristics (the linguistic perspective); (c) a focus on teacher explanations and rules (the pedagogical perspective); and (d) a focus on the interaction between learners and language input (the psycholinguistic perspective). In this article—and indeed in this issue—we are exploring this final perspective; we describe our motivation for this decision by reviewing the first three.

Acquisition Perspective

Perhaps the most intuitive approach to determining whether a construction is easy or difficult is to examine whether a structure is "early" or "late" acquired. According to this view, difficult structures are those that take time to be mastered (or even emerge) and/or those for which the full range of formal/functional aspects develop

in stages over time.² The best known examples of this approach are the grammatical morpheme studies for English (for overviews, see Goldschneider & DeKeyser, 2001; Larsen-Freeman & Long, 1991). In these studies, the order of acquisition for a set of morphemes was established based on accuracy profiles that considered whether the target morphemes were supplied to criterion levels (usually 90%) in obligatory contexts for their use. The methodology of these studies has been criticized on several grounds, including the lack of consistency across studies (Larsen-Freeman & Long; Lightbown & Spada, 2006). Nonetheless, one finding that has proved to be robust in the published SLA literature and is largely consistent with first language (L1) research as well has been the identification of early-acquired (e.g., *-ing*; plural *-s*) versus late-acquired (e.g., third-person singular *-s*; past *-ed*) morphemes (Bailey, Madden, & Krashen, 1974; Dulay & Burt, 1973, 1974; Fatham, 1975; Larsen-Freeman, 1975; Pica, 1983; Rosansky, 1976).³ These findings have been interpreted as demonstrating that the third-person singular *-s* may be seen as more difficult than *-ing* or plural *-s*.

Another example of a structure deemed difficult based on its late-acquired status is temporal morphology. In the European Science Foundation's (ESF) longitudinal study of adult learners of a variety of L2s (Dietrich, Klein, & Noyau, 1995), inflectional morphology took considerable time to emerge across the different languages studied. (The acquisition metric in this research was emergence and systematic use, rather than suppliance in obligatory contexts.) By the conclusion of the 2.5-year study, it was still not a productive feature of many participants' interlanguages, which were described as "basic varieties" (Klein & Perdue, 1993, p. 27), an elaboration of Schumann's (1987) concept of *basilang*.⁴

The main contribution of an acquisition perspective (however acquisition is defined) is that it allows actual learner behaviour to be taken into account. This approach proves especially valuable in cases in which research findings reveal similar patterns for a particular language feature across a variety of target languages (e.g., temporal morphology) or within the same L2 by learners of varied L1 backgrounds (e.g., grammatical morphemes in English). However, the identification of common tendencies is not sufficient; there is also a need for explanations for the observed phenomenon. As various scholars (e.g., DeKeyser, 2008) have pointed out, equating difficult and late-acquired structures presents a somewhat circular argument: Why is structure *x* difficult?

Because it is acquired late. Why is structure *x* acquired late? Because it is difficult. To paraphrase Gregg (1993), such a position leaves us with the *explanandum* but no satisfactory *explanans*.

That is not to say that no attempts have been made to account for findings from descriptive research about later versus earlier acquired forms (see, e.g., Larsen-Freeman, 1976a; Wei, 2000, for morpheme orders; Klein & Perdue, 1997, for temporal expression in Basic Variety). The point we wish to make here is that equating late-acquired and difficult structures does not in itself explain the phenomenon. A further consequence of this conflation is that it restricts comparisons of *relative* degrees of difficulty of different structures, both within and across languages. In addition, researchers may find that their ability to designate a form as either easy or difficult for any empirical investigations where such distinctions are important (e.g., when contrasting explicit and implicit learning conditions for different forms) is restricted to those forms for which there are acquisition profiles. To date, few features of language have benefited from the longitudinal and/or rigorous cross-sectional approaches needed to yield the type of robust data that can provide a reliable index of early-versus late-acquired forms. Much of the existing work has also focused on L2 English only.⁵

Linguistic Perspective

One way to confront the circularity problem is to use the language itself as the point of departure for determining difficulty. There is a variety of versions of this approach, each motivated by somewhat different theoretical perspectives. Of these, three approaches stand out as having motivated a considerable amount of the SLA research devoted to identifying easy versus difficult structures. They are L1/L2 contrasts, markedness, and structural (linguistic) complexity. Each is discussed in turn below.

One method often used to predict or define difficulty in SLA research involves comparing a target construction in the L2 with an equivalent construction in the learners' L1. In its original "strong" version, the contrastive analysis (CA) approach assumed difficulty when there were differences between languages (Lado, 1957); more nuanced views subsequently held that the nature of the difference determined the degree of difficulty. Stockwell, Bowen, and Marten, (1965a, 1965b; see also Larsen-Freeman & Long, 1991, pp. 53–54), for example, hypothesized that the cases in which an L1 feature is absent from the

L2 (e.g., the lack of grammatical gender in English for speakers of French) would present less difficulty than cases in which a single L1 form is rendered by two or more different L2 forms (e.g., *passé composé* in French realized as either simple past or present perfect in English). The failure of CA to adequately account for actual acquisition data has been well documented (Banathy & Madarasz, 1969; Richards, 1971), with some of the most convincing counterevidence coming from the discovery of common sequences of development for some language features across learners from different L1 backgrounds (e.g., tense-aspect acquisition, Bardovi-Harlig, 2000; question formation, McDonough & Kim, this issue). This is not to say that the difficulty of some language features cannot be accounted for by drawing L1/L2 comparisons. There is evidence that the L1 may interact with developmental sequences in the L2 (see Collins, 2004; Lightbown & Spada, 2006). In addition, partial similarities between languages have been observed to render some structures challenging for learners (e.g., adverbs of frequency placement in English and French; see L. White, 1991). These similarities may even result in the avoidance of some forms (e.g., the underuse of English/French cognates; see Granger, 1996). However, it is also clear that an L1/L2 comparison alone does not provide an adequate basis for predicting whether learners will find a given language structure easy or difficult to master.

A second, somewhat related approach within the language-oriented perspective is one involving the concept of markedness (Trubetzkoy, 1939/1969), which refers to dichotomous or hierarchical relations between linguistic elements. Within a given pair or group of related structures, marked forms are "less natural," "more complex," "less common," and/or "harder to articulate" (Rice, 2007, p. 80). If one takes a typological perspective on markedness, as many studies of SLA have done (see R. Ellis, 1994),⁶ a marked feature may be interpreted as a way of signaling an aspect of language that is not common across the languages of the world. Examples include preposition stranding (e.g., *Who did you sell your car to?*) versus the more widespread phenomenon of pied piping (e.g., *To whom did you sell your car?*) (Bardovi-Harlig, 1987; van Riemsdijk, 1978). A typological markedness approach may also involve taking into account whether two or more features are implicationally related; that is, the presence of a marked feature in a given language implies the existence of its unmarked counterpart, but not vice versa.

If we take the example of prepositions in *wh*-questions discussed in the previous paragraph, the less frequently occurring preposition stranding is considered to be the marked option across languages. Consequently, its presence in a given language implies the existence of unmarked pied-piping structures (e.g., in English) but not vice versa (e.g., in Portuguese). When three or more forms (usually within the same paradigm) are hierarchically ordered in this way, degrees of difficulty can be estimated based on where a form falls in the list. For example, the relative clause realized by the noun phrase “object of a comparison” (*the bicycle that mine is more expensive than*) occupies the sixth and final position of the noun phrase accessibility hierarchy (Keenan & Comrie, 1977; see also Doughty, 1991). This form is therefore assumed to be more difficult than, for example, the direct object relative clause in second position (*the bicycle that he bought*). Criteria for determining the marked status of a feature depend on the theoretical perspective employed, but across different perspectives the overall assumption tends to be that marked structures are more difficult than unmarked structures (e.g., Cardoso, 2007; Eckman, 1977; L. White, 1989).

There is a third approach that is more narrowly focused on the target language only. Here, difficulty is determined by the complexity of the construction under investigation. A good example of this perspective can be found in the recent meta-analysis by Spada and Tomita (in press) in which the effects of implicit and explicit instruction on the acquisition of complex and simple constructions were examined. Drawing on the work of Hulstijn and De Graaff (1994; see also De Graaff, 1997) and Celce-Murcia and Larsen-Freeman (1999), the authors defined complexity by the number of transformations required to arrive at the target form. According to this view, the “*wh*-question as object of a preposition,” which involves seven transformations, is more complex than the simple past tense in English, which involves just one.

Both the markedness and the linguistic complexity perspectives have the advantage of permitting predictions for empirical investigations, as the criteria on which they are based can be determined prior to the research. In principle, this also gives them potential explanatory power. When language-based hypotheses of difficulty have been tested with actual learners, however, they have not always yielded findings in the expected directions. Bardovi-Harlig (1987) found, for example, that the marked form of preposition stranding described above was acquired before the un-

marked pied-piping form. The author accounted for this finding by postulating that the greater frequency with which the marked form appeared in the input may have made it more salient. Robinson (1996) noted that the preposition may also be more perceptually salient because it occurs at the end of a statement. Another example of a markedness prediction yielding unexpected findings can be found in some studies of relative clause acquisition in which instruction targeted relatively marked forms, based on the hypothesis that this would lead to the learning of less marked forms higher up on the list. The results show that learners also advanced in their understanding/use of more marked (i.e., more difficult) relative clause types *lower* in the list (see Ammar & Lightbown, 2005).

The linguistic complexity measure based on transformations used by Spada and Tomita (in press) resulted in the designation of English articles as comparatively “simple.” As the authors themselves acknowledged, this finding is inconsistent with the available acquisition data and with the experience of English as a second language (ESL) teachers. Linguistic transformations as determinants of difficulty have also found little support in psycholinguistic (i.e., processing) research. The results of studies measuring processing costs for simple and complex constructions indicate that constructions requiring more transformations do not always take more time to process (at least in the L1) than less complex constructions (e.g., Slobin, 1966; see also Berwick & Weinberg, 1983, for further discussion). Thus, a limitation of language-based approaches is that they may not always have psychological validity.

Pedagogical Perspective

The pedagogical approach focuses on the nature of the rule needed to describe the target feature to L2 learners. Here, the issue is not the complexity of the structure per se but rather the complexity of the explanation for a given feature. The emphasis is on how amenable a rule is to explanation (by the teacher or L2 learners) and how easily it can be understood and applied. Factors that may influence the difficulty of a rule include the number of exceptions there are (i.e., how reliable a rule is; Hulstijn, 1995); how arbitrary it may appear to learners (e.g., distinguishing between verbs taking gerund and/or infinitive complements; Petrovitz, 2001; Swan, 2001); how much metalanguage is needed to describe the feature (Housen et al., 2005); or how often “vague terms” and “soft metaphors such as perspective

of the speaker/hearer" (Hulstijn, p. 379; see also Green & Hecht, 1992) are used to describe subtle differences between competing forms in constructions such as tense–aspect or voice. Whether a rule provides information on more prototypical rather than peripheral uses of a construction may also determine difficulty (e.g., anaphoric vs. generic reference of articles; Hu, 2002). The source of pedagogical rules may include materials designed for use with L2 learners (textbooks, reference grammars); L2 learners' own understanding of underlying patterns, often seen in their explanations of errors (e.g., Green & Hecht); and/or experienced L2 instructors' perspectives (Robinson, 1996).⁷

Defining difficulty in terms of generalizations about language that are available to L2 learners has a certain ecological validity, as it considers the type of instructional input many learners, especially adults, may be given and expected to use. The inclusion of experienced instructors' ratings of difficulty also provides a novel perspective on the psycholinguistic validity of the easy/difficult distinction, as teachers can draw on a range of observations of actual learner behavior as learners attempt to make sense of different features of the language. An obvious limitation, however, is that rules that are easy to state and/or understand are not necessarily easy to acquire. An oft-cited example is the English present tense, third-person singular *-s*, which is relatively simple to state but notoriously difficult to master. Evidence of its simplicity from a pedagogical perspective is readily available in our research context in Quebec. If there is one rule we observe teachers consistently offering their francophone learners of English beginning in elementary school (even in cases in which those same teachers rarely focus on form), third-person singular *-s* is it. And, teachers are still drawing their students' attention to the rule at the end of secondary school because, not surprisingly, francophone learners, like those from other L1 backgrounds, find it to be a very difficult "rule" to acquire.

Similarly, the basic rule of thumb for explaining the possessor/possessed entity relationship of possessive determiners *his/her* in English is amenable to a simple statement accessible to even young L2 learners: "Ask yourself whose X it is" (White & Ranta, 2002). However, accurate use of these determiners in the challenging, kin-different contexts (e.g., *her father*; *his mother*) can take considerable time to achieve. A further limitation of the pedagogical approach is that accessible (i.e., "easy") rules are more likely to be relevant for the development of explicit learning/knowledge (Housen et al., 2005). They may be less help-

ful when implicit knowledge is needed to process and produce language (e.g., during listening and speaking). A final, related point is the fact that individual differences clearly also play a role. DeKeyser (2003), for example, has noted that familiarity with metalinguistic concepts, aptitude factors, and experience learning other L2s also influence how accessible (i.e., how difficult/easy) a rule may be to different learners.

Psycholinguistic Perspective

Thus far, we have discussed three approaches to the question of what makes a language form difficult. However, all of these approaches overlook an important aspect of language learning: the interaction between learners and language input (see Brown, 1973, and Slobin, 1985, for psycholinguistic analyses of child language learning). Some researchers (e.g., Ellis, 2002, 2006a, 2006b; Goldschneider & DeKeyser, 2001) believe that it is precisely this interaction, often described in terms of the nature and extent of learners' experience with language input, that crucially determines learners' success in L2 learning. Exemplifying this psycholinguistic perspective on learning, Ellis (2006a) has described language learners as "intuitive statisticians, weighing the likelihoods of interpretations and predicting which constructions are likely in the current context" and language acquisition as "contingency learning, that is the gathering of information about the relative frequencies of form–function mappings" (p. 1). What this view of learning implies is that learners' knowledge of language structure emerges from their experience with language (Bates & Goodman, 1997; Ellis & Larsen-Freeman, 2006; MacWhinney, 1999; Pierrehumbert, 2003; Robinson & Ellis, 2008; Trofimovich, Gatbonton, & Segalowitz, 2007). In essence, learners become attuned to the regularities they perceive in the language around them and create generalizations based on these regularities. To take a simple example, native speakers of English learn to expect that no genuine English word starts with an "ng" sequence because, in their experience with English sound structure, the probability of such a word occurring is close to zero.

According to this perspective on learning, what makes a given language form easy or difficult is influenced by factors that facilitate or constrain learners' access to the form in the input. Ellis (2006b; see also Bates & MacWhinney, 1989; DeKeyser, 2005) identified several such factors that might determine why language learners sometimes fail to acquire certain language

forms even when the forms are readily available in the input. One potential factor is unreliable and ambiguous form–function contingencies, including whether a form is optional in a given context, such as null subjects in some languages (DeKeyser), or whether one language form has multiple interpretations (e.g., *-s* in English marks plural, third-person singular, possessive, and acts as a copula). Another factor is redundancy, or availability of multiple cues to interpretation of a language form (e.g., the subject of a sentence in English could be interpreted using both word order and animacy). As learners try to resolve multiple cue competition and to sort out form–function relationships in the input they receive, Ellis argued that they are also influenced by several selective attention phenomena, including overshadowing and blocking. These two related phenomena refer to situations in which one cue or particular interpretation of a language form “dominates” learners’ attention, making it harder for them to see the relevance of other (often equally important) cues and/or interpretations.

One factor, however, seems to be crucial in determining how well a particular language form will be learned: the form’s saliency (i.e., its overall perceptibility). Saliency affects how learners interact with the input they receive—how they deal with ambiguities in interpreting language forms, how they resolve multiple cue competition, and to what extent they are influenced by selective attention in their learning (see Ellis, 2006a, 2006b).

In this study we look at saliency, qualifying and quantifying the relative *opaqueness* of forms (Goldschneider & DeKeyser, 2001) by taking into consideration their frequency distributions and availability in the input. Our approach builds on the work of Goldschneider and DeKeyser, who evaluated the explanatory potential of a variety of factors for the acquisition orders of six morpheme acquisition studies. They concluded that an overall factor of “saliency” best accounted for the order. Of the five categories that made up this saliency factor, four were based on a linguistic analysis of the morphemes (the phonological, morphological, syntactic, and semantic factors). The only analysis that was empirical was frequency, measured in terms of the distribution of the morphemes in the parental data from the Brown corpus.

Linguistic descriptions provide a good baseline for considering saliency. However, it is also crucial to look at how forms occur in real speech and to consider the effects of speech phenomena, such as pauses and emphasis, that can alter the perceptibility of a form. A large spoken corpus, such as the

British National Corpus (BNC), for example, provides a rich resource for examining saliency (see Wulff, Ellis, Römer, Bardovi-Harlig, & LeBlanc, this issue). However, the BNC and similar general-purpose corpora include a range of topics and situations that might not be familiar or even comprehensible to L2 learners. Claims about the nature of input and its impact on L2 acquisition, therefore, should consider input that reflects the speech to which L2 learners typically have access. Foreign language contexts in which instructional input constitutes students’ primary and/or exclusive exposure to the L2 are particularly useful for doing so. Unlike in second language contexts, in which determining the full range of input available to L2 learners can be difficult, in foreign language situations the input may be known and measurable (provided it has been compiled into a corpus).

THE CURRENT STUDY

In two previous studies, we have looked at the input profiles of two constructions for which there are considerable acquisition data: the simple past in English (Collins, Trofimovich, White, Cardoso, & Horst, 2009) and the PDs *his* and *her* (White, Collins, Trofimovich, Cardoso, & Horst, 2007). In the current study we compare these profiles with a third form: the progressive. The rationale for this comparison is explained next.

From an acquisition perspective, both simple past and PDs fall on the difficult end of an easy–difficult continuum. As mentioned earlier in the review of morpheme acquisition research, the simple past is one of the late-mastered grammatical morphemes. Longitudinal studies have found that the regular rule-governed⁸ past emerges later than the more lexically based irregular (see, e.g., Lee, 2001; Rohde, 1996). (As Bardovi-Harlig, 2000, noted, productive use of irregular before regular forms was also observed cross-linguistically in the ESF study, Dietrich et al., 1995). There is also evidence from aspect hypothesis research that the simple past is undergeneralized (i.e., restricted) to telic situations—that is, bounded events with inherent end points (*wrote the story; finished the book*)—which has been observed for the perfective past in many languages (for overviews, see Bardovi-Harlig; Salaberry & Shirai, 2002). It is also significantly underused with stative and is perceived by learners to be the least prototypical context for past (Collins, 2005). The acquisition of the PDs *his* and *her* also entails a series of morphosyntactic stages as learners work out the agreement

rule between possessor and possessed entity.⁹ This can include a prolonged stage in which one form is overgeneralized as the default determiner (initially *your*; later either *his* or *her*; J. White, 1998).

To determine whether input salience factors could explain acquisition findings, we conducted a multidimensional analysis of the availability (type/token distributions) and accessibility (phonetic and perceptual salience, lexical properties) of *his/her* PDs and simple past constructions in a corpus of instructional input compiled from video and audio recordings of intensive English classes for 11- and 12-year-old francophone learners in Grade 6 classes in Quebec. The purpose of the studies was to determine the opacity of the forms, based on how they appeared in the input. The corpus and the analyses are described in more detail below, but the essential findings were that the two forms were not very transparent from a learning perspective: They were relatively rare, often not salient, and occurred in semantically restricted contexts. In addition, the aspects of these forms that tend to be learned first and more reliably (according to acquisition research), were those that were more frequent and more salient.

From these findings, we concluded that a difficult construction appeared to be one with low availability and low accessibility in the target input. This suggests that an easy-to-learn construction (determined on the basis of its early-acquired status) would be frequent, perceptually salient, and occur in semantically rich contexts. However, in the absence of an input profile for such a construction, this remains an empirical question. It is an important one because a comparison of opacity can also shed light on whether certain aspects of availability and/or accessibility are more crucial than others in explaining the relative difficulty of a construction. Moreover, this comparison also provides a test for the underlying assumption

that the opacity of a construction in the input actually has psychological validity.

The comparison construction we focus on is the progressive aspect in English. Because both the morpheme acquisition research and much of the lexical aspect research has not distinguished among types of progressive (past, present, future), we have targeted the progressive in general. As discussed earlier, the progressive is acquired early, relative to the other grammatical morphemes in English that have been studied. In addition, although there has been much less research done on its development, the available evidence from aspect hypothesis research suggests that it tends not to be overgeneralized to inappropriate semantic contexts (i.e., statives; Bardovi-Harlig, 2000).¹⁰ There is evidence of undergeneralization, however, as in the initial stages of acquisition there is a stronger association between progressive and activity situations (*she's reading*) than with telics. Table 1 summarizes the acquisition profiles for the three forms.

Research Questions

This study addressed the following two research questions:

1. What is the opacity profile of an easily acquired construction (progressive aspect in English) with respect to the type–token distribution of the form, its lexical properties, and its perceptual salience?
2. How does this profile compare with those of more difficult-to-acquire constructions (simple past and the PDs *his/her*)?

Corpus

The 110,000-word corpus we worked with for this study consisted of transcriptions of over 40 hours of aural instructional input collected

TABLE 1
Acquisition Profiles of Progressive, Simple Past, and Possessive Determiners *His/Her*

Construction	Emergence	Acquisition Pattern
Progressive	Early	<ul style="list-style-type: none"> • Not overgeneralized to inappropriate semantic contexts • Undergeneralized to activity contexts
Simple Past	Late	<ul style="list-style-type: none"> • Irregular before regular • Undergeneralized to telic contexts • Underused with statives
Possessive Determiners (<i>His/Her</i>)	Late (relative to other possessive determiners)	<ul style="list-style-type: none"> • <i>Your</i> overgeneralized to <i>his/her</i> contexts • Later one form (<i>his</i> or <i>her</i>) overgeneralized to all third-person singular contexts

longitudinally in three Grade 6 intensive English as a second language (ESL) classes at schools in French-speaking regions of Quebec. All three classes were recorded four times, at 100-hour intervals of the 400-hour communicative program. Students who started as beginners attained an intermediate level of spoken English proficiency by the end (Collins & White, 2009). The primary source of input was the speech of the three classroom teachers. Their speech was both spontaneous and scripted (e.g., in storybook readings). Visitors to the classroom and recordings of instructional activities (e.g., songs) provided additional input. Because the goal of the study was to determine the nature of native-speaker input, we excluded the speech of the L2 learners themselves from the corpus.¹¹

ANALYSES AND FINDINGS

The analyses focused on three aspects of the classroom input. The first dealt with type and token distributions of the three constructions in the input relative to other forms in the same paradigm (past and progressive as a function of the total number of finite verb phrases; counts of *his/her* relative to all PDs present in the corpus). The second concerned the lexical properties of the words to which the forms were attached (frequency and lexical aspect profiles in the case of verbs) or the words with which they collocated (for *his/her*). The final analysis focused on the phonetic environment of the forms to determine their phonetic and perceptual salience.

Distribution of Possessive Determiners, Simple Past and Progressive

Table 2 displays the distribution of the 2,398 PD tokens in the corpus. *Your* accounts for the overwhelming majority of tokens (72%); *his* and *her* account for 6% and 3%, respectively. Analysis of the simple past focused on all verb phrases in

TABLE 2
Distribution of Possessive Determiner Tokens

Possessive Determiner	Raw Frequency	Percentage
<i>Your</i>	1,712	72%
<i>My</i>	271	11%
<i>His</i>	150	6%
<i>Their</i>	110	5%
<i>Her</i>	79	3%
<i>Our</i>	76	3%
Total	2,398	100%

TABLE 3
Distribution of Simple Past and Progressive Tokens

Tense–Aspect	Raw Frequency	Percentage
Simple Past	1,413	9%
Regular	(354)	(2%)
Irregular	(1,059)	(7%)
Progressive	693	5%
Other	13,024	86%
Total	15,130	100%

which the lexical verb was marked for past tense (i.e., mainly affirmative statements). A similar restriction for the progressive was not required because the lexical verb, not the auxiliary, always carries the progressive marker, regardless of the sentence type. Table 3 displays the distribution of the 15,130 finite verbs. Of these, 9% occur in the simple past and 5% occur in the progressive. Of the small number of verbs marked for simple past, 75% of the tokens are irregular forms (e.g., *said*, *had*, *did*); the rule-governed *-ed* accounts for only 25% of the simple past tokens (e.g., *asked*, *happened*, *started*).¹²

The distribution profiles described earlier suggest that from a raw frequency perspective, none of the target constructions are likely to be easily learned from input alone. *His/her* account for less than 10% of the total PDs in the corpus; similarly, the simple past and the progressive each represent less than 10% of the finite verb phrases in this instructional input. The lexical analyses, however, reveal a somewhat different story.

Lexical Profiles of Verbs and Nouns Associated With the Target Forms

Nouns that are collocated with the PDs *his/her* fall into four categories, illustrated in Table 4: inanimate; animate kin-same, where grammatical gender of the PD matches the natural gender of the possessed entity; animate kin-different, where the two do not match; and body parts. The animate kin-same contexts do provide exposure to *his/her* forms, but in this instance, agreement is similar to the way determiners work in Romance languages. Given that the student population of our instructional input corpus is francophone, then, arguably, the most informative contexts for learning are kin-different, where the PD and gender of the possessed entity do not match (e.g., *his daughter*; *her father*). However, this is a small lexical set, consisting mostly of family members, and half (15) of the relatively few instances of this type of PD in the corpus are accounted for by one type,

TABLE 4
Semantic Categories and Collocations for Possessive Determiners *His/Her*

Context	Example	Tokens	Percentage
Inanimate	<i>His coat; her hat</i>	119	53%
Animate: <i>kin-same</i>	<i>His father; her mother</i>	31	14%
Animate: <i>kin-different</i>	<i>His mother; her father</i>	31	14%
Body Parts	<i>His hand; her arm</i>	42	19%
Total		223	100%

“his wife,” which occurred in a single pedagogical event.

Lexical analyses of the verbs were of two types. Lexical frequency profiles used Cobb’s online version of Heatley and Nation’s (1994) *Range* software, to consider the frequency of the verb in the language at large. Lexical aspect profiles calculated the distribution of the verbs in the semantic categories of state, activity, and telic.¹³ The lexical frequency profiles in Table 5 show that 98% of all irregular past types figure among the 1,000 most frequent (1K) word families of English. (In this case, a word family is defined as the root word plus basic inflected and derivational forms.) Examples include *made, did, had, came, saw*, and other common verbs.

The finding that irregulars are frequent is hardly surprising, as such forms have survived precisely because they are so frequently used; that is, they are unlikely to undergo the regularization process that less frequent verbs such as *slay* have undergone, such that many English speakers today may be more familiar with the technically incorrect but widely used “regular” *slayed* than they are with the “irregular” (but technically correct) *slew* (Schmitt & Marsden, 2006). Of the regular past types, however, only 58% were in the 1K band. Regular past sometimes occurred with unusual words (i.e., from less

frequent bands) whose meaning may not have been clearly understood by these beginner-level students.

The majority of progressive marked verbs (70%) occurred across a variety of verb types within the 1K band, and these verbs were often repeated. Indeed, 26 of these verbs were repeated eight or more times (see Table 6). Only four regular past marked verbs in the 1K band occurred eight or more times (*ask, happen, change, decide*). Are eight spoken exposures to the verb *asked* (or *asking*) sufficient to make the tense marking memorable? It is unlikely that a single “magic number” can be identified because much depends on the learning context, age and ability of learners, and characteristics of the feature in question. Yet, based on studies of incidental vocabulary acquisition in reading (e.g., Horst, Cobb, & Meara, 1998; Nation, 2001), eight encounters could be considered a feasible baseline figure given that the findings from these studies have shown that eight or more reading encounters with a new word is a reasonably good guarantee that the meaning of the item will be retained. Assuming that eight instances of listening exposure to a particular verb and its tense marker result in a lasting mental association, then the picture is clear: Opportunities to learn exemplars of the progressive far outweigh opportunities to learn regular past.¹⁴

Turning to the lexical aspect profiles, we see in Table 7 that the overwhelming majority of past tense types (72%) occurred with telics (e.g., *wrote the story*). As noted earlier, this finding is consistent with acquisition findings in terms of the types of verbs learners tend to mark for past. Findings for the progressive are also consistent with acquisition research, in that the majority (59%) occur with activities (*listening to the story*). However, the distribution is much less skewed than for the past: 41% occur with other semantic types, both telics (*OK, we’re stopping; I’m starting*) and statives (*Your ears were sticking out; describe how he is feeling*). These lexical analyses reveal that both PDs

TABLE 5
Lexical Frequency Profiles of Past and Progressive Types

Tense–Aspect	1K Band	Examples	Characteristics
Past: <i>irregular</i>	98%	<i>Ate, said, took</i>	Virtually all common (1K) words
Past: <i>regular</i>	58%	<i>Looked, noticed, wanted</i>	Some unusual words from other frequency bands: <i>flapped, wiggled, wobbled</i>
Progressive	70%	<i>Doing, giving, listening</i>	Most are common (1K) words

Note. 1K = among the 1,000 most frequent word families of English.

TABLE 6
Past and Progressive Types Within the 1K Band
Occurring Eight or More Times

Regular Past	Frequency	Progressive	Frequency
<i>Ask</i>	17	<i>Do</i>	69
<i>Happen</i>	15	<i>Talk</i>	51
<i>Change</i>	12	<i>Go</i>	39
<i>Decide</i>	8	<i>Listen</i>	25
		<i>Wear</i>	24
		<i>Give</i>	21
		<i>Sell</i>	22
		<i>Say</i>	19
		<i>Sit</i>	19
		<i>Get</i>	18
		<i>Look</i>	18
		<i>Wait</i>	18
		<i>Ask</i>	16
		<i>Work</i>	15
		<i>Have</i>	14
		<i>Start</i>	13
		<i>Read</i>	12
		<i>Speak</i>	12
		<i>Use</i>	12
		<i>Come</i>	11
		<i>Play</i>	11
		<i>Take</i>	10
		<i>Think</i>	10
		<i>Present</i>	8
		<i>Try</i>	8

Note. 1K = among the 1,000 most frequent word families of English.

TABLE 7
Percentage Distribution of Simple Past and
Progressive Types by Semantic Category

	Stative	Activity	Telic	Total
Simple Past	9	19	72	100
Progressive	7	59	34	100

and simple past are more semantically restricted than the progressive. Kin-different PDs (e.g., *his mother*) are rare and collocated with a restricted lexical set of nouns. Regular rule-governed past is also relatively rare, it may also occur with unusual verbs (*wiggled*, *wobbled*), and it is largely restricted to the prototypical telics. Progressive, on the other hand, occurs across a wide range of common verbs (1K) and is less restricted to the prototypical activity class of verbs (i.e., it is more distributed across the semantic categories). Thus, we see that frequency-based lexical factors do appear to distinguish between easy and hard constructions.

Phonetic and Perceptual Salience

Phonetic and perceptual salience analyses were carried out by a phonetically trained judge. The judge listened to every token of the three target constructions, then phonetically transcribed the past and progressive markers as well as the possessive determiners *his/her* in their immediate phonetic context, and recorded all instances of additional emphasis (repetition, pausing before and after the token, stress). A synthesis of the findings for the phonetic and perceptual salience analyses appears in Table 8. Due to their grammatical status as function words in English, possessive determiners *his/her* were rarely stressed (with only 12% given lexical stress). They almost exclusively featured weak (reduced) vowels (/ɪ/ or /ə/) and were hardly ever repeated (3%). An overwhelming majority of all possessive determiner tokens (81%) contained no /h/, as this segment is typically deleted in rapid conversational speech (as in *rode 'is bike*), especially when preceded by a consonant (instead of a pause or a vowel), as was the case for 80% of all tokens.

The regular simple past did not appear to be perceptually salient either. These past tokens were rarely repeated, highlighted by following pauses, or given any additional stress. In fact, 82% of the simple past tokens were not emphasized in any way. In addition, only 22% of the past tokens were marked by a perceptually salient /əd/ allomorph (which forms a separate syllable, as in *wan-ted*). The remaining 78% of the tokens featured either /t/ or /d/ allomorphs of the simple past (as in *worke[t]* or *playe[d]*, respectively), which are likely harder to perceive, as they usually constitute the coda of a preceding syllable (e.g., *turne[d] it over*). When we considered the immediately following phonetic environment in which allomorphs of the regular past occurred, it became clear that most of these morphemes were not clearly articulated. Only 25% of them were followed by a vowel in what is ostensibly the clearest context (as in *complaine[d] again*) that favors the release of the word-final stop. In the remaining cases, past tense morphemes were either less well articulated (*worke[t] hard*), co-articulated with the following consonant (*notice[m] my mistake*), or deleted entirely (*I ask'you*). By contrast, phonetic and perceptual salience analyses showed a dramatically different pattern for the progressive. All progressive markers appeared as intact syllables (*-ing*), even when they were phonologically modified (e.g., via N-develarization).¹⁵ In addition, 28% of the tokens included a pause

TABLE 8
Phonetic and Perceptual Salience of Target Forms

	Receives Stress	Repeated	Context Creates Salience	Context Details
<i>His/Her</i>	Rarely	Rarely	Rarely	<ul style="list-style-type: none"> • Initial <i>h</i> usually deleted • Vowels almost always weak
Regular Past	Rarely	Rarely	Rarely	<ul style="list-style-type: none"> • Rarely followed by a pause • Few cases of separate syllable <i>-ed</i> • Few cases of next word beginning with vowel • Many cases of minimal articulation, co-articulation, deletion
Progressive	Always	Rarely	Sometimes	<ul style="list-style-type: none"> • Sometimes followed by a pause • Always intact syllable

following the progressive marker, which likely gave it an additional emphasis.

To summarize, over 80% of *his* and *her* occurred in environments that were difficult to perceive. Similarly, over 80% of the regular past occurred with the least salient allomorphs /t/ and /d/; 75% were in unclear contexts because they were modified by the following sound and, overall, regular past verbs were rarely repeated, stressed, or slowed down. In contrast, 100% of all progressive markers occurred in favourable environments, as separate, intact syllables.

DISCUSSION

As stated at the outset, the purpose of this study was to explore whether input analyses of constructions with different acquisition profiles—early acquired versus late acquired—could identify factors that might explain the different degrees of difficulty the constructions present. To that end, opacity profiles were elaborated for each of the three forms. These profiles are summarized in Table 9.

One factor that clearly did not distinguish between easy and difficult constructions in the instructional corpus was the number of raw tokens

of a form relative to other forms in its class. It does not differentiate between the progressive (early acquired) and either the simple past or the possessive determiners *his/her* (both late acquired), as all three were infrequent in our corpus, relative to other structures within the tense–aspect or possessive determiner paradigms. However, analyses of frequency with respect to the noun types collocating with *his/her* and the verb types associated with the past and progressive did discriminate among the forms. Overall, there were comparatively few of the informative kin-different noun collocations for *his/her*, and of the few verb types marked for simple past, many of these figure among the less commonly used words in English.

The progressive, in contrast, occurred across a range of highly frequent English verbs likely to be familiar to the beginner-level learners in these classrooms. They recurred frequently in the corpus, thereby favouring conditions for exemplar retention and eventual rule formation (see Wulff et al., this issue, for a discussion of how highly familiar items can aid in the consolidation of learning). In addition, the semantic scope of the progressive verbs was less restrictive than either the distribution of the simple past verbs (which occurred primarily in telic situations only) or

TABLE 9
Input Profile of Difficult and Easy Constructions

	Difficult: Simple Past	Difficult: PDs <i>His/Her</i>	Easy: Progressive
Token Frequency	Low	Low	Low
Type Frequency	Low	Low	High
Semantic Scope	Low	Low	Moderate
Perceptual Salience	Low	Low	High

Note. PD = possessive determiner.

the range of kin-different nouns associated with *his/her*. Finally, the perceptual salience of the intact syllables of the progressive forms appeared to be much higher than the perceptual salience of the regular past allomorphs or the instances of *his/her* in the corpus, both of which were made more opaque by naturally occurring speech phenomena.

Factors that reliably distinguished an earlier acquired construction from the later acquired ones were the following: (a) type frequency, or the overall frequency in the language of inflected verbs and of nouns collocated with *his/her*; (b) semantic scope, or the classes of nouns and verbs and the distribution of target forms within and across classes; and (c) perceptual salience, which considered different aspects of the phonetic environment of the target forms. These three factors appear to make the progressive more available and accessible in the input than either the simple past or *his/her* possessive determiners.

The finding that raw frequency alone did not distinguish among the three forms is not surprising. This result is consistent with the work of Bybee (1995) and colleagues (see also contributions to Bybee & Hopper, 2001), who have provided evidence to support the role played by type frequency in construction learning. This result is also consistent with the findings of Wulff et al.'s study (this issue), which revealed that raw frequency of verbs alone was not a reliable source of tense–aspect marking due to the overlap of commonly occurring verbs across different tense–aspect categories. However, that is not to say that token frequency does not also play a role.

Indeed, two observations about token frequency in our corpus shed light on previous acquisition findings. Ellis (2002) has argued that token frequency drives the learning of irregular forms. The instructional input in this study yielded high token frequency of irregular past with verbs that figure among the most common and, by extension, most familiar words of English. This may explain why so many of the studies cited earlier found that the small set of irregular past forms tend to be supplied in obligatory contexts earlier than the rule-governed regular forms. A second token frequency finding of interest is that there were almost 1,500 more occurrences of the possessive determiner *your* than of any of the other possessive determiners. This may help explain why L2 learners have been observed to go through an initial stage of using *your* in contexts where *his/her* would be required (J. White, 1998; White, Muñoz, & Collins, 2007).

For the purposes of this study, we have defined salience as the availability (based on frequency-related analyses) and accessibility (based on semantic and perceptibility analyses) of the target forms. We have also treated simple past and PDs as equivalents, from the difficulty and late-acquired perspectives, essentially because there was no available evidence to suggest that one of the two forms is acquired before the other. However, there are other form–meaning mapping characteristics that could also conspire to make these forms more or less noticeable in the input for learners, including the transparency of the form–meaning relationship and the redundancy of the form (DeKeyser, 2005). With respect to these characteristics, PDs are relatively transparent and nonredundant: *His* functions only as a PD, *her* can be both a PD and a direct object pronoun. Both forms signal important relationships not expressed elsewhere in the discourse and thus appear reliable and nonambiguous (at least in comparison to other forms like English *-s* that marks plural, third-person singular, and possessive and can also act as a copula).

The simple past, in contrast, appears relatively unreliable and ambiguous. In addition to marking past tense, it can function as a pragmatic softener (*Did you want some help with that?*), and can also be used to designate hypothetical meanings (*If you worked harder, you would get higher marks*). In addition, it can be rendered redundant by discourse features, including adverbials (*yesterday*; *3 years ago*), that mark the context as past. Seen from this vantage point, then, PDs might be predicted to be an easier form in terms of their acquisition profile than the simple past. In our current analyses, however, both of these forms appeared to have a comparable acquisition profile, one typical of difficult, later acquired structures. What this finding suggests is that future investigations of the input–acquisition relationship should consider more refined analyses of input factors than those carried out here. Such analyses should be sensitive to discourse characteristics of forms and should ideally include indexes of the reliability, consistency, transparency, and redundancy of forms for both easy and difficult constructions.

The focus of this article—aural input—allowed us to adopt an integrated perspective of phonological, morphosyntactic, and lexicosemantic properties of the forms (see Bayley, 1996, for an example of multidimensional analyses of learner output). Selection of this particular focus was further motivated by the emphasis that oral communication (both teacher–student and student–student) is

often given in intensive ESL programs. However, we recognize that students engage in many other kinds of activities beyond the oral/aural dimension. They may, for example, complete voluntary free reading of target language literature or they may have access to text versions of many of the listening and speaking materials (poems, chants, songs, storybooks) that are used in class. It will be important in future research to consider the role that written input may play in increasing the exposure to target features, from both availability and accessibility perspectives. In the next section we also consider the potential benefits of aural uses of written texts, based on observations of teacher practices in our corpus.

PEDAGOGICAL IMPLICATIONS

It is important to emphasize that the teachers in our study were experienced, proficient speakers of English who conducted their classes entirely in the target language. It is also worth mentioning that characteristics of their speech mirrored those of speech found in nonclassroom settings. For example, our finding that teachers used *your* more frequently than any other PD is consistent with the frequency order of possessive determiners in nonclassroom spoken corpora (Leech, Rayson, & Wilson, 2001). Similarly, we observed that teachers used irregular past tense forms from the 1K band much more frequently than the potentially more informative (but less common) regular past tense forms, and the progressive–activity and simple past–telic associations observed in their speech are largely consistent with the distributional bias of these forms found in the BNC and the *Michigan Corpus of Academic Spoken English* (see Wulff et al., this issue). The low perceptual saliency of the instances of regular past tense allomorphs as well as the relatively low frequency with which *his* and *her* occurred in our data are further evidence of the naturalness of the teachers' speech.¹⁶

Nevertheless, there are, undoubtedly, differences in the distributions of verb types and content of the talk addressed to learners, keeping in mind that students in these classes were children and beginners (at least at the outset of their intensive experience). These differences will be important to quantify and qualify in future research for two reasons, both of which are related to language instruction. The first is to identify the type of pedagogical activity that produces better quality input for learning the target forms (especially the *his/her* and simple past), with a view to identifying ways in which the frequency of these

activities might be increased or their duration lengthened. The second is to identify additional ways in which the input may be enhanced to increase the availability and the accessibility of the more difficult forms, in light of the factors we have identified that conspire to render these particular forms more difficult. Although it is important that teachers' speech reflect characteristics of regular speech, as it helps prepare students to deal with the use of language outside the classroom, one of the distinct advantages of the classroom is the possibility of facilitating acquisition by manipulating input and output opportunities for learners. For example, Juffs (1998) found that the distribution of verb classes in an ESL textbook was similar to the distribution in native-speaker texts but noted that although authentic and representative language in L2 materials is important, so is providing extra focus on precisely those aspects of input that may not be readily accessible to learners.

Preliminary evidence from our ongoing work suggests that reading aloud of age-appropriate narratives may be a particularly beneficial activity, not only for increasing the raw frequency of simple past and *his/her* forms (as narratives tend to recount past events in the third person) but also because teachers speak more slowly, and with more emphatic intonation, when they read aloud to their students. They also tend to delete word-initial *h* less than in regular speech and pause more frequently after sentence- or clause-final past tense verbs, thereby reducing the opacity of *his* and *her* and *-ed* forms of the past (see Collins et al., 2009, and White et al., 2007, for further details).

In addition, it is also clear that any input manipulation that is meant to make challenging forms less opaque should take into consideration the lexical, grammatical, and phonological content of tasks designed for classroom use. The use of a multimedia environment in which sounds, text, and images are integrated has obvious potential (see Izquierdo, 2007). However, it may also be possible to transform more traditional familiar activities in order to emphasize sounds, forms, and meanings. For example, in listening passages in which students are given gapped texts to complete (such as the lyrics of songs with missing words), in addition to targeting *his/her* or simple past, the items deleted could include words (or parts of words) from the preceding (in the case of *his/her*) or following (in the case of *-ed* past) phonetic environment, with a view to increasing the perceptual saliency of these forms. These types of focused listening tasks are obviously much more explicit than the read-aloud activity mentioned

previously; the degree to which the enhancement of the input may require a more explicit focus is in itself an area that merits further investigation (see Doughty & Williams, 1998, for a discussion of pedagogical options for drawing learners' attention to form in the input and the issues involved when determining the degree of explicitness that may be required for the focus to be effective).

CONCLUDING REMARKS

Pronunciation, grammar, and vocabulary are typically taught in isolation from one other. A sampling of recent publications in the field—the *TESOL Quarterly* (2005) issue on pronunciation teaching, Bogaards and Laufer's (2004) book on vocabulary, and Hinkel and Fotos's (2002) book on grammar teaching—attests to the pervasiveness of this approach. These publications highlight innovative techniques along with theoretically based and empirically tested proposals for drawing learners' attention to key aspects of sounds, words, and forms. Overall, however, the *interrelatedness* of these different linguistic input dimensions tends not to be addressed.

There is an additional, potentially beneficial aspect to taking a multidimensional perspective. If instructional tasks can be devised to focus on different dimensions of language proficiency *simultaneously* (i.e., aspects of vocabulary, grammar, pronunciation), this may also result in more efficient use of each hour of instructional time. We believe that the findings from these corpus analyses of instructional input point to the importance of a more integrated pedagogical focus on structures that are challenging for L2 learners of English (such as *his/her* and the simple past). Perhaps more importantly, these findings also highlight the need for future investigations into the role of input-based factors, especially in the learning of languages other than English.

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NOTES

¹In some discussions of this issue, the terms "difficulty" and "complexity" are used interchangeably (e.g., Hulstijn, 1995). In this study it was important to distinguish between the two. We treat complexity (linguistic, semantic) as a factor that may contribute to making a construction difficult to learn, but we also recognize that simple constructions may be rendered difficult due to perceptual or frequency-related characteristics of the constructions as they occur in actual speech. Consider the allomorphic alternations involved in past *-ed* marking in English, for instance, where each of its three allomorphs [t], [d], and [əd] is determined by the preceding phonetic environment. Despite the relative ease of articulation of these forms in terms of place of articulation ([t] and [d] employ the *unmarked* "coronal" articulator; de Lacy, 2006; Prince & Smolensky, 1993), accurate use of the forms can take considerable time. One contributing factor may be the low saliency of the two coronal consonants that comprise the allomorphs. Coronals have the least salient place cues (Kingston & Shinya, 2003; Winters, 2000), which is aggravated by the fact that they occupy the least perceptually salient syllabic constituent, the coda (Kang, 2003). In addition, as we will show later, in an ESL classroom environment, the level of difficulty in acquiring these forms is further complicated by the fact that they are not frequently produced in the input to which English learners are exposed.

²We have cited here the different acquisition perspectives on difficult forms, with the understanding that late emergence and late mastery represent different phenomena.

³There are also a number of unpublished master's theses and doctoral dissertations that have revealed similar clusters of early-acquired and late-acquired forms (see Goldschneider & DeKeyser, 2001).

⁴Temporal morphology was but one of the constructions that was not productive in these learners' interlanguage. See the contributions to the special issue of *Second Language Research* (1997) on Basic Variety for details on the form of Basic Variety and theoretical explanations for its development.

⁵A notable exception is the ZISA Project research on the acquisition of German word order by Spanish and Italian migrant workers (Meisel, Clahsen, & Pienneman, 1981). In addition to identifying easy (canonical SVO word order) and difficult (verb final) word order constructions based on acquisition data, the research group also elaborated an explanation for the more difficult constructions, based on a theory of processing constraints (see Larsen-Freeman & Long, 1991, for an overview). This has inspired work on the development of other structures in other languages, including

question formation in English (see McDonough & Kim, this issue).

⁶Note that some approaches to markedness may take the learner's perspective into account, as well. For example, in Kellerman's work (1978), perceptions of markedness are psychologically motivated in the sense of being based on L1-based intuitions. In his study, Dutch learners of English assumed that literal uses of Dutch *breken* 'to break' could be transferred to English, but they judged more figurative uses (uses that do actually occur in English) such as *een record breken* 'break a record' and *iemand's hart breken* 'break someone's heart' to be incorrect.

⁷We have limited the discussion here to explanations for rules of grammar. Note, however, that similar arguments could also be made for distinguishing between easy and hard explanations for other aspects of language, such as vocabulary, phonology, pragmatics, and so on. For example, factors affecting the difficulty of explaining a lexical item include the number of possible meaning referents that the form may have, the imageability of the concept, the extent of grammar, the collocation and register constraints on the word's use, and (as Nation, 2001, emphasized) the availability and fit of a corresponding L1 equivalent.

⁸There is some debate in the literature as to whether the regular past and the irregular past are learned differently (see, e.g., Murphy, 2004); in this article we have adopted the term *rule-governed* to distinguish the regular past from the irregular, with the understanding that further research is needed to determine whether the two variants of past are learned differently. We thank an anonymous reviewer for reminding us of Murphy's study.

⁹In French, as in many other languages, the possessive determiner agrees with the grammatical gender of the possessed entity: *sa maison* (his or her house in English); *son chien* (his or her dog in English).

¹⁰There is evidence of progressive with statives (see Housen, 2002), but they tend to be appropriate uses, in cases where the progressive designates a temporary state (e.g., *You're being difficult*; Collins, 2002).

¹¹An anonymous reviewer wondered how the input profiles would change if student input to each other was also included. This is an important area for future research to consider but one that we cannot properly address in our data because the video recordings did not always capture the student interventions as reliably as the teacher speech. However, because the input findings are largely consistent with acquisition findings for the target forms, we hypothesize that the addition of student input would not change the overall picture, but it might further accentuate the proportional differences found in the comparisons between the progressive and the simple past/PD forms.

¹²Most of the lexical verbs in finite verb phrases in the data are in the base form, not only because most of them are in the present (of which only third-person singular carries morphology) but also because in most questions (*Did you hear me?*) and negatives (*You didn't hear me; you weren't here yesterday*) in English, the tense

information is carried on the auxiliary (be/have/do), all of which are irregular in the past.

¹³For interrater reliability and operational tests used, see Collins et al. (2009) and White et al. (2007).

¹⁴It is worth noting that the figure of eight has been identified in studies of L2 reading and is therefore almost certainly far too low. Although readers can see new linguistic features in print and reread and reconsider their use in the text at leisure, encounters with new features in spoken contexts are fleeting, offering listeners little opportunity to reflect on the linguistic properties of what they hear.

¹⁵It is possible that the speech directed to the learners in our corpus could have been somewhat more salient, at least with respect to the progressive marker, than it would be in some other registers of spontaneous English speech. This possibility needs to be evaluated in future research.

¹⁶Larsen-Freeman (1976b) also found evidence that grammatical features in teachers' speech to classroom learners may resemble adult speech in other contexts. We thank an anonymous reviewer for reminding us of this study.

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