

Transfer of Argument Structure and Morphology

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1. Introduction

In this paper I contest Montrul's (2000) idea of modular transfer, arguing for a strong Full Transfer position. After presenting her work and claims, I reanalyze her results and develop three main points. First, I agree that her results show overgeneralization, but I argue that this represents a stage of development after Full Transfer. Secondly, I show evidence of transfer of morphology in results that she claims show absence of transfer of argument structure. And lastly, I explore the idea of transfer of morphology *versus* transfer of argument structure, arguing that if one takes a derivational view of syntax, the opposition dissolves.

2. Montrul (1997, 1999, 2000)

Montrul investigated the second language acquisition of the so-called causative/inchoative alternation. This alternation refers to the set of (unaccusative) verbs which can appear in two forms: a transitive form with an agent and theme NP (the causative (1a)) and an intransitive form (the inchoative (1b)) with the argument which underwent change, the theme NP, in subject position.

- (1) a. Samantha broke the window. (Causative, transitive)
b. The window broke. (Inchoative, intransitive)

In English, the alternation is characterized by (i) a change in word order and (ii) the absence of the agent NP in the inchoative form. English contrasts with Spanish and Turkish, the other languages investigated by Montrul. Spanish also includes a change in word order and the absence of an agentive argument in the inchoative variant of the alternation. However, the inchoative form requires additional morphology (2b), the reflexive morpheme *se*. Without *se*, the inchoative form is ungrammatical (2c). The Spanish causative form (2a), by contrast, is like the English causative (1a).

- (2) a. María rompió los vasos. (Causative, transitive)
Maria broke the glasses
b. Los vasos **se** rompieron. (Inchoative, intransitive)
the glasses **REFL** broke
'The glasses broke.'
c. *Los vasos rompieron. (Montrul 1997:44)
the glasses broke

In Turkish the majority of the causative alternants require functional morphology (3a). Without the causative morpheme, *-tr*, the sentence is ungrammatical (3c). The inchoative variants of these morphologically marked causatives have an inchoative alternant that does not implicate any functional morphology (3b). Thus, by Montrul's estimation, the Turkish inchoative form with verbs like *bat-*, 'sink' is analogous to the English inchoative.

- (3) a. Düşman gemi-yi bat-**ır**-mış (Causative)
 enemy ship-ACC sink-CAUS-PAST
 ‘The enemy sank the ship/made the ship sink.’
- b. Gemi bat-mış (Inchoative)
 ship sink-PAST
 ‘The ship sank.’
- c. *Düşman gemi-yi bat-mış
 enemy ship-ACC sink- PAST
 ‘The enemy sank the ship/made the ship sink.’ (Montrul 1997:45)

Not all causatives in Turkish are formed in this way, however. The use of *-ır*, depends on the verb in the sentence. Thus, for a second smaller set of verbs it is the inchoative form that is marked by an overt morphological marker – in this case, the passive morpheme, *-ıl* (4b). Without this morpheme, the sentence is ungrammatical (4c). The causative variant does not rely on any overt morphological marker (4a). In this way, Turkish is said to compare with Spanish for this subset of verb alternations.

- (4) a. Hırsız pencere-yi kır-dı. (Causative)
 thief window-ACC break- PAST
 ‘The thief broke the window.’
- b. Pencere kır-**ıl**-dı. (Inchoative)
 window break-PASS- PAST
 ‘The window broke.’
- c. *Pencere kır-dı.
 window break- PAST (Montrul 1997:46)

Working within the Full Transfer/Full Access model, Montrul asks whether there will be Interlanguage differences because of these morphological crosslinguistic differences. Specifically, transfer in the morphological domain would mean that ‘errors with the overt or covert, causative or anticausative morphology of alternating verbs will be systematic and will conform to the learners’ L1s’ (2000:247). If, however, the learners from all three language groups exhibit the same patterns of errors regardless of morphological realization with particular verbs, then this will be taken as evidence against transfer at the level of morphology.

Montrul is not interested just in questions of morphology, however. She juxtaposes transfer of morphology with transfer of argument structure, because the morphological differences between these languages are seen to contrast with a similarity in argument structure facts for other sets of verbs in English, Spanish and Turkish which do not allow an alternation, occurring only in the transitive/causative form.¹ Only the transitive form is allowed in all three languages.

Transitive/causative form only:

- (5) a. Julia cut the chicken. English
 b. *The chicken cut.

¹ What defines this particular set of verbs is not specified. The verbs that are included in the set labeled ‘nonalternating’ are: *cut*, *write*, *paint*, *hang up* and *pack* (2000:250). They are listed separately from the unergative verbs shown in (8) - (10) in the text, and (non-alternating) unaccusative verbs (11) - (13).

- (6) a. Julia cortó el pollo.
'Julia cut the chicken.'
- Spanish
- b. *El pollo (se) cortó.
- (7) a. Kadın et-i kes- mış.
Woman eat-ACC cut-PAST
'The woman cut the meat.'
- Turkish
- b. * Et kes(-il)-mıŝ.
meat cut(-PASS)-PAST. (Montrul 2000:236)

Additionally, there's a set of unergative verbs which also occur only in the inchoative form in all three languages.

Intransitive/inchoative form only (unergative):

- (8) a. The boy cried.
b. * The dentist cried the boy.
- English
- (9) a. El niño lloró.
'The boy cried.'
- Spanish
- b. * El dentista lloró al niño.
- (10) a. Çocuk ağla- mış
child cry-PAST
'The child cried.'
- Turkish
- b. * Diş doktoru çocuğ-u ağla-mış
tooth doctor child-ACC cry-PAST (Montrul 2000:237)

The three languages also have a subset of unaccusative verbs that do not alternate, occurring only in the intransitive/inchoative form.

Intransitive/inchoative form only (unaccusative):²

- (11) a. The rabbit disappeared.
b. * The magician disappeared the rabbit.
- English
- (12) a. El conejito desapareció.
'The little rabbit disappeared.'
- Spanish
- b. * El mago desapareció al conejito.
- (13) a. Papağan pencere-den kaç-mış
parrot window-ABL escape-PAST
'The parrot escaped through the window.'
- Turkish

² Montrul cites Maldonado (1988) who points out that for some Spanish verbs in this set the addition of a reflexive clitic gives rise to an aspectual meaning in which "the event contradicts normal expectations" (2000: 238). It is not possible to add the passive marker to the Turkish sentence in (13a).

- b. * Kız papağan pencere-den kaç-mış
 lady parrot-ACC window-ABL escape-PAST (Montrul 2000:237)

By her second hypothesis, the L2 learners should not make transitivity errors with non-alternating unaccusatives (11) - (13), or unergatives (8) - (10) or other nonalternating verbs (5) - (7) because English, Turkish and Spanish ‘converge at this level of representation’ (2000:246). In other words, because these verbs are non-alternating in the three languages investigated, learners should not err in terms of their ability to acquire the analogous verbs in the target languages. ‘Nonconvergence with the target languages in this domain’ she goes on to write, ‘would constitute evidence against transfer’ (2000:246).

Notice that this logic depends on the transfer of the properties of the specific verbs tested. In fact, they were carefully selected because they are equivalent in the three languages in terms of argument structure. Arguably, however, this reliance on exact verb analogues is problematic considering her underlying theoretical assumptions. Montrul adopts the lexical semantic approach of Rappaport, Hovav and Levin (1998) in which verbs are made up of semantic primitives and are merged in structural templates at the so-called L-syntax level. Rappaport Hovav and Levin explicitly say that these ‘event structure templates’ are given by UG (1998: 107).

The templates underlying alternants like the causative and the inchoative are said to be linked via some kind of universal rule such that the one alternant is derived from the other.³ The ability of a particular verb to occur in a particular template is said to be determined on an item-by-item basis. So verbs can be put into classes in terms of whether they alternate. Crucially, the exact make up of the classes varies in language-specific ways (Pinker 1989) because languages make use of different conflation patterns (Talmy 1985). So, for instance, languages like English conflate ‘manner of motion’ in verbs, in contrast with Romance languages where verbs do not encode manner.

Because languages are said to differ in terms of exact membership in verb classes, it is the task of learners to acquire the properties of particular verbs in their native language in order to determine verb class membership. Montrul notes the well-known trend in the first language acquisition of English for children to overextend the use of verbs to structures not licit in the adult grammar. For instance, children are known to be permissive in terms of the verbs they allow to occur in causative structures. Lord (1979) gives the following examples.

- (14) a. I’m singing him. (3;1)
 b. I’m gonna put the washrag and disappear something under the washrag. (3;7)

Montrul takes this tendency for overgeneralization as a UG-based developmental stage in (native) language acquisition, considering it one of several known instances of U-shaped development. In terms of the causative/inchoative alternation, this development means that children initially go through a stage in which they produce correct but unanalyzed forms, followed by a stage when they overapply the (innate) rule that links the two templates, before ultimately acquiring the restrictions that determine which verbs actually belong to the class that alternates in the adult grammar.

She asks whether L2 learners will go through a similar stage of overgeneralization. If so, she will take this as evidence that learners are relying on UG-based developmental processes and not L1 transfer in this domain. This is because by transfer, learners’ Interlanguage grammar should have pre-determined verb classes based on the L1, and crucially the verbs tested in her experiment are equivalent in terms of their ability to alternate.

To summarize, for Montrul, the question is the level at which transfer applies. This difference in levels forms the basis of her proposal for a ‘modular view’ of transfer. The contrast between transfer at the

³ There is debate over whether the causative is derived from the inchoative by the addition of a cause ‘event’ (See, for example, Pesetsky, 1995) or whether the causative form undergoes some kind of detransitivization to derive the inchoative form (Levin & Hovav, 1995).

level of argument structure and transfer at the level of morphology are in opposition and specific expectations will differ. If transfer occurs at the level of argument structure, then there should be error-free acquisition of non-alternating constructions because the verbs tested are the same in terms of whether or not they alternate. If there is transfer at the level of morphology, on the other hand, differences in terms of overt morphology lead Montrul to predict different results between the language groups where there are morphological L1/L2 mismatches.

3.0 The Experimental Study

Montrul conducted a three-way study: L2 English, L2 Spanish and L2 Turkish. The subjects were adults (age range: 14-65). L2 proficiency was determined by a cloze test. Table 1 shows that in each study there was one language group that was divided into two levels. So, for example, in the L2 Spanish study there are two sets of English subjects – Intermediate and High-Intermediate. While the Turkish are all Intermediate. Additionally, while every study had High-intermediate and Intermediate groups, the only Low-intermediate group was the Turkish in the L2 English.

	L2 English study	L2 Spanish study	L2 Turkish study
English	19 Controls	16 High-intermediate	18 Intermediate
		15 Intermediate	
Spanish	12 High-intermediate	20 Controls	10 High-intermediate
	17 Intermediate		14 Intermediate
Turkish	18 Low-intermediate	19 Intermediate	18 Controls

Table 1: Proficiency levels (adapted from Montrul 2000:253)

3.1 Task

The task was a picture judgment task. The subjects saw a picture and a pair of sentences to judge on a scale from -3 (very unnatural) to +3 (very natural).⁴ Half of the pictures showed some agent and a resulting situation (e.g. a thief and a broken window) while the other half only showed the resulting situation (e.g. a broken window). The sentences they had to judge included pairs of transitive sentences (e.g. *The thief broke the window / The thief made the window break*) or intransitive sentences (e.g. *The window broke / The window got broken*). To ensure that the subjects knew the verbs that were being tested, they did a translation task too (at the end of task). Accuracy rates were high (80% to 98% and responses based on verbs incorrectly translated were eliminated in the results (2000:253).

3.2 Results and claims

Montrul presents several sets of data which she takes as evidence against transfer at the level of argument structure. The first set includes the responses to nonalternating unaccusative verbs (incorrectly) used transitively (e.g. **The magician disappeared the rabbit.*) The bar charts presented in Montrul (2000) are reproduced in Figure 1.

Montrul sees these results as showing similar patterns across the language groups regardless of L1 as learners of lower proficiency exhibit the same tendency, failing to reject these illicit forms, while speakers at more advanced levels know to rule them out. As shown in the Figure, the lower level subjects in each study are less able to act like native speakers; and in the English and Spanish studies, they even accept these forms.

Her claim is that the inability to robustly reject these illicit forms is overgeneralization, like in L1 acquisition. She argues that the learners resort to a ‘default template’ given by UG to freely allow verbs in a

⁴ The 0 value represented ‘unable to decide’.

causative configuration. And, crucially, these results suggest no transfer of argument structure at lower levels of proficiency. So, for Montrul these results are evidence against L1 transfer of argument structure and for some kind of UG-based developmental process.

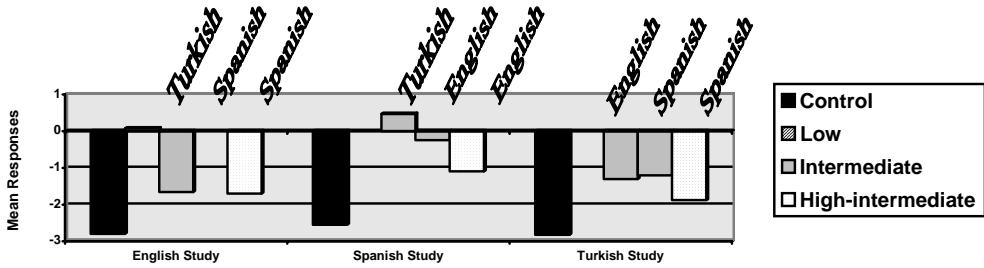


Figure 1: Responses to nonalternating unaccusative forms used transitively⁵ (e.g. **The magician disappeared the rabbit.*) (Montrul 2000:254)

Whenever results are reported as group means, there is the possibility that differences between individual subjects may be obscured. For instance, a near zero score could mean that all subjects found a set of sentences only marginally acceptable, or that half found them completely natural and half soundly rejected them. Another potential problem with group results is that it is not possible to know whether subjects responded uniformly to all tokens of each type, or whether there were differences in response to specific test items. Montrul (1997) notes the problem of group results, and thus gives individual results based on an acceptance/rejection criterion of 4 of 5 or 5 of 6 tokens.⁶ The actual responses were collapsed so that any positive response was considered an acceptance and any negative response a rejection. The individual results reported by Montrul (1997) for incorrect acceptance of illicit unaccusative forms used transitively are given in Table 2.

		L2 English Study	L2 Spanish Study	L2 Turkish Study
Low	Turkish	11 of 18 61%		
Intermediate	Turkish		13 of 19 68.4%	
	English		7 of 15 46.7%	4 of 18 22.2%
	Spanish	2 of 17 11.8%		4 of 14 28.6%
High-Intermediate	English		5 of 16 31.3%	
	Spanish	2 of 12 16.7%		0 of 10 0%

Table 2: Incorrect acceptance by individuals of nonalternating unaccusatives as transitives (e.g. **The magician disappeared the rabbit.*)

The table shows that 61% of L1 Turkish speakers of low English L2 proficiency accept sentences that are illicit in English even though the analogues are also impossible in their native language. There is some degree of overextension by speakers of intermediate proficiency as well; 68.4% of the Turkish learner of Spanish, for instance, accept these illicit forms. So, in other words, the individual results bolster the group results showing there is indeed overgeneralization by lower level learners.

The same claim of overgeneralization is made based on responses to a second set of illicit causatives, this time comprised of unergative verbs (e.g. **The dentist cried the child.*). See Figure 2. Again, the claim is that responses are equivalent across the three studies and among the three language groups: lower level speakers do not rule these forms out.

⁵ Data for the Spanish Study in Figures 1, 2 and 3 are from Montrul (1999). English and Turkish data are estimated based on bar charts in Montrul (2000) because exact numbers are not given.

⁶ There were six tokens of alternating verbs and five of non-alternating verbs (Montrul 1997: 184).

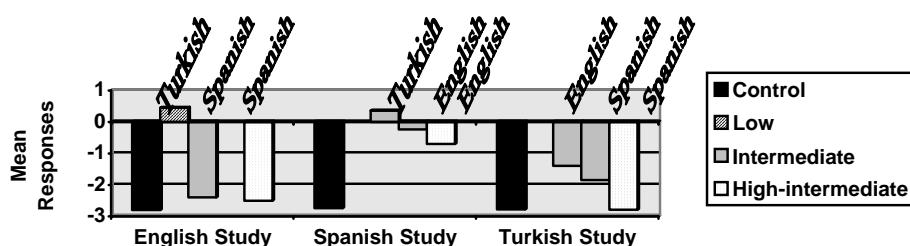


Figure 2: Responses to unergative forms used transitively (Montrul 2000:256)
(e.g. **The dentist cried the child.*)

The individual results, shown in Table 3, support the claim that within each study, the lower the level of proficiency, the larger the number of subjects who incorrectly accept these forms.

		L2 English Study	L2 Spanish Study	L2 Turkish Study
Low	Turkish	8 of 18 44.4%		
Intermediate	Turkish		12 of 19 63.2%	
	English		6 of 15 40%	4 of 18 22.2%
	Spanish	1 of 17 5.9%		3 of 14 21.4%
High-Intermediate	English		5 of 16 31.3%	
	Spanish	0 of 12 0%		0 of 10 0%

Table 3: Incorrect acceptance by individuals of unergatives as transitives (e.g. **The dentist cried the child.*)

So, as with the first set of causatives, because the analogues of these sentences are ungrammatical in all three languages, the uniform trend of initial overextension is seen as evidence against L1 transfer and subjects of lower proficiency are said to appeal to an innate default template for a wider range of verbs than the target language actually allows.

The third set of data included as evidence against L1 transfer of argument structure consists of transitive verbs presented (incorrectly) in an inchoative form (e.g. **The picture painted.*). Montrul wonders whether overextension like that found with illicit causatives will also obtain with illicit inchoatives. The results are given in Figure 3.

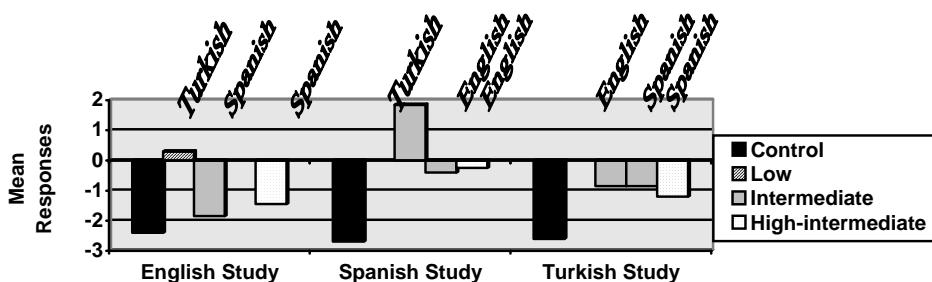


Figure 3: Responses to transitive forms used as inchoatives (Montrul 2000:256)
(e.g. **The picture painted.*)

She notes that these results are ‘less uniform’ than the causative results (2000:256-257). Specifically, though there is evidence of overextension by the low level Turkish speakers who do not reject the ungrammatical English inchoatives, the (intermediate) Spanish speakers do reject these forms. Furthermore, in the L2 Spanish study the intermediate Turkish subjects clearly accept these forms while English speakers of higher Spanish proficiency do not. Montrul characterizes this as a ‘clear unexpected L1 effect’

(2000:257). The high acceptance rate by Turkish learners of Spanish is equally pronounced in the individual results; 68.4% of Turks accept these sentences (Table 4).

		L2 English Study	L2 Spanish Study	L2 Turkish Study
Low	Turkish	9 of 18 50%		
Intermediate	Turkish		13 of 19 68.4%	
	English		7 of 15 46.7%	5 of 18 27.8%
	Spanish	4 of 17 23.5%		4 of 14 28.6%
High-Intermediate	English		6 of 16 37.5%	
	Spanish	2 of 12 16.7%		1 of 10 10%

Table 4: Incorrect acceptance by individuals of transitives as inchoatives (e.g. **The picture painted.*)

This L1 effect does not comprise evidence against the claim of no transfer at the level of argument structure for Montrul, however, because this transfer occurs at the level of morphology. Recall that the Turkish inchoative implicates overt morphology (for a subset of verbs). The suggestion is that Turkish learners reject the illicit Spanish forms because of the absence of the relevant morphology. Thus, despite these L1-based differences, she maintains the claim that there is no L1 transfer at the level of argument structure.

In sum, Montrul argues that errors in transitivity point to an absence of L1 transfer at the level of argument structure, because learners fail to reject sentences whose analogues would be ungrammatical in their native language. This failure is characterized as overgeneralization, which, according to Montrul, occurs when learners make use of an innate default template, much like children do when they overgeneralize in first language acquisition. So for Montrul, there is no L1 transfer in the domain of argument structure. The L1 is only implicated where there was a mismatch between the L1 and target language in terms of morphology. It is this bifurcation of results that leads Montrul to argue for a view of transfer as ‘modular.’

But, there are reasons to believe that second language acquisition is characterized by an initial state that comprises the whole of the L1 grammar – including argument structure. In the second half of this paper, I offer a reanalysis of these results arguing that they, in fact, support Full Transfer.

4. Reanalysis of Montrul’s results

4.1 Input-driven Overgeneralization

It is clear from Montrul’s results that there is a degree of overgeneralization among speakers of lower proficiency in response to illicit causative sentences. I want to argue, however, that overgeneralization does not necessarily mean an absence of L1 transfer. To begin with, none of these subjects are beginners; in fact there is only one set of learners that are deemed to be of low proficiency in all three studies: the Turkish learners in the L2 English study. So, transfer effects expected at the initial state may not be evident in the results. Beyond this unfortunate, though common problem, however, there are other grounds to argue that Full Transfer obtains.

I would argue that overgeneralization can be seen to occur at a stage beyond the initial state when learners – of all three languages in the three sets of studies – note differences between their native language and the target language input. If the input indicates that the L1-based interlanguage is not entirely correct in terms of the particular verbs that alternate, then learners may enter a stage in which they discount the properties of individual verb analogues and instead allow alternation more freely – until they learn to restrict particular verbs in the target language. So, my first claim is that learners go through a stage of overgeneralization when the target language input contradicts the L1-based interlanguage. If this can be shown, then the claim that the crosslinguistically uniform trend of overgeneralization constitutes evidence against L1 transfer would dissolve.

Now, crucial to this reanalysis is the claim that there are argument structure differences among the three languages. As noted earlier, it is widely accepted that languages differ precisely in terms of which verbs belong to particular sets of verbs that do and do not alternate.⁷ To use Pinker's terminology, it is the differences in Narrow Range Rules that give rise to cross-linguistic argument structure differences (Pinker, 1989). Montrul herself acknowledges this in a footnote when she writes (2000: 268 fn. 13):

It is true that languages carve semantic space in different ways and that certain argument-structure alternations can have broader or narrower application cross-linguistically. For instance change-of-state verbs as well as verbs of manner of motion (*roll, bounce, move*, etc.) participate in the causative/inchoative alternation in English, whereas the latter (with the exception of *mover* 'move') do not alternate in Spanish.

Now, in that same footnote Montrul says she's free of this complication because she 'specifically chose lexical items with the same syntactic properties in the three languages.' But I argue that appealing to the properties of specific verbs alone does not suffice.

To illustrate my argument, imagine a learner who has a native language like Spanish that allows *romper* 'break' to alternate, but not *cortar* 'cut'. Upon hearing a string like in (15) *Jon ## his arm*, let's assume that the learner knows from context that the verb is equivalent in meaning to *cut* in Spanish and not *break*. The question is, how is this learner then supposed to know whether the verb can appear in the inchoative alternant (15)?

(15) * The arm cuts.

In other words, how does the learner know whether this particular verb in the target language is included in the set that alternates or the set that does not? Is it not precisely the task of the learner to acquire this?

By Full Transfer, a reasonable expectation is that the learner will correctly reject this sentence based on her/his L1, because this particular verb does not alternate in Spanish. This is the initial state expectation. But there is a complication. Presumably, learners are going to receive input at some point that indicates that *some* verbs that participate in an alternation in the target language *do not alternate* in their native language. For example, as soon as a Spanish learner of English can parse *The ball bounced*, s/he will realize that there are verbs that alternate in the target language whose analogues do not alternate in the L1.

I suggest that in this situation it is reasonable to expect a stage in second language acquisition when L2 learners are no longer sure which verbs in the target language alternate and which do not because the input does not match the interlanguage grammar. In other words, there is input-driven overgeneralization: input indicating that the analogue of a verb (or verbs) which do not alternate in the L1 *do alternate* in the target language cause the learners to restructure their grammar such that they extend the alternation to allow forms that exceed the target input. This would manifest itself as an intermediate developmental stage of overgeneralization in L2 acquisition. And as Montrul's results show, overgeneralization obtains.

This stage of overgeneralization can be seen as compatible with an analysis in which L2 learners appeal to some default template like in native language acquisition, as claimed by Montrul. But the difference is that by my account, this developmental process occurs when the target language input conflicts with the L1-based initial state grammar. This contradicts Montrul's claim that because there is no transfer of argument structure, L2 learners, like native language learners, have an unspecified initial state (in this domain), and subsequently must determine verb classes based on the input, choosing from the options given by UG.

Given the non-beginner status of the subjects, it is not possible to determine which of the two

⁷ See Juffs (1996) for theoretical discussion based on empirical L2 research.

claims is correct. Arguably, however, the claim of modular transfer is objectionable on conceptual grounds as it is not clear why transfer would implicate all areas of grammar except argument structure. In the absence of compelling evidence to the contrary, the more principled theory is one in which the whole of the grammar transfers.

Before we move on, there's a side point worth mentioning. My view of L2 acquisition of argument structure alternations counters a view of conservative learning – an alternative possibility in L2 development. By conservative learning, the interlanguage of the learner would initially reflect the alternating patterns of the analogous verbs in the native language, but change on a verb-by-verb basis, depending strictly on the target language input. Though this is a logical possibility, it is not supported empirically by Montrul's results – there is overgeneralization. Moreover, there are other studies that suggest that overgeneralization is typical in the L2 acquisition of argument structure. (See, for example, Whong-Barr & Schwartz 2002, and Inagaki 2001.)

To summarize my first claim, I argue that L2 acquisition begins with an initial stage in which learners use an L1-based interlanguage to determine verb alternation. Subsequent input indicating argument structure mismatches between the L1 and the target language pushes the learner into a stage of incorrect overgeneralization until the correct L2 rules are acquired. This analysis is supported by the responses of Montrul's learners to illicit causatives like *The magician disappeared the rabbit*. Speakers beyond initial state, of low and intermediate proficiency show a degree of difficulty in ruling out these illicit causatives, despite their native language. Arguably, these learners have discovered that some verbs alternate in the target grammar but not in their native language, and so they have entered a period of overgeneralization causing them to accept illicit causatives. As they receive more input, however, they eventually retreat from overgeneralization, presumably appealing to the same process that occurs in first language acquisition.

The errors reported in response to the illicit inchoatives, like *The picture painted*, do not contradict this analysis, but they also point to another factor in the L2 acquisition of the causative/inchoative alternation: transfer of morphology. In the next subsection I highlight more evidence for transfer of morphology.

4.2. Transfer of Morphology

Though Montrul argues against a view of argument structure transfer, she maintains transfer insofar as it implicates morphology. The sets of results she uses to support this claim are different from those discussed above. In addition to the above causative/inchoative sentences, she also tested periphrastic causatives in English and Spanish (e.g. *The thief made the window break*) as well as *get* passives in English (e.g. *The window got broken*). She expects, and finds, that speakers whose L1s implicate derivational morphology for a particular construction consistently choose a periphrastic variant over an equally grammatical morphologically unmarked variant across the language groups and in the three sets of studies.

Though these results point to a role for morphology in L2 acquisition, they are only suggestive because preference tasks do not indicate what a grammar does not allow. My second claim is that transfer of morphology has effects beyond a preference for morphologically complex forms. The results we've already looked at in the context of against argument structure transfer can also be seen to indicate transfer of morphology. To explore this claim, I will first revisit the illicit causative data (Figures 1 and 2) and then the inchoative data (Figure 3).

Recall that among the three languages in question, Turkish is the odd one out in that it morphologically marks (most) causative verbs. Both in Spanish and English causative verbs are morphologically simple.⁸ Thus, the L2 Turkish study (in Figures 1 and 2) is the only one in which L1 transfer of morphologically complex verbs *is not* at issue. The results show that the English and Spanish

⁸ There are a few causative suffixes in English, namely, *-ize* and *-en*. These suffixes are limited to a small set of verbs, however, and not a part of any productive causative formation, as shown by the impossibility of **biggen/biggize*, **sweepen/sweepize*, for example.

learners respond comparably as they correctly reject these illicit L2 Turkish forms (Figures 1 and 2). Furthermore, the results of both the L2 Spanish and L2 English studies reveal that the least accurate responses on both sets of illicit causatives come from the L1 Turkish speakers.

I have already argued that learners may overgeneralize because the argument structure patterns of the target language do not match those of their L1 and higher rates of inaccuracy among the Turks were attributed to level of proficiency. A second reason for the inaccuracy of the Turks, however, may be the difference in morphology. In Turkish some causatives are morphologically marked, while others are not. When Turkish speakers perceive morphologically simple causatives in the input that contradict their L1-based interlanguage, this may lead them to accept unmarked causatives regardless of the argument structure facts. In other words, if the Turkish speakers have noticed that causatives do not require overt morphology in English and Spanish, they may have a second reason to enter a stage of overgeneralized acceptance of causatives, accounting for the higher levels of overgeneralization found in their results.

The suggestion of transfer of morphology receives even more support when reconsidering the responses to the illicit inchoatives (e.g. *The picture painted*) among the language groups (Figure 3). Keep in mind that Spanish morphologically marks all (licit) inchoative forms overtly; Turkish marks inchoative forms overtly with a subset of verbs; and English never overtly marks such forms.

Once again, the differences found in the data correspond to the morphological mismatches in the three languages. In the L2 English study the Spanish, but not the Turks robustly reject illicit inchoatives. Because all (licit) Spanish inchoative forms require overt morphology, by L1 transfer these Spanish speakers have two reasons to reject these (unmarked) ungrammatical forms in English: the analogous verbs do not allow the inchoative variant in Spanish and the lack of functional morphology renders all inchoatives ungrammatical.

Admittedly, we cannot know from these results alone what the source of these rejections is; yet, the results from the Turkish speakers lend support to the claim that L1 influence is at play. It may be because Turkish allows inchoatives without overt morphology in some instances that half of the Turkish speakers accept these forms in English. Perhaps, just as with causatives, input showing morphologically simple inchoatives causes to a tendency to accept these forms because the L1-based IL grammar has been contradicted.

More conclusive support for the claim of L1 transfer comes from responses to these ill-formed inchoative forms in the L2 Spanish study. Montrul (1999) discusses this study in detail. Examples of the sentences that were tested can be seen in Table 5 (based on Figure 5 of Montrul 1999:173). Notice that when the illicit intransitive included the overt marker, *se*, Turkish speakers accepted it (mean = 1.85). And when there was no marker for these sentences, they were rejected (mean = -1.85). Arguably, that the Turkish speakers accept illicit morphologically marked inchoative forms suggests reliance on Turkish grammar which allows inchoative forms that are marked morphologically. And Montrul agrees. This is transfer of morphology. English speakers, by contrast, reject the morphologically marked test sentences. Arguably, without any inchoative morphology in English to transfer, these speakers know that these forms are illicit in Spanish just as they are in their L1.⁹

	*Intransitive with <i>se</i> (e.g. * <i>El cuadro se pintó.</i>)	*Intransitive without <i>se</i> (e.g. * <i>El cuadro pintó.</i>)
Controls	-2.4	-2.75
Turkish Intermediate	1.85	-1.85
English Intermediate	-1.18	.43
English High-intermediate	-1.47	-.12

Table 5: Responses to ungrammatical inchoatives in Spanish with and without *se*

⁹ It is not clear why the English speakers reject illicit inchoatives with *se* at higher rates than those without *se*.

Though I have claimed that L1 - target language morphological mismatches may be implicated more than Montrul acknowledges, the results discussed so far cannot definitively support a transfer of morphology view because I have concurrently argued for transfer at the level of argument structure. We can resolve problem if we had responses to test sentences i) without relevant morphology in the target language by speakers whose L1 has overt morphology (i.e. a morphological mismatch), and when ii) both L1 and target language are the same in terms of which classes of verbs alternate (i.e. argument structure equivalence). This is the scenario that obtains in the above discussion of illicit L2 English inchoatives (e.g. **The picture painted.*) by L1 Spanish speakers. But unfortunately, both the transfer of argument structure and the transfer of morphology predict that Spanish speakers would reject these sentences in English. More illuminating, therefore, are Spanish responses to *licit* English inchoatives (e.g. *The window broke*) which are, of course, not marked morphologically. Fortunately, Montrul also reports data of this type. These are given in Figure 4.

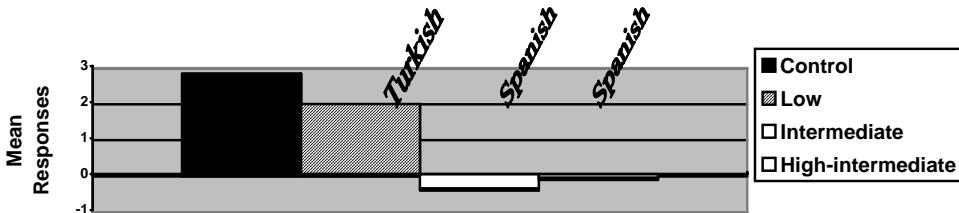


Figure 4: Responses to licit inchoatives in L2 English (e.g. *The window broke.*)

(Montrul 2000:258)

Notice that the Spanish mean response is negative while the Turkish response is positive, a statistically significant difference according to Montrul (2000). And in terms of individual results, Montrul (1997) reports that 52.9% (9 of 17) of Spanish speakers of intermediate English proficiency and 58.3% (7 of 12) of L1 Spanish speakers of high-intermediate proficiency reject these grammatical forms, compared with correct acceptance of these forms by 77.8% (14 of 18) of Turkish speakers of low English proficiency. That these sentences are possible with these verbs in all three languages – in other words, they are equivalent in terms of argument structure – supports my claim that the difference in morphology is the cause of the Spanish rejection of these licit English sentence.

This data clearly supports a view of L1 transfer – especially since the inaccurate Spanish learners are more proficient than the accurate Turkish speakers. In sum then, this result combined with the other more suggestive results provide support for a claim of L1 transfer of morphology even within the sets of results that Montrul discusses only in terms of the question of argument structure transfer.

4.3 The Interaction of Transfer and Development

My final point is that transfer of argument structure does not stand in opposition to transfer of morphology. Montrul (2000) argues for modular transfer – transfer at the level of morphology, but not at the level of argument structure. I have argued that her results allow us to maintain a Full Transfer position. Throughout her data, differences in responses between language groups have occurred exactly where there are morphological mismatches between the languages. Additionally, I have argued that the similarities across language groups reflect a stage of interlanguage development as L1 transfer is supplanted by a developmental process of overgeneralization when the L1-based interlanguage fails to account for the input.

My claim is that transfer of argument structure does not oppose transfer of morphology. In order to tease apart transfer of argument structure from transfer of morphology, however, we need to consider a situation in which the L1 and L2 are the same in terms of argument structure, but different in terms of (construction-specific) morphology, e.g. acquisition of English inchoatives by L1 Spanish speakers. In this

scenario it may seem that the expectation of rejection based on transfer contradicts the expectation of overgeneralization expected for developmental reasons. But arguably, this is not a contradiction, but instead an interplay between IL development and transfer. Before exploring this claim, however, I need to specify that I assume a framework in which syntax is derivational.

Now, consider a Spanish learner of English. The question is: how is an English inchoative like *The window broke* parsed? Firstly, let's start with the Full Transfer position that the English interlanguage is initially based on Spanish. Within a derivational model of syntax, the lexical items (*window*, *break*) are merged from the numeration pre-derivationally. To make this string grammatical, however, the functional morpheme, *se*, is required.^{10,11} When no such morpheme is forthcoming, however, the derivation cannot proceed and the string is deemed ungrammatical – this will cause rejection of these English sentences by Spanish learners. And evidence of rejection is exactly the result found by Montrul in response to licit inchoative sentences (Figure 4 above) in which Spanish speakers – with a high proficiency in English – incorrectly reject sentences which Turkish speakers – who are less proficient – correctly accept.

Thus, if one assumes a derivational theory of syntax, morphological transfer does not preclude argument-structure transfer, nor vice versa. With Merge of the verb at the start of derivation, the L2 learner will appeal to transferred argument structure. If, however, the derivation of the entire string has a further morphological requirement, then by Full Transfer this requirement will lead to failure (at least initially). In this way morphologically-induced failure does not necessarily rule out argument structure transfer. Instead, there is a stepwise interaction between transfer of argument structure and transfer of morphology. So, in this way I argue for Full Transfer and against modular transfer.

5. Conclusion

In conclusion, Montrul has claimed that while there is support for a view of L1 transfer of morphology, there is no transfer of argument structure, and as such contests the claims of Full Transfer. She writes 'if the entirety of the L1 grammar were operative at [the level of argument structure,] no errors should have been observed because the three languages are alike with respect to the transitivity possibilities for these classes of verbs, and in particular, the lexical items chosen' (2000:264). I have countered this claim by suggesting that developmental processes do not necessarily suffice as evidence against transfer, (especially since none of her subjects can be said to have initial state grammars). Moreover, exactly where there are morphological mismatches between languages, there are differences in L2 learners' responses, suggesting L1 transfer. And further, incorrect responses to well-formed English inchoative sentences by Spanish speakers of high English proficiency suggest transfer even in later stages of development. I also addressed the question of transfer of morphology, suggesting that from a derivational view of syntax, transfer of morphology and transfer of argument structure do not stand in opposition, but instead are complementary processes. In short, if this reanalysis is viable, Montrul's modular view of transfer no longer holds.

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¹⁰ It may be the properties of the morpheme that are inserted in the derivation while the overt realization occurs at PF. The difference is immaterial to the claim made here.

¹¹ Alternatively, the string could be saved by the insertion of an additional external argument.

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