

IMAGACT4ALL

Mapping Spanish Varieties onto a Corpus-Based Ontology of Action¹

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IMAGACT is a corpus-based ontology of action concepts, derived from English and Italian spontaneous speech resources, which makes use of the universal language of images to identify action types. IMAGACT4ALL is an Internet infrastructure for mapping languages onto the ontology. Because the action concepts are represented with videos, extension into new languages is done using competence-based judgments by mother-tongue informants without intense lexicographic work involving underdetermined semantic description. It has already been proved on Spanish and Chinese and it is now in the process of being extended to Hindi, Bengali, Sanskrit, Urdu, Oriya, Polish, European and Brazilian Portuguese. IMAGACT4ALL has also been successfully used to implement language varieties, as European and American (Argentinian) Spanish. The first part of this paper presents the infrastructure and the methodology for mapping languages onto the ontology. In the second part we present the results of a comparative analysis of European and American Spanish data derived from the database, that show relevant distinctions in the referential properties of the Spanish verbal lexicon in the two language varieties.

Keywords: action ontology, semantic mapping, visual representation

1. Introduction

Action verbs, which are highly frequent in speech, cause disambiguation problems that are relevant to language technologies. Action verbs are often highly

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polysemous; that is, they often have many related meanings, covering actions in different ontological types. This ambiguity impedes natural language processing tasks within a language, such as automatic summarization or question-answering systems. Moreover, each language categorizes action in its own way, so accurate machine translation is difficult. For instance, asking the Google system to translate into Italian the English sentence “John *takes* the blind man across the street” we get “John *prende* il cieco dall'altra parte della strada”, instead of “John *porta* il cieco dall'altra parte della strada”. Working in the other direction, “Mario *prende* il ladro” is translated into English as “Mario *takes* the thief” instead of “Mario *catches* the thief”, which is the actual interpretation. A deep understanding of the relations between action concepts, the categorization of them in individual languages, and the correspondences between languages would greatly help with these problems.

IMAGACT is a cross-linguistic ontology of action concepts that are represented with prototypic 3D animations or brief films. This format makes use of the universal language of images to identify action types, avoiding the under-determinacy of semantic definitions. This ontology has been induced from the references to physical actions found in English and Italian spoken corpora (Moneglia et al. 2012) and gives a picture of the variety of activities that are prominent in our everyday life, specifying the language used to express each one in ordinary communication.

Starting from this universe of prototypic scenes it is possible to extend the linguistic correlation to any language through competence-based judgments instead of corpus induction. A dedicated interface, IMAGACT4ALL, makes extension of the resource to other languages easy. Informants do not need to translate their native language to any particular language. Once mapped to the action ontology images, a language instantly has accurate translations to every other language implemented in IMAGACT and a means of comparing the semantic categorization of action with any other language.

Using the IMAGACT4ALL interface, the action concepts in IMAGACT have already been extended to Chinese and Spanish (included in the first IMAGACT release) using competence-based judgments from native speakers. Other languages currently being mapped onto the ontology include Hindi, Bengali, Sanskrit, Urdu, Oriya, Polish, European and Brazilian Portuguese. Once mapped onto the ontology, each language can be compared to every other.

In the first part of this paper, we will present the methodology and functioning of the IMAGACT4ALL infrastructure. In the second part we will present the results of a comparative analysis of Spanish linguistic varieties (i.e., European and Argentinian Spanish) showing the achievements accomplished

through IMAGACT4ALL regarding the distinct referential properties of the Spanish verbal lexicon in the two language varieties.

2. The IMAGACT advantage

IMAGACT has been developed through corpus-based annotation by mother-tongue linguists. Working from English and Italian spoken corpora, we identified the variation of action-oriented lexicons across different action concepts. 521 Italian verbs and 550 English verbs (i.e., the high-frequency verbal lexicon most likely to be used when referring to action) have been processed.

The corpus-based strategy relied on an induction process that separated the metaphorical and phraseological usages from physical action occurrences (0.95 K-Cohen agreement between experts reported in Gagliardi 2014) and then classified the action occurrences into types, keeping granularity to its minimal level. The positive selection of occurrences in which verbs refer in their own meaning to physical actions preceded the annotation.

The annotation consisted of two stages, leading from occurrences of each verb in a language corpus to the identification of the action types in which the verb occurs, and then to the validation of the generated typology of actions productively referred to by the verb. The possible variation of each language verb found in the corpus has been made explicit by gathering occurrences under prototypes (0.82 K agreement reported in Gagliardi 2014). Each verb can express one or more concepts, while each concept can refer to one or more verbs. (Moneglia et al. 2012).

Working with more than one language, the aim of IMAGACT was to deliver a language-independent inventory of action types, but experience in ontology building has shown that the level of consensus that can be reached in defining entities referred to by language expressions is very low, since the identification of such entities relies on underdetermined definitions.

The key innovation of IMAGACT is to provide a methodology that exploits the language-independent capacity to appreciate similarities among scenes, distinguishing the identification of action types from their definition.

Crucially, only the identification (and not the active writing of a definition) is required to set up the cross-linguistic relations. In IMAGACT the ontology building makes use of the universal language of images, which allows the reconciliation, in a unique ontology, of the types derived from the annotation of different language corpora. 1010 distinct action concepts have been identified

and visually represented with prototypical scenes, either animated or filmed (Frontini et al. 2012; Moneglia et al. 2012). The cross-linguistic correspondences of those actions with the verbs that can refer to them in English and Italian have been established in a MYQL data base.

By comparing the variation of verbs within and across languages it is now possible to observe how verbs of different languages categorize the universe of action. For instance, the difference between the English verb *to take* and the corresponding Italian verb *prendere* has been made explicit (Figure 1). *Prendere* cannot be used in actions in which *take* is equivalent to *bring* and *lead*, whereas *take* cannot be extended to the actions in which *prendere* is equivalent to *acchiappare* (*to catch*). This information cannot be derived from bilingual dictionaries but is a direct consequence of mapping English and Italian verbs onto one ontology of action.

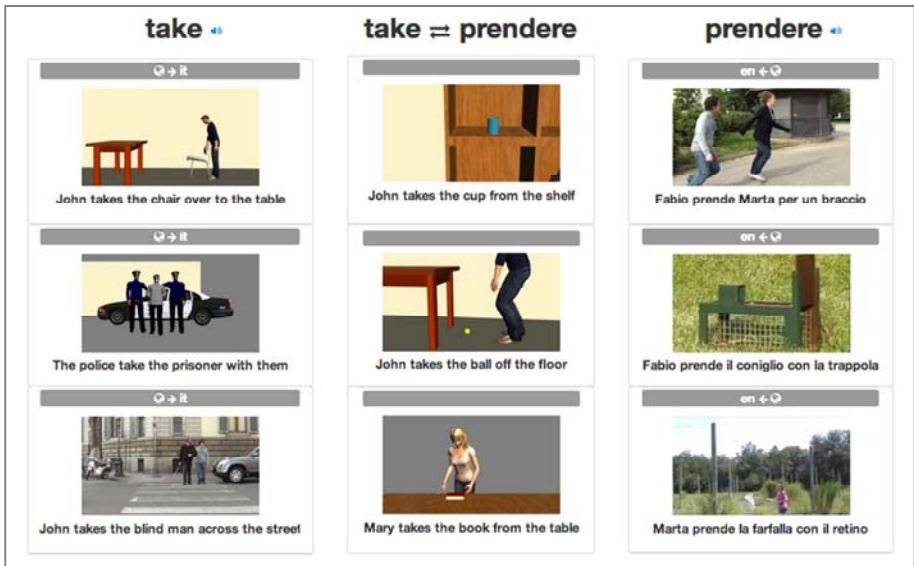


Figure 1. Comparison of *take* and *prendere*

After the corpus-based induction, competence-based extension to other languages is possible. Chinese informants have mapped the action verbs of this language onto the ontology, and the correspondences are now in the data base, allowing comparison between languages. For instance, *take* can be compared with the translation in Chinese (*ná*) (Figure 2), and the different range of

possible extensions becomes clear. *Ná*, like the Italian *prendere*, cannot be used when take is equivalent to *bring* and *lead*. Conversely, *ná* but not *take* can be applied to actions that are in the extension of *give* and *hold*.

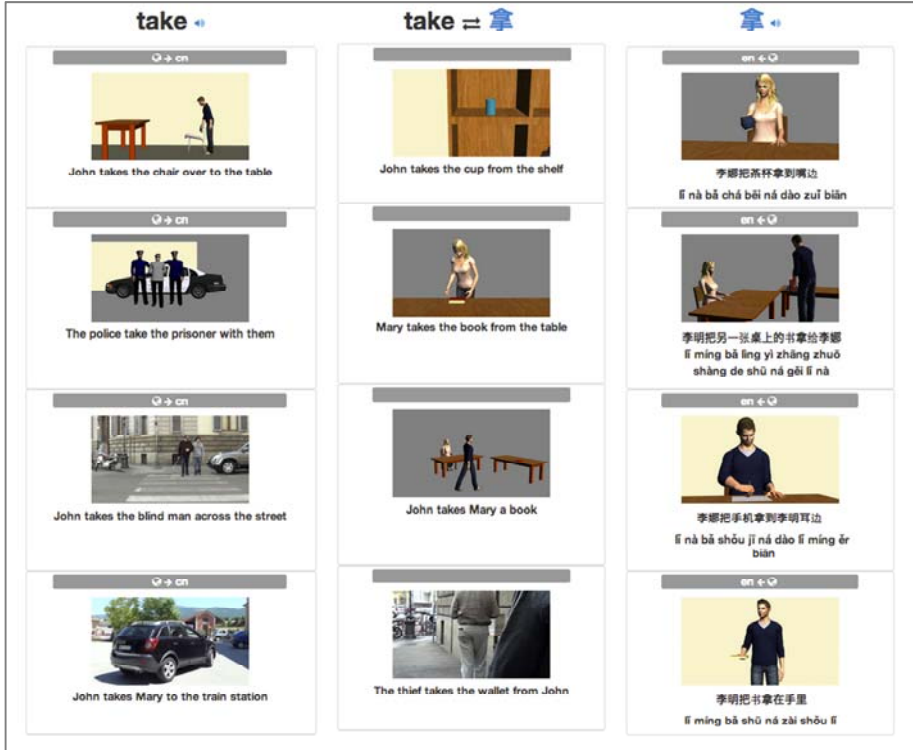


Figure 2. Comparison of *take* and *ná*

3. Extending the Database with IMAGACT4ALL

We have created an infrastructure with a clear user interface, called IMAGACT4ALL, that has already been successfully used to incorporate Spanish and Chinese into IMAGACT. This section describes the implementation procedure for mapping any language onto the IMAGACT ontology using this interface. The subsections will describe both the general procedure for mapping languages and the specific method for mapping language varieties.

3.1 Overview of the informant's work (CBE-Light)

The work of competence-based extension (CBE) of IMAGACT to a new language is performed by native-speaker informants. These informants receive a username and password that authorize them to process data for their language only. More than one informant can work simultaneously; however, the infrastructure in this release does not provide an explicit comparison of their work or an interface for conflict resolution. The work is in the responsibility of one supervisor (*superCBE*) who must give his OK before delivery.






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Figure 3. IMAGACT4ALL interface

The competence-based extension interface presents the IDs and thumbnail images of all the scenes, each one identifying a separate action concept in the ontology (Figure 3). On the right side of each scene the informant sees the English and Italian verbs mapped onto that scene in the corpus-based annotation. Moreover, he will see the processing status of each scene in all languages that have been opened for processing IMAGACT concepts in IMAGACT4ALL.

In order to start processing, the informant clicks on the ID to access the full set of metadata for that concept (Figure 4). The language for each line is identified by a flag. The informant can only modify information pertaining to his own language. The first necessary operation is to properly appreciate the action represented in the video. The informant plays the video by clicking on it and observes the represented action.

ID: 0c26587c



Corpus verbs	Type	Script	Lang.	Caption
appendere	PRO	Marco appende la lampada al soffitto		Marta appende la lampada alla catena
hang	PRO	John hangs the ball over the table		Mary hangs the light on the chain
sospenderlo	PRO	Fabio sospende il carico ad un filo		Marta sospende la lampada alla catena
suspend	PRO	Mary suspends the lights on a cord		Mary suspends the light on the chain
attaccare	INST	Fabio attacca il cappotto all'attaccapanni		Marta attacca la lampada alla catena
mettere	INST	Marco mette il quadro alla parete		Marta mette la lampada in salotto
put	INST	John puts a clamp on the door		Mary puts the light on the chain

Assigned verbs					
Verb	Transliteration	Rejected	Lang.	Caption	Transliterated caption
essere appeso		<input checked="" type="checkbox"/>			
penzolare		<input checked="" type="checkbox"/>			
挂	guà	<input type="checkbox"/>		李娜把灯泡挂在链子上	lǐ nà bǎ dēng guà zài liàn zǐ shàng
吊	diào	<input type="checkbox"/>		李娜把灯泡挂在链子上	lǐ nà bǎ dēng diào zài liàn zǐ shàng
次	fàng	<input checked="" type="checkbox"/>			
to attach		<input checked="" type="checkbox"/>			

Competence based verbs				
Verb	Transliteration	Lang.	Caption	Transliterated caption
colgar			Marta cuelga la lámpara a la cadena	

Figure 4. IMAGACT4ALL interface for individual scenes

Once he understands the intended action, the informant provides the verb or verbs in his language that can be used to refer to that specific action. The lemma should be annotated in its infinitival form, as it is commonly reported in dictionaries. The informant annotates this lemma (or lemmas) in the box corresponding to his language on the bottom of the page.

For each lemma he then writes in the caption box a simple sentence in the present tense, filling all the arguments of the verb that properly describe the action. This sentence will be used as the caption of the scene in the language of the informant. Both the verb and the caption should be written in the current writing system of the language of the informant. If this system does not use roman characters, after the annotation in the current writing system, the informant also provides the verb and its caption in roman characters, as can be seen for the Chinese lemmas in Figure 4.

3.2 Ambiguity and supervision

Although the scenes in IMAGACT have been scripted and filmed in order to be as unambiguous as possible and to convey a single meaning, some ambiguity is still possible and can lead to misunderstanding or over-interpretation by the informant. To avoid this risk, the informant must reach a clear understanding of the specific action that we want to represent on each occasion. For instance, for the scene in Figure 5, an English informant could say that the represented action is not only *to lead*, but also *to help* or *to cross*.



Figure 5. The English verbs mapped to a scene

In Figure 6, in addition to *taking* and *bringing*, we could also say that an act of *giving* occurred (*dar* in Spanish). However, these alternative categorizations fall outside the domain of IMAGACT.

The informant should identify the specific physical action that is intended by the film. (For example, *to help* is not a physical action). Moreover, to identify the action, one needs to distinguish it from its consequences. For instance, *crossing* and *giving* are consequences of *bringing*, *taking* and *leading* and are beyond what is intended by this video.

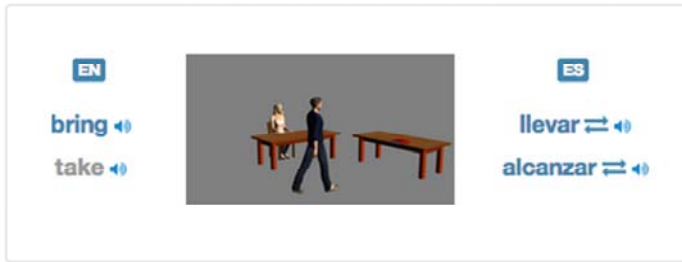


Figure 6. The English and Spanish lemmas mapped to a scene

The possible alternatives must always be verbs that identify the physical action in a *simultaneous* manner (*giving* is not simultaneous to *bringing*). For this reason the lemmas chosen by informants must be evaluated by a supervisor to ensure the appropriate interpretation for the goals of IMAGACT. Given the need for informants to understand this strict categorization of physical action, we have chosen not to use crowd-sourcing as a means of gathering data.

3.3 Cross-linguistic aids for informants

To provide reliable competence-based judgments, the informant must be a native speaker of the language she is implementing. It is possible for the annotation to be completed without any reference to other languages; however, it is very helpful for the informant to also know (at least at a very basic level) English or one of the languages already implemented in IMAGACT (Italian, Spanish, or Chinese). As the number of implemented languages grows, the options for the second language of course increases as well.

This is necessary because verbs with different meanings can identify the same action. For instance, in English the action in Figure 6 can be identified with either *to take* or *to bring*. This is also true in Spanish, which picks up this action with the verbs *llevar* and *alcazar*. Therefore, the informant is asked to find multiple lemmas allowed by her language for each action. The informant is not required to provide the complete range of possible verbs in her language that can refer to that action, but only to consider this possibility.

However, simply viewing one film may be not sufficient to elicit all alternatives. The infrastructure provides one simple means to stimulate the thinking of the informant. Frequently, in the corpus-based annotation, more verbs have been found in English and Italian that can fit with the represented scene. Moreover, in the previous competence-based extensions, other alternatives in many languages

have been provided. These alternatives should function as suggestions for figuring out alternatives in the language of the informant. This opportunity should be exploited in a systematic manner during the workflow after the first lemma has been determined.

For instance, the first verb for the action in Figure 7 that occurred to the Spanish annotator was the verb *colgar* (*to hang*). However, looking at the English annotation, she could see that this event can be also identified by the verb *to put* in English. With this clue, the Spanish informant could figure out that in Spanish other verbs that are similar to *put* can be properly applied (*meter, poner*). The annotator is only requested to judge whether or not the alternatives suggested by other languages have translations in her language that can be used in referring to the event into question. If so, she will report a new verbal lemma and a new caption by adding a line to her language options.

ID: 6fc11be0



Corpus verbs	Type	Script	Lang.	Caption
appendere	PRO	Mario appende la giacca all'attaccapanni	IT	Fabio appende il cappello all'attaccapanni
hang	PRO	John hangs the coat on the hook	EN	John hangs the hat on the hook
attaccare	INST	Fabio attacca il cappotto all'attaccapanni	IT	Fabio attacca il cappello all'attaccapanni
mettere	INST	Mario mette il quadro alla parete	IT	Fabio mette il cappello all'attaccapanni
put	INST	John puts a clamp on the door	EN	John puts a hat on the hook

Competence based verbs					
Verb	Lang.	Caption	Transliterated caption	es - Am	es - Eu
meter	ES	Fabio mete el sombrero en el perchero		<input type="radio"/> None <input type="radio"/> No <input checked="" type="radio"/> Yes	<input type="radio"/> None <input type="radio"/> No <input checked="" type="radio"/> Yes
colgar	ES	Fabio cuelga el sombrero en el perchero		<input type="radio"/> None <input type="radio"/> No <input checked="" type="radio"/> Yes	<input type="radio"/> None <input type="radio"/> No <input checked="" type="radio"/> Yes
poner	ES	Fabio pone el sombrero en el perchero		<input type="radio"/> None <input type="radio"/> No <input checked="" type="radio"/> Yes	<input type="radio"/> None <input type="radio"/> No <input checked="" type="radio"/> Yes

Figure 7. Cross-linguistic aids and language variety revision

3.4 Language varieties

IMAGACT4ALL supports language varieties. For instance, Spanish and Portuguese in their American versus European varieties record structural differences in the application of action verbs that emerge in the high-frequency lexicon, as can be seen for Spanish in the basic prototype of *take* shown in Figure 8. Each lemma and caption for that language is marked by a label (e.g., 'Eu', 'Am'). When a difference between the two varieties emerges in terms of the possible application of a lemma to a scene, the system will highlight the language label for any query response. When there are no differences in the annotation, no label is reported.

The workflow for language variants is designed as a process of revision. After the first informant has completed his work on one scene for his language variety, the second annotator verifies this work from the point of view of his language competence.

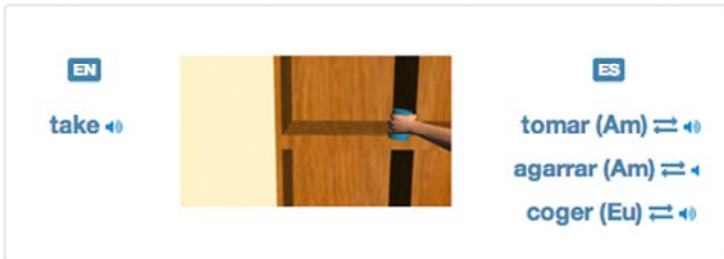


Figure 8. American (Argentinian) and European Spanish compared for an action

The verbs and captions inserted by the first annotator in connection to one action concept are marked ‘yes’ in the annotation column corresponding to his language variety. The second annotator will accept the application of the verb to the scene for his language variety or will deny this possibility, as can be seen in Figure 7, where the application of the verb *meter*, which is a possible option in Argentinian Spanish, sounded odd to the European Spanish informant.

The second annotator has the option to add other verbs that are appropriate in his dialect for that scene. If this happens, the scene will be shown as ‘to be processed’ for the first annotator. The radio button shows ‘none’ in that row until the first annotator has made a decision regarding that lemma for his language variety.

The 1010 scenes in the IMAGACT ontology have been processed in this way. The work produced a lexicon of 734 Spanish verbs mapped onto the ontology in accordance to the semantic competence of native speakers of both language varieties.

4. Analysis of Spanish linguistic varieties


IMAGACT4ALL allows the collection and analysis of a large amount of data on linguistic varieties in a relatively short period of time. Researchers can easily carry out studies on micro-variations in the application of predicates to events: the system captures not only the major semantic differences but also fine-grain distinctions, making explicit the peculiar categorization of actions. This section

briefly presents the methodology and the results of a preliminary study aimed at comparing Argentinian (AS) and European (ES) Spanish verbal lexicons.

4.1 Ontological point of view: IMAGACT scenes as matched to Spanish lemmas

This analysis takes into account all 1010 IMAGACT scenes and examines all the predication alternatives proposed by the mother-tongue informants for each represented event. In 576 cases (57,03%), European and Argentinian Spanish show identical options of categorization; that is, the action depicted in the video can be lexicalized with a single verb or a set of verbs that are common to both varieties (Table 1).








Table 1. Identical options of categorization: scene 38815fa8





Thumbnail/ID ²	URL	English verbs
38815fa8	http://bit.ly/1meyb1I	to bend, to stoop
		
Pan-Hispanic verbs	Only ES	Only AS
inclinarse, agacharse, doblarse	-	-

In only 11 cases (1,09 %) do the varieties lack a common option of categorization (Table 2). These examples are very heterogeneous, ranging from very specific events (like “*rolling up* some pieces of cloth”) to structural and macroscopic differences in the extension of high-frequency predicates (such as *coger* vs. *tomar* and *quitar* vs. *sacar*, see section 4.3). For this reason, despite the low percentage of event types involved, the impact on the categorization of action may be significant.

² Animations and clips of the IMAGACT Ontology are delivered under *Creative Commons Licence BY-NC-ND*, and are available here through open links. At present in the IMAGACT infrastructure IDs are searchable only for registered users.


Table 2. No common option of categorization

Thumbnail/ID	URL	English verbs	ES	AS
79d15b5c 	http://bit.ly/1mejJH1	to roll up	apelotonar	hacer un bollo
890a009d 	http://bit.ly/1kwC6qM	to arrange, to adjust	colocar	acomodar arreglar
99a9351e 	http://bit.ly/1meoPDc	to clip, to staple	grapar	sujetar abrochar
824a410d 	http://bit.ly/1kwDB8f	to trap	pillar	agarrar
ef7dedbb 	http://bit.ly/1mepu7v	to narrow	estrechar	angostar
2062b7cd 	http://bit.ly/1eoMuOW	to take	coger	tomar agarrar
ee227661 	http://bit.ly/1mevD3y	to take	coger	tomar agarrar

96b29b01	http://bit.ly/1kwHUAs	to collect	coger	recoger, juntar
				
e4a4c249	http://bit.ly/1kwHxGe	to take, to remove	quitar	sacar
				
6d2ad6b7	http://bit.ly/1mewjWG	to take, to remove	quitar	sacar
				
c6154205	http://bit.ly/1mewCAR	to draw	echar	tirar
				


423 scenes (41,88 %) are characterized by different options of categorization in ES versus AS. Out of these 423 scenes, 364 exhibit a broader set of verbs in Argentinian Spanish; that is, more verbs can be applied to the event in Argentinian Spanish than in European Spanish. In those cases, Argentinian lemmas sound odd, unusual or unfitting to the European informant (Table 3).

Table 3. AS greater than ES

Thumbnail/ ID	URL	English verbs
f4268c0a	http://bit.ly/1mTlxXm	to hang, to put, to place, to lay, to set, to rest
		
Pan-Hispanic verbs	Only ES	Only AS
apoyar, colocar, colgar	-	posar


Conversely, in only 18 scenes does European Spanish show greater lexicalization possibilities than Argentinian (Table 4).

Table 4. ES greater than AS

Thumbnail/ ID	URL	English verbs
fe9fbe09	http://bit.ly/1gEdf2U	to glue, to attach, to stick
		
Pan-Hispanic verbs	Only ES	Only AS
pegar, unir	fijar	-

In the remaining 41 scenes the two Spanish varieties share a common set of verbs for the predication of the event, combined with some additional idiosyncratic possibilities of lexicalization (Table 5).

Table 5. Complementary extension

Thumbnail/ ID	URL	English verbs
6a8c4c1a	http://bit.ly/1kwJu5l	to shuffle, to mix
		
Pan-Hispanic verbs	Only ES	Only AS
mezclar	entreverar	barajar

The results are summarized in Table 6. All the data are included in Appendix A.

Table 6. Summary comparison of categorization options

ES-AS categorization options		# scenes	% scenes
identical options		576	57,03
no common options		11	1,09
different extensions:	AS greater than ES	364	36,04
	ES greater than AS	18	1,78
	complementary extensions	41	4,06
total		1010	100

4.2 Lexical point of view: analysis of the variety-specific lemmas

All the verbs that are present only in ES or AS annotation have been singled out and both informants were asked to evaluate variety-specific lemmas, i.e., verbs that do not belong to the lexicon of their linguistic variety.

Out of 16 ES verbal lemmas not present in the Argentinian Spanish annotation, 6 have been judged specific to the European variety: *grapar*, *pillar*, *placar*, *cascar*, *pacer*, *aparcar*. The remaining 10 show different meanings, usage or diamesic-diaphasic diffusion: for example, *apelotonar* is extremely rare in AS, and the verb *aguantar* loses the ES action meaning of “to hold-to keep”, drifting to the sense “to put up with”.

Working in the opposite direction, 87 AS lemmas are not present in ES annotation. Only 3 have been judged specific to the Argentinian variety: *anexar*, *fritar*, and the multi-word expression *hacer centro*. The remaining 84 verbs have been evaluated as infrequent in the ES lexicon (e.g., *hamacar*) or belonging to the written variety of the language (e.g., *regresar*, *prender*).

The verb list is included in Appendix B.

4.3 Semantic point of view: analysis of the extension of general verbs

Lastly, the extension of ES and AS action verbs onto the IMAGACT scenes has been compared. For the purposes of the present analysis, all the idiosyncratic verbs just identified in section 4.2 have been discarded; among the remaining 631 predicates, we specifically focus on the set of 150 general verbs³ showing different ranges of application. In these cases the differences between the two language varieties may be due to semantic factors.

³ In our interpretation paradigm, we define as “general” a verb that is able to extend to actions belonging to different ontological types (Moneglia & Panunzi 2007). In this specific context, we effectively call “general” all verbs linked to two or more videos in the IMAGACT database.

The comparison has led to the identification of three major categories:

- The lemma refers to a broader range of IMAGACT scenes in AS than ES.
- The lemma refers to a broader range of IMAGACT scenes in ES than AS.
- Different extensions in ES and AS.




These will be described in detail in the following subsections (4.3.1, 4.3.2, 4.3.3). All the data are included in Appendix C.


4.3.1 Broader range of IMAGACT scenes afforded by AS

A large majority of the analyzed verbs belongs to this class (121 cases, 80,67%). The lemma has wider interpretations in AS than ES; that is, more IMAGACT scenes can be expressed by the verb in AS.

This category can be illustrated by the verb *tomar*: the meaning “*ingest*” is shared by ES and AS (“*tomar la bebida/la pastilla*”, equivalent verbs *beber* and *tragar*). Nevertheless, in the Argentinian variety the lemma covers some “*grasping*” and “*catching*” events too (e.g., scenes 2062b7cd and a791d3fc, Table 7). Furthermore, the lemma *coger*, which in ES has roughly the meaning of “*to take*”, is a profanity (“*to fuck*”) in the AS variety. In AS, the semantic area of “*to take*” is structurally covered by the verbs *tomar* and *agarrar*.

Table 7. Broader range of IMAGACT scenes afforded by AS



Thumbnail/ID	URL	English verbs	ES	AS
153338fe 	http://bit.ly/1lpIpwT	to drink	tomar, beber	tomar, beber
c77b5cb4 	http://bit.ly/SPOEPt	to swallow	tomar, tragar	tomar, tragar
2062b7cd 	http://bit.ly/1eoMuOW	to take	coger	tomar, agarrar

a791d3fc	http://bit.ly/SPPc81	to catch	agarrar, atrapar, atajar, coger	agarrar, atrapar, atajar, tomar
				

4.3.2 Broader range of IMAGACT scenes afforded by ES

In our data, only 17 lemmas refer to a broader range of IMAGACT scenes in ES. For example, the meaning of the Spanish lemma *arrancar* covers a set of detaching events (Table 8). Both ES and AS speakers apply it if the theme is actually stuck to a surface, as in scene 275403a9 (*Maria arranca la etiqueta de la mesa*, ‘Mary detaches the sticker from the table’). However, the Argentinian variety does not allow the application of the predicate to events in which the agent removes something that is a proper part of the theme, as in 33fe3bcd (*Maria arranca/separa la parte perforada de la hoja*, ‘Mary detaches the strip of paper’).

Table 8. Broader range of IMAGACT scenes afforded by ES

Thumbnail/ID	URL	English verbs	ES	AS
275403a9	http://bit.ly/1lpNfKl	to detach, to remove, to strip	arrancar, despegar, quitar	arrancar, despegar, quitar
				
33fe3bcd	http://bit.ly/SPT890	to detach, to remove, to pull	separar, arrancar	separar
				

4.3.3 Different extensions in ES and AS

In this last category, some IMAGACT scenes extended by the lemma are common, but both varieties show some additional interpretations. 12 verbs belong to this group.

This situation can be illustrated by the verb *enganchar*: ES and AS share two scenes, 0d46d7ea (*Maria engancha el gancho a la cadena*, ‘Mary attaches the chains together’) and 17cd5cdb (*Maria engancha los papeles con el clip*,

‘Mary attaches the cards together’). However, only in the ES variety does *enganchar* extend to scene cfae7563 (Marta se engancha a la barra, ‘Mary hangs/dangles from the bar’), whereas scene d1fd8ccf can be predicated by the verb only in AS (Maria engancha el adaptador en la computadora, ‘Mary connects the devices with a cable’).

The classes just described are represented quantitatively by Table 10.

Table 9. Different extensions in ES and AS





Thumbnail/ID	URL	English verbs	ES	AS
 0d46d7ea	http://bit.ly/1s8pf3J	to connect, to attach, to join, to link, to hook	enganchar, unir	enganchar, unir
 17cd5cdb	http://bit.ly/1meoKzi	to attach, to clip	enganchar, sujetar	enganchar, sujetar
 cfae7563	http://bit.ly/1s8puvL	to hang, to dangle	colgar, enganchar	colgar
 d1fd8ccf	http://bit.ly/1s8pawW	to connect, to attach, to join, to link	meter, poner	meter, poner, enganchar

Table 10. Summary comparison

ES-AS verb extension	# verbs	% verbs
The lemma refers to a broader range of scenes in AS than ES	121	80.67
The lemma refers to a broader range of scenes in ES than AS	17	11.33
Different extensions in ES and AS	12	8.00
total	150	100

5. Conclusion

IMAGACT offers a promising language-independent infrastructure for incorporating languages into an extensive action ontology. Because the action concepts of the ontology are represented with videos rather than verbal definitions, extension into other languages is done without intense lexicographic work involving underdetermined semantic description. Once a language has mapped its verbs to the action images, it is instantly connected via those images to every other implemented language. Language pairings that normally would not have extensive and detailed verb correspondences in a resource (e.g., Bengali and Portuguese, or Polish and Mandarin) would suddenly have them.

In addition, varieties within a language can be processed, as has been done for European and Argentinian Spanish varieties. As a whole, the observations allowed by the IMAGACT ontology in this case indicated that the difference between the verbal lexicons of the two language varieties is larger than expected, considering that no communication problems emerge in practice. At least some difference was found for 434 of the scenes depicting action (42,97%) and for 255 verbs (34,74%) in the IMAGACT Spanish annotation.

From a purely quantitative point of view, Argentinian Spanish seems to be richer than the European variety; that is, specific events can be referred to by a larger variety of verbs (364 out of 1010 scenes in the IMAGACT ontology) and, on the other way around, verbs may extend to a larger set of events (121 out of 150 general verbs with different extensions).

The richness of Argentinian Spanish is evident as a consequence not only of the ontological analysis, but also of the semantic analysis: simply put, Argentinian predicates show weaker restrictions on predicate application.

Provisionally, we hypothesize that this tendency in the Argentinian verbal lexicon results from the greater immigration the country has experienced. In this light, our findings could be interpreted in terms of the consequences of linguistic contact.

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Appendix 1

Table 1. ES-AS identical options of categorization

Scene ID	Pan-Hispanic verbs	Scene ID	Pan-Hispanic verbs
a1d9df5e	apoyar, mover, correr acercar, colocar, meter, poner	022d5a35	imitar, copiar
0c26587e	colgar	bde35750	nadar
17f0d2ba	hacer colgar	83472e9c	nadar, flotar
a6e3c83a	enrollar, envolver	ea5f44fd	remar
cecb489f	hacer rodar	6a20b972	pegar, azotar
b65d7431	girar, dar vueltas	153338fe	beber, tomar
f81899f2	rodar	828fe276	beber
cbffbb9f	moldear, amasar	ef0f54ca	beber, tomar
2adb416f	hacer rodar	c493cca5	lamer, chupar
c3687dea	envolver	90d2847e	comer
af8021aa	pegar, poner	a047a5a4	comer
b6b5a7ec	girar	c77b5cb4	comer, tragar
643335f2	girar, orientar	5dbd8905	tragar
b1be7903	girar, dar vueltas	323d956b	masticar
02ed8aef	apoyar, llevar, poner acercar	68b6cb1d	limpiar, quitar el polvo
a076ae54	acercar, ir	1d69a8a3	lavar, limpiar
a7f5a1a8	apoyar	899d8ea3	barrer, limpiar
07629d27	doblar, curvar	4500197d	secar, absorber
fa021b9b	girar, dar vuelta	ee957df6	lavar
1a30f2ab	dar vuelta	4d224dfa	cepillar, peinar
9acae892	acomodar, orientar, acercar	492ce2be	tocar, acariciar
176cb23e	secar	6498b411	tocar
b8b614fd	limpiar	2c8a5bab	tocar, acariciar, pasar
3ed12183	limpiar	75ad793d	pelar
6d8b2dba	limpiar	a8b7753e	pelar
461a19a3	limpiar	a3c2a35b	pelar, abrir
b21bf135	limpiar, ordenar	80eaf7f5	desgranar
2719fe1b	mover, girar, dar vuelta	66a4750b	borrar, quitar
a2e70e22	doblar, plegar	4acaec37	tachar, suprimir, eliminar
373a17e4	girar, dar vuelta, orientar	6129198f	vendar, poner
15d8ad4a	cruzar	bc23f309	expolvorear
bf6757c8	inclinarse	8cfa54d0	entrar, hacer una entrada
bf6757c8	flexionar, doblar	f9a3552c	peinar
3837d155	rebobinar	6f217c59	rascar, frotar
eebe3e25	dar cuerda	02692185	refregar, frotar, restregar
cef90283	enroscar, retorcer	9e630330	frotar
1dc10d5b	orientar, girar	e7a56b7e	raspar
db743d6f	girar, dar vuelta	514f7463	limpiar, frotar, pasar
4769e968	abrazar	ec924f6d	remar
38815fa8	inclinarse, agacharse, doblarse	b23c5bda	abrigar, meter, poner
7d221883	envolver	d7047b7e	enrosacar, envolver, enrollar
d85fc4c7	envolver	655c425a	lijar
06fd1d19	doblar, plegar	208c00ae	refregar, frotar, restregar
49d8d824	inclinarse	ee05dc63	tornear
dc6d79ea	tumbar, tirar	5c74ea05	vendar, envolver, cubrir, enrollar
461a9e56	enroscar, enrollar	98c4de27	golpear, pegar
27eaa177	llamar	4775b34c	hilar
db81e089	jugar	cd5da968	pulir, lijar
0c071780	jugar	85bb6a04	manchar, ensuciar
f18a8c89	jugar	e2e87574	manchar, ensuciar
7287f0fb	jugar, jugar a	760bf80f	dispersar
4a9dfd53	recitar, actuar	bf9a2dd3	esparcir, derramar, echar
02dcecef	recitar, leer	58e5afbe	abrir
662910a0	fotocopiar, sacar fotocopia	d02dc68d	tender, colgar
bf509d62	copiar, reproducir, transcribir	ba5d5b21	estirar, extender
c141dcdb	copiar, reproducir	14ecdbe2	extender, estirar
		ffe3e14a	pintar, aplicar

Scene ID	Pan-Hispanic verbs
dfe4c46c	pintar, aplicar, colorear, teñir, dar color
7671d68f	atacar
68a63392	conectar, unir
7fb3b0a9	tapar, taponar, cubrir
427adb18	extraer
0e9976d7	salir
79fb887a	golpear, pegar
a83f89e0	chocar, tropezar
854b578c	llevar, alcanzar, dar
f18e3b05	dar, pasar, alcanzar
09858619	masajear, hacer masajes
523d54db	iluminar, alumbrar
7b48818e	apagar
7a1a0e2e	apagar
0d46d7ea	unir, enganchar
35e7893f	coser
2f9aa709	juntar
3704316c	agredir, atacar, golpear, pegar
17cd5cdb	enganchar, sujetar
2d6960e9	descansar, reposar
a190aee2	dormir, reposar
f135c778	apagar, extinguir
ffe4d67b	estirar, extender, alisar
67c41a52	apagar, soplar
42ca5eec	desenchufar, desconectar
4404e9dc	mezclar, juntar, unir, reunir
5681aa52	triturar, licuar
a310e46b	afilarse
33010fee	derretir, calentar, fundir
40241ac8	disolver, diluir
e4eda92d	desatar
bf48c255	descongelar
cb201447	apoyar, dejar, poner, colocar
96963d8c	congelar, meter, poner
b037b3ca	enfriar, poner
4af3b351	alejar, separar, retirar, mover
50b6b744	respirar, inhalar, aspirar
42b2f445	fumar, inhalar, aspirar
54048dd1	chupar
de1beda3	tomar, mamar
39a28ac7	amamantar, nutrir, alimentar, dar de mamar
718dbe0b	dar de comer, alimentar
f3051ec5	ahumar
b1d506c4	fumar
97882267	llorar
a5f5d457	gritar
8dcd1aa9	sonreír
dd928911	reír
7022dfc1	enrollar, envolver
26683833	reír
adc0f69c	ampliar, separar, agrandar
7df27855	abrir, separar
b673e6af	estirar, alargar, extender
b572e8950	inflar
96cb84b2	respirar, jadear
083a0f62	respirar
e7596450	inflar
fbfaf593	inflar
1b143cfd	cortar, acortar
58b9ca2f	alargar, prolongar, continuar

Scene ID	Pan-Hispanic verbs
61c0edd3	moler, triturar
7c8a3c70	estirar, tensar, tirar
232b892	desenrollar
fdce7461	fumigar
79cd9faf	escurrir, colar
5bed8c07	filtrar, colar
87c82ed1	esforzar, hacer fuerza
4576aec1	pegar, adherir, unir, fijar
87eace52	empujar
d6e46306	ir, meter, entrar
e90c1fde	imantar, atraer
c36a436a	trepar
4e6a5715	poner
9241de4e	tirar, arrastrar, llevar
d061d8c4	tirar, llevar
d98a112e	extraer, sacar, quitar
d40c059e	arrastrar
771b36b6	tirar
aca69731	atar
ce61fb12	encuadernar
49a1ce70	fijar
d939bd6b	cerrar
ee7c4403	cerrar
02bd55cc	esterilizar
d846ce14	encerrar, meter, encarcelar
c4574c65	cerrar
d15cbeb7	cerrar
02242009	cerrar
9d7c36a1	cerrar
97548006	cerrar
0690ef80	cerrar, poner, tapar
e66365e7	alzar, abrir, levantar, subir
f7d031f2	bajar, cerrar
66e70bbe	bajar
c3cc3d86	levantar, alzar, elevar, subir
927b115d	cerrar
c6b976c7	estar de pie, estar parado
9207cbdb	dormir, adormecer
7022c021	adormecer, anestesiarse, dormir
f6f87ef8	tener, llevar
38723bcc	bañar, lavar, limpiar
75cca320	cerrar
89d3195a	abrir
1924f545	cerrar
75e1e7cd	abrir
1fb14d04	abrir
d66f1a26	abrir
a552acb5	abrir
7ea36b5d	abrir
8ecd1287	abrir
3daa2612	abrir
ec7f2dab	quitar, retirar, extraer, colar
1a94b5d7	abrir
536727cc	abrir
cd59e4f8	cerrar
20abf733	esmerilar, pulir, lijar
04f01e8e	afilarse
54988bfb	despertar
6fb17f31	despertar
543d60b1	dejar
a9e2f425	dar, dejar, entregar
5f9e05b1	dejar

Scene ID	Pan-Hispanic verbs
5d306b2e	dejar
ccf4163a	soltar, dejar caer
9eeddab0	dejar
58844c92	llevar
bcd19e26	arrebatar, robar, sustraer, quitar
74b0e8fa	dar de beber
efbc44ef	beber, tomar
4ca8b584	dar, entregar
e71a396d	soltar, dejar caer
ac4f0732	sacar, quitar, retirar
cd83dd56	rociar
d46c596f	soldar, pegar, unir
f5de088c	medir, tomar medida, establecer
daafec4e	sacar, operar, quitar, extraer
a5be25d0	abrazar
0bae9d9a	aplaudir
1bc0090e	liberar, soltar, excarcelar
0a22a2a7	liberar, soltar, desatar
afb4a8ad	liberar, soltar
29c28bc0	tirar
88ea0ee7	dejar caer, bajar
eec9aa84	caer, rodar
176310c6	caer, derrumbar, desmoronar
b6148862	caer
99dfe2e7	escurrir, hacer gotear
ab2e05ac	conducir, guiar, trasladar
155420e5	guiar
a0e46daa	guiar, acompañar, conducir, llevar
43dc4d2	acompañar, llevar
b22e7a77	llevar
d79f2907	llevar, guardar, meter
142d68fe	guiar
78175c17	pasear, llevar
e77a1493	caminar, mover
2124425c	fotografiar, sacar fotografía
a7499d76	transportar, trasladar, llevar
12ae2b58	dar, llevar, entregar
a5c57d33	tirar, arrastrar
e3371250	tejer, entrelazar, entreteter
96cc72d2	cosechar
7db069aa	recoger, recolectar, cosechar, vendimiar
6107d4a7	sacar, limpiar, quitar
89188c3a	reunir, juntar, concentrar, agrupar
0acd345b	estornudar
3478a9d5	calentar, poner a calentar
db78ca04	calentar
680e026f	sacar, retirar, quitar
5368c665	calentar, hervir
cd143656	poner, armar, meter
deebec27	poner, acercar
201f2bd2	seguir, perseguir
525290f0	seguir, perseguir
46d3e76b	rodar
860df53f	montar, subir, sentar
eb31cfda	armar, instalar
9398080f	ensamblar, armar
65bf65d6	plantar, poner, meter
631e79b1	sentar
a2769859	afilarse
3a5785e0	golpear, pegar, chocar

Scene ID	Pan-Hispanic verbs
4429bcd8	pegar, golpear
5f50f384	pegar, golpear
46c9f0c7	correr, mover
2331ba91	martillar, golpear, pegar
368741f7	ir, pedalear
b70a05c1	parpadear, pestañear
574e7e01	golpear, pegar, dar un golpe
5316501a	batir
7e462f89	golpear, pegar, dar golpes
80494a8d	atar, sujetar
941e092d	golpear, agredir, dar un puñetazo, pegar
68790e14	empollar, incubar
4faba0b4	golpear, pegar, dar golpes, agredir
a0a2a868	pisar
b76910e6	machacar, moler, triturar
7b37e13d	tocar
4bba042b	golpear, dar golpes
178fcb68	dar golpes, hacer caer, tirar
1b2edd0d	hacer caer, tirar, tumbar
e641da8e	tirar
ffcf8430	subir
9a9c2229	subir
db0beb35	trepar, subir
a365b625	escalar, trepar, subir
c97d5b1f	sacudir, mover
43a13b60	sacudir, mover, agitar
e8b328d2	sacudir
5f5c75c2	dar la mano
79a52001	agitar, sacudir, mover
4ffc5511	agitar, mover
84f67ed4	agitar, mover
3c9b22fa	desabrochar, desabotonar, abrir
7c62a3c4	sacudir, mover, menear
5106f375	temblar, tiritar
1df1d7de	temblar, vibrar
a8c494d3	entrelazar, entrecruzar
ce0b9c67	tener, sostener
904e9ef2	apretar, fijar, atornillar, enroscar
265a8c98	cabalgar, ir a caballo, hacer trotar, montar
73560c3c	trotar
bdda69b5	galopar
f3789521	galopar, ir a caballo, cabalgar, montar
69eb9c54	seguir
906e648b	perseguir, agujerear
efac55e2	dar
b1f14e10	aterrizar, descender
eb0c4dde	hacer aterrizar, hacer descender
5ef3ce83	caer
08d49b11	caer
be7030d2	tumbar, hacer caer, derribar, tirar
eea28340	atrascar
6d1156b5	entregar, dar
abc2d9c6	distribuir, dar, entregar, repartir
5540264b	clasificar, dividir, separar
5ef41baa	separar, despegar
7f616113	agarrar, tener, aferrar, sujetar
593b8326	pisar, aplastar
fff0451e	pisotear, pisar, aplastar

Scene ID	Pan-Hispanic verbs	Scene ID	Pan-Hispanic verbs
fadcc7e9	entregar, dar	08760277	secar, absorber
5d19f1f9	batir	276c92d9	escribir
66116760	batir	486f2c0d	escribir, teclear
755488fd	dejar, alejar, ir, abandonar,	1c188172	firmar
	retirar, separar	8b538f09	cantar
7b9b200e	separar, dividir	73a2feaf	bailar
fdf20ec6	abrir	90511b04	anotar, tomar nota, escribir
94d592d3	abrir, destapar	8dcb3fbe	tender, colgar
4251f210	abrir	9dd0265d	empujar, arrastrar
e3dd144a	dividir	52310652	apretar, presionar
be9148b9	dividir, separar, formar, repartir	f7b9693b	empujar
4c19aaf0	encerrar, rodear	40374041	empujar, dar un empujón
c23ff6c5	ir	950a69d5	empujar, impulsar
78b1380e	dar, pasar, alcanzar	92da1d76	plegar, doblar
cb6c0abb	dar, pasar, alcanzar	e017360a	empujar, meter, poner
18ad2fa9	empujar	4d69cb19	comprimir, apretar
de2d33f3	aplastar, pegar, golpear, abollar	65431186	empujar
56dfc8b3	aplastar, estrujar, comprimir,	1028b2f9	meter, poner, introducir
	apretar	e2abd551	apretar, presionar, empujar
ff1f0e98	separar, hacer, agrupar, dividir	9adb3816	apretar, empujar, pisar, presionar
1a3922e1	oscilar	b387fc12	pisar, pisotear
66aab9a4	balancear, mover	c9c1ed52	bajar
76b06d89	hacer oscilar, balancear	8e27b63a	descender, bajar
a783b340	alcanzar	f3c8a282	bajar, hacer descender
a8d5631e	embalar, empaquetar	7d1e1181	acomodar
f34d3dad	llamar, marcar	c0c8caf4	aplastar, comprimir, presionar
23690917	liberar, soltar, dejar escapar, dejar	85641fd1	comprimir, aplastar
	libre	cb5f32d9	exprimir
ac83cc32	pescar	a7965352	escurrir, estrujar
7885031e	marchar, caminar, mover	838d9dd7	compactar, unir
6cdb8dfe	hacer marchar, ordenar marchar	8b0a5cbb	comprimir, prensar, compactar,
2aa0e4f2	jugar		aplastar
e6633503	gesticular, hacer señales	ddaa5603	pellizcar
c8c23bb7	introducir, poner, meter	366cbcc5	pinchar, punzar
c8c23bb11	meter, esconder, poner	f408ea4e	morder
c8c23bb12	esconder, meter, ocultar, enterrar	66fc9ffc	morder, dar un mordisco,
003a1bba	poner, meter, colocar, introducir		masticar
029acd16	colocar, introducir, meter, poner	069de078	morder
e2086427	meter, colocar	9513ce15	picotear, picar
60e22a00	mover	32a5da96	picotear, alimentar, comer
31accdc3	dividir	9b3b825b	triturar
57b85614	tapar, cubrir, abrigar	d660fc18	filtrar, colar
3f7282b6	alcanzar	28103edb	precipitar, caer, tirar
8a55ce82	patear, pegar patadas, golpear	42b8ff36	bajar, descender
a2266c11	patear, dar una patada	a3dc1426	bajar, descender
3150e16b	patear, dar una patada	10f4d480	descender, bajar
8782aff9	guardar, dejar, meter, poner	77b6e277	desinflar
122a085d	atrincherar, defender, resguardar,	0791c255	fusilar, matar, asesinar, ejecutar,
	agrupar		disparar
20a3afa2	depilar, sacar, quitar	59c16152	ahorcar, colgar, matar, ajusticiar,
5fdff4a8	pellizcar		ejecutar
22b57828	fijar, colocar, instalar, poner	6cf8d622	esquiar
d308425d	manchar, ensuciar	f212268e	lanzar, dejar caer, soltar, tirar
7ead67db	sacar, llevar, retirar	151df4b3	besar
6fd6f453	disparar, matar, asesinar, liquidar,	9828aee6	besar, dar un beso
	ejecutar, acribillar	41f361e3	retirar, apartar, quitar
1242c1d7	lanzar	f1948224	leer
17d2e3f2	disparar, tirar	d8f7911e	alcanzar, dar pasar
1b5c247b	caminar, dar pasos, mover	7f359d29	extender, acercar
d29fc72c	alcanzar, llegar, acercar	f88fd870	pasear, caminar, mover
fd34e5c3	mover	a7a26051	enderezar
8d3d1cb0	ir a buscar	f8ec9b3	enderezar, poner, acomodar

Scene ID	Pan-Hispanic verbs
a38c4dfe	enderezar
6aa3ad82	quitar
fb160b1f	suspirar
86539dfd	tapar, poner
eaab863e	devolver
b1b61d04	devolver, restituir
65a225ed	meter, poner, guardar, introducir, colocar
81b53660	subir, ascender
bb28bfd3	subir, ir, dirigir
c7fb768f	desembarcar, descender, bajar, salir
9ea0e1a9	salir
94ada9ab	combatir, luchar, pelear
580381bb	apretar, cerrar
83b93d26	juntar, cerrar
b0366504	apretar, atornillar, enroscar
9ffe1352	apretar
40218e61	soltar, aflojar
c5f1a99c	desatornillar, aflojar, enroscar
afald6ed	aflojar
23e74200	cargar, subir, meter, poner, colocar, introducir
8e42fec8	cargar, poner, meter, introducir
f4496d0a	cargar, meter, subir, poner, llenar
1b76a07d	poner, cargar, colocar, meter
4c367idd	llenar, cargar, meter, poner, colocar
f912d1e5	llenar, poner, meter, introducir, colocar
0e962887	entrar
e6416228	dar de comer, alimentar
13f786f0	extender, estirar
4fd60bf2	arrodillar, poner de rodillas
4cfca39d	llorar, sollozar
7669989f	silvar, hacer sonar
b5a099a6	centrar, colocar, meter, poner
5da6a3d0	sentar
9bd1575e	tirar, tensar, estirar
38a720a0	vaciar, sacar, quitar, extraer, retirar
ad92728e	salir
361625c3	rellenar, tapar
2ac4514c	tirar, arrojar, lanzar
e9f15f34	tirar, lanzar, arrojar
eb47df9f	lanzar, tirar, arrojar
c4dd6500	sacudir, mover
02fa5753	lanzar, tirar, arrojar, ecestar
f224dcf5	lanzar, arrojar, tirar
bd2e9bc4	partir, salir
4b613942	luchar, combatir, pelear
f8bab7fc	tirar
edce3dbc	pasar, cruzar, atravesar, traspasar, superar
37318b09	atravesar, cruzar, pasar
753e09d7	pasar
89bc9d69	pasar, cruzar
18993974	pasar
9a28f829	cruzar

Scene ID	Pan-Hispanic verbs
71f07e0b	cruzar
9cd811ea	cruzar, atravesar
d73999c9	pasar, atravesar
107c7883	llevar, conducir
1d1b8643	volar, mover
9a2108c1	volar, manejar
7a8ce3a5	viajar, ir, volar
28ee6300	ir, viajar
71aa7253	pasar
c2cd24f8	volar, soltar
1b340b34	entregar, dar
2fcf07a9	dibujar, diseñar
6f9006e1	pintar, aplicar
64fa01f7	pintar, aplicar, colorear
b5990df0	blanquear, pintar, aplicar
b3d6b3c4	retratar, pintar
bb2939ae	trazar, dibujar, hacer
a41a4357	trazar, dibujar, hacer
93075a76	penetrar, clavar
7eebdeb5	pescar, atravesar, clavar
7e1bc59e	agujerear, taladrar, hacer agujeros, perforar
d74a71ea	hacer hervir
ca1cb464	cocinar, hornear, hacer cocinar
224f9c0e	cocinar
fb8cfe48	hornear, cocinar, dorar
21fb2364	retroceder
a4652bf1	tosar
ccef58e0	escupir
7175e4d6	escupir
7817b326	crucificar, matar, clavar
1b36b77d	ahogar, matar, sumergir, asesinar
a697129d	desmayar, desvanecer
fd72c3fa	cultivar, sembrar, plantar
879b535e	ordeñar
d1372e55	acunar, mecer
ea7a5636	bombardear, lanzar, disparar
38e99314	caminar, mover
028bfd57	tropezar, trastabillar, dar
13851207	asar, cocinar, dorar
e502e943	cocinar
7cee543e	cocinar, cocer, guisar
b65c0531	sombrear, dibujar, dar
91f47778	moder, dar mordiscos, mordisquear
b2df8d1d	mudar, trasladar
2ec2ad04	mover, zarandear
6202b31d	volar, mover
9da1b326	cambiar, mover
c9c6b7ac	juntar, amontonar
97c66b0d	poner
d2bd5398	tamizar, pasar por el tamiz
b08b3bc8	cultivar, sembrar, plantar
344e3ecd	destruir, romper, destruir
92019ffe	romper, abrir
50cfe54a	quebrar, romper, partir
4552104c	destruir, romper, destruir
437b320	romper, aplastar

Table 2. No common option of categorization: ES-AS

Scene ID	European Spanish	Argentinian Spanish
79d15b5c	apelotonar	hacer un bollo
2062b7cd	coger	tomar, agarrar
ee227661	coger	tomar, agarrar
e4a4c249	quitar	sacar
6d2ad6b7	quitar	sacar
890a009d	colocar	acomodar, arreglar
96b29b01	coger	recoger, juntar
99a9351e	grapar	abrochar, sujetar
824a410d	pillar	agarrar
c6154205	echar	tirar
ef7dedbb	estrechar	angostar

Table 3. Different extension options of categorization: AS greater than ES

Scene ID	Pan-Hispanic	Argentinian Spanish
6fc11be0	poner, colgar	meter
Fa92bcb6	apoyar, poner, colocar	meter
f4268c0a	apoyar, colgar, colocar	meter, posar
79263991	envolver, enrollar	arrollar
35d8523a	girar, mover	dar la vuelta
51ad2030	girar, doblar	meter
57b339d6	dar la vuelta	voltear, girar
313bd81b	remover	mezclar, revolver
cfae7563	colgar	enganchar
04e005d0	girar	dar vuelta
0ab55607	girar, hacer girar	hacer dar vuelta
0d541d35	subir, apoyar, poner	meter
dcf8d26b	posar, apoyar	parar
e8ace0de	pasar	voltear, dar vuelta
7856aeed	vendar, cubrir	sujetar
5e8e746b	secar, absorber	limpiar
4c6c850e	pasar	voltear, girar
2b4dafad	dar vuelta	voltear, girar
54c82c19	lanzar, tirar	arrojar
0c78a576	marcar, señalar	remarcar, encerrar
159cd55c	subir, levantar	estirar
b0d9301a	girar, dar vuelta	voltear
44a5c5e9	bajar	tumbar
cdad95f	batir, revolver, remover	mezclar
bbc50559	tocar	sonar
bdc29622	enciende	prende
453e02b2	colgar	cortar
4897f314	abofetear, golpear, pegar	dar una cachetada
4813fc25	limpiar, sacar brillo	lustrar
3e7b099e	arreglar	peinar, cepillar
2b95177b	untar, aplicar, esparcir, poner	meter, desparramar
f64b7267	Borrar, quitar	remueve
01ab1467	remover	revolver
d855332a	pulir, dar brillo	lustrar
e5b5012a	amasar	hacer
929ca013	aplicar, pasar, esparcir	meter, poner
7cd6277	extender, poner, estirar	meter
08be65c2	acostar, tender, recostar, echar	extender
7ad43911	pegar, colgar, poner	meter, adherir
412a742d	pegar, colgar, poner	meter, adherir
cdb3fc32	descolgar, retirar, quitar	sacar
9210576e	retirar, quitar	sacar, remover
71ea3615	alejar, separar, apartar	distanciar
e7201d9d	alejar, separar, apartar	distanciar

Scene ID	Pan-Hispanic	Argentinian Spanish
1e5a8b48	romper	rasgar
c8705d2e	romper	rasgar
72ab7642	clavar, poner, fijar	meter
663cde6e	pegar	adherir
47f16248	volcar	verter, derramar
d1fd8ccf	conectar, poner en contacto, meter	unir, enganchar
99acf21a	enchufar, conectar	unir
4846f6fa	clavar, plantar, introducir, hincar, insertar	plantar, meter, poner, penetrar
93cd4ae8	aplicar, poner, meter	pasar
8fc5bb1a	limpiar, quitar el polvo	remover
d1d62221	encender	prender
f5cdae4f	encender	prender
61419cf5	encender	prender
40081f88	asomar	sobresalir
7aca7f1e	poner, enroscar	meter
26fb83b3	coser, poner	aplicar, meter, pegar
99bc6c56	bloquear, obstruir	cerrar
f767c81c	desplegar, distribuir	acomodar
be893c09	detener, inmovilizar	paralizar
9771c1d3	desenganchar, separar	desprender
0171ddb6	batir, mezclar	amalgamar, unir, amasar
9303d936	mezclar, revolver	amalgamar, unir, amasar
64f934cd	triturar, moler	picar, desmenuzar
164755dd	frotar	raspar
5661f96d	juntar, acercar, poner	meter, acomodar
114f1e26	acercar, llevar, aproximar	poner, meter
92f1d3f1	acercar, aproximar, arrimar	mover
4fff19f0	desabrochar, desenganchar	destrabar
149040b2	chupar, absorber	succionar
dd5c83dc	agrandar, ampliar, ensanchar, aumentar	extender
31a4fbab	extender, estirar, alargar	prolongar
de489feb	sostener, sujetar	tener
94210750	sostener, sujetar	mantener, cargar
61cde22f	estirar	desperezar
9609a67f	planchar, alisar	estirar
505baae9	hacer explotar, hacer estallar	hacer detonar
fda706f1	echar	fumar
e66d50b9	succionar, bombear	aspirar
c90c9cba	cerrar	acortar
66279bb3	extender, abrir, desplegar	desdoblar
4e215211	desenrollar, desplegar	estirar
932f4654	estirar, alargar, tensar	extender
21f0f19d	estirar	distender
0fea3361	abrir, desplegar	desdoblar
42a8a818	acercar, aproximar	arrimar, mover
275403a9	despegar, quitar, arrancar	sacar, remover, retirar, levantar
33febcd	separar, arrancar	cortar, sacar
33996f73	poner, estirar, llevar	meter
695a1a6c	llevar	poner, meter
5ab24f32	arrastrar	deslizar
02f9f6ad	bajar	estirar
d4077ef6	arremangar, subir	alzar, levantar
bb2e4076	arrastrar, empujar, mover	correr
49bf57c0	bajar, acercar	atraer, traer, aproximar
0eee9494	subir	levantar
b938f561	atar, anudar	sujetar
1f0cddd8	atar, maniatar	sujetar
6cc0259a	atar	sujetar
642cef3a	atar	sujetar
6ca337e5	conectar, enchufar	unir
6c9c89a6	atar	sujetar
30d0386d	encadenar, atar	sujetar

Scene ID	Pan-Hispanic	Argentinian Spanish
e5eae1ae	atar, cerrar	sujetar
64424689	poner, colocar	atar
c2003ea7	cerrar	sellar
c17d7346	abotonar, abrochar	prender
37d9b672	sellar	lacar
179756e0	forrar	revestir
0b862fb7	parar	detener
f3249028	parar, detener	frenar
3bfa9d9a	parar, detener	frenar
c9d944f4	detener, parar	frenar
ad6b51ed	detener, parar	frenar, bloquear
f40ea475	obstruir, taponar, tapar	ataascar, atorar
1198c75b	asfixiar, matar, asesinar	sofocar
a7fbffd2	sujetar, sostener	asegurar
8b570cd4	colocar, fijar	asegurar, afirmar
e2daa382	guardar, cerrar	meter
8c7ab88a	levantar, subir, alargar	Estirar
10da71e7	abrir	alargar, extender, prolongar, estirar
c208d083	poner de pie, alzar, levantar	parar
7c8975e1	alzar, levantar	elevantar, poner, llevar
c9f68892	alzar, levantar, poner	elevantar, poner, llevar
a00f9e04	levantar, alzar	elevantar, poner, llevar
b3ccb8c	levantar	elevantar
40f4bb0e	bajar	acortar, reducir
54b039d2	bajar	poner
4ec3ec0c	apoyar, poner, colocar, depositar	bajar, meter
8d691556	agachar	bajar
e5bc46ac	subir, elevar	alzar
62b6e570	subir	elevar
65526e2e	poner, meter	acomodar, sostener
a1ced582	colocar, poner, subir, apoyar	meter
b8118dbb	poner	parar, meter
0e9b572b	mojar, bañar	embeber, humedecer
e6cbc994	apoyar, poner, posar	meter
48f8cb40	abrochar, subir	cerrar, levantar
57047b62	abrir, destapar	sacar
a5feb1ff	llevar	sacar, transportar
314c901e	robar, hurtar, sustraer	sacar
c5cf3a89	sacar punta	afinar
a1393182	soltar	dejar
377239cc	robar, hurtar, quitar, sustraer	sacar
b64414b5	regar	dar
14bb2ccd	regar, rociar	pulverizar
8e713b99	pesar, comprobar	medir, establecer
d8128250	quitar, retirar, llevar	sacar
b838e662	llevar, quitar, retirar	sacar
424bb396	obstaculizar, estorbar	obstruir, impedir
098bd4a7	soltar, dejar, liberar	largar
f80f1704	caer	tumbar
5bad2755	caer	tumbar
0b4b4e59	llevar	transportar, trasladar
c10d014a	volcar	dar vuelta
2ba89c57	llevar, arrimar, poner	acomodar
72394734	despegar, salir	partir
39c9c0fe	llevar	arrestar, detener, encarcelar, capturar
f7481998	conducir	manejar
fa8b83ea	caer, volcar	tumbar
9eaa8462	poner, hacer pendular, hacer oscilar	meter
6535ab74	llevar, acercar	acomodar
77752d90	desmontar	desarmar
d4c0c55a	sacar, quitar, desmontar	desarmar
b511b010	transportar, trasladar	llevar

Scene ID	Pan-Hispanic	Argentinian Spanish
e0e96eee	ir, conducir	andar
360d6147	acompañar	ir
d4d153e0	poner, apoyar, colocar, bajar	meter
6d2bb6b9	tejer	trabajar
20b6e058	tejer	hacer
e1340c01	atender	responder
c3d6ec50	recoger	agarrar, juntar, alzar
29a67824	quitar, retirar	sacar
7f6845c2	agregar, poner, incorporar	añadir
58137443	poner	aplicar
509fd5b4	arrastrar, llevar	tirar
4155f6ab	seguir, perseguir	imitar, copiar
6d6be5edc	guardar, meter, poner	juntar, recoger
00f7de3e	apoyar, colocar, dejar, poner	meter
6028e753	guardar, meter, poner	acomodar
fab60b30	ordenar, limpiar	acomodar, arreglar
baf8f210	llevar, acercar, colocar, poner	arrimar
82c69575	colocar, organizar, poner	disponer, ubicar
30ce5b7d	ordenar, poner, clasificar, colocar, disponer	meter
8355898f	subir, poner	parar
3f9fcb40	reparar, arreglar	acondicionar
1f92ccb7	poner, meter, colocar	acomodar
fa65afaa	poner, meter, colocar	armar, instalar
712bbd90	reunir, congregar	agrupar
f5ac6962	instalar, poner, colocar	meter
2b01d9fe	poner, meter, engarzar	encastrar
de10acbb	correr, perseguir, seguir, mover	trotar
54e28c5c	acertar, dar en el blanco	hacer centro
b9169b02	golpear, atajar	agarrar
dc7fbb74	golpear, zapatear, patear	patalear
26d67278	dar un portazo, cerrar	golpear
08b5207c	chocar, colisionar, estrellar	golpear
517f0c3d	batir	mezclar, revolver
13f4f5a2	levantar, quitar, alzar	sacar
a2c0af83	atar, anudar	sujetar
a6594c70	pegar, golpear, agredir, dar golpes	dar una paliza
fe6a72a5	golpear, pegar	agredir
42eed396	llamar	golpear
acfc3f68	agitar, mover	hacer flamear
4b5aca02	agitar, mover	flamear
b47c562c	sacudir, hacer temblar	hacer vibrar, hacer oscilar
9f0fae8b	sostener, sujetar	tener
77ecb817	sostener, agarrar, sujetar	tener
033699f8	remolcar, tirar, trasladar	arrastrar
fc02c24b	repartir, compartir, dar, ofrecer, distribuir	convidar, invitar
881bb4fd	dividir, cortar	repartir, fraccionar
190ac296	separar, alejar	distanciar, mover
652ba164	separar	dividir
d05b0f16	separar , ir, retirar, abandonar	despedir
5009a259	entregar, dar	mostrar
ad698935	tirar, arrojar, lanzar	golpear
d5556de3	dividir, separar, clasificar, agrupar	juntar, subdividir
1e74ba6c	dividir, romper	quebrar
b537589d	adjuntar, meter, introducir	anexar, agregar, insertar
cc0b4c9c	tirar, dejar, arrojar	poner
baa92edb	tirar, dejar caer	arrojar
edc276eb	poner	meter, alzar
ba98e0d4	distribuir, colocar	repartir, disponer
661dd1a4	capturar, atrapar	agarrar
0fbf36d2	lanzar, tirar, hacer rodar	arrojar
94150cd7	tirar	lanzar, arrojar
98c443fd	poner, subir	meter

Scene ID	Pan-Hispanic	Argentinian Spanish
124882ce	batear, dar	golpear
65909e17	mecer	hamacar
a1b719a5	cubrir, poner, rodear	envolver
ae2c52df	rodear, acorralar	cercar
c261e917	dispersar	desparramar
d1aa852d	quitar, sacar, retirar	remover
4e46927e	desnudar, desvestir, quitar	sacar
6729bc44	pintar, poner	aplicar
c8c23bb6	poner	meter
c8c23bb8	mecer	amacar
c8c23bb9	apilar, poner, colocar	meter
c8c23bb10	meter, poner	insertar
c8c23bb13	poner, colocar	meter
1ec6be5a	meter, poner, introducir	insertar
221d064a	meter, pasar	insertar, poner
40f45180	meter, introducir, pasar	insertar, poner
f9cdc533	meter, poner	acomodar
1357e9b1	poner, vestir	meter
a027662f	vestir, poner	meter
e4fd7965	meter	insertar, poner
36d56840	meter, introducir	poner
a86914bc	poner, dejar, apoyar	meter
b9a52f3f	meter, poner, adjuntar, añadir	agregar, anexar
cde3d375	desvestir, desnudar, quitar	sacar
9f65cce6	mover, patear	patear
16380f18	duchar, lavar	bañar, higienizar
771e4a39	amontonar, apilar, acumular, juntar	recoger
404a4743	pelar, quitar, desplumar	sacar
f7616462	disparar	tirar
7dd93a3	entrar, dar un paso, adentrar	penetrar
93c459f9	tocar	sonar
0ea0ceea	ir, partir, marchar	retirar
d358c886	hacer cola, esperar	formar fila
d718342c	asegurar, apuntalar, fijar	afirmar
cbd1726a	apretar, pulsar, presionar	oprimir
073129b0	sacar	empujar
d2a1848e	sacar	empujar
8b2675f8	presionar	oprimir
f4157bb2	introducir, clavar, meter	insertar, poner
dec0ea13	aplastar	pisar
c8e08c67	aplanar	desarmar
076cbf8e	bajar	descender
abe36a46	bajar, quitar	sacar
e4a0038d	bajar	descender
10687827	dividir, cortar, partir	repartir
6a8bafd9	pulsar, apretar, presionar, tocar	oprimir
b4931ed2	apretar	oprimir
339ce69c	aplastar	comprimir
8ebd0370	picar	punzar
2decad1a	dar un golpecito, dar un codazo	codear
3666bd42	bajar	descender
2f4c674d	ahorcar, suicidar, colgar	matar
c2509e47	alisar, lijar	cepillar
e2a42f35	enderezar, poner	meter, acomodar
808c16de	separar, alejar	distanciar, mover
ea71e493	alejar	correr, distanciar
30e2d9d5	acercar, poner, colocar, juntar	meter
ddf259a5	poner, apilar, colocar	meter
f3a5a603	caminar, mover, poner en camino, ir, marchar, alejar	partir
73910f1d	destapar, descorchar, abrir	sacar
fddcd603	destapar, quitar	sacar

Scene ID	Pan-Hispanic	Argentinian Spanish
370ffeac	destapar, quitar	sacar
769637b4	ceder, caer, desplomar, derrumbar, desmoronar	derribar, tumbar
8e7caba4	encender, hacer funcionar	prender
1696d291	retroceder, dar la vuelta	regresar, retornar
a7332438	pelear	luchar, combatir
5868ecab	aflojar	destrabar
4f940de3	llenar	colmar, cargar
28fa1c89	enchufar, conectar	poner, meter
7912c776	sacar, empujar, echar	tirar, lanzar
f17b2bf8	descargar, sacar, quitar, bajar	agarrar
d069151b	vaciar, sacar, quitar, descargar, bajar	agarrar
e23b565d	hojear, pasar	dar vueltas
8fd5dba9	poner, colocar	meter
581cb2b4	situar, colocar, ubicar, poner	parar, meter
d742a139	salar, poner sal, añadir, sazonar	meter, agregar, incorporar
70e71c09	endulzar, poner, azucarar	agregar, meter
8a82595b	vaciar, tirar	sacar
d0bef002	atornillar, poner, colocar	pegar, meter
7f5bed84	colocar, poner, instalar	meter
5baebd72	salar, poner	meter, guardar, colocar
9d1a7c2f	condimentar	agregar, meter, poner
52444307	alcanzar, llegar	lograr llegar, obtener
7ad955c3	tirar, lanzar	arrojar
a018e0f4	tirar, arrojar, lanzar	dejar caer
ef646293	tirar, lanzar	arrojar
962be8d1	pasar, adelantar, superar	sobrepasar
ce3a00fa	pasar	pincelar
4ce0740f	pasar, meter, poner	atravesar
d44a52fc	sobrevolar	volar
dd62d515	ir volando, volar, salir volando	alejarse
adce04ae	pinchar	punzar
cdce35df	pintar, colorear	dar color
1ce6d768	pintar, aplicar	pasar
c9e4660a	colorear, pintar	dar color
afeb48ce	pintar, colorear	pasar
0223e7f0	teñir, colorear	pigmentar, entintar
d050fa70	barnizar, aplicar	esmaltar, pasar
25eb6175	barnizar, aplicar	pasar
67877a62	retratar, dibujar	diseñar
5d8f5f7f	atravesar, penetrar	traspasar
a5fcd850	adjuntar, añadir	agregar, anexar
5736298b	acuchillar, apuñalar, clavar	lesionar
0ede3476	hervir, calentar	borbotear
a97b7d00	cocinar	cocinar, poner, meter
f17b2bf8	cocinar, dorar, freir, saltar, rehogar	fritar
17a56d77	freir, cocinar	fritar
ccd40c24	ir, retroceder	regresar
7c9c8a3d	cerrar, poner	cercar, encerrar, meter
a039dc9d	introducir, llenar, poner	meter
6bdab629	hacer pastar	hacer comer
01a7a29a	hacer malabares	hacer ejercicios de malabarismo
7a96d7c6	bombardear, arrojar, tirar, soltar	atacar
a6d302a2	tambalear, caminar	mover
b00d1711	mover, hacer funcionar	hacer andar
6897a17c	meter, sentar, poner	introducir
32c1b1fc	romper, quebrar	lastimar
dc8b7a90	romper	quebrar
76ce8741	romper, destrozar, hacer pedazos	partir, despedazar
8297d1d2	romper, dañar, averiar, estropear	arruinar, descomponer
eff55fec	abrir, romper	violentar
c06775d4	romper, estropear	dañar

Scene ID	Pan-Hispanic	Argentinian Spanish
8fc6a716	romper, destrozar	desfondar, dañar
ee162c31	romper, destrozar	dañar, arruinar
b30908e2	romper	cortar
191c35a8	quebrar, romper	partir
ca260d40	sonar	hacer sonar
22fc541c	derrumbar, derribar, tirar abajo, desplomar	demoler
43b25b0c	romper, abrir, tirar	violentar
ef7120db	quemar, estropear	arruinar, dañar
0c9d14b5	dañar, averiar, romper	arruinar
c7f269ac	quitar, cortar	sacar
47b36a80	abollar	arruinar, dañar
1ab992e7	chocar	golpear

Table 4. Different extension options of categorization: ES greater than AS

Scene ID	Pan-Hispanic	European Spanish
26bfe3a5	rodar	revolcarse
fe9fbe09	pegar, unir	fijar
68fef40e	mezclar, revolver	remover
b7aaee6a	plegar	doblar
4b8bcdal	tocar	llamar
94c2955e	lavar, enjuagar, limpiar	aclarar
7c52586a	limpiar, lavar	fregar
02068953	desparramar, dispersar, esparcir	extiende
9e1fadac	tapar, poner	cerrar
578cd30d	aferrar, agarrar	coger
4337deab	rociar, lanzar	echar
f1f67c26	sacudir, agitar, mover	zarandear
88c65b17	tener, dejar, sostener, mantener	aguantar

Table 5. Complementary extensions

Scene ID	Pan-Hispanic	European Spanish	Argentinian Spanish
6a8c4c1a	mezclar	barajar	entreverar
d600b18d	arrugar	estrujar	plegar
c6929716	poner	clavar	pinchar, meter, sostener
6758c46d	servir, verter	echar	meter, poner
db0c3e10	volcar	tirar	vertir, tumbar
42a55abc	sacar, extraer	coger	tomar, agarrar, quitar, retirar
6a6faa02	agarrar	coger	aferrar, tomar
cf1bbc0c	quitar	coger	sacar, agarrar
810173a7	atrapar, detener, capturar	coger	agarrar
5b182e3d	cortar	coger	tomar, agarrar
4678aade	llevar	coger	tomar
a791d3fc	atajar, agarrar, atrapar	coger	tomar
46435204	ir a buscar	coger	agarrar, tomar
de7df09f	sacar	coger	recoger
395c6918	mezclar	combinar	unir
662ce694	sacar, descongelar	quitar	remover
00e2ebd6	estrangular, matar, asesinar	asfixiar	ahorcar
02bd322a	levantar, alzar, elevar	coger	agarrar, tomar
2df159ce	bajar	coger	tomar, agarrar
5fd325cf	sumergir, tirar, introducir	echar	meter
5194bcc4	agarrar	coger	sostener
a1685ea3	sacar punta	afilar	aferrar
78cd7672	levantar, agarrar,	coger	aferrar
e2b87396	sacar, quitar	coger	agarrar
d0fe87b2	agarrar, sujetar, tomar	coger	dar
ba6fd3a4	sacar	coger	tomar, agarrar
17d778f2	salpicar	echar	tirar

Scene ID	Pan-Hispanic	European Spanish	Argentinian Spanish
177c9a33	hacer caer	tirar	tumbar, derribar
edc08b7e	ir a buscar, pasar a buscar	recoger	llevar
be0c573d	agarrar	coger	tomar
ed20ae67	ir a buscar	coger	agarrar, tomar
f3f2055e	salir	ir, quitar	correr
d46fb07d	meter, introducir	tapar	instalar, poner
6155066b	bloquear, parar, detener, inmovilizar	placar	obstaculizar, sujetar
d6eadd94	robar, asaltar	coger	agarrar
d135260c	atrapar, cazar, capturar	coger	agarrar
ce76ec60	pescar	atrapar, coger	agarrar
c1b0fa58	poner, meter	echar	tirar, colocar
2b8c80d4	desenroscar, aflojar	quitar	sacar
2c5dfe13	comer, alimentar, pastar	pacer	ingerir
ba374f29	estacionar, ubicar, meter	aparcar	colocar, poner, situar

Appendix 2

Table 6. Variety-specific lemmas (verb are sorted according to C-ORAL-ROM Spanish frequency list).

C-ORAL-ROM frequency	Lemma	C-ORAL-ROM frequency	Lemma
250	trabajar (AS)	0	cercar (AS)
221	coger (ES)	0	colmar (AS)
121	traer (AS)	0	convidar (AS)
65	andar (AS)	0	dar una cachetada (AS)
47	pillar (ES)	0	dar una paliza (AS)
25	invitar (AS)	0	demoler (AS)
24	aguantar (ES)	0	desarmar (AS)
23	mostrar (AS)	0	desdoblar (AS)
23	responder (AS)	0	desmenuzar (AS)
14	reducir (AS)	0	despedazar (AS)
14	frenar (AS)	0	desprezar (AS)
14	aparcar (ES)	0	destrabar (AS)
12	aclarar (ES)	0	distender (AS)
11	impedir (AS)	0	embeber (AS)
10	largar (AS)	0	encastrar (AS)
9	combinar (ES)	0	entintar (AS)
8	afirmar (AS)	0	entrevistar (AS)
7	ataascar (AS)	0	esmaltar (AS)
7	despedir (AS)	0	flamear (AS)
5	cascar (ES)	0	formar fila (AS)
4	descomponer (AS)	0	fracconar (AS)
4	fregar (ES)	0	grapar (ES)
4	lastimar (AS)	0	hacer andar (AS)
4	paralizar (AS)	0	hacer centro (AS)
3	regresar (AS)	0	hacer comer (AS)
3	arrestar (AS)	0	hacer dar vueltas (AS)
3	fritar (AS)	0	hacer detonar (AS)
2	estrechar (ES)	0	hacer ejercicios de malabrisma (AS)
2	lesionar (AS)	0	hacer flamear (AS)
2	sobrepasar (AS)	0	hacer un bollo (AS)
2	distanciar (AS)	0	hacer vibrar (AS)
2	angostar (AS)	0	hamacar (AS)
1	barajar (ES)	0	higienizar (AS)
1	codear (AS)	0	humedecer (AS)
1	rasgar (AS)	0	ingerir (AS)
1	deslizar (AS)	0	lustrar (AS)
1	arruinar (AS)	0	oprimir (AS)
1	sellar (AS)	0	pacer (ES)
1	desprender (AS)	0	pigmentar (AS)
1	desfondar (AS)	0	pincelar (AS)
1	placar (ES)	0	prender (AS)
1	retornar (AS)	0	pulverizar (AS)
1	arrollar (AS)	0	remarcar (AS)
0	acondicionar (AS)	0	revestir (AS)
0	aferrar (AS)	0	revolcarse (ES)
0	afinar (AS)	0	sobresalir (AS)
0	alejarse (AS)	0	sofocar (AS)
0	amalgamar (AS)	0	subdividir (AS)
0	anexar (AS)	0	violentar (AS)
0	apelotonar (ES)	0	voltear (AS)
0	atorar (AS)	0	zarandear (ES)
0	borbotear (AS)	0	

Appendix 3

Table 7. Broader range of IMAGACT scenes afforded by ES

Scene ID	Pan-Hispanic	European Spanish
afilar	a310e46b - 04f01e8e - a2769859	a1685ea3
arrancar	275403a9	33fe3bcd
asfixiar	1198c75b	00e2ebd6
atrapar	810173a7 - a791d3fc - 661dd1a4 - d135260c	ce76ec60
añadir	b9a52f3f - d742a139 - a5fed850	7f6845c2
batir	cddaf95f - 0171ddb6 - 517f0c3d - 5316501a - 5d19f1f9 - 66116760	5681aa52
cocer	7cee543e - a97b7d00	ce700802
dar la vuelta	1696d291	35d8523a
disparar	6fd6f453 - f7616462 - 17d2e3f2	0791c255
doblar	51ad2030 - 07629d27 - 38815fa8 - a2e70e22 - 06fd1d19 - 92da1d76 - bf6757c8	b7aaee6a
echar	08be65c2 - bf9a2dd3	6758c46d - fda706f1 - 5fd325cf - 4337deab - 17d778f2 - c6154205 - 6aa3ad82 - b80a3479 - 7912c776 - c1b0fa58
estrujar	56dfcdb3 - a7965352	d600b18d
fijar	72ab7642 - 4576aec1 - 49a1ce70 - 904e9ef2 - 22b57828 - 8b570cd4 - d718342c	fe9fbc09
ir	a076ae54 - d6e46306 - e0e96eee - 368741f7 - d05b0f16 - 755488fd - c23ff6c5 - ccd40c24 - 0ea0ceea - f3a5a603 - bb28bfd3 - 7a8ce3a5 - 28ee6300	360d6147 - f3f2055e
patalear	9f65cce6	dc7fbb74
sustraer	314c901e - bcd19e26	377239cc
tapar	7fb3b0a9 - 9e1fadac - f40ea475 - 0690ef80 - 57b85614 - 86539dfd - 361625c3	d46fb07d

Table 8. Broader range of IMAGACT scenes afforded by AS

Scene ID	Pan-Hispanic	Argentinian Spanish
abollar	47b36a80 - de2d33f3	56dfcdb3
abrochar	c17d7346 - 48f8cb40	99a9351e
acomodar	9acae892 - 7d1e1181	f767c81c - 5661f96d - 65526e2e - 2ba89c57 - 6535ab74 - 6028e753 - fab60b30 - 890a009d - 1f92ccb7 - f9cdc533 - f8eec9b3
acortar	1b143cfd	c90c9cba - 40f4bb0e
adherir	4576aec1	412a742d 663cde6e
aferrar	578cd30d - 7f616113	6a6faa02 - 78cd7672
agarrar	6a6faa02 - a791d3fc - 5194bcc4 - 578cd30d - 78cd7672 - d0fe87b2 - 77ecb817 - 7f616113	2062b7cd - 42a55abc - ee227661 - cf1bbc0c - 810173a7 - 5b182e3d - ce76ec60 - 02bd322a - 2df159ce - e2b87396 - ba6fd3a4 - 46435204 - be0c573d - b9169b02 - ed20ae67 - 824a410d - 661dd1a4 - d6eadd94 - d135260c - c3d6ec50 - f17b2bf8 - d069151b
agredir	3704316c - 941e092d - a6594c70 - 4faba0b4	fe6a72a5
agregar	7f6845c2	b537589d - b9a52f3f - d742a139 - 70e71c09 - 9d1a7c2f - a5fcd850
agrupar	89188c3a - d5556de3 - ff1f0e98 - 122a085d	712bbd90
ahorcar	59c16152 - 2f4c674d	00e2ebd6
alzar	02bd322a - e66365e7 - c208d083 - 7c8975e1 - c9f68892 - a00f9e04 - c3cc3d86 - 13f4f5a2	d4077ef6 - e5bc46ac - edc276eb - c3d6ec50
amasar	cbffbb9f - e5b5012a	0171ddb6
aplicar	2b95177b - 929ca013 - ffe3e14a - dfe4c46c - 93cd4ae8 - b5990d0f - 1ce6d768 - 6f9006e1 - 64fa01f7 - d050fa70 - 25eb6175	26fb83b3 - 58137443 - 6729bc44
aproximar	114fl1e26 - 92f1d3f1 - 42a8a818	49bf57c0

armar	cd143656 - eb31cfda - 9398080f	fa65afaa
arrastar	5ab24f32 - bb2e4076	033699f8
arreglar	3f9fcb40 - 3e7b099e	fab60b30 890a009d
arrojar	7a96d7c6 - ad698935 - cc0b4c9c - 94150cd7 - 2ac4514c - e9f15f34 - a018e0f4 - eb47df9f - 02fa5753 - f224dcf5	54c82c19 - bba92edb - 0fbf36d2 - 7ad955c3 - e646293
asegurar	a7fbffd2 - 8b570cd4	d718342c
aspirar	50b6b744 - 42b2f445	e66d50b9
atacar	7671d68f - 3704316c	7a96d7c6 - ea7a5636
atar	b9e8f561 - 1f0cddd8 - aca69731 - 6cc0259a - 642cef3a - 30d0386d - e5eae1ae - 6c9c89a6 - 80494a8d - a2c0af83	64424689
atraer	e90c1fdc	49bf57c0
atravesar	edce3dbc - 37318b09 - 9cd811ea - d73999c9 - 5d8f5f7f	4ce0740f
bajar	f7d031f2 - 02f9f6ad - 49bf57c0 - 40f4bb0e - 54b039d2 - 8d691556 - 66e70bbe - 2df159ce - 88ea0ee7 - d4d153e0 - c9c1ed52 - 076cbf8e - 8e27b63a - f3c8a282 - abe36a46 - e4a0038d - 42b8ff36 - 3666bd42 - a3dc1426 - 10f4d480 - c7fb768f - f17b2bf8 - d069151b	44a5c5e9 - 4ec3ec0c
bañar	0e9b572b - 38723bcc	a6380f18
bloquear	99bc6c56 - 6155066b	ad6b51ed
capturar	810173a7 - 661dd1a4 - d135260c	39c9c0fe
cargar	23e74200 - 8e42fec8 - f4496d0a - 1b76a07d - 4c367fdd	a4210750 - 4f940de3
cepillar	4d224dfa - 3e7b099e	c2509e47
clavar	72ab7642 - 4846f6fa - 7817b326 - f4157bb2 - 93075a76 - 7eebdeb5 - 5736298b	c6929716
cocinar	7cee543e - 13851207 - e502e943 - ce700802 - ca1cb464 - 8adc8398 - 224f9c0e - 17a56d77 - fb8cfe48	a97b7d00
combatir	94ada9ab - 4b613942	a7332438
comprimir	56dfcdb3 - 4d69cb19 - c0c8caf4 - 85641fd1 - 8b0a5cbb	339ce69c
copiar	bf509d62 - c141dcd	022d5a35 - 4155f6ab
correr	a1d9df5e - 46c9f0c7 - de10acbb	bb2e4076 - f3f2055e - 6aa3ad82 - ea71e493
cortar	5b182e3d - 1b143cfd - c7f269ac - 881bb4fd - 10687827	453e02b2 - 33fe3bcd
dar color	dfe4c46c	cdce35df - c9e4660a - b30908e2
dar vuelta	e8ace0de - fa021b9b - 2b4dafad - 2719fe1b - b0d9301a - db743d6f - 1a30f2ab	57b339d6 - 04e005d0 - c10d014a
dar vueltas	b65d7431 - b1be7903	e23b656d
dañar	0c9d14b5 - 8297d1d2	ef7120db - 47b36a80 - c06775d4 - 8fc6a716 - ee162c31
dejar	cb201447 - 543d60b1 - a9e2f425 - 5f9e05b1 - 5d306b2e - 098bd4a7 - 00f7de3e - 88c65b17 - 755488fd - cc0b4c9c - a86914bc - 8782aff9	a1393182
dejar caer	ccf4163a - e71a396d - 88ea0ee7 - f212268e	a018e0f4
derramar	bf9a2dd3	47f16248
derribar	22fc541c - be7030d2	177c9a33 - 769637b4
descender	b1f14e10 - 8e27b63a - 42b8ff36 - a3dc1426 - 10f4d480 - c7fb768f	076cbf8e - e4a0038d - 3666bd42
desparramar	2068953	2b95177b - c261e917
detener	810173a7 - be893c09 - 0b862fb7 - f3249028 - 3bfa9d9a - c9d944f4 - ad6b51ed - 6155066b	39c9c0fe
diseñar	2fc07a9	67877a62
disponer	30ce5b7d	82c69575 - ba98e0d4
dividir	7b9b200e - 881bb4fd - 5540264b - e3dd144a - be9148b9 - d5556de3 - 1e74ba6c - 31accdc3 - 10687827 - ff1f0e98	652ba164
eleva	02bd322a - c3cc3d86 - e5bc46ac	7c8975e1 - c9f68892 - a00f9e04 - b3ccb8c - 62b6e570

empujar	bb2e4076 - 87eace52 - 18ad2fa9 - 9dd0265d - f7b9693b - 40374041 - 950a69d5 - e017360a - 65431186 - e2abd551 - 9adb3816 - 7912c776	073129b0 - d2a1848e
encarcelar	d846ce14	39c9c0fe
encerrar	d846ce14 - 4c19aaf0	0c78a576 - 7c9c8a3d
envolver	a6e3c83a - 79263991 - c3687dea - 7d221883 - d85fc4c7 - d7047b7e - 5c74ea05	7022dfc1 - a1b719a5
establecer	f5de088c	8e713b99
fumar	42b2f445 - b1d506c4	fd4706f1
girar	b65d7431 - b6b5a7ec - 643335f2 - 35d8523a - 51ad2030 - b1be7903 - 04e005d0 - 0ab55607 - fa021b9b - 2719fe1b - 373a17e4 - b0d9301a - 1dc10d5b - db743d6f	57b339d6 - 4c6c850e - 2b4dafad
guardar	d79f2907 - e2daa382 - d6be5edc - 6028e753 - 8782aff9 - 65a225ed	5baebd72
hacer	ff1f0e98 - bb2939ae - a41a4357 - ca1cb464	20b6e058
hacer oscilar	76b06d89 - 9eaa8462	b47c562c
hacer sonar	7669989f	ca260d40
imitar	022d5a35	4155f6ab
incorporar	7f6845c2	d742a139
instalar	eb31cfda - f5ac6962 - 22b57828 - 7f5bed84 - 6897a17c - 1ec6be5a - 40f45180	fa65afaa - d46fb07d 4846f6fa - 5fd325cf - a039dc9d - d46fb07d - e9ecd308 - 029acd16 - 36d56840 - 1028b2f9 - f4157bb2 - 65a225ed - 23e74200 - 8e42fec8 - f912d1e5 - b537589d - 003a1bba - d6be5edc - 96b29b01 - d5556de3 - c3d6ec50
introducir		
juntar	2f9aa709 - 4404e9dc - 5661f96d - 89188c3a - c9c6b7ac - - 771e4a39 - - 30e2d9d5 - 83b93d26	
lanzar	54c82c19 - ad698935 - 0fbf36d2 - ea7a5636 - 1242c1d7 - f212268e - 2ac4514c - e9f15f34 - 7ad955c3 - a018e0f4 - eb47df9f - 02fa5753 - f224dcf5 - ef646293 - 4337deab	94150cd7 - 7912c776
levantar	159cd55c - 02bd322a - e66365e7 - 8c7ab88a - 7c8975e1 - c9f68892 - a00f9e04 - c3cc3d86 - 78cd7672 - 13f4f5a2 - c208d083 - b3ccb8c	275403a9 - d4077ef6 - 0eece9494 - 48f8cb40
limpiar	b8b614fd - 3ed12183 - 461a19a3 - 6d8b2dba - b21bf135 - 68b6cb1d - 1d69a8a3 - 899d8ea3 - 7c52586a - 4813fc25 - 94c2955e - 514f7463 - 8fc5bb1a - 38723bcc - fab60b30	5e8e746b - 6107d4a7
llevar	02ed8aef - a0e46daa - 436dc4d2 - b22e7a77 - d79f2907 - 78175c17 - 4678aade - 854b578c - 114f1e26 - 33996f73 - 695a1a6c - d061d8c4 - f6f87ef8 - a5feb1ff - 58844c92 - d8128250 - b838e662 - 0b4b4e59 - 2ba89c57 - 39c9c0fe - 6535ab74 - a7499d76 - 12ae2b58 - 509fd5b4 - baf8f210 - 7ead67db - 107c7883 - 9241de4e	7c8975e1 - b511b010 - edc08b7e
luchar	94ada9ab - 4b613942	a7332438
manejar	9a2108c1	f7481998
mantener	88c65b17	a4210750
matar	1198c75b - 00e2ebd6 - 7817b326 - 1b36b77d - 6fd6f453 - 0791c255 - 59c16152	2f4c674d
medir	f5de088c	8e713b99
meter	a1d9df5e - e2a42f35 - d79f2907 - b23c5bda - d1fd8ccf - 93cd4ae8 - 96963d8c - d6e46306 - d846ce14 - 65526e2e - ba374f29 - cd143656 - d6be5edc - 6028e753 - 30ce5b7d - 1f92ccb7 - fa65afaa - 2b01d9fe - 65bf65d6 - 6897a17c - d46fb07d - e9ecd308 - 872d6895 - 01c1cea9 - aa50ac01 - 003a1bba - 029acd16 - 1ec6be5a - 221d064a - 40f45180 - f9cdc533 - e4fd7965 - 36d56840 - b9a52f3f - 8782aff9 - e017360a - 1028b2f9 - f4157bb2 - 65a225ed - 23e74200 - 8e42fec8 - f4496d0a - 4c367idd - f912d1e5 -	6fc11be0 - fa92bcb6 - f4268c0a - af8021aa - e2086427 - 0d541d35 - 2b95177b - 929ca013 - 7cdd6277 - 7ad43911 - 412a742d - 72ab7642 - c6929716 - 6758c46d - 4846f6fa - 7aca7f1e - ddf259a5 - 26fb83b3 - 5661f96d - 114f1e26 - 33996f73 - 695a1a6c - e2daa382 - 4ec3ec0c - 5fd325cf - a1ced582 - b8118dbb - e6cbc994 - 9eaa8462 - 7c9c8a3c - a039dc9d - d4d153e0 - 00f7de3e - f5ac6962 - edc276eb - 98c443fd - a97b7d00 - c8c23bb6 - 901e8dc4 - 9c132333 - 1357e9b1 - a027662f - a86914bc - 30e2d9d5 -

	b5a099a6 - c1b0fa58 - 4ce0740f - b537589d	1b76a07d - 581cb2b4 - d742a139 - 28fa1c89 - 7f5bed84 - 5baebd72 - 8fd5dba9 - 70e71c09 - d0bef002 - 9d1a7c2f
mezclar	6a8c4c1a - 68fef40e - 0171ddb6 - 9303d936 - 395c6918 - 4404e9dc	313bd81b - cddaf95f - 517f0c3d
mover	a1d9df5e - 35d8523a - 1d1b8643 - 2719fe1b - e77a1493 - 4af3b351 - 46c9f0c7 - bb2e4076 - de10acbb - b00d1711 - 6202b31d - 9da1b326 - c97d5b1f - 43a13b60 - 79a52001 - 4ffc551 - 84f67ed4 - 4b5aca02 - 7c62a3c4 - f1f67c26 - 2ec2ad04 - 38e99314 - 66aab9a4 - 7885031e - 69e22a00 - 9f65cce6 - 1b5c247b - fd34e5c3 - f88fd870 - f3a5a603 - c4dd6500 - acfc3f68	92f1d3f1 - 42a8a818 - 190ac296 - a6d302a2 - 808c16de - 6aa3ad82
obstaculizar	424bb396	6155066b
obstruir	99bc6c56 - f40ea475	424bb396
parar	0b862fb7 - f3249028 - 3bfa9d9a - c9d944f4 - ad6b51ed - 6155066b - 581cb2b4	dcf8d26b - c208d083 - b8118dbb - 8355898f
partir	50cfe54a - 0ea0ceea - 10687827 - bd2e9bc4	72394734 - 76ce8741 - 191c35a8 - f3a5a603
pasar	2c8a5bab - 514f7463 - 929ca013 - f18e3b05 - 78b1380e - cb6c0abb - d8f7911e - e23b656d - edce3dbc - 37318b09 - 753e09d7 - 89bc9d69 - 962be8d1 - 18993974 - ce3a00fa - 4ce0740f - d73999c9 - 71aa7253 - e8ace0de - 4c6c850e - 221d064a - 40f45180	93cd4ae8 - 1ce6d768 - afeb48ce - d050fa70 - 25eb6175
patear	dc7fbb74 - 8a55ce82 - a2266c11 - 3150e16b	9f65cce6
pegar	af8021aa - fe9f9e09 - 6a20b972 - 98c4de27 - 7ad43911 - 412a742d - 663cde6e - 79fb887a - 3704316c - 4576aec1 - d46c596f - 3a5785e0 - 4429bcd8 - 5f50f384 - 2331ba91 - 7e462f89 - 941e092d - a6594c70 - 4faba0b4 - fe6a72a5 - de2d33f3 - 4897f314	26fb83b3 - 574e7e01 - d0bef002
peinar	4d224dfa - f9a3552c	3e7b099e
penetrar	5d8f5f7f - 93075a76	4846f6fa - 7ddd93a3
picar	8ebd0370 - 9513ce15	64f934cd
pinchar	366cbcc5 - adce04ae	c6929716
pisar	a0a2a868 - 593b8326 - fff0451e - 9adb3816 - b387fc12	b76910e6 - dcc0ea13
plegar	b7aaee6a - a2e70e22 - 06fd1d19 - 92da1d76	d600b18d
poner	a1d9df5e - 6fc11be0 - fa92cbcb - af8021aa - 02ed8aef - 6129198f - b23c5bda - 7cdd6277 - 7ad43911 - 412a742d - 72ab7642 - c6929716 - 93cd4ae8 - 7aca7f1e - ddf259a5 - 26fb83b3 - 9e1fadac - cb201447 - 96963d8c - b037b3ca - 5661f96d - 33996f73 - 4e6a5715 - 64424689 - 0690ef80 - c9f68892 - 4ec3ec0c - 65526e2e - a1ced582 - b8118dbb - e6cbc994 - 9eaa8462 - 7c9c8a3d - a039dc9d - d4d153e0 - cd143656 - deebec27 - 7f6845c2 - 58137443 - d6be5edc - 00f7de3e - 6028e753 - 82c69575 - 8355898f - 1f92ccb7 - fa65afaa - f5ac6962 - 2b01d9fe - 65bf65d6 - 97c66b0d - 6897a17c - edc276eb - 98c443fd - a1b719a5 - 6729bc44 - c8c23bb6 - e9ecd308 - 901e8dc4 - 872d6895 - 01c1cea9 - 9c132333 - 003a1bba - 029acd16 - 1ec6be5a - f9cdc533 - 1357c9b1 - a027662f - a86914bc - b9a52f3f - 8782aff9 - 22b57828 - e017360a - 1028b2f9 - f8eec9b3 - 30e2d9d5 - 86539dfd - 65a225ed - 23e74200 - 8e42fec8 - f4496d0a - 1b76a07d - 4c367fdd - f912d1e5 - 581cb2b4 - d742a139 - 7f5bed84 - 5baebd72 - b5a099a6 - 8fd5dba9 - 70e71c09 - d0bef002 - c1b0fa58 - 4ce0740f - 0d541d35 - 2b95177b - 2ba89c5 - 114f1e26	929ca013 - 6758c46d - 4846f6fa - 695a1a6c - 7c8975e1 - 54b039d2 - ba374f29 - 30ce5b7d - d46fb07d - cc0b4c9c - a97b7d00 - 221d064a - 40f45180 - e4fd7965 - 36d56840 - f4157bb2 - 28fa1c89 - 9d1a7c2f

posar	dcf8d26b - e6cbc994	f4268c0a
prolongar	58b9ca2f	31a4fbab - 10da71e7
pulir	d855332a - cd5da968	20abf733
punzar	366cbcc5	8ebd0370 - adce04ae
quebrar	32c1b1fc - 191c35a8 - 50cfe54a	dc8b7a90 - 1e74ba6c
repartir	abc2d9c6 - fc02c24b - be9148b9	881bb4fd - ba98e0d4 - 10687827
retirar	cdb3fc32 - 9210576e - 4af3b351 - ec7f2dab - ac4f0732 - d8128250 - b838e662 - 29a67824 - 680e026f - d05b0f16 - 755488fd - d1aa852d - 7ead67db - 41f361e3 - 38a720a0	42a55abc - 275403a9 - 0ea0ceea
revolver	cdad95f - - 68fef40e - 9303d936	313bd81b - 01ab1467 - 517f0c3d
sacar	9210576e - 42a55abc - de7df09f - 662ce694 - d98a112e - - e2b87396 - - ac4f0732 - ba6fd3a4 - daafec4e - d4c0c55a - 680e026f - d1aa852d - 20a3afa2 - 7ead67db - 073129b0 - 7912c776 - f17b2bf8 - d069151b - 38a720a0 - 4813fc25 - d2a1848e	881bb4fd - ba98e0d4 - 10687827 - 57047b62 - a5feb1ff - 314c901e - e4a4c249 - 377239cc - 6d2ad6b7 - d8128250 - b838e662 - 29a67824 - 6107d4a7 - c7f269ac - 13f4f5a2 - 4e46927e - cde3d375 - 404a4743 - abe36a46 - 73910f1d - fddcd603 - 370ffec - 8a82595b - 2b8c80d4
salir	0e9976d7 - 72394734 - f3f2055e - c7fb768f - 9ea0e1a9 - ad92728e - bd2e9bc4	6aa3ad82
situar	581cb2b4	ba374f29
sonar	ca260d40	bbc50559 - 93c459f9
sostener	de489feb - a4210750 - a7fbffd2 - ce0b9c67 - 9f0fae8b - 77ecb817 - 88c65b17 - bf302206 - d5404ff8	c6929716 - 65526e2e - 5194bcc4
succionar	e66d50b9	149040b2
sujetar	17cd5cdb - de489feb - a4210750 - a7fbffd2 - d0fe87b2 - 80494a8d - 9f0fae8b - d5404ff8 - 7f616113 - 77ecb817	7856aeed - b9e8f561 - 1f0cddd8 - 6cc0259a - 642cef3a - 30d0386d - e5eae1ae - 6c9c89a6 - a2c0af83 - 99a9351e - 6155066b
tener	f6f87ef8 - ce0b9c67 - 88c65b17 - bf302206 - d5404ff8 - 7f616113	de489feb - 9f0fae8b - 77ecb817
tomar	ef0f54ca - 153338fe - c77b5cb4 - de1beda3 - d0fe87b2 - efbce44ef	2062b7cd - 42a55abc - 6a6faa02 - ee227661 - 5b182e3d - 4678aade - a791d3fc - 02bd322a - 2df159ce - ba6fd3a4 - 46435204 - be0c573d - ed20ae67
transportar	a7499d76 - b511b010	a5feb1ff - 0b4b4e59
trasladar	ab2e05ac - a7499d76 - b511b010 - 033699f8	0b4b4e59 - b2df8d1d
traspasar	edce3dbc	5d8f57f7
trotar	73560c3c	de10acbb
tumbar	dc6d79ea - 1b2edd0d - be7030d2	44a5c5e9 - fa8b83ea - db0c3e10 - 177c9a33 - f80f1704 - 5bad2755 - 769637b4
ubicar	ba374f29 - 581cb2b4	82c69575
unir	fe9fbe09 - 0d46d7ea - 4404e9dc - 4576aec1 - d46c596f - 68a63392 - 838d9dd7	d1fd8ccf - 99acf21a - 0171ddb6 - 395c6918 - 6ca337e5
verter	6758c46d	47f16248 - db0c3e10
volar	1d1b8643 - dd62d515 - 6202b31d - 9a2108c1 - 7a8ce3a5 - c2cd24f8	d44a52fc

Table 9. Different extensions in ES and AS

Scene ID	Pan-Hispanic	European Spanish	Argentinian Spanish
cerrar	f7d031f2 - ee7c4403 c2003ea7 - e5eae1ae d939bd6b - c4574c65 d15cbeb7 - 2242009 9d7c36a1 - 97548006 0690ef80 - 927b115d 75cca320 - 1924f545 7c9c8a3d - 26d67278 580381bb - 83b93d26 e2daa382	9e1fadac - c90c9cba	99bc6c56 - 48f8cb40
colocar	a1d9df5e - fa92bcb6	890a009d	ba374f29 - 5baebd72

Scene ID	Pan-Hispanic	European Spanish	Argentinian Spanish
	f4268c0a - e2086427 - ddf259a5 - cb201447 - 64424689 - 4ec3ec0c - a1ced582 - d4d153e0 - 00f7de3e - 82c69575 - 30ce5b7d - 1f92ccb7 - f5ac6962 - ba98e0d4 - 901e8dc4 - 9c132333 - 003a1bba - 029acd16 - 22b57828 - 30e2d9d5 - 65a225ed - 23e74200 - 1b76a07d - 4c367fdd - f912d1e5 - 581cb2b4 - 7f5bed84 - b5a099a6 - 8fd5dba9 - d0bef002 - 8b570cd4 - baf8f210 - fa65afaa		c1b0fa58
dar	854b578c - f18e3b05 - a9e2f425 - 4ca8b584 - 12ae2b58 - efac55e2 - 6d1156b5 - abc2d9c6 - fc02c24b - 5009a259 - fadcc7e9 - 78b1380e - cb6c0abb - 124882ce - 028bfd57 - d8f7911e - 1b340b34	b65c0531	74b0e8fa
enganchar	0d46d7ea - 17cd5cdb	cfae7563	d1fd8ccf
estirar	7cdd6277 - ba5d5b21 - 14ecdbe2 - ffe4d67b - 31a4fbab - b673e6af - 61cde22f - 932f4654 - 21f0f19d - 7c8a3c70 - 33996f73 - 9bd1575e	13f786f0	159cd55c - 9609a67f - 4e215211 - 02f9f6ad - 8c7ab88a - 10da71e7
extender	7cdd6277 - ba5d5b21 - 14ecdbe2 - 66279bb3 - 31a4fbab - b673e6af - 7f359d29 - 13f786f0	2068953	08be65c2 - dd5c83dc - 932f4654 - 10da71e7
golpear	4897f314 - 98c4de27 - 79fb887a - 3704316c - b9169b02 - dc7fbb74 - 3a5785e0 - 4429bcd8 - 5f50f384 - 2331ba91 - 574e7e01 - 7e462f89 - 941e092d - a6594c70 - 4faba0b4 - fe6a72a5 - 4bba042b - de2d33f3 - 8a55ce82	124882ce	1ab992e7 - 26d67278 - 08b5207c - 42eed396 - ad698935
insertar		4846f6fa	b537589d - 872d6895 - 1ec6be5a - 221d064a - 40f45180 - e4fd7965 - f4157bb2
quitar	66a4750b - f64b7267 - cf1bbc0c - 8fc5bb1a - 275403a9 - d98a112e - ec7f2dab - bcd19e26 - 377239cc - e2b87396 - ac4f0732 - daafec4e - d8128250 - b838e662 - d4c0c55a - 29a67824 - 680e026f - c7f269ac - 13f4f5a2 - d1aa852d - 4e46927e - cde3d375 - 20a3afa2 -	662ce694 - 33fe3bcd - e4a4c249 - 6d2ad6b7 - f3f2055e - 2b8c80d4	42a55abc - 6107d4a7

Scene ID	Pan-Hispanic	European Spanish	Argentinian Spanish
	404a4743 - 6aa3ad82 - f17b2bf8 - d069151b - 38a720a0 - cdb3fc32 - 9210576 - abe36a46 - 41f361e3 - fddcd603 - 370ffea 7db069aa - c3d6ec50	edc08b7e	de7df09f - d6be5edc - 96b29b01 - 771e4a39 f64b7267 - 9210576e - 8fc5bb1a - 662ce694 - 275403a9 - d1aa852d
recoger			
remover	313bd81b - cddaf95f - 01ab1467	68fef40e	
tirar	54c82c19 - 7c8a3c70 - 9241de4e - d061d8c4 - 771b36b6 - 5fd325cf - 29c28bc0 - 7a96d7c6 - a5c57d33 - 178fcb68 - 1b2edd0d - 43b25b0c - e641da8e - 033699f8 - be7030d2 - ad698935 - cc0b4c9c - bba92edb - 0fbf36d2 - 94150cd7 - 17d2e3f2 - f212268e - 9bd1575e - 8a82595b - 2ac4514c - e9f15f34 - 7ad955c3 - a018e0f4 - eb47df9f - 02fa5753 - f224dcf5 - f8bab7fc - ef646293 - dc6d79ea - 28103edb	db0c3e10 - 177c9a33 - 509fd5b4	17d778f2 - f7616462 - c6154205 - 7912c776 - c1b0fa58
cerrar	f7d031f2 - ee7c4403 - c2003ea7 - e5eae1ae - d939bd6b - c4574c65 - d15cbeb7 - 2242009 - 9d7c36a1 - 97548006 - 0690ef80 - 927b115d - 75cca320 - 1924f545 - 7c9c8a3d - 26d67278 - 580381bb - 83b93d26 - e2daa382	9e1fadac - c90c9cba	99bc6c56 - 48f8cb40
colocar	a1d9df5e - fa92bcb6 - f4268c0a - e2086427 - ddf259a5 - cb201447 - 64424689 - 4ec3ec0c - a1ced582 - d4d153e0 - 00f7de3e - 82c69575 - 30ce5b7d - 1f92ccb7 - f5ac6962 - ba98e0d4 - 901e8dc4 - 9c132333 - 003a1bba - 029acd16 - 22b57828 - 30e2d9d5 - 65a225ed - 23e74200 - 1b76a07d - 4c367fdd - f912d1e5 - 581cb2b4 - 7f5bed84 - b5a099a6 - 8fd5dba9 - d0bef002 - 8b570cd4 - baf8f210 - fa65afaa	890a009d	ba374f29 - 5baebd72 - c1b0fa58
dar	854b578c - f18e3b05 - a9e2f425 - 4ca8b584 - 12ae2b58 - efac55e2 - 6d1156b5 - abc2d9e6 - fc02c24b - 5009a259 - fadcc7e9 - 78b1380e -	b65c0531	74b0e8fa

Scene ID	Pan-Hispanic	European Spanish	Argentinian Spanish
	cb6c0abb - 124882ce - 028bfd57 - d8f7911e - 1b340b34		
enganchar	0d46d7ea - 17cd5cdb	cfae7563	d1fd8ccf
estirar	7cdd6277 - ba5d5b21 - 14ecdbe2 - ffe4d67b - 31a4fbab - b673e6af - 61cde22f - 932f4654 - 21f0f19d - 7e8a3c70 - 33996f73 - 9bd1575e	13f786f0	159cd55c - 9609a67f - 4e215211 - 02f9f6ad - 8c7ab88a - 10da71e7
extender	7cdd6277 - ba5d5b21 - 14ecdbe2 - 66279bb3 - 31a4fbab - b673e6af - 7f359d29 - 13f786f0	2068953	08be65c2 - dd5c83dc - 932f4654 - 10da71e7
golpear	4897f314 - 98c4de27 - 79fb887a - 3704316c - b9169b02 - dc7fb74 - 3a5785e0 - 4429bcd8 - 5f50f384 - 2331ba91 - 574e7e01 - 7e462f89 - 941e092d - a6594c70 - 4faba0b4 - fe6a72a5 - 4bba042b - de2d33f3 - 8a55ce82	124882ce	1ab992e7 - 26d67278 - 08b5207c - 42eed396 - ad698935
insertar		4846f6fa	b537589d - 872d6895 - 1ec6be5a - 221d064a - 40f45180 - e4fd7965 - f4157bb2
quitar	66a4750b - f64b7267 - cf1bbc0c - 8fc5bb1a - 275403a9 - d98a112e - ec7f2dab - bcd19e26 - 377239cc - e2b87396 - ac4f0732 - daafec4e - d8128250 - b838e662 - d4c0c55a - 29a67824 - 680e026f - c7f269ac - 13f4f5a2 - d1aa852d - 4e46927e - cde3d375 - 20a3afa2 - 404a4743 - 6aa3ad82 - f17b2bf8 - d069151b - 38a720a0 - cdb3fc32 - 9210576 - abe36a46 - 41f361e3 - fddcd603 - 370ffeac	662ce694 - 33fe3bcd - e4a4c249 - 6d2ad6b7 - f3f2055e - 2b8c80d4	42a55abc - 6107d4a7
recoger	7db069aa - c3d6ec50	edc08b7e	de7df09f - d6be5edc - 96b29b01 - 771e4a39
remover	313bd81b - cddaf95f - 01ab1467	68fef40e	f64b7267 - 9210576e - 8fc5bb1a - 662ce694 - 275403a9 - d1aa852d
tirar	54c82c19 - 7c8a3c70 - 9241de4e - d061d8e4 - 771b36b6 - 5fd325cf - 29c28bc0 - 7a96d7c6 - a5c57d33 - 178fcb68 - 1b2edd0d - 43b25b0c - e641da8e - 033699f8 - be7030d2 - ad698935 - cc0b4c9c - bba92edb - 0fbf36d2 - 94150cd7 - 17d2e3f2 - f212268e - 9bd1575e - 8a82595b -	db0c3e10 - 177c9a33 - 509fd5b4	17d778f2 - f7616462 - c6154205 - 7912c776 - c1b0fa58

Scene ID	Pan-Hispanic	European Spanish	Argentinian Spanish
cerrar	2ac4514c - e9f15f34 - 7ad955c3 - a018e0f4 - eb47df9f - 02fa5753 - f224dcf5 - f8bab7fc - ef646293 - dc6d79ea - 28103edb	9e1fadac - c90c9cba	99bc6c56 - 48f8cb40
	f7d031f2 - ee7c4403 - c2003ea7 - e5eae1ae - d939bd6b - c4574c65 - d15cbeb7 - 2242009 - 9d7c36a1 - 97548006 - 0690ef80 - 927b115d - 75cca320 - 1924f545 - 7c9c8a3d - 26d67278 - 580381bb - 83b93d26 - e2daa382		
	a1d9df5e - fa92bcb6 - f4268c0a - e2086427 - ddf259a5 - cb201447 - 64424689 - 4ec3ec0c - a1ced582 - d4d153e0 - 00f7de3e - 82c69575 - 30ce5b7d - 1f92ccb7 - f5ac6962 - ba98e0d4 - 901e8dc4 - 9c132333 - 003a1bba - 029acd16 - 22b57828 - 30e2d9d5 - 65a225ed - 23e74200 - 1b76a07d - 4c367fdd - f912d1e5 - 581cb2b4 - 7f5bed84 - b5a099a6 - 8fd5dba9 - d0bef002 - 8b570cd4 - baf8f210 - fa65afaa	890a009d	ba374f29 - 5baebd72 - c1b0fa58
	854b578c - f18e3b05 - a9e2f425 - 4ca8b584 - 12ae2b58 - efac55e2 - 6d1156b5 - abc2d9c6 - fc02c24b - 5009a259 - fadcc7e9 - 78b1380e - cb6c0abb - 124882ce - 028bfd57 - d8f7911e - 1b340b34	b65c0531	74b0e8fa
	0d46d7ea - 17cd5cdb 7cdd6277 - ba5d5b21 - 14ecdbe2 - ffe4d67b - 31a4fbab - b673e6af - 61cde22f - 932f4654 - 21f0f19d - 7c8a3c70 - 33996f73 - 9bd1575e	cfac7563 13f786f0	d1fd8ccf 159cd55c - 9609a67f - 4e215211 - 02f9f6ad - 8c7ab88a - 10da71e7
	7cdd6277 - ba5d5b21 - 14ecdbe2 - 66279bb3 - 31a4fbab - b673e6af - 7f359d29 - 13f786f0	2068953	08be65c2 - dd5c83dc - 932f4654 - 10da71e7
	4897f314 - 98c4de27 - 79fb887a - 3704316c - b9169b02 - dc7fbb74 - 3a5785e0 - 4429bed8 - 5f50f384 - 2331ba91 - 574e7e01 - 7e462f89 - 941e092d - a6594c70 - 4faba0b4 - fe6a72a5 - 4bba042b - de2d33f3 -	124882ce	1ab992e7 - 26d67278 - 08b5207c - 42eed396 - ad698935

Scene ID	Pan-Hispanic	European Spanish	Argentinian Spanish
insertar	8a55ce82	4846f6fa	b537589d - 872d6895 - 1ec6be5a - 221d064a - 40f45180 - e4fd7965 - f4157bb2
quitar	66a4750b - f64b7267 - cf1bbc0c - 8fc5bb1a - 275403a9 - d98a112e - ec7f2dab - bcd19e26 - 377239cc - e2b87396 - ac4f0732 - daafec4e - d8128250 - b838e662 - d4c0c55a - 29a67824 - 680e026f - c7f269ac - 13f4f5a2 - d1aa852d - 4e46927e - cde3d375 - 20a3afa2 - 404a4743 - 6aa3ad82 - f17b2bf8 - d069151b - 38a720a0 - cdb3fc32 - 9210576 - abe36a46 - 41f361e3 - fddcd603 - 370ffea	662ce694 - 33fe3bcd - e4a4c249 - 6d2ad6b7 - f3f2055e - 2b8c80d4	42a55abc - 6107d4a7
recoger	7db069aa - c3d6ec50	edc08b7e	de7df09f - d6be5edc - 96b29b01 - 771e4a39 f64b7267 - 9210576e - 8fc5bb1a - 662ce694 - 275403a9 - d1aa852d
remover	313bd81b - cddaf95f - 01ab1467	68fef40e	
tirar	54c82c19 - 7c8a3c70 - 9241de4e - d061d8c4 - 771b36b6 - 5fd325cf - 29c28bc0 - 7a96d7c6 - a5c57d33 - 178fcb68 - 1b2edd0d - 43b25b0c - e641da8e - 033699f8 - be7030d2 - ad698935 - cc0b4c9c - bba92edb - 0fbf36d2 - 94150cd7 - 17d2e3f2 - f212268e - 9bd1575e - 8a82595b - 2ac4514c - e9f15f34 - 7ad955c3 - a018e0f4 - eb47df9f - 02fa5753 - f224dcf5 - f8bab7fc - ef646293 - dc6d79ea - 28103edb	db0c3e10 - 177c9a33 - 509fd5b4	17d778f2 - f7616462 - c6154205 - 7912c776 - c1b0fa58