

Language and Bilingual Cognition

Edited by Vivian Cook and
Benedetta Bassetti

2011

 Psychology Press
Taylor & Francis Group
NEW YORK AND HOVE

18 *Yo no lo tiré, se cayó solito,* *'I did not throw it, it just fell* *down': Interpreting and* *recounting accidental events in* *Spanish and English*

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2011

In recent years a number of studies have begun to explore how structural characteristics of different languages shape language users' cognitive processing (Green, 1998; Levinson, Kita, Haun, & Rasch, 2002; Yoshida & Smith, 2005). Whereas the majority of studies on this issue have focused on monolingual users, an increasing number have begun to use second language learners or bilinguals (e.g., Basseti, 2007; Cook, Basseti, Kasai, Sasaki, & Takahashi, 2006). Kousta, Vinson, and Vigliocco (2008) advocate studies that include both monolinguals and bilinguals as a new way of approaching the topic of the link between language and thought. They note that if language indeed affects cognition, then one could hypothesize an effect of the second language on the 'cognitive dispositions' associated with a first language (Kousta et al., 2008, p. 844), or vice versa. Use of monolinguals and bilinguals in the same study could also, it is proposed, offer a way of investigating the degree to which semantic representations of the bilingual's two languages are functionally autonomous. An autonomous view would be supported if bilinguals' performance in each of their languages is indistinguishable from that of monolingual counterparts. By contrast, an interactionist view would be supported if bilinguals' performance is influenced by their knowledge of the other language and, thus, differs from the performance of monolingual counterparts.

Several recent cross-linguistic studies have begun to explore how systematic differences between languages in the coding of such things as number (Athanasopoulos, 2006), grammatical gender (Basseti, 2007; Kousta et al., 2008), or motion (Slobin, 2003) affect the way in which speakers perceive, attend to, describe, or remember objects, individuals, or events. With respect to the lexicalization of motion events, for example, Spanish and English speakers stand at different ends of a continuum. The pattern favored in Spanish, a so-called 'verb-framed' language, is for path of movement to be expressed primarily by the main verb, whereas the pattern favored in English, a so-called 'satellite-framed' language, is for

path of movement to be expressed as a satellite (i.e., as a particle or preposition). Thus, a bottle moving on top of the water past a rock would be described by an English speaker as *The bottle floated past the rock* but the same event would be described by a Spanish speaker as *La botella pasó por la piedra, flotando/The bottle passed by the rock, floating* (Cifuentes-Férez & Gentner, 2006). Although the evidence is mixed as to whether these linguistic differences give rise to differential event memory in English and Spanish speakers, clear differences have been found in how Spanish and English speakers describe motion events (Slobin, 1996), and in the mental images of motion events evoked by the same text presented in English and Spanish (Slobin, 2003). Moreover, differences in the naming of motion events in Spanish and English extend even to novel motion verbs (Cifuentes-Férez & Gentner, 2006). To the extent that in verb-framed languages the action rather than the doer of the action appears to be foregrounded, one may ask if agents tend to be mentioned less often in descriptions of events by speakers of verb-framed languages vs satellite-framed ones. The present research addressed this question experimentally in monolingual and bilingual speakers of Spanish and English.

The same scene or event may be described differently by different speakers depending on the speaker's point of view or conceptualization of the event, and on the communicative intention in the discourse context. A given event could be conceptualized in terms of an underlying notion of causation in which there is a fully specified agent responsible for precipitating the actions described in the event. Alternatively, the same event could be described as 'just happening' without a particular causal agent implicated. Cross-linguistic analyses indicate that languages differ in the structural options they provide for expressing causation (Song & Wolff, 2003). Although all languages can convey direct and indirect causes of events, speakers of some languages, such as English, are more inclined to specify agents whereas speakers of other languages, such as Spanish, are less inclined to do so. For example, in English, depending on the emphasis one wants to convey, one can talk about an event either by explicitly associating it with a causal agent, as in *Mary broke a glass*, in which case the emphasis is presumably on Mary as the responsible party, or by not overtly identifying an agent, e.g., through use of the passive voice (*The glass was broken*) or use of an active voice with an intransitive verb (*When Mary was reaching for her napkin, her glass tipped over, fell, and broke*). In Spanish, likewise, one can highlight the agent by using an active voice with a fully specified agent and a transitive verb, e.g., *Ana olvidó las llaves de Pedro* 'Ana forgot Pedro's keys' or one can de-emphasize the agent by using a passive construction comparable to the English one, e.g., *Las llaves fueron olvidadas* 'The keys were forgotten'. However, a more common way of de-emphasizing agency in Spanish is by using the reflexive pronoun *se*, also known as the impersonal *se*. So, for example, for the English sentence *Ana forgot Pedro's keys* a non-agentive form of expressing it in Spanish would

be *A Ana se le olvidaron las llaves de Pedro* 'The keys were forgotten unto Ana'. In the Spanish impersonal *se* form of the sentence, which has no real equivalent in English, the emphasis is presumed to be on the fact that the keys were not remembered; there is no implicit fault intended to be inferred, such as that this was due to Ana's forgetfulness (Rivero, 2004).

Whereas the Spanish reflexive passive and reflexive impersonal both show the sequence *se* V DP, they differ syntactically. In the reflexive passive, the *se* checks accusative case, and the internal argument (DP) bears nominative case and triggers agreement on the verb; in the reflexive impersonal construction the *se* checks nominative case and the internal argument bears accusative case (Tremblay, 2005).

There is also a passive impersonal *se* construction, in which one uses *se* with a verb in the third person singular or plural to de-emphasize the subject, as in *Se habla español*, 'Spanish is spoken here', or *Se reparan coches*, 'Cars are repaired here'. Intransitive verbs use *se* + the third person singular to express passive meaning, e.g., *Se sale por aquí*, 'You go out this way' or 'This is the way out' (Bradley & MacKenzie, 2004).

The impersonal *se* has long been considered by scholars as an indicator of an indeterminate subject (Babcock, 1970), or a device that serves to 'defocus' or take attention away from the agent (García, 1975, p. 197). The impersonal *se* in Spanish provides a way of talking about things that occur when the agent is either unknown or else considered unimportant, relative to the action described. In such cases, although reference may be made to a human participant, he or she is not necessarily described as causing the event (Haverkate, 2004).

Indeed, an acknowledged use of *se* is for unplanned or accidental occurrences. In this use the speaker seeks to avoid responsibility for an action; for example, a speaker may say *no lo rompí, patrón*. *Se me rompió* (lit: 'I did not break it, Sir. It broke to me') to reflect that he/she did not break a glass but that it just broke by itself (Bull, 1965, cited in Schmitz, 1966). Aside from the use of the reflexive *se* for accidental or unpremeditated occurrences, Schmitz (1966) identifies two other uses of the *se* *me*, *se* *le* construction, based on an analysis of literary texts: for involuntary physiological or emotional reactions over which the speaker has little or no control (e.g., *Se me hace agua la boca*, 'My mouth is watering'; *Se me sube la sangre a la cabeza*, 'My blood is going to my head') and for figurative expressions of catastrophic events (e.g., *Se los tragó la tierra*, 'The earth swallowed them up'). Whereas events in the latter case are always unplanned from the speaker's perspective, those in the first category (reflexive for unplanned, unpremeditated occurrences) are somewhat different in that they could change from a deliberate to an accidental pattern (*Rompí el vaso/Se me rompió el vaso*, 'I broke the glass/The glass broke unto me').

Given that the polysemous *se* clitic in Spanish offers an explicit way of de-emphasizing agency and that an equivalent structure is not present in English, one may well ask if agenthood is less prominent psychologically

for Spanish than for English speakers when characterizing or remembering events. We are using the term 'agent' here to refer to the participant described in a sentence that acts in an intentional or voluntary manner to initiate the action; 'patient' here refers to the participant affected by the action of the agent. A further question of interest is whether the source of a difference in the prominence of agency lies in linguistic or cultural conventions (e.g., Slobin, 2003). Although important, it is not necessary at this stage to resolve whether language or culture undergirds an individual's choice of agent or agentless expressions to describe events. The aim of the present research was simply to establish (1) if there is a greater preference for non-agentive conceptualization of events in Spanish than in English among Spanish-English bilinguals when describing unplanned or accidental occurrences, and (2) whether prior knowledge of Spanish contributes to a lower overall incidence of agentive conceptualizations even when events are being described in English.

Linguistic analyses attest to the many varied functions of the 'multiply ambiguous' *se* clitic in Spanish (Babcock, 1970; Bello & Cuervo, 1960; Hidalgo, 1994; Roldán, 1971). Not only does it mark direct and indirect objects, it also can indicate two types of co-reference—reflexivity and reciprocity, as well as a broad range of so-called middle voice functions, that is, where the focus is on a specific part of an event, such as its abruptness or accidentality (these functions are described further below). Given its many and varied uses, it is not surprising that a grammaticality judgment study found that the impersonal *se* construction was not fully mastered even by fairly advanced second language learners of Spanish, as compared to native speakers (Tremblay, 2005).

Two corpus studies provide insights into the relative frequency of occurrence of different impersonal forms in standard written Spanish texts. Hidalgo (1994), examining news stories from the Madrid newspaper *El País*, found a high frequency of use of the passive *se* and impersonal *se* constructions, indicating that these are fairly common in formal registers. More recently, an extensive corpus study of 450,000 words extracted from books, magazines, and newspapers in Spanish across an array of genres found 2395 occurrences of the word *se* (Meseguer, Acuna-Farina, & Carreiras, 2009). Of these, the vast majority of occurrences (over 60%) involved the aspectual use, that is, co-occurrences of *se* with specific verbs, such as *ir* ('go'), as in *Juan se fue*, 'John left', or middle uses of verbs such as *secar* ('dry') as in *la ropa se secó rápidamente*, 'the clothes dried quickly'. Only 14% were reflexive uses, 7.4% were impersonal uses, and 8.0% were passive uses, with the remainder being indirect or reciprocal uses.

Jackson-Maldonado, Maldonado, and Thal (1998) conducted a developmental study of the acquisition of the *se* construction in native speakers of Mexican Spanish, based on recordings of naturalistic language samples. Whereas traditional grammars (e.g., Bello & Cuervo, 1960) have regarded all occurrences of *se* as either derived from a type of reflexive or

as an unanalyzed, memorized form, the study by Jackson-Maldonado et al. (1998) found that the earliest uses of *se*, from around 3 years of age, show a clear differentiation between a reflexive and a middle usage. In contrast to reflexives, in middle-marking systems the initiator of the action cannot be distinguished from the undergoer. Of the total number of utterances in which *se* was used in the language samples by the children, Jackson-Maldonado et al. (1998) found that the vast majority of uses (87%) were middle forms (that is, forms in which there was not a clear differentiation of the agent and the patient thematic roles), with only 9% being true reflexive forms. The most frequently occurring middle forms they noted were those referring to motion (32%) and unexpected change (30%), and change of state—whether physical or emotional—accounted for 10% of the uses of *se*. These findings led Jackson-Maldonado et al. (1998) to propose that the earliest uses of *se* involve a strategy of focusing on change: 'the *se* marker functions as an aspectual marker of inceptivity, inchoativity, abruptness and even pragmatic factors related to accidentality and unexpectedness' (p. 404). The authors further note that 'focusing on the pivotal moment of change also allows elimination of subject responsibility' (p. 408). Use of *se* to mark avoidance of responsibility has also been observed in two previous studies of Spanish-speaking children (López-Ornat, 1994; Martínez, 2000).

There are few studies of actual use of the various impersonal forms by Spanish-speaking adults. Jisa, Reilly, Verhoeven, Baruch, and Rosado (2002) conducted a cross-linguistic study of the use of the passive voice construction in written texts produced by native speakers of Spanish, Dutch, English, French, and Hebrew from four age groups (9–10 years, 12–13, 15–16, and adults). They hypothesized that languages such as Hebrew and Spanish, which allow null subject constructions in simple clauses, have rich subjectless impersonal constructions that provide an alternative to passive constructions, and have productive morphological means for middle voice constructions, should show fewer use of passives than languages that mark subjects and lack middle voice constructions. Their results showed that, as hypothesized, passive constructions were used significantly less by Spanish and Hebrew speakers relative to Dutch, English, and French speakers.

Two additional studies with Spanish speakers are of particular relevance to the present research. The first is a study by Berk-Seligson (1983), who examined whether Spanish speakers use non-agentive constructions to describe adverse events and whether they do so deliberately as a way of avoiding attributing responsibility to an agent. Respondents, who were high-school students in Costa Rica, were shown two sets of line drawings depicting accidental or adverse events. The first drawing, for example, showed a boy reaching for his back pants pocket; something that looked like a handkerchief dangled from the pocket and a large coin fell from the pocket to the ground. Participants were to answer in a single sentence what

happened, then explain more fully what happened, and then write an imaginary dialogue between the actors in the drawings and their respective mothers. Using this approach, Berk-Seligson was able to study not just how the adverse incidents were characterized (the relative use of agentive versus non-agentive forms) but also whether use of non-agentive constructions was intended by speakers and interpreted by hearers as a way of avoiding attributing responsibility to an agent. Indeed, Berk-Seligson concludes that her findings support the existence of a 'culturally prominent mode of discourse in Costa Rican Spanish, namely, one which avoids both the mention of agents and the use of active voice in adverse situations' (1983, p. 145).

The second study of relevance to the present research is reported in an unpublished manuscript by Fausey and Boroditsky (in press), who examined elicited descriptions by English and Spanish speaking monolingual adults of videotaped portrayals of intentional and accidental events. Participants included 113 English-speaking monolinguals and 109 Chilean Spanish-speaking monolinguals. Fausey and Boroditsky found no differences between the two groups in the description of intentional events but, when describing accidental events, agentive language was used much more often by the English than by the Spanish speakers. The authors further tested whether differences in use of agentive constructions differentially affected participants' memory for the agents of intentional versus accidental actions. Memory was tested after presentation of a brief distractor task following videotapes of the events. Participants' memory for agents of accidental events was better among English than Spanish speakers, whereas memory for agents of intentional events did not differ between the two groups (Fausey & Boroditsky, in press). This study extends the previous findings by Berk-Seligson (1983) in indicating that there is a clear de-emphasis of agents on the part of Spanish speakers when describing scenes involving accidental events which, in turn, lowers participants' accuracy of recalling the agents of the events.

The studies reviewed above were on monolingual speakers of Spanish and English. We were able to find only two published studies of use of impersonal Spanish forms in Spanish-English fluent bilinguals. Morales (1995) observed the use of Spanish impersonal forms in the spontaneous discourse of 47 Spanish-English bilingual Americans originally from Puerto Rico and Spanish-speaking monolinguals living in Puerto Rico. Respondents were recorded talking about their happiest or saddest experiences in Spanish. It was found that, in contrast to monolinguals, the bilinguals tended not to use *se* for inclusive reference, that is, to refer to situations that involved the speakers. The distinction between inclusive and exclusive use of a form is thought to provide an indication of the degree of involvement of the speaker in the events or ideas expressed. Morales suggested that the lack of use of *se* by bilinguals to convey inclusive reference may reflect a process of simplification and/or an influence of English schooling.

Gervasi (2007) investigated the use of various Spanish impersonal forms in conversation. Her data were drawn from a corpus of 30-minute interviews with 19 third-generation Mexican Spanish-English speakers in the American southwest and 5 Spanish-speaking monolingual speakers in Mexico City. Similar to Morales (1995), Gervasi (2007) found subtle discourse differences between her bilingual and monolingual samples' use of *se*, which she interpreted as a possible effect of linguistic convergence, i.e., the influence of exposure to English on the Spanish language use of the bilinguals. While intriguing, these largely observational studies are based on fairly small samples and do not, therefore, permit firm generalizations. They, do, however, point to the possibility of cross-language influence in ways of linguistically signaling and interpreting agency.

THE PRESENT STUDY

The present research used an experimental approach, seeking to replicate and extend previous empirical findings of a de-emphasis of agency, that is, a less-frequent use of agentive constructions, in Spanish speakers' characterizations of accidental events by considering how Spanish-English bilingualism affects the relative marking of agency in each language. Specifically, the study aimed at determining not only if agency is de-emphasized in Spanish relative to English in bilingual speakers, but also whether the availability of the impersonal *se* construction in Spanish has carry-over effects, leading bilingual users of Spanish to de-emphasize the agent when summarizing a passage describing an accidental occurrence even in English.

Two experiments were conducted to study the influence of language on judgments of agency in descriptions of unplanned occurrences. In each experiment there were three groups of participants—English monolinguals, Spanish monolinguals (tested in Mexico), and English-Spanish proficient bilinguals (tested in the US). Participants in Experiment 1 read scenarios and had to select an agentive or an agentless characterization of the event (choice-based response). In Experiment 2 participants read the same scenarios as in Experiment 1 but had to produce their own one-sentence summaries of the event (free production procedure). Monolinguals were tested in their first language, bilinguals in both languages. The dependent measure was percent choice (Exp. 1) or use (Exp. 2) of agentive responses. This was examined for bilinguals as a function of language of the event, and for each language as a function of group (bilingual versus English monolingual or Spanish monolingual).

Predicted outcomes

Three hypotheses were tested. The first was that narratives of accidental events in Spanish would elicit a higher percentage of non-agentive

constructions than depictions of the same events in English; thus, Spanish-speaking monolinguals should show a higher selection or production of agentless constructions than English monolinguals, and bilinguals should show more agentless constructions in response to the Spanish than the English version of the narratives. Our second hypothesis was that non-agentive responses in Spanish should be more frequent for items presented in Spanish first than for those items in Spanish that were preceded by a block of items in English. Similarly, we expected a higher incidence of non-agentive responses in English for English narratives that followed a block of items in Spanish than for items that appeared in English first. Our third hypothesis was that knowledge of Spanish should lead to a lowering of agentive responses in bilinguals as compared to the level manifested in English-speaking monolinguals. That is, bilinguals in the English trials should show a lower incidence of agentive constructions than that exhibited by English-speaking monolinguals. We also examined the possibility that knowledge of English would have a corresponding effect of increasing the level of agentive constructions in Spanish in bilinguals relative to that in Spanish-speaking monolinguals.

METHOD

Participants

Participants were college-age students tested in the US and Mexico. They ranged in age from 18 to 21 years. In Experiment 1 there were 30 English-speaking monolinguals, 30 Spanish-speaking bilinguals, and 32 Spanish-English bilinguals. Experiment 2 tested a new set of participants, consisting of 30 Mexican American bilingual speakers of English and Spanish, 22 English-speaking monolinguals, and 25 Spanish-speaking monolinguals. The English monolinguals and the bilinguals for both experiments were recruited from the psychology participant pool and from students enrolled in Hispanic Studies at Texas A&M University; Spanish-speaking monolinguals were recruited from students enrolled in various disciplines at the Escuela Normal in Guanajuato, Mexico.

All participants completed a brief language background questionnaire. Answers were used to classify them as monolingual or bilingual. Participants who were classified as English monolinguals had been schooled in English and, although they had studied Spanish for an average of 2 years in high school, they did not consider themselves to be at all fluent in it. Similarly, participants classified as Spanish monolinguals had been schooled in Spanish and had studied English for an average of 2 years but did not consider themselves to be fluent in it. By contrast, participants classified as bilingual rated themselves as highly fluent in both Spanish and

English. For all the bilinguals, Spanish was their first language, and the language spoken at home. English was acquired in childhood and was the language of schooling.

Materials

The test instrument, developed for the purposes of the study, consisted of a set of 16 narratives in each language and their equivalents in the other language. The narratives depicted unplanned or accidental occurrences. They included such events as a glass being knocked down, a passport lost, or a flight missed. The way in which the events were described in the narratives was generally non-agentive. Although for a subset of the items in Spanish the non-agentive wording used in the narratives was echoed in the wording of the non-agentive choice, for the majority of the items the phrasing in the narrative was not similar in the response choices, so as to prevent participants from choosing merely on the basis of what resembled an actual sentence in the narrative. As an example, one of the Spanish items (narrative and two response choices) is given below, followed by its English translation:

Luisa se va de compras. Al salir del coche ella cierra la puerta detrás de ella. Después de ir de compras, al regresar al coche, se da cuenta que las llaves están adentro del coche.

¿Qué oración mejor capta lo que pasó?

A. Las llaves se quedaron en el coche.

B. Luisa dejó las llaves dentro del coche.

English translation:

Luisa goes shopping. After getting out of the car, she shuts the door behind her. She returns from shopping and realizes the keys are inside the car.

Which sentence better captures what happened?

A. The keys remained in the car.

B. Luisa locked her keys in the car.

(Note that no agent is expressed in the scenario itself with regard to who lost the keys.)

The same set of 16 narratives per language were used across the two experiments; Experiment 2 also contained six filler narratives that were inserted to prevent participants from guessing the purpose of the study. See the Appendix for a complete list of the scenarios presented per language across the two experiments, as well as the response choices provided in Experiment 1.

Procedure and scoring

Monolinguals were tested in their respective language (Spanish or English). Bilinguals were administered the task once in each language with the order counterbalanced. Thus, for half of the bilinguals the scenarios were presented in English first (i.e., for the first block of eight critical items), followed by Spanish (for the remaining block of eight), whereas for the remainder the scenarios were first presented in Spanish followed by English.

Participants' task was to summarize the action depicted in each scenario either by choosing one of two response options per scenario (Experiment 1—choice-based response mode) or by generating a one-line summary in the language of the scenario (Experiment 2—free production response mode).

The choice-based version of the test (Exp. 1) contained 16 scenarios followed by an agentive and a non-agentive one-line summary of each scenario (see the Appendix for the list of scenarios). For half of the items the agentive summary preceded the non-agentive one, and for the remainder the non-agentive statement was presented first. As previously noted, the free production version (Exp. 2) contained the same 16 scenarios used in Experiment 1 and six filler scenarios.

The dependent measure was mean percent choice of an agentive response (Exp. 1) and mean percent use of an agentive response (Exp. 2). The coding of responses as agentive or non-agentive was relatively straightforward in both experiments. In Exp. 1 the choices were constructed such that one option was clearly agentive and the other clearly non-agentive (as in the example provided earlier). In Exp. 2 participants' free responses were coded as agentive or as non-agentive based on their use of an active voice and transitive verbs (agentive) or the passive voice, intransitive verbs, or (in the case of Spanish), the *se* clitic. Sample agentive and non-agentive responses provided by participants are listed below for the following scenario (presented in English and in Spanish versions):

Sample scenario in English:

Mr. Smith is out of town on business and is staying in a hotel. He prepares to leave for a meeting, and as he steps out into the hall, the door shuts behind him, and he realizes he does not have his keys.

Examples of responses coded as 'agentive':

Mr. Smith left his keys in the room.

Mr. Smith forgot his keys.

Examples of responses coded as 'non-agentive':

Mr. Smith's keys were left in the room.

The keys got locked in the room.

The keys were left behind.

Sample scenario in Spanish:

El Sr. Ramírez está fuera de la ciudad por el negocio y se está quedando en un hotel. Él se prepara para irse a una reunión y al entrar al pasillo, la puerta se cierra detrás de él. Se da cuenta que no trae las llaves.

Examples of responses coded as 'agentive':

El Sr. Ramírez olvidó las llaves en la habitación.

El Sr. Ramírez dejó las llaves en la habitación.

Examples of responses coded as 'non-agentive':

Se le olvidaron las llaves en la habitación al Sr. Ramírez.

Al Sr. Ramírez se le quedaron las llaves en la habitación.

As can be seen from these examples, non-agentive responses in Spanish typically used the *se le* expression, whereas non-agentive responses in English were typically in the passive voice.

Three sets of analyses were performed for each experiment. The first analysis was conducted on the monolinguals only and compared the mean percent choice of agentive response in English versus Spanish monolinguals as a function of primary language and stimulus block. The second analysis was conducted on the bilinguals' data and compared percent choice of agentive response in bilinguals by language and language order. The third set of analyses compared the response of bilinguals in English with that of English-speaking monolinguals, and the response of bilinguals in Spanish versus that of Spanish-speaking monolinguals.

RESULTS

Experiment 1: Choice-based responses

Monolinguals

Percent choice of agentive constructions was entered into a 2×2 analysis of variance as a function of Group (English versus Spanish monolinguals) and Stimulus Block (first eight scenarios versus last eight scenarios). There was only a significant effect of Group, indicating that the agentive response was favored more by English- than Spanish-speaking monolinguals, $F(1, 58) = 26.81, p < .001, \eta_p^2 = .32$. See Figure 18.1.

Bilinguals

Bilinguals' percent choice of agentive constructions was analyzed in a 2×2 analysis of variance as a function of Language of Narrative (English versus Spanish) and Language Order (English presented first versus Spanish presented first). The analysis revealed a main effect of Language of

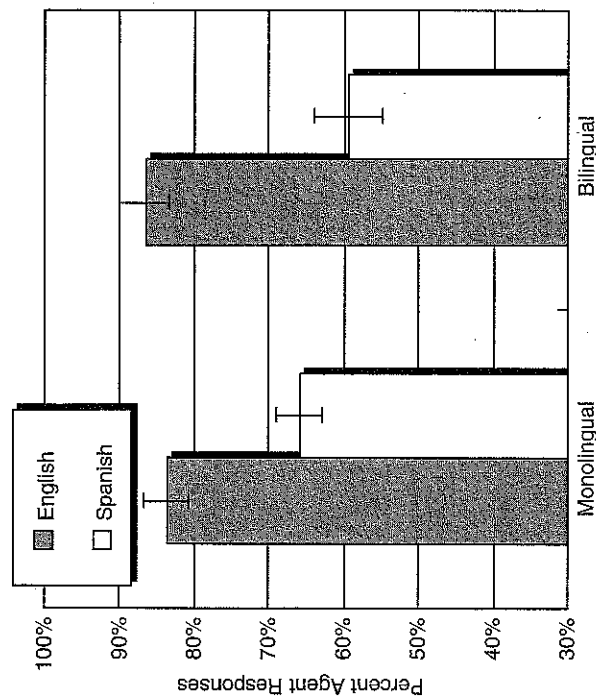


Figure 18.1 Mean percent preference for agentive versus agentless responses by monolinguals and bilinguals as a function of language of scenario (Exp. 1).

Narrative, $F(1, 30) = 42.98$, $p < .001$, $\eta_p^2 = .59$, indicating a significantly higher incidence of agentive response choices in English than in Spanish (86.7% versus 59.4%, respectively). The Language Order variable did not reach an acceptable level of significance, $F(1, 30) = 2.64$, $p = .12$, $\eta_p^2 = .08$. See Figure 18.2.

Bilinguals versus monolinguals

These analyses were conducted as four separate *t*-tests that compared bilinguals with English monolinguals on English (in each block) and bilinguals versus Spanish monolinguals on Spanish (in each block). Across all four analyses there were no differences between groups; that is, bilinguals behaved like English monolinguals on the English scenarios, showing a high degree of selection of agentive responses, and behaved like Spanish monolinguals on the Spanish scenarios, showing a high degree of selection of non-agentive responses.

Experiment 2: Free production responses

Mean percent of agent-based characterizations on the free production version of the test instrument were analyzed in three separate sets of analyses.

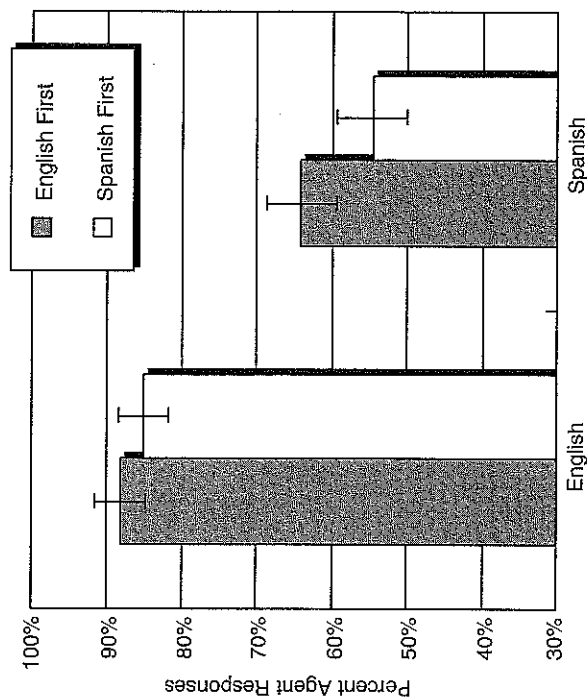


Figure 18.2 Mean percent selection of agentive responses by bilinguals as a function of language and language order (Exp. 1).

Monolinguals

The monolinguals-only analysis revealed a main effect of Stimulus Block, $F(1, 45) = 7.12$, $p < .01$, $\eta_p^2 = .14$, a main effect of Group, $F(1, 45) = 44.11$, $p < .001$, $\eta_p^2 = .50$, and a Group $\times$ Block interaction, $F(1, 45) = 19.43$, $p < .001$, $\eta_p^2 = .30$. Agentive responses were significantly more common in the English- than in the Spanish-speaking monolinguals' responses. Analyses of simple main effects for the significant interaction indicated that whereas the use of agentive responses for English monolinguals was uniformly high across blocks (78.81% in Block 1 and 84.06% in Block 2), $F(1, 45) = 1.42$, $p = .24$, $\eta_p^2 = .03$, it decreased substantially for Spanish monolinguals from Block 1 to Block 2 (67.92% in Block 1 versus 46.59% in Block 2), $F(1, 45) = 26.75$, $p < .001$, $\eta_p^2 = .37$. See Figure 18.3.

Bilinguals

A 2(Language of Narrative) $\times$ 2(Language Order) ANOVA conducted on the bilinguals' responses revealed a main effect of Language, $F(1, 28) = 4.38$, $p < .05$, $\eta_p^2 = .14$, indicating a higher incidence of agentive responses for scenarios presented in and responded to in English than for those in Spanish (68.26% in English versus 56.28% in Spanish). Incidence of agentive constructions was not affected by whether narratives were presented in English first or Spanish first. See Figure 18.4.

Bilinguals versus monolinguals

A direct comparison of bilingual versus monolingual data using *t*-tests showed that, for English language narratives, bilinguals made significantly fewer agentive responses than did English monolinguals, for both Block 1, $t(35) = 2.87$, $p < .01$, $d = .99$; 63.26% versus 78.81%, respectively, and Block 2 items, $t(35) = 2.33$, $p < .05$, $d = .80$. For Spanish language narratives, bilinguals made significantly fewer agentive responses than monolinguals but only in Block 1; $t(38) = 2.17$, $p < .05$, $d = .73$. Block 2 items in Spanish showed a near significant trend for an opposite pattern, namely, a higher incidence of agentive responses in bilinguals than in Spanish-speaking monolinguals, $t(38) = 1.94$, $p = .06$, $d = .65$ (see Figure 18.3).

In other words, it appears that knowledge of Spanish in bilinguals was associated with an overall lowering of English agentive responses relative to the level of agentive responses characterizing monolinguals in English. However, bilinguals' Spanish performance relative to that of Spanish-speaking monolinguals showed a mixed pattern, with a lower level of agentive responses in bilinguals relative to those produced by monolinguals for items in Block 1 but a higher level of agentive responses than those of monolinguals for items in Block 2.

GENERAL DISCUSSION

The present research sought to test whether the option available in Spanish of omitting or de-emphasizing the agent of an action makes Spanish users less likely to attribute agency relative to users of English when characterizing verbal narratives involving unfortunate or accidental events or unforeseen consequences of actions.

Our first hypothesis, that knowledge of Spanish would be associated with a reduced use of agentive responses when describing accidental occurrences, was strongly supported across both experiments. There was a clear effect of the language of the narrative. For narratives presented in English, participants showed a higher level of agentive responses than for the same narratives presented in Spanish. As such, our findings corroborate those based on monolinguals previously obtained by Fausey and Boroditsky (2009) and Berk-Seligson (1983).

Our second hypothesis, that lower agency should be found in the Spanish-first than English-first condition in bilinguals, was not supported in either experiment, as bilinguals showed the same pattern of choice of agentive responses for English-first as for Spanish-first conditions. Thus we found no evidence for transient effects due to language presentation order in the marking of agency.

Our third hypothesis, that bilinguals would show a lower incidence of

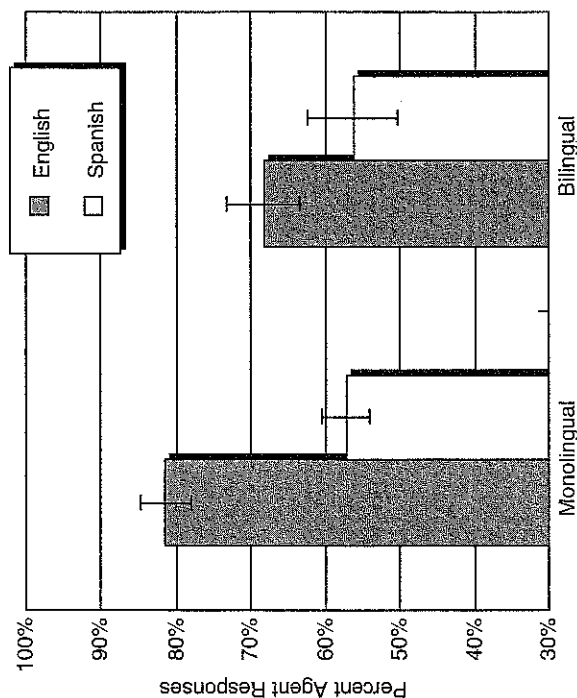


Figure 18.3 Mean percent production of agentive responses by monolinguals and bilinguals as a function of language of scenario (Exp. 2).

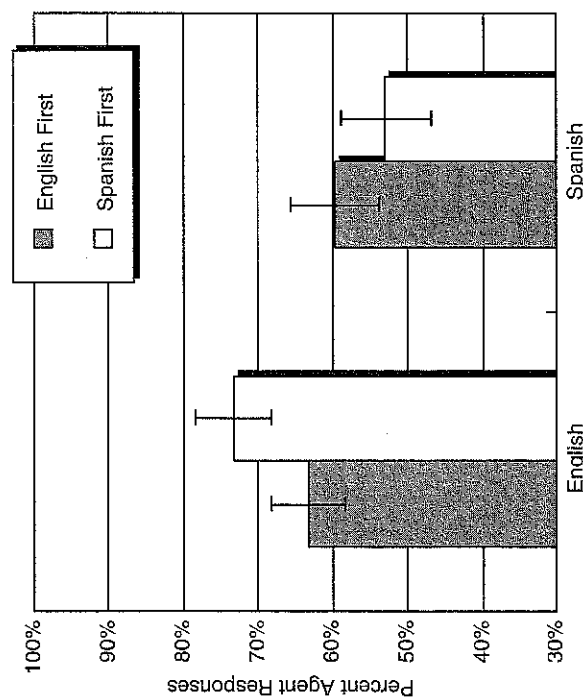


Figure 18.4 Mean percent production of agentive responses by bilinguals as a function of language of scenario and language order (Exp. 2).

agentive responses in English relative to English monolinguals and a higher level of agentive responses in Spanish relative to Spanish monolinguals, was partially supported. When the task involved choosing between an agentive versus an agentless response (Exp. 1), bilinguals behaved like English monolinguals on the English items and like Spanish monolinguals on the Spanish items. However, when the task involved participants coming up with their own characterization of the scenarios (Exp. 2), bilinguals' relative use of agentive constructions was heightened or lessened relative to that of monolinguals, reflecting an interaction between the bilinguals' two languages. Specifically, bilinguals responding in English were less agentive than English monolinguals in both blocks, whereas bilinguals responding in Spanish gave more agentive responses than Spanish monolinguals (in Block 2, $p = .06$), but significantly fewer agentive responses in Block 1.

Taken together, our findings demonstrate a clear effect of language structure on bilinguals' perceptions of agency for actions involving accidental or unplanned occurrences as a function of whether they are depicted in Spanish versus English. Spanish-English bilinguals are less inclined to use agentive constructions in Spanish than in English and show a lower level of agentive constructions in English relative to that of English monolinguals, suggesting that the agency-reducing effect of Spanish carries over to English use in bilinguals.

One limitation of the present research is that in our analysis of participants' responses, particularly the open-ended responses in Experiment 2, we did not consider the relative frequency with which participants used particular ways of de-emphasizing agency (e.g., the passive versus the intransitive versus the reflexive impersonal *se*, etc.). In future research it would be instructive to do more fine-grained analyses of specific forms to capture possible differences in the nuances between different impersonal forms.

Our findings generally concur with previous ethnomethodological reports across a range of language users that suggest that adverse or unhappy incidents tend to be described in terms of events that happened rather than in terms of actions performed by actors/agents (Berk-Seligson, 1983). However, the extent to which this is the case appears to vary across languages, as we found a greater tendency for agentive construals in English than Spanish for such types of events. Further, our findings add to the body of evidence (e.g., Grosjean, 2008) that suggests that bilinguals do not behave like the sum of two monolinguals, inasmuch as we found that bilinguals' pattern of responses reflected an interactive effect of knowing another language and did not completely mirror the pattern observed in monolingual speakers of each language.

Finally, the present findings add to a growing body of research on similarities and differences across languages in ways of expressing causation. Following Song and Wolff (2003), we concur that linguistic theories

of causality can be experimentally tested by creating and manipulating instances of direct and indirect causation and examining elicited spontaneous descriptions of the events. By studying the range of expressions that are used to talk about these two types of events, it will become possible to test theories of causal meaning and hypotheses about the linguistic level at which directness of causation is encoded. Finally, it is important to remember that issues of causality are of importance beyond their theoretical significance for linguistic and psycholinguistic models. One practical domain in which these issues are of particular importance is eyewitness testimony. A recent study comparing police transcripts of original Spanish language with English translations of court testimony by Spanish-speaking witnesses (Filipovic, 2007) indicates that differences between languages in ways of marking agency and causality may have very real consequences for such issues as the process of interviewing witnesses and interpreting their answers.

ACKNOWLEDGMENTS

An earlier version of this research was presented at the 2007 International Symposium on Bilingualism held at Hamburg. This research was supported in part by funding from the Melburn G. Glasscock Center for Humanities Research at Texas A&M University. We would like to thank Caitlin Fausey for providing us with important references of relevance, including her own, and Belem Lopez for proofreading assistance.

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- ## APPENDIX
- ### Experiment 1: Narratives and response options per language
- #### English
- For each of the following situations, choose the sentence that best captures the essence of the situation, according to your point of view.
1. Monica went to Florida to visit her boyfriend. The morning of her return flight, she did not wake up on time, and because of this, she arrives late to the airport. The airline agent tells her that it is too late to board her flight, and that she will have to take a later one. Monica calls her friend who is going to pick up her in College Station, and tells her:
 - A. I missed my plane, and I am going to arrive late.
 - B. The plane left me behind, and I am going to arrive late.
 2. David is a businessman, and he is carrying a briefcase full of many documents. Upon entering the elevator, David runs into another man, the briefcase falls and the documents spread out all over the floor. Which sentence best captures the situation?
 - A. David dropped the briefcase.
 - B. The briefcase fell from David's hand to the floor.
 3. Mark is going on vacation with some friends for five days, and he brings \$200. He has been spending a lot of money on food and drinks. On the third day, he has no money left. He plans on calling his Dad to ask him for more money. What will he say to his Dad?
 - A. All my money is gone.
 - B. I've spent too much and I ran out of money.
 4. María is washing dishes when the phone rings. She goes to answer it, and in the process a glass is broken. Which sentence best captures the situation?
 - A. A glass was broken while María was answering the telephone.
 - B. María broke a glass while answering the telephone.

5. John is going out to Northgate, and he becomes intoxicated. A friend lets him stay at his apartment to sleep. The next day, John cannot find his keys. What would John say to his friend?

- A. I lost my keys.
- B. My keys are missing.

6. You and I are roommates and we are going to a concert in Houston. We leave College Station and arrive at the concert. You realize you do not have the tickets. What would you tell me?

- A. I forgot the tickets.
- B. The tickets were left at the house.

7. Laura is cooking when her kids come into the kitchen playing with a soccer ball. She gets angry and slams a plate on the kitchen table, and the plate breaks. Which sentence best captures the situation?

- A. A plate was broken while Laura was cooking.
- B. Laura broke a plate.

8. Mrs. Lawson is very busy with work, and she forgets to pay the cable bill. Two weeks later, when she gets home and turns on the television, there is no cable. Which sentence best captures the situation?

- A. The cable was turned off.
- B. Mrs. Lawson did not pay her bill and they turned off her cable.

9. Charlie and Rick are going to a party at some friends' house. It is the first time they will go to this house. Before the party, one of their friends gives them directions so they can find the house. Charlie asks Rick to bring the directions before they get into the car. When they get close to the neighborhood where the friends' house is located, Charlie asks Rick for the directions. Rick looks for them, and he doesn't have them. He says he's sorry, and tells him:

- A. I forgot the directions at home.
- B. The directions were left at home.

10. Richard is drinking a cup of coffee when a friend comes up behind him and scares him. The cup of coffee drops and spills. Which sentence best captures the situation?

- A. Richard dropped the coffee cup.
- B. The coffee cup fell.

11. Lisa is going shopping. As she gets out of the car, she leaves her keys in the car, and locks the door behind her. After shopping, she returns to her vehicle, and realizes that she has locked her keys in the car. Which sentence best captures the situation?

- A. The keys were locked in the car.
- B. Lisa locked her keys in the car.

12. Robert is playing outside in his front yard, and he climbs a tree. His friends distract him, and he falls and breaks his arm. Which sentence best captures the situation?

- A. Robert's arm was broken when he fell out of the tree.
- B. Robert broke his arm when he fell out of the tree.

13. The Millers have been out of town on vacation. When they return home, they find their telephone has been disconnected. Mr. Miller asks Mrs. Miller if she paid the bill. Mrs. Miller responds that she thought he said he was going to pay it. Which sentence best captures the situation?

- A. The Millers did not pay the bill and they disconnected the telephone.
- B. The telephone was disconnected.

14. Travis is making spaghetti. After he boils the pasta, he takes it to the sink to drain it. The steam from the pasta burns his hand, and he drops the pot, and the spaghetti spills into the sink. Which sentence best captures the situation?

- A. Travis spilled the spaghetti.
- B. The spaghetti was spilled.

15. Jack is traveling to Arizona on a bus. His friend is picking him up to give him a ride to the bus station. Jack's friend arrives, and as they leave Jack's house, Jack realizes he does not have his bus ticket. They return to Jack's house, and set out for the bus station again. Jack arrives at the station, and realizes he is running late. The bus company representative tells him that it is too late, and that he will have to wait for the next bus. Which sentence best captures the situation?

- A. Jack missed the bus.
- B. The bus left Jack behind.

16. Carl is working on his final papers for the semester, and has been printing a lot of pages. His last paper is 30 pages long, and he realizes he does not have enough paper left to print the document at his house. He decides to go to the school to print the document. Which sentence best captures the situation?

- A. There is not enough paper left to print the document.
- B. Carl ran out of paper.

Spanish

Por cada de las situaciones siguientes, escoja la oración que mejor contesta la pregunta según su punto de vista.

1. Monica se fue al D. F. para visitar a su novio. Por la mañana del día de su vuelo de regreso, ella no se despertó a tiempo y por eso llega tarde al aeropuerto. El agente le dice que ya es demasiado tarde para abordar y tendrá que tomar otro vuelo. Monica le llama a una amiga que la iba a recoger del aeropuerto y le dice:

- A. Perdí el avión y voy a llegar tarde.
- B. Me dejó el avión y voy a llegar tarde.

2. David es hombre de negocios y lleva un portafolio lleno de muchos documentos. Al entrar al ascensor, choca con otro hombre y el portafolio cae al suelo y los documentos se dispersan por todos lados. ¿Qué oración mejor capta lo que pasó?

- A. David dejó caer el portafolio.
B. El portafolio se le cayó a David.
3. Marco se está pasando las vacaciones con algunos amigos por 5 días y trae \$3000 pesos para los gastos. El ha estado gastando mucho dinero por las bebidas y la comida. Al tercer día no le queda nada de dinero. Él piensa llamar a su papá para pedirle más dinero. ¿Qué le diría a su papá?
A. Se me acabó el dinero.
B. Gasté todo el dinero.
4. María está lavando los traste cuando suena el teléfono. Al irse para contestarlo se rompe un vaso. ¿Qué oración mejor capta lo que pasó?
A. Se rompió un vaso mientras María contestaba el teléfono.
B. María rompió un vaso mientras contestaba el teléfono.
5. Juan se va al jardín y se pone borracho. Un amigo lo deja quedarse con él en su departamento para dormir. Al día siguiente Juan no puede encontrar sus llaves. ¿Qué le diría Juan a su amigo?
A. Se me perdieron las llaves.
B. Perdí las llaves.
6. Tú y yo somos compañeros de casa y vamos a un concierto en el D. F. Salimos de Guanajuato y llegamos al concierto. Te das cuenta que no tienes los boletos para el concierto. ¿Qué me dirás?:
A. Se me olvidaron los boletos en casa.
B. Dejé los boletos en la casa.
7. Laura está cocinando cuando sus hijos entran a la cocina jugando con una pelota de fútbol. Laura se enoja y pone un plato muy fuertemente en la mesa y el plato se rompió. ¿Qué oración mejor capta lo que pasó?
A. Se rompió un plato mientras Laura cocinaba.
B. Laura rompió un plato mientras cocinaba.
8. La Señora Castro está muy ocupada con su trabajo y se le olvida pagar la cuenta del cable para la televisión. Dos semanas después, cuando llega a su casa, prende el televisor pero no hay cable. ¿Qué oración mejor capta lo que pasó?
A. Se le olvidó pagar la cuenta y se le apagó el cable.
B. La Sra. Castro no pagó su cuenta y por eso le cortaron el cable.
9. Jorge y Miguel se van a una fiesta en la casa de algunos amigos. Es la primera vez que van a esta casa. Antes de la fiesta, uno de sus amigos les da direcciones para que encuentren la casa. Jorge le dice a Miguel que traiga las direcciones antes de que suban al coche. Cuando llegan al vecindario donde se encuentra la casa, Jorge le pregunta a Miguel por las direcciones. Miguel las busca pero no las tiene. Le dice perdón y:
A. Olvidé las direcciones en casa.
B. Se me olvidaron las direcciones en casa.

10. Ricardo está tomando un café cuando se le acerca un amigo y lo asusta. Se le cae el café. ¿Qué oración mejor capta lo que pasó?
A. Ricardo dejó caer el café.
B. Se le cayó el café a Ricardo.
11. Luisa se va de compras. Al salir del coche ella cierra la puerta detrás de ella. Después de ir de compras, al regresar al coche, se da cuenta que las llaves están adentro del coche. ¿Qué oración mejor capta lo que pasó?
A. Las llaves se quedaron en el coche.
B. Luisa dejó las llaves dentro del coche.
12. Roberto, un niño de 10 años, está jugando afuera de su casa y sube a un árbol. Un amigo lo distrae y Roberto se cae y se le rompe un brazo. ¿Qué oración mejor capta lo que pasó?
A. Se le rompió un brazo a Roberto cuando se cayó del árbol.
B. Roberto se rompió el brazo al caer del árbol.
13. Los Ortiz han estado fuera por las vacaciones. Cuando regresan a casa se dan cuenta que se ha desconectado el teléfono. El Sr. Ortiz le pregunta a la Sra. Ortiz si ella pagó la cuenta. Ella dice que ella pensó que él iba a pagarla. ¿Qué oración mejor capta lo que pasó?
A. Los Ortiz no pagaron la cuenta y por eso les desconectaron el teléfono.
B. Se desconectó el teléfono.
14. Raul está cocinando espagueti. Después de hervir la pasta, la lleva al fregadero para escurrirla. El humo de la pasta le quema su mano y él deja caer la olla y el espagueti se tira al fregadero. ¿Qué oración mejor capta lo que pasó?
A. Raul dejó caer el espagueti.
B. Se le cayó el espagueti a Raul.
15. Carlos está viajando a Guadalajara en camión y ya compró su boleto en la agencia. Su amigo lo va a recoger para llevarle a la central. Su amigo llega a la casa para recogerlo y al salir de la ciudad, Carlos se da cuenta que no tiene su boleto. Regresan a la casa de Carlos por el boleto y salen otra vez para la central. Carlos llega a la central y el agente le dice que ya es demasiado tarde y que tendrá que salir en otro camión en una hora. ¿Qué oración mejor capta lo que pasó?
A. Carlos perdió el camión.
B. El camión se le fue a Carlos.
16. Antonio está terminando sus trabajos finales para el semestre y ha imprimido muchas hojas. El último trabajo es de 15 páginas y él se da cuenta que le va a faltar papel para imprimir todo el documento. Él decide imprimirlo en la universidad. ¿Qué oración mejor capta lo que pasó?
A. No le queda suficiente papel a Antonio para imprimir el documento.
B. Se le acabó el papel a Antonio.