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The Impact of a Monolingual on Spanish Language Code-Switching

Lily Halsted [a*]

[a] *Queens University of Charlotte, USA.*

Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

Objective: To determine whether Spanish code-switching occurs under laboratory-induced conditions among fluent bilinguals at higher levels compared to a nonintervention control condition.
Design and Methodology: Fifty-two Spanish bilinguals were randomly assigned to a control or experimental group and participated in a half-hour long face-to-face structured interview in Spanish. Half of the participant population was randomly assigned to the control group and the rest was assigned to the experimental group. The participants in the control group went through the interview without interruption and the number and timing of English code-switching instances were recorded during the interview. During the Spanish interview for the individuals in the experimental group, there was an interruption by a monolingual English experimenter halfway through the session. All instances of code-switching pre- and postinterruption were recorded and compared to the control group. At the conclusion of the Spanish interview, all participants completed an online 87-item questionnaire in English about their linguistic heritage and background.
Place and Duration of Study: Department of Psychology, Queens University of Charlotte, January 2019 to February 2020.
Results: The bilinguals in the experimental group, postinterruption, code-switched significantly more than those in the control group. No significant differences in linguistic background or history were found between code-switchers and those who did not code-switch.
Conclusion: The experimentally designed social interruption during the Spanish interview in the experimental group increased the rate of code-switching among the participants while no such effect was found in the control group. This suggests that the observed code-switching was primarily due to the social interruption rather than any aspect of the interview session setup itself.

**Corresponding author: E-mail: halstedl@queens.edu;*

Keywords: Code-switching; bilinguality; laboratory-induced; Spanish; social influence.

1. INTRODUCTION

Spanish, with over half a billion speakers, is one of the fastest growing languages in the world. Spanish is also the most commonly used second language in the United States. According to recent US Census data, over 57 million Spanish speakers currently live and work in the United States, which is over 17% of the US population [1]. The number of Spanish speakers in the United States has increased steadily and is expected to continue on the same path in decades to come. Spanish bilinguals in the US come from many different Latin American counties including Mexico, Costa Rica, Cuba, Puerto Rico, and Guatemala. Regardless of their cultural differences, Spanish speakers can communicate seamlessly using their common language.

Despite the current growth in the number of Spanish bilinguals in the United States, historically, Spanish bilingualism has had a rocky and volatile path in this country. From the start of the colonial era, bilinguality was not only accepted but was also commonly practiced in the United States [2]. Spanish, especially, was a flourishing language in all the colonies under the rule of Spain, as the colonial power tried to impose its language on all the culture and territories under its rule [3]. However, over time, several events led to the decline and disfavor of bilinguality, and more specifically Spanish bilinguality, in the United States. One of the more fundamental events in the history of this country that contributed to the decline of bilinguality was the American transition from an agricultural to an industrial society. As the force of industrialization and a stronger central government took hold, a dominant and unifying language had to be adopted; consequently, English eventually became the dominant language in the United States [4].

Moreover, the Spanish-American war of 1898, although it lasted only a few months, had a significant impact on the acceptance of the Spanish language and bias against Latin culture in this country. The island territories that were relinquished to the US during the war, including Guam and Puerto Rico, initially were forced to adopt English as their dominant language when Puerto Rico was initially a Spanish Speaking island. Later, in 1906, President Theodore Roosevelt signed the Nationalization Act into law which required learning English before immigrants could become naturalized citizens [5]. From 1920 to the late 1940s, speaking any language other than English in American towns and cities was greeted with suspicion and mistrust. Mostly due to the seismic impact of the two world wars on American society, speaking in German or Japanese was specially met with hostility and at time prison terms [6]. Slowly, because of the activism and efforts of many minority groups, including Spanish bilinguals, the Bilingual Education Act was signed into law in 1968 by President Johnson, signaling a much more favorable and tolerant attitude toward bilinguality in this country [7].

The acquisition of any second language, such as Spanish, depends on the amount and timing of exposure to that language. Spanish-English speakers, like all other bilinguals, could be compound (balanced) bilinguals who learn both languages in the same environment, such as coming from bilingual families and learning both languages at home. On the other hand, coordinated (unbalanced) bilinguals learn each language in a separate linguistic environment; for example, children learning Spanish at home and English at school from their teachers and classmates [8].

The timing of language acquisition for bilinguals can also affect their levels of fluency and proficiency in one or both languages. Simultaneous bilinguals learn both languages at the same time, most likely in their home environment. On the other hand, sequential bilinguals learn one language first, most commonly the heritage language of their family at home, and later acquire their second language at school. Finally, latent bilinguals are those children who learn one language initially and then later on, during teen or adult years, learn their second language, such as a native English speaker who learns French in high school or college [9].

1.1 Code-Switching

Today, millions of bilingual Spanish speakers in the US navigate the linguistic landscape of their surroundings by selecting the right language for the appropriate setting. They alternate using English and Spanish at home, work, school or among friends. At times, due to various linguistic and social reasons they will switch back and forth

between Spanish and English within one conversation. This phenomenon which is extremely common among bilinguals all over the world, is called code-switching. Code-switching is defined as a continuous stream of words in a different language within a given conversation [10]. This is often an intentional strategy and a way to communicate more effectively and efficiently. Pathological code-switching, which is indiscriminate and without purpose, has been linked to damage in certain centers of the brain, including the left and right anterior cingulate gyri [11].

Reasons for code-switching are diverse and complicated. It can range from different degrees of fluency in one or both languages and switching into the language that is easier for the speaker to communicate [12], to trying to fit in a new culture [13]. Code-switching may also be adopted as a strategy for more effective business and retail interactions and establishing a quicker connection to potential customers or clients [14]. At times, code switching becomes a tool of social interaction or exclusion. It can be adopted to include others in a conversation or deliberately exclude them, ease tension, or emphasize a point [15-17]. Overall, as language is a tool of communication, code switching seems to be a more efficient technique of communication across two or more languages.

1.2 Laboratory-induced Code-switching and the Current Study

In 2015, an experimental technique was designed in our laboratory under which bilinguals would go through an interview in Spanish with a native Spanish speaker. During this experiment, at a designated time, the interview was interrupted by a monolingual English speaker. The participants were being videotaped and any instance of code-switching before or after the interruption was recorded and documented. This design aimed to answer the basic question of whether it is possible to induce Spanish/English code-switching in bilinguals under controlled laboratory conditions. The assumption was that the pure social pressure of a non-Spanish speaker in the room could lead a bilingual Spanish speaker to switch back to English. The result of that study clearly indicated that code-switching from Spanish to English can in fact be induced under laboratory conditions. Another subsequent study evaluated the same procedure for four languages, including German, Arabic, French and Spanish. The aim of the second study was to determine whether code-switching under this experimental procedure is language specific and would only occur among Spanish speakers. The four-language study affirmed that, using the same technique, bilinguals in three of the four languages studied code-switched during the interview. German was the only language whose speakers showed no evidence of code-switching during the interview [17,18].

Although the aforementioned studies showed clear evidence of code-switching for a significant number of participants, both of these studies had a within-subject design that compared the incidence of code-switching before and after the Spanish-speaking interviewer was interrupted by an English-speaking experimenter. The question that was not answered by either study was the possibility of random incidents of code-switching during the interview, independent of any English interruption. In other words, perhaps any bilingual Spanish speaker would routinely code-switch regardless of the presence of other non-Spanish speakers in the room, especially over the course of a long (30 minute) conversation. To address this question, the present study was designed to include a control group to allow for between-subject comparisons.

1.3 Hypotheses of the Current Study

1. Laboratory-induced code-switching would be observed among Spanish-speaking participants in the experimental group.
2. Laboratory induced code-switching will not occur to any significant degree among the Spanish-speaking participants in the control group.
3. No significant differences related to observed code-switching would be found in language background or the age of Spanish language acquisition of participants in either the experimental or control groups.

2. MATERIALS AND METHODS

2.1 Participants

The participants who took part in this research were recruited from among the undergraduate students in psychology classes at Queens University of Charlotte in Charlotte, North Carolina. In total, there were 52 participants in this research, with 26 assigned to the control group and 26 assigned to the experimental group. Out of the 26 participants in the

experimental group, 20 were females and 6 were males. Among the control group participants, 21 were females and 5 were males. Note that the large number of female students in this study directly reflected the female/male ratio of the general student population at Queens University, which was a woman's college as late as the 1980s. The participants received a few extra credit points in their psychology classes for participating in this research.

Table 1 presents a summary of participation characteristics broken out between the control and experimental groups. Overall, the age of the participants ranged from 18 to 24, with a mean value of 19.5 years old. The main requirement of this study was for the bilinguals to have enough proficiency in Spanish to be able to participate in a thirty-minute interview conducted strictly in Spanish. The average age of acquisition of Spanish among the bilinguals in this study was 4 years old, and, for 38 (73%) of the 52 participants, English was their second language.

2.2 Procedures and Measures

Each participant in this study, whether in the control or experimental group, was required to complete two different methods of investigation. As previously mentioned, the first method required a half-hour interview in Spanish, and the second was an online survey with various questions about the bilingual's linguistic background. The combined two measures took between 45 minutes and an hour to complete. The participants in this research were randomly assigned to either the control or experimental groups. The procedure of this research was approved by the Institutional Review Board of the Queens University of Charlotte, and all the participants signed a consent form prior to entering the interview room and were debriefed after the completion of the survey.

2.2.1 Experimental group

Each experimental session started with the participants being led into the interview room by a research assistant. They were then introduced to a native Spanish interviewer who welcomed them in Spanish. The interviewer spoke only in Spanish at all times and explained to the participants that they would be taking part in a 30-minute interview about their background and linguistic history. At this point, the participants were left alone in the room with the interviewer and asked to speak only in Spanish. During the consent procedure, the bilinguals were advised that they would be video and audiotaped with a hidden camera. Only one interviewer was used in this study to conduct all of the participant interviews to avoid any possible confounding factors that could arise from using multiple interviewers.

During the interview, each participant answered at least 25 questions in Spanish. However, some of the participants engaged more deeply in the interview and answered more questions. These questions touched upon the following areas: age, year in school, major, place of birth and many questions about the participants' family and their complete linguistic background. An English translation of the interview questions is included in the appendix. The interview questions for this study were the same as those in the original 2015 study [17], which were first developed in English and then translated by a native speaker into Spanish. The accuracy of the translation was further verified by another Spanish native speaker. As with the earlier study, the purpose of the structured interview questions was to keep the participants engaged in active conversation (in Spanish) with the interviewer throughout the 30-minute session, rather than to provide material for a deep analysis of the particular responses provided by the participants during the interview.

Table 1. Participant characteristics

	Control	Experimental
Number of participants	26	26
Mean age	19	20
Age range	18-24	18-22
Percent female	81%	76%
Percent college student	100%	100%
Mean age of Spanish acquisition	3	5
Percent English as second language	82%	67%
Percent mother born in US	17%	21%

At a predetermined point of the interview, approximately 15 minutes into the interview, a monolingual English-speaking interrupter entered the room and pretended to ask the interviewer some unrelated research question. The interrupter was intentionally chosen to be a monolingual English speaker so she could not understand or inadvertently respond to any Spanish remarks by the participant. After the brief exchange with the interviewer, the interrupter remained in the room for the rest of the interview, pretending to do some paperwork while the interview continued.

Throughout the entire interview, either before or after the interruption, any incidence of code-switching was recorded by the interviewer and later verified from the recording of the session. Although there are many definitions of code-switching in the diverse and ever-changing field of sociolinguistics, the operational definition for this and all the previous studies that involved this procedure was strictly controlled to remain the same. For any incidence of language switching to be counted, the participant had to switch back to English from Spanish for at least two sentences or a number of utterances or phrases. Instances of code-*mixing*, such as borrowing a word or two from English, were not considered to be code-switching in this study.

2.2.2 Control group

The control procedure was almost identical to the experimental procedure. The participants entered the room, were greeted by a native Spanish speaker, asked to Speak only in Spanish, and took part in a half hour-long interview. Any incidence of code-switching was recorded. The main difference between the two groups was that, for the control group, the interview was not interrupted at any point. Under the second hypothesis, we expected the participants in the control group to be unlikely to code-switch "spontaneously."

2.2.3 Measures

At the conclusion of the Spanish language interview, consistent with the practice in previous studies using this research paradigm, all the participants in both the control and experimental groups were asked to complete an extensive online survey containing 87 questions in English about their own and their family's linguistic background. During the survey, the participants were left alone and asked to complete the survey on a designated laptop in the same interview room. Many of the questions on the survey were also asked during the interview, however, the online survey questions were more probing about the participants' ability to read or write in Spanish and the level of pride felt by the participants about their heritage among other things. The full text of the online survey questions is included in the appendix. For this study, the primary focus was on detecting different levels of code-switching in the laboratory setting between the control group and the experimental group. The online survey was used only to provide a cross-check on some of the language background answers the participants provided during the interview.

3. RESULTS

3.1 Code-switching in the Control and Experimental Groups

The main goal of this study was to further explain and clarify the findings of the original research that was conducted in 2015 [17]. The design of the initial study did not include a control group, and although 33% of the participants code-switched during the interview, there were no comparison groups available to determine whether, without any interruption from an English speaker, the participants would have code-switched spontaneously. Therefore, due to the limitation of the design of the earlier study, only a within-subject analysis was possible. The current study's design allowed for both a between- and within-subject comparison of bilingual participants; all the pre- and postinterruption instances of code-switching were compared for each participant and across the two groups.

For the within-subject analysis, the incidence of code-switching preinterruption was compared for both the control and experimental groups. Although the bilinguals in the control group were not interrupted, the incidence of code-switching was compared at the same point in time (roughly the second half of the interview) for both the experimental and control groups. Chart 1 presents the percent of code-switching that occurred in the control and experimental groups, pre- and postinterruption.

Using a two-way ANOVA with one fixed effect (control vs experimental) and one repeated effect (pre- versus postinterruption), the overall rate of code-switching was not significantly different between the two groups ($F(1,51) = 3.59$, $P = .06$). Likewise, overall, the rate of code-switching

was not significantly different between the pre- and postinterruption portions of the sessions (F (1,52) = .60, *P* = .44). However, there was a significant interaction effect with the experimental group exhibiting a higher rate of code-switching postinterruption (F (1,103) = 8.02, *P* = .007).

Up to the point of interruption, only 12% of the 26 participants in the experimental group code-switched. By the same approximate point in time, 19% of the 26 bilinguals in the control group code-switched. The percent of preinterruption code-switching between the two groups was not significant (X^2 =.59, *P* =.44). By comparison, after the interruption by a monolingual English speaker, fully 38% of experimental group participants had code-switched, while only 4% of the bilinguals in the control group code-switched during the same approximate "post-interruption" period. This difference, postinterruption, was significant (X^2 =.34, *P* =.002).

Table 2 shows the breakout within each of the control and experimental groups of the percent of participants who only code-switched before the interruption, only code-switched after the interruption, code-switched both before and after or did not code-switch at all during the session. Using McNemar's test for paired proportions, the percent of within-subject code-switching pre- and postinterruption in the control group was significant, with the control subjects being more likely to code-switch *earlier* in the session rather than later (X^2 =4.00, *P* =.046). Indeed, the only control subject who code-switched later in the session (equivalent to the postinterruption period) also code-switched earlier in the session. Within the experimental group, directionally, more code-switching occurred postinterruption rather than preinterruption, with no experimental participants code-switching during both parts of the session. However, the frequency of pre- and postcode-switching was not significantly different for the experimental group (X^2 =3.77, *P* =.05).

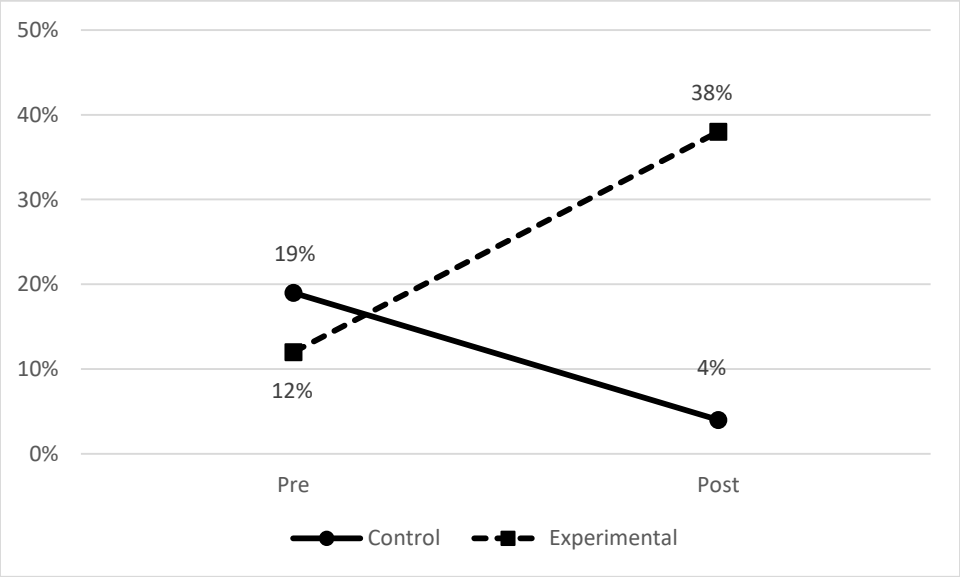

Fig. 1. Prevalence of code-switching experimental versus control (between), pre- and postinterruption (within)

Table 2. Prevalence of code-switching (within subjects) pre- versus post-, experimental and control

Control	% Code-switched	Experimental	% Code-switched
Preinterruption only	15%	Preinterruption only	12%
Postinterruption only	0%	Postinterruption only	38%
Both pre- and post-	4%	Both pre- and post-	0%
Neither pre- nor post-	81%	Neither pre- nor post-	50%
	N = 26		N = 26

Table 3. Characteristics of code-switchers and noncode-switchers

	Code-switchers	Noncode-switchers	Significance
Number of participants	18	34	
Mean age	20	19	*P* =.35
Percent female	69%	69%	*P* =.96
Mean age of Spanish acquisition	2	5	*P* =.13
Percent English as second language	80%	79%	*P* =.39
Percent mother born in US	10%	5%	*P* =.60

3.2 Other Factors Influencing Code-switching

In the initial study, some of the participants were recruited from the community and, as a result, were much older than the typical age range of college students (18-22 years). This factor seemed to play a role in the results of that study as the average age of code-switchers was 38 years old compared to nonswitchers where the average age was 24 years old. To eliminate the influence of the age factor and focus more on the effect of the presence of a monolingual interrupter in the room, all of the participants in the current study were chosen from among undergraduate students who ranged in age from 18 to 24 years old. In the present study, as shown in Table 3, no other aspects of the participants' backgrounds or family heritage were found to have a significant role in the rate of code-switching.

4. DISCUSSION

The main purpose of this investigation was to determine if the findings of the 2015 Spanish code-switching study could be confirmed and further strengthened by including a control group in the design of the study and eliminating any possible confounding age factor from the results. The main finding of the current study confirmed the first hypothesis that code switching is more likely to occur in the experimental group after an interruption by a monolingual. The same increase in the rate of code-switching was not found in the control group whose interview was not interrupted. Additionally, the between-subject analysis of preinterruption code-switching showed no significant difference between the control and experimental groups.

In the 2015 study, it is conceivable that some of the postinterruption code-switching could have been random and independent of the presence of the monolingual experimenter in the room. However, in the current study, it is highly unlikely that random code-switching among the participants would impact the results of the study. Moreover, the occurrence of postinterruption code-switching seems likely due to the presence of the monolingual experimenter in the room. The presence of the experimenter in the room, assuming it is the driving force behind the switching, could result in various scenarios which in turn would impact the rate of code-switching. One possibility is that the participants did not even know that their interviewer spoke English until the interrupter entered the room and briefly interacted with the interviewer in English. When the bilingual participants realized that their interviewer was also bilingual and had code-switched to interact with the interrupter, they may have felt more comfortable switching back to English. This would be consistent with findings from other studies that have shown that the occurrence of code-switching and code-mixing is impacted by the rate of switching of the experimenter [19,20].

Another possible factor is the level of Spanish fluency of the participants; if some of the members of the experimental group had difficulty conversing in Spanish and postinterruption realized that their interviewer understood English, they may have been more likely to switch to English for the ease of conversation and communication [10,21,22]. A different explanation as proposed in previous findings suggests that the Spanish bilinguals in the experimental group may have switched after the interruption in an attempt to include the interrupter in the conversation or at least partially include the monolingual in what was being discussed [16,18]. Finally, since the interruption in the experimental group came approximately 15 min into the interview, perhaps for at least some of the bilingual participants who were not used to speaking in Spanish, the interview caused fatigue, and they switched back to the language they were more comfortable with, English. However, if this fatigue effect was to be the cause of switching, it should have also been

seen among the control participants, but no such effect was observed.

It is noteworthy that background, age, ethnicity, socioeconomic status, and fluency, among other factors, have been associated with bilinguals' performance in cognitive tasks [23,24]. Code-switching is also impacted by many similar factors, such as age, linguistic competence, age of acquisition, and familiar or informal settings [25,18,26]. As experienced by many researchers in the field of sociolinguistics as well as in other fields, it is exceedingly difficult to control for all the above-mentioned factors in any experimental setting. Bilinguals come with varied and diverse linguistic backgrounds and experiences, and they bring this diversity to the laboratory which affects their reaction to the experimental design and their rate of code-switching. Nevertheless, in the design of this research and the recruitment of the participants, every effort was made to control for age and occupation (students) of the participants. Furthermore, all of the participants had to have a sufficient level of fluency in Spanish to be able to continue a half-hour conversation in that language. Therefore, the possibility of linguistic backgrounds or experiences of the participants influencing their code-switching was minimized if not eliminated. What remains is most likely conversational code-switching behaviors induced by a subtlety staged laboratory setting.

5. CONCLUSION

In a follow-up to a 2015 investigation into the code-switching of bilinguals in a laboratory control setting, the same procedure was adopted except this time a control group was included and the age and the background of the participants were limited to psychology students in their early 20s. Even with these measures to control for possible confounding factors, significant code-switching was found to occur postinterruption within the experimental group, consistent with the results from the original 2015 study. The addition of a control group that did not exhibit significant levels of code-switching "post-interruption" further confirms the results of the 2015 study and shows that regardless of age and background, code-switching can be induced among bilinguals when they are under social pressure.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

This research project was reviewed and approved by the Queens University Institutional Review Board on October 28, 2018, file # 10-16-CAS-11168.

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COMPETING INTERESTS

Author has declared that no competing interests exist.

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APPENDIX

Interview questions (in English)

GENERAL QUESTIONS:

1) Tell me your name.
2) How old are you?
3) What year are you?
4) What is your major? What is your minor or concentration?

ORIGINS OF LANGUAGE:

- Tell me about your family.
    1) Where were you born?
    2) Who lived with you growing up?
- Tell me about your parents.
    1) Where were they born?
    2) (If not born in US)… Have they immigrated?
    3) (If not born in US)… How old were they when they immigrated to the US?
    4) What languages did they grow up speaking at home?
- Tell me about your grandparents.
    1) Did they live with you?
    2) (If not)… did you get to see them a lot?
    3) Where were they born?
    4) (If not born in US)… Have they immigrated?
    5) (If not born in US)… How old were they when they immigrated to the US?
    6) What language did they grow up speaking at home?
- Tell me about your siblings.
    1) Do you have any siblings?
    2) (If yes)… Are they older or younger? How old are they?
    3) What language did they grow up speaking in the home? At school/work?
- Other questions:
    1) Do you or anyone else in your family speak another language besides English and Spanish?
    2) (If yes)… What language(s)? Are they fluent in those additional languages?
    3) So based on this, am I correct in saying that you learned to speak Spanish at school/home?

IF LEARNED AT SCHOOL:

1) When did you start learning Spanish? What grade?
2) Do you remember how often you had Spanish classes?
3) Were they immersion?
4) Did you find anything particularly difficult about learning the language?
5) Do you still use your Spanish in some context? If so, what context?

IF HOME:

1) Did you learn to speak Spanish or English first?
2) Was your house fully bilingual (as in you went back and forth between the two languages) or was it a strict “one language” household?
3) Were you ever teased for speaking another language at school?

Second researcher enters and asks interviewer a question in English.

LAST SET OF QUESTIONS:

1) Have you gone on a JBIP trip, or are you planning to go?
2) What classes are you taking this semester?
3) Are you part of a fraternity or sorority?
4) Tell me about the rush process.
5) What is your favorite part about being in a sorority?
6) Do you know what you'd like to do after graduation?

Interview concludes and participant is asked to complete the online survey.

Written questionnaire items

1. Age
2. Sex
3. Place of birth (city, state, country)
4. What year are you in school?
5. Do you speak any languages other than English?
6. Do you speak Spanish?
7. Did you learn to speak Spanish BEFORE you learned to speak English?
8. How old were you when you started to learn Spanish?
9. How old were you when you started to learn English?
10. Approximately how many total years have you spoken Spanish?
11. Do you speak a third language? If so, what is that language?
12. Where did you learn to speak Spanish? Check all that apply.

    From parents
    From grandparents
    From other family members
    From friends
    In school
    While traveling
    In language classes outside of school
    Other

13. Growing up, who else in your family spoke Spanish? Check all that apply.

    Mother
    Father
    Grandparent(s)
    Brother(s)
    Sister(s)
    Cousin(s)
    Aunt(s)/Uncle(s)
    No one else
    Other

14. In what situations do you currently use Spanish? Check all that apply.

    At school
    At work
    At home
    With parents
    With friends
    With grandparents
    With brothers/sisters
    With college roommates

When traveling in another country
At language school/class
Other

15. Currently, how much of the time do you speak Spanish?
16. How much do you like speaking Spanish?
17. How well can you speak Spanish?
18. Are you able to READ in Spanish?
19. Are you able to WRITE in Spanish?
20. Do you ever read books or magazines in Spanish for pleasure?
21. Do you ever watch TV shows or listen to radio programs in Spanish?
22. Do you feel proud to be able to speak a second language (Spanish)?
23. Why or why not?
24. How comfortable are you speaking Spanish in public?
25. Why or why not?
26. Do you consider yourself art of a cultural or ethnic group? If so, what is the group?
27. Do you feel proud to be a member of that cultural or ethnic group?
28. Do you feel supported and valued by other members of your cultural or ethnic group?
29. Do you regularly socialize with members of your cultural or ethnic group?
30. Do you participate in the celebrations or special events of your cultural or ethnic group?
31. Do you family members consider themselves part of a cultural or ethnic group? If so, what is that group?
32. Do your family members feel proud to belong to this cultural or ethnic group?
33. Do your family members feel supported and valued by other members of this cultural or ethnic group?
34. Do your family members socialize with other members of your cultural or ethnic group?
35. Do your family members participate in the celebrations or events of this cultural or ethnic group?
36. Has anyone ever made fun of you speaking Spanish?
37. Has anyone ever made fun of your ethnic or cultural group directly to you?
38. To your knowledge, has anyone ever made fun of your family members who speak Spanish?
39. Do you ever feel embarrassed speaking Spanish in front of non-Spanish speakers?
40. To your knowledge, do your family members ever feel embarrassed speaking Spanish in front of non-Spanish speakers?
41. Have you ever attended Spanish language schools or classes?
42. If yes, how old were you when you started those classes?
43. For how many years did you attend those classes?
44. Do you plan to continue to learn/improve/maintain your Spanish language skills?
45. Why or why not?
46. Did your parents encourage/require you to learn your second language?
47. Did your parents require you to go to second language classes?
48. Do you plan to continue to learn/improve/maintain your second language skills?
49. Why or why not?
50. Do you ever feel embarrassed to speak your second language in public?
51. Why or why not?
52. Growing up, were there other family members who lived in your home who regularly spoke Spanish?
53. What is their relationship to you? (check all that apply)
    Mother/Father/Step-mother/Step-father/Brother/Sister/Aunt/Uncle/
    Grandmother/Grandfather/Cousin/Other
54. Where was your MOTHER born (city, state, country)?
55. If your mother was not born in the United States, how long has she lived in the US?
56. What is the first language your mother learned to speak?
57. How often does she still speak that first language?
58. What other languages, if any, does/did she speak well?
59. What language(s) does/did she usually speak at home?
60. What is the highest level of education attained by your mother?

61. Where was your FATHER born (city, state, country)?
62. If your father was not born in the United States, how long has he lived in the US?
63. What is the first language your father learned to speak?
64. How often does he still speak that first language?
65. What other languages, if any, does/did he speak well?
66. What language(s) does/did he usually speak at home?
67. What is the highest level of education attained by your father?
68. How many sisters do you have?
69. How many of your sisters are OLDER than you?
70. Does your sister (or sisters) speak Spanish?
71. How often does your sister (or sisters) speak Spanish?
72. How many brothers do you have?
73. How many of your brothers are OLDER than you?
74. Does your brother (or brothers) speak Spanish?
75. How often does your brother (or brothers) speak Spanish?
76. Do you have any step-sisters?
77. Does your step-sister (or step-sisters) speak Spanish?
78. How often does your step-sister (or step-sisters) speak Spanish?
79. Do you have any step-brothers?
80. Does your step-brother (or step-brothers) speak Spanish?
81. How often does your step-brother (or step-brothers) speak Spanish?
82. In what language do you normally communicate with your sibling(s)?
83. In what language do you normally communicate with your step-siblings?
84. Growing up, which if any of your grandparents lived with you?
85. Which, if any, of your grandparents speak/spoke Spanish?
86. In what language do/did your grandparents usually communicate with you?
87. What year were you born in?

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