

**Investigation of the Social and Cognitive consequences of Bilingualism**

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## **Abstract**

Bilingualism is when a person can understand and speak two languages, for example understanding and speaking both English and Spanish. When it comes to bilingualism, it is seen as a tool to help communicate with others that speak other languages, such as Spanish, French, English and Chinese. Previous research has identified positive social aspects of bilingualism like communicating with others and having a sense of belonging, along with negative social aspects such as racism. Along with the social aspects, there is also the cognitive aspects like bilingualism helping with cognitive decline due to aging. The present study took a qualitative approach to addressing the social and cognitive consequences of bilingualism in a sample of American college students. Eight participants who identified as bilingual completed an online survey, in which they answered whether and how being bilingual has resulted in advantages and disadvantages in both the cognitive and social domains in their experience. The results showed that most participants could identify social and cognitive advantages and disadvantages to being bilingual, consistent with previous research. Based on this study, more research should be done to understand the lived experiences of bilingual students and adults, and how it relates to discrimination, racism, and performance at work and school.

*Keywords: Bilingualism, Language, Social, Cognitive*

## **Investigation of the Social and Cognitive consequences of Bilingualism**

Bilingualism is the ability to understand and speak two languages fluently while multilingualism is the ability to speak and understand more than two languages. It is estimated that close to half of all humans are bilingual (Mathews, 2019). While in the United States of America the prevalence of bilingualism is close to 20%, this number has increased in recent decades (Gration, 2022). Therefore, it is important to understand the social and cognitive consequences of speaking more than one language. In past research it has been suggested, for example, that bilingualism may help with children's cognitive development and protect against the declines that is associated with aging, but that it also might slow down aspects of language learning (Bialystok et al., 2004).

One example of bilingualism having a positive social impact comes from a study by Ikizer and Ramirez Esparza (2017), which hypothesized that being bilingual can affect social flexibility. The researchers asked two main questions: is increased social flexibility an advantage of being bilingual and is social flexibility in bilinguals related to frequency of social interactions? The participants in this study were living in the United States or in Canada and had to complete an online survey. There were 465 participants who were monolingual and there were 265 participants who were bilingual. The results showed that though bilinguals are cognitively flexible in their ability to switch between different languages, they are also socially flexible, showing that there is more of an ease when it comes to different social environments and reading social cues. However, in rebuttal of this study, Vives and colleagues (2018) critically assessed details about the questions that were asked in the study by Ikizer and Ramirez Esparza. For example, in the first study, had included different cultures in the groups that were presented which were Latin and Asian cultures vs North American cultures, both Latin and Asian cultures

are known to be more collectivist than North American cultures that are more individualist. With two different cultures in the study, there is a result on how socially flexible many of the participants are when speaking a different language. In which having more bilinguals report having more social interactions than the monolingual participants. The second issue that was described was that, between the two groups, and the bicultural participants in the monolingual group were excluded for the study, while the bicultural participants were not excluded from the bilingual group. The result of this issue showed that those certain results were unbalanced. An example of this, is that almost half of the participants were of Latin or Asian ethnicity were bilingual, but when it comes to the monolingual sample only 2.4% of the Latin or Asian ethnicity were accounted for. Along with that unbalance, the two samples were different when it came to education level, in which one third of the monolingual group had a high school degree or less. While it only applied to 12.1% of the bilingual, hence it would make it seem that the participants in the bilingual group was more educated along with more bicultural. Overall showing the information that was gathered was very unclear since there is a large imbalance when it comes to the samples.

There is also how bilingualism is viewed in different parts of the world socially and how it is viewed in the United States of America. In a theoretical paper, it goes into detail about Madrid, Spain, where schools are starting to teach children from the early ages of 0-3 years old, to learn a second language, which was English (Ramírez-Esparza et al., 2020). While other countries like the United States do not put much importance on bilingualism but instead there is more of an emphasis monolingualism until when it comes to the labor force, in which there is a major emphasis on bilingualism. The paper also goes into details about the negative aspects of bilingualism socially. For example, it goes into detail about how despite the United States being

a very multicultural country there is an emphasis on monolingualism, and there are negative stereotypes when it comes to certain languages, which are seen as low status. Therefore, some immigrant parents would then try to discourage their children from learning their native language so it would be easier to assimilate into mainstream culture.

When it comes to children, other factors may impact their ability to speak another language, such as coming from a low socioeconomic household, which may compound certain cognitive disadvantages when it comes to bilingualism. For example, a study by Meir and Armon-Lotem (2017) recruited 120 Hebrew and Russian speaking children. 88 of the children were bilingual, and 44 of the bilingual children came from a low socioeconomic status household. There were 32 monolingual children, 16 of whom came from a low socioeconomic household. The two groups had to do four tasks: expressive vocabulary in Hebrew, Hebrew forward digit span, Hebrew nonword repetition, and finally Hebrew Sentence repetition. The results showed that the children who were monolingual tended to outperform the children who were bilingual, along with the result that the children who were in a lower socioeconomic status were outperformed by the children who were in a mid-to-high socioeconomic status household. Along with this, it shows that when it comes to factors to like incomes in different household has a great impact, both social and cognitively.

In another study, the researchers examined if being bilingual can lead to better performance on certain cognitive tasks (Thomas-Sunesson et al., 2016). The study included 64 Hispanic children from the ages of 8-9 years old that came from a low socioeconomic status household. The participants performed four tasks: a Raven's general intelligence task, a Flanker task which measures executive control with conflict, a stop signal task which measured response inhibition, and the frog task which measured working memory. They also completed a set of

language tasks both in English and Spanish with two weeks in between. The results showed that the children had a better balance in language proficiency in the two languages when it came to their language skills and the flanker and frog task has shown that the bilingual children had outperformed those of the children who were designated as monolingual. The implication of this study showed that despite the children coming from a low socioeconomical background, their language proficiency has a better balance than the children who were monolingual.

The present study investigated the experiences of bilingual and multilingual students at a public liberal arts college through the use of qualitative methods. The purpose of this study was to explore the social and cognitive effects of bilingualism. Most studies have not focused on how bilinguals themselves feel about how being bilingual has affected them directly in certain social and cognitive situations. These data can be valuable, informing future research and offering a deeper understanding of the experience of the participants.

## **Methods**

### **Participants**

This study was embedded in a larger study on the experiences and sense of belonging of Purchase College students. Participants were recruited from SUNY Purchase through the Purchase College Participant Pool. Additionally, professors were contacted about offering extra credit for research participation to their student in other courses. Among all of the students who completed the larger study, there were 8 participants who identified as bilingual and were included in the present observational study. The participants were from the ages of 18-25 years old ( $M= 20.88$ ,  $SD= 2.23$ ). There were also 3 male participants, 4 female participants and one participant who preferred not to say. Six out of the 8 bilingual participants spoke Spanish and

English, while one participant spoke Turkish and English, and lastly another participant spoke French and English.

### **Procedure and Material**

The study was created using Qualtrics online survey software. The participants completed the study from any electronic device (e.g., a laptop, desktop, or smartphone). At the beginning of the survey, participants answered a couple of basic demographic questions, including whether they consider themselves to be bilingual/multilingual or monolingual: “Do you speak any other languages fluently besides English? In other words, do you consider yourself to be bilingual/multilingual?” (Yes, I speak more than one language fluently (I am bilingual/multilingual)/ No, English is the only language I speak fluently) and “Was English the first language you learned, or was it your second (or third) language?” (Yes, English was the first language I learned/ No, English was not the first language I learned).

Participants who identified as bilingual/multilingual then answered a series of questions about their language use and ability, as well as their positive and negative experiences as bilingual. Specifically, there were four key multiple-choice questions, each followed by a text entry free response: (1) “Do you think that being bilingual/multilingual has ever given you an advantage in certain social situations? (yes/no/ maybe). Please explain (free response),” (2) “Do you think that being bilingual/multilingual has ever put you in a disadvantage in certain social situations? (yes/no/maybe). Please explain (free response),” (3) “Do you think that being bilingual/multilingual has ever given you an advantage in how you process information or perform in cognitively demanding situations? (Yes/no/maybe). Please explain (free response),” and (4) “Do you think that being bilingual/multilingual has ever put you at a disadvantage in how you process information or perform in cognitively demanding situations?” (Yes/No/Maybe).

Please explain (free response).” They then completed some additional measures and demographic questions, which were part of the larger study. After the participants completed the survey, they were debriefed and thanked for their time. The larger study took approximately 15-20 minutes.

## Results and Discussion

### Social Advantages of Bilingualism?

Six out of eight participants reported that they felt that, yes, being bilingual helped them socially. They emphasized that these benefits related to communication with others and for others, especially when it comes to the work force. The two other participants responded “Maybe” to this question. One participant felt this way because they learned French, a language that they do not use all of the time. However, they still see it as something that is good for their development. See Table 1 for the detailed participant responses.

Table 1. Participant responses to the question of whether being bilingual ever afforded social advantages.

Participant	Explanation of Response
1-Yes	When I worked in construction most of the workers only spoke Spanish which made me a translator for my foreman.
2- Yes	Being bilingual has given me the opportunity to communicate with a wider array of people, also giving me an edge in employment opportunities. I find that once people who speak Spanish know I can understand them, they open up and feel more comfortable with me.
3-Maybe	[no response]
4- Maybe	I don't often need to speak French, so it doesn't give me any advantage in that sense. But I suppose that learning two languages was good for me developmentally.
5- Yes	I work in a very small town but there are some other Spanish speakers and I have been able to help them because I can communicate with them
6- Yes	Being able to speak both English and Spanish fluently has allowed me to act as a translator for people who needed help getting accustomed to speak English. It also helps me in my resume.
7- Yes	Yes, defiantly because it allows me to hold more conversations with other people who spoke the same language.
8- Yes	I'm able to communicate to a wider range of people.



### **Social Disadvantage of Bilingualism?**

Four out of the eight participants reported that no, that there are no social disadvantages when it comes to bilingualism. One of the participants even said that, in fact, people are impressed when they come to find out that they can speak multiple languages. Two out of the eight reported that yes, there are some social disadvantages when it comes to bilingualism. Specifically, they highlighted that there is racism and discrimination in the workplace and that some employers may look down upon those who are Spanish speakers in the US context. They also observed that when it comes being in two different cultures, it may be a bit harder to be accepted by both. See Table 2 for more detailed responses.

Table 2. Participant responses to the question of whether being bilingual had any social disadvantages.

1- Maybe	[no response]
2- Yes	Especially in employment in restaurants/housekeeping, those who hired the other Spanish speakers and me will talk down to you. I feel at times even making and expecting you to work harder than those who only speak English. The racism and discrimination are now also placed on me, although I was born here in the US. If politics ever come up in social situations, my views are often disregarded.
3- No	[no response]
4- No	Doesn't apply
5- No	I have found that it mainly helps and never hinders
6- No	I have never encountered a situation where I felt disadvantaged because of my bilingualism. In fact most people are impressed with my ability to speak multiple languages.
7- Maybe	I'm not too sure on how to answer
8- Yes	Sometimes it may feel hard to be fully accepted into both cultures

### **Cognitive Advantage of Bilingualism?**

Five of the eight participants reported that yes, there is advantage cognitively when it comes to bilingualism, and the other three. One reported that bilingualism may be good for one's

memory. Another participant also has mentioned, having a better understanding when it comes reading and writing in two languages. Lastly another participant stated how they can interpret certain words that cannot be explained in one language but can be explained in another. Three of the eight reported that maybe there is some advantage cognitively when it comes to bilingualism. One of the reasons being that it might not be the fact that they are bilingual, but it is more in the effort it takes in becoming bilingual. See Table 3 for the detailed responses

Table 3. Participant responses to the question of whether being bilingual ever afforded cognitive advantage.

1-Yes	I think it's good for my memory
2-Yes	It has given me a wide array of views, expanding my perceptions and interpretation of situations using language. Some words and feelings are better said and viewed through Spanish since English lacks the words.
3-Yes	I think my brain is trained to work harder to distinguish both languages. I don't know much about it though.
4-Maybe	Perhaps not being bilingual itself, but the effort it required to become bilingual.
5-Maybe	I'm not too sure about this one honestly.
6-Yes	Knowing Spanish, so understanding, reading, and writing Spanish has allowed me to gain a valuable tool, especially in terms of reading and writing.
7-Yes	sometimes I believe I think in different ways depending on the language I am trying to speak
8-Maybe	Not necessarily.

### **Cognitive disadvantage of Bilingualism?**

Four out of the eight participants reported that yes, there is a disadvantage cognitively when it comes to bilingualism, while one participant reported “maybe.” One reason is that sometimes it is harder to translate between languages, specifically academically. One of the participants explained that they think in Spanish more than they think in English, and since all of their classes are taught in English, it takes a while to process the language. Another participant found it hard to complete state exams, integrate with the people around them and find friends.

Two of the eight participants reported that there is no cognitive disadvantage to bilingualism, reporting that beside certain dialects that are spoken from other Spanish speakers, it does not stop them from communicating with others.

Table 4. Participant responses to the question of whether being bilingual had any cognitive disadvantage.

1- Maybe	[no response]
2-Yes	I noticed in college that I understand math when I think in Spanish than in English. Since all my math classes are taught in English, it takes me longer to process the questions.
3-Yes	I came to the U.S. when I was 10, it was hard completing state exams. As well as integrating, finding friends.
4-No	
5-Yes	Sometimes it can be hard to keep up with other people speaking the same language.
6-No	Having mastered Spanish, there is nothing that I can't process unless it is a difference in dialect like how some Spanish speaking countries have different meanings for the same word but that usually doesn't deter me from being able to communicate with anyone.
7-No	[no response]
8-Yes	It is easy to get both languages mixed up sometimes.

### General Discussion

Previous research has identified positive social aspects of bilingualism like communicating with others and having a sense of belonging, along with negative social aspects such as racism. Along with the social aspects, there is also the cognitive aspects like bilingualism helping with cognitive decline due to aging. The present study took a qualitative approach to addressing the social and cognitive consequences of bilingualism in a sample of American college students. Eight participants who identified as bilingual completed an online survey, in which they answered whether and how being bilingual has resulted in advantages and disadvantages in both the cognitive and social domains in their experience.

The results of the study illustrate how being bilingual has affected the participants both positively and negatively. The social advantages are that these participants are communicating with others and even for others, having a better understanding of the people around them. The social disadvantages of this observational study are sometimes in some working environments there is racism and discrimination for those who speak a different language. In this case those who were Spanish speakers explained how they viewed differently especially when it comes to their employers.

The cognitive benefits of bilingualism reported by participants include the feeling that it helps their memory and how they express themselves in one language when the other language is lacking. Along with the fact that when trying to distinguish the two languages, the brain would work harder to interpret both and knowing how to speak and write in Spanish and English is a valuable tool. The negative cognitive consequences of bilingualism reported by participants includes the feeling that it takes longer to translate between languages in class, hence it takes longer to process questions. They also experience difficulties trying to keep up with other people when they are speaking the same language. Lastly, when it comes to both languages, it can get mixed it up a bit. These results are consistent with other findings (e.g., Ramírez-Esparza et al., 2020), which suggest when it comes to the work force, there a benefit when it comes to bilingualism, with those who translate between for employers to employee and those who communicate between other employees.

When it comes to the implications of this study, it suggests that being bilingual, based of participants' subjective experiences, is something that is beneficial to them both socially and cognitively. Additionally, the study did show there was more to the consequences of bilingualism than just communicating with others in difference languages. There are serious

implications for how people view them, which may lead to discrimination and racism. There are also negative experiences related to how a bilingual person can process two languages at the same time. When it comes to prevent these negative consequences, there are things like having more bilingual classes in school starting from an early age, which could improve one's social and cognitive development. There is also having more classes in different languages so students whose first language who isn't English can still understand what is going on in classes.

The limitation of the study, there was a small sample size; with a small sample size there is limited experience. The sample size only showed students who were in higher education and maybe not having a higher education could affect someone's experience with being bilingual. The future directions of this observational study would be having more in-depth questions, for example, if anyone experience discrimination while speaking another language, and include more participants who learned another language through school and those who grew up learning another language and compare their experience with one another.

## References

- Bialystok, E., Craik, F. I., Klein, R., & Viswanathan, M. (2004). Bilingualism, aging, and Cognitive Control: Evidence from the simon task. *Psychology and Aging, 19*(2), 290–303.  
<https://doi.org/10.1037/0882-7974.19.2.290>
- Gration, E. (2022, April 5). *Bilingualism statistics in 2021: US, UK & Global*. Language learning with Preply Blog. Retrieved May 5, 2022, from  
<https://preply.com/en/blog/bilingualism-statistics/>
- Ikizer, E. G., & Ramírez-Esparza, N. (2018). Bilinguals' social flexibility. *Bilingualism: Language and Cognition, 21*(5), 957-969. doi:<https://doi.org/10.1017/S1366728917000414>
- Mathews, Jay. “Perspective | Half of the World Is Bilingual. What's Our Problem?” The WashingtonPost, WPCompany, 25Apr.2019, [www.washingtonpost.com/local/education/half-of-the-world-is-bilingual-whats-our-problem/2019/04/24/1c2b0cc2-6625-11e9-a1b6-b29b90efa879\\_story.html](http://www.washingtonpost.com/local/education/half-of-the-world-is-bilingual-whats-our-problem/2019/04/24/1c2b0cc2-6625-11e9-a1b6-b29b90efa879_story.html).
- Meir, N., & Armon-Lotem, S. (2017). Independent and combined effects of socioeconomic status (SES) and bilingualism on children's vocabulary and verbal short-term memory. *Frontiers in Psychology, 8*, 12..doi.org/10.3389/fpsyg.2017.01442
- Ramírez-Esparza, N., García-Sierra, A., & Jiang, S. (2020). The current standing of bilingualism in today's Globalized World: A socio-ecological perspective. *Current Opinion in Psychology, 32*, 124–128. doi.org/10.1016/j.copsyc.2019.06.038
- Thomas-Sunesson, D., Hakuta, K., & Bialystok, E. (2016). Degree of bilingualism modifies executive control in Hispanic children in the USA. *International Journal of Bilingual Education and Bilingualism, 21*(2), 197–206. doi.org/10.1080/13670050.2016.1148114
- Vives, Marclluis., M. L.Repke, Lydia., & Costa, Albert. (2018). Does bilingualism really affect social flexibility? *Bilingualism: Language and Cognition, 21*(5), 952–956.  
<https://doi.org/10.1017/s1366728918000123>