## Implicit evaluations of Canada and France among Quebec Residents

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#### Abstract

Quebec's cultural environment is unique in North America, as it has essentially emerged from a French heritage while being part of a primarily English-speaking country. Although it has been argued that Quebecers generally identify with the Quebec province more than the country of Canada, their attitudes towards Canada versus France have yet to be examined. To further understand the underlying elements in Quebecers' national attitudes, this study examined whether people from Quebec show more implicit and explicit preference towards Canada (with whom they share a nationality) versus France (with whom most share a language). In the study, 183 individuals aged between 18 and 72 years completed an Implicit Association Test (IAT) comparing implicit preference towards France and Canada and measures of explicit attitudes in addition to support for relevant policies. Results suggested that both Anglophone and bilingual (French and English) participants showed an implicit preference for Canada. While no significant differences were found in implicit attitudes between the two groups, bilinguals showed a reduced explicit preference for Canada relative to monolingual Anglophones on the aggregate explicit attitudes variable. Our results align with the notion that implicit and explicit attitudes may stem from different sources.


Keywords: Quebec, Canada, Linguistic identity, Implicit Attitudes, Cultural Identity

## Introduction

Quebec's cultural context is uncommon, as it has been heavily influenced by French culture throughout history while being part of a predominantly English-speaking country. As a result, while Francophone Quebecers generally identify with Quebec, people in Anglophone provinces tend to have a sense of belonging towards Canada more broadly (Bourhis, 2012; Lehnert \& Hörstermann, 2019). Having continually struggled with linguistic assimilation efforts, the Quiet Revolution that took place in the 1960s represented a major turning point for redefining the collective identity of Quebec (Bourhis, 2012; Castonguay, 2005; Lamarre, 2013). Indeed, this movement led to important reforms such as the secularization of government and the nationalization of electricity (Bourhis, 2012; Castonguay, 2005; de la Sablonnière, 2008).

The Quiet Revolution also brought along greater initiatives to address the perceived threat towards the French language relative to the presence of English and improve its status and vitality, such as the creation of Bill 101 in 1977. This law officialized French as Quebec's main language and incorporated actions such as requiring the use of French in all governmental actions and imposing instruction in French for all future immigrants (Bourhis, 2012). In the times since, the French language has become a fundamental element in Quebec's collective identity as Francophone Quebecers moved from identifying as "Quebecois" rather than "French-Canadian" (Bourhis, 2012; de la Sablonnière, 2008; Sioufi et al., 2015). However, despite being officially recognized as a "nation within a united Canada" in 2006 (HOC Rep. No. 087, 2006), Quebec remains a province within Canada while still maintaining close diplomatic relationships with France.

Indeed, Cornut (2016) posited that France holds an important role in Quebec's international affairs. For instance, out of 387 international agreements, Quebec had 19 active
agreements with the state of New York, 13 with Mexico, and 12 with China in 2012. In contrast, 64 of those agreements were with France, making it Quebec's most important partner (Cornut, 2016). Additionally, the range and depth of the diplomatic relationships between Quebec and France are noteworthy, as their agreements include cooperation in transportation, academic research, immigration and diploma recognition (Cornut, 2016). Most prominently, the emergence of the Quiet Revolution fueled partnership between France and Quebec to preserve the French language, leading to the creation of organizations such as the Commission Permanente de Coopération Franco-Québécoise in 1965 and the Conseil Franco-Québécois de Coopération Universitaire in 2008 (Cornut, 2016; Meren, 2009).

It is also worth noting that as nationalism arose throughout the period of the Quiet Revolution in Quebec, the French government showed support for the independence of Quebec, as manifested by General de Gaulle when he publicly pronounced "Vive le Québec libre!" (Meren, 2009, p.279) during an official visit to Montreal in 1967 (Bourhis, 2012; Cornut, 2016; Lecours, 2017). Despite damaging its relationship with Canada as a whole, this highly controversial declaration has been perceived as an "essential ingredient" (Cornut, 2016, p.162) in the collaborative nature of France's relationship with Quebec (Cornut, 2016; Meren, 2009). Nevertheless, subsequent French leaders preferably opted for a "ni-ni policy" (Cornut, 2016, p.165) where they abstained from showing support towards Quebec remaining in Canada or not, as an effort to stay out of any federal-provincial dispute and promote positive relations with both Quebec and Canada. Despite it all, the cooperation between France and Quebec in the promotion of the French language remains central to this day (Cornut, 2016; Massie, 2012).

On the other hand, it has been widely recognized that the relationship between Quebec and the rest of Canada is rather intricate, particularly in terms of linguistic tensions. As
previously mentioned, Francophone Quebecers mostly identify with the Quebec nation, whereas English-speaking provinces tend to identify with Canada as a whole (Medeiros et al., 2016; Bourhis, 2012). Further, the presence and status of English in the province have considerably changed over time: up to the 1960s, Francophones in Quebec frequently had low levels of education and worked low-income jobs, while the upper class was mostly comprised of Anglophones (Medeiros, 2016; Floch \& Pocock, 2012; De la Sablonnière, 2008). Conversely, French-speaking Quebecers became increasingly wealthy and educated over the years following the Quiet Revolution and the officialization of French as Quebec's primary language with Bill 101, whereas the Anglophone community saw a continuous decline in its presence and influence (Bourhis 2012; De la Sablonnière, 2008).

Although French is the official language and the most used in most parts of Quebec today, English remains the predominant language in some contexts, especially in Montreal, such as in certain neighbourhoods, schools, and universities. (Lehnert \& Hörstermann, 2019). For instance, in 2016, out of 1.7 million inhabitants, $65.3 \%$ of Montrealers reported French as their mother tongue, and $23.8 \%$ reported English. Comparatively, $79.1 \%$ of the Quebec population reported French as their mother tongue, and $8.9 \%$ reported English as their native language (Lehnert \& Hörstermann, 2019; Statistics Canada, 2016). Even after the adoption of Bill 101, many Francophones, particularly in Montreal, feel linguistically oppressed by the presence of English in Quebec and believe that more measures to support the status of French in the province should be in place (Bourhis, 2012). Conversely, Anglophones in Quebec also feel threatened by the growing dominance of French and the decline of the Anglophone community compared to Quebec's Francophone majority (Sioufi \& Bourhis, 2018; Bourhis, 2012; De la Sablonnière; 2008).

## The Psychology of Social Identity

Over the past century, social identity has largely been studied and linked to intergroup behaviour. Group membership can broadly influence one's sense of self by helping to delineate boundaries between the self and others, shaping how people understand the world around them (Bourhis, 2012; Cooper et al., 2001). Similarly, intergroup attitudes are thought to have implications regarding behaviour, so it has been of great interest to seek a better understanding of intergroup attitudes, such as how they develop and relate to other forms of beliefs and behaviours (Bohner \& Dickel, 2011; Medeiros et al., 2016).

In an effort to link outgroup contact with nationalist attitudes among Francophone Quebecers, Brie and Ouellet (2020) conducted a study in which they tested the extent to which exposure to written English in a survey, as opposed to a survey in French, would predict support for Quebec's independence. Their results suggested that, for Francophone Quebecers who were exposed to spoken English often in their daily lives, greater exposure to written English (versus written French) in the experimental condition predicted support for Quebec's independence. They concluded that contact with this linguistic outgroup increases support for nationalism in the context of their study (Brie \& Ouellet, 2020). Moreover, Medeiros et al. (2016) conducted a study among Francophone undergraduates in Montreal that aimed at examining whether perceived threat towards a group's language would lead to higher intergroup conflict. To do so, they administered newsletters containing either positive or negative information about the status and presence of French in Quebec over four weeks and assessed participants' perceptions of threat regarding French before and after completing the study. The results indicated that the type of information presented to the Francophones influenced their perceptions of threat towards the French language. More specifically, showing them stories suggesting that the state of French in

Quebec is healthy led to reduced perceived linguistic threat. Additionally, Sioufi and Bourhis (2018) examined how financial possibilities and linguistic tensions affected intentions of staying in Quebec or moving to another Canadian province among Francophone and Anglophone undergraduates in Montreal. Results found that avoiding linguistic tensions and perceived discrimination based on their mother tongue and accent were significant predictors of Anglophone participants' willingness to leave Quebec despite it being their province of origin.

## Automatic Aspects of Identity

Implicit attitudes refer to automatic responses when facing stimuli related to a group rising from previously formed associations of a particular group (Mauchand \& Pell, 2021; Gawronski \& Bodenhausen, 2006). Indeed, implicit attitudes generally correlate with explicit (i.e., self-reported) attitudes, and even though the latter tends to have a stronger relationship with behaviour, it has been found that implicit measures add to the predictive validity already shown by explicit measures (Bohner \& Dickel, 2011; Buttrick et al., 2020).

Implicit and explicit attitudes have been widely studied across numerous topics, including within the context of linguistic and cultural differences. For instance, in two separate studies, Devos (2006) administered the Implicit Association Test (IAT), which is a measure of implicit attitudes, to Mexican-American and Asian-American students in order to examine the degree of identification with American culture and with their "culture of origin" (Devos, 2006, p.381). In both studies, bicultural individuals displayed strong associations between "me" words and symbols of American culture and their culture of heritage on the IAT, whereas European American individuals mostly associated "me" words with symbols of American culture. More precisely, the results from these studies indicated high identification with both cultures among Mexican American and Asian American participants at implicit and explicit levels. The author
concluded that implicit measures such as the IAT are appropriate for examining multicultural identities. Similarly, Mauchand and Pell (2021) explored implicit and explicit biases based on European French and "Quebecois" French accents in Montreal. They used a modified version of the IAT containing auditory stimuli, and their results suggested that French participants displayed significant implicit ingroup bias, while no significant preferences for either group were found among participants from Quebec (Mauchand \& Pell, 2021). The authors also noted that the relationship between implicit and explicit measures did not reach significance, which led them to conclude that implicit and explicit biases based on people's accents might emerge from separate sources.

As previously discussed, relationships between Anglophones and Francophones in Quebec and Canada have been studied with diverse approaches. Additionally, it has been put forward that Quebecers generally show more preference for the province of Quebec rather than Canada as a whole. Still, their attitudes towards Canada versus France have yet to be examined. To further understand underlying components of Quebecers' cultural identity, the central question of this study will examine whether people from Quebec show more implicit preference towards Canadians, with whom they share a nationality, or towards French people, with whom most share a language. To address this question, we measured and correlated implicit and explicit measures of attitudes towards Canada and France. We also used t-tests to compare implicit and explicit attitudes towards Canada and France between Anglophone and Francophone-Anglophone participants.

## Method

## Participants

The study sample consisted of 183 individuals recruited from Prolific $($ Mean age $=29.8$, $\mathrm{SD}=10.6,50.8 \%$ White, $36.6 \%$ female) and received $£ 1.20$ for their time. The study was restricted to Quebec residents. For linguistic identity, 116 participants identified as Anglophone, 19 identified as either Francophone or both Anglophone and Francophone, and 48 identified as neither. Participants for whom more than $10 \%$ of responses in the IAT trials were faster than 300 ms were excluded from analyses (1.08\% of participants).

We initially aimed to collect data from a minimum of 80 participants who identify as a Francophone Canadian, which would provide a statistical power of $80 \%$ to detect a correlation as small as $r=.30$ and IAT effect size as small as $d=.32$. However, since only 19 participants in the sample identified as either Francophone or both Anglophone and Francophone, we adjusted our analysis plan to focus on comparisons between Anglophone and Francophone participants. The fact that the study was programmed in English made recruiting exclusively Francophone participants difficult, but we anticipate translating the study into French for future data collections.

## Procedure

In a randomized order, all participants completed a demographics questionnaire, an explicit preferences measure, a questionnaire that assessed similarity perceptions and policy support, and an IAT that compared implicit preferences towards France and Canada. After completing the study, participants were shown a debriefing page that provided additional information about the study.

## Measures

Implicit Association Test: Each participant completed an IAT that measured the association between Canada and France with positive and negative words. Stimuli for the Canadian category included an image of the Canadian flag, an image of a map of Canada, and the words "Canadian" and "Ottawa". Stimuli for the French category comprised an image of the French flag, an image of a map of France, and the words "French" and "Paris". In terms of attribute categories, positive word stimuli included the following terms: "Friend", "Smiling", "Adore", "Joyful", "Pleasure", "Friendship", "Happy", "Attractive", "Cherish", "Glad". Negative word stimuli included the following terms: "Bothersome", "Awful", "Pain", "Nasty", "Dirty", "Hatred", "Rotten", "Horrific", "Hurtful", "Annoy".

Demographics: Participants reported their age, gender, racial identity, whether they reside in Quebec, whether they were born in Quebec, linguistic identity (I identify as Anglophone, I identify as Francophone, I identify as neither, I identify as both) and proficiency in French (1= not at all proficient, 5=extremely proficient).

Explicit preferences: Participants completed five items related to self-reported attitudes towards French and Canadian people. One item assessed relative preference ( $1=\mathrm{I}$ strongly prefer French people to Canadian people, 7= I strongly prefer Canadian people to French people). Two thermometer items separately assessed liking for Canadian people and French people ( $1=$ strongly dislike, $7=$ strongly like). Finally, two slider thermometer items measured felt positivity or negativity separately towards Canadian people and French people $(-100=$ "very negative", 100 ="very positive"). An aggregate explicit attitudes variable was created by standardizing and averaging: 1) the relative preference item, 2) a difference score from the thermometer items, and 3) a difference score from the slider items (Buttrick et al., 2021). The item was scored such that higher values meant more positive attitudes towards Canada.

Similarity perceptions and policy support: Participants completed nine items related to perceived similarities and current policies between Quebec, France and Canada. As shown in the Appendix, four items assessed perceived resemblance between Quebec and each target group (e.g. 'Quebec values and Canadian values are very similar'; $1=$ strongly disagree, $7=$ strongly agree). Finally, five items described policies and recent controversial events surrounding francophone-anglophone tensions in Quebec and assessed the degree to which the participant agreed or disagreed with each item (e.g. 'Numerous commercial spaces in Montreal use the phrase "Bonjour, hi" to greet customers.'; $1=$ strongly disagree with this practice, $7=\mathrm{I}$ strongly agree with this practice).

## Data analysis

We used one sample t-tests to test if $D$ scores of participants who identified as 1) Anglophone, or 2) solely Francophone or both Francophone and Anglophone were significantly different from 0 . Scores significantly lower than 0 would indicate implicit preference for France on the IAT, whereas scores significantly greater than 0 would indicate implicit preference for Canada on the IAT. Then, we used an independent samples t-test to compare $D$ scores between participants who identified as Anglophone versus those who identified as either solely Francophone or both Francophone and Anglophone. We used another independent samples t-test to compare scores on the aggregate explicit attitudes variable between participants who identified as Anglophone versus those who identified as either solely Francophone or both Francophone and Anglophone. Finally, we ran a series of Pearson's correlations to examine relationships between $D$ scores and each item of the similarity perceptions and policy support questionnaires and between $D$ scores and the aggregate explicit attitudes variable.

## Results

## Overall IAT Performance

IATs were scored by the $D$ algorithm (Greenwald et al., 2003). First, we conducted a one sample t -test on the $D$ scores of participants who identified as either Francophone or both Anglophone and Francophone to examine whether these scores significantly differ from 0 . Despite the relatively small sample size, results indicated that participants who identified as Francophone or bilingual showed an implicit preference for Canada on the IAT ( $M=0.36, S D=$ $0.29, t(18)=5.47, \mathrm{p}<0.001, d=1.25)$. We conducted another one-sample $t$-test on the $D$ scores of participants who identified as Anglophone, which also indicated that this group of participants showed an implicit preference for Canada on the IAT $(M=0.44, S D=0.36, t=13.08, \mathrm{df}=115, \mathrm{p}$ $<0.001, d=1.22)$.

We next conducted an independent samples t-test comparing $D$ scores between participants who identified as either Francophone or both Anglophone and Francophone and participants who identified as Anglophone, which revealed no significant differences between the two groups $(t=0.87, \mathrm{df}=133, \mathrm{p}=0.39, d=0.23)$. Finally, we conducted another independent samples $t$-test comparing the scores on the aggregate explicit attitudes variable (higher values meant more positive attitudes towards Canada) between participants who identified as either Francophone or both Anglophone and Francophone ( $M=-0.43, S D=0.43$ ) and participants who identified solely as Anglophone ( $M=0.05, S D=0.91$ ). Levene's test suggested that the variances for scores on the aggregate explicit attitudes variable were not equal, $\mathrm{F}(1,133)=8.57, \mathrm{p}=.004$. The independent samples $t$-test revealed a significant difference between the two groups $(t=2.24, \mathrm{df}=133, \mathrm{p}=0.03, d=0.67)$.

## Correlations with Explicit Attitudes and Policy Beliefs

We conducted a Pearson's correlation between $D$ scores and a standardized indicator of explicit attitudes, where higher values meant greater preference for Canada. The correlation was not significant ( $r=0.06, p=0.38$ ). Next, using the whole sample, we ran Pearson's correlations to correlate $D$ scores with the items from the similarity perceptions and policy support questionnaire. As shown in Table 1, none of the correlations reached significance.

Table 1 Correlation Between D scores and Items on the Similarity Perceptions and Policy Support Questionnaire

|  |  | Pearson's r |
| :--- | :--- | :--- |
| Variable | p-value |  |
| "Quebec values and French values are very similar." | -0.028 | 0.705 |
| "Quebec values and Canadian values are very similar." | 0.017 | 0.819 |
| "People who live in Quebec and people who live in <br> France share a cultural identity." | 0.006 | 0.938 |
| "People who live in Quebec and people who live in <br> other parts of Canada share a cultural identity." | -0.048 | 0.519 |
| "Quebec should be an independent country." | -0.143 | 0.053 |
| "An agreement between France and Quebec allows <br> French students to pay the same tuition fees as <br> Canadian students from outside Quebec rather than <br> paying international students tuition fees. To what <br> extent do you agree or disagree with this policy?" | 0.075 | 0.313 |
| "Bill 101, or the Charter of the French Language, <br> makes French the sole official language of the Quebec <br> government, courts, instruction and workplaces. To <br> what extent do you agree with this law?" | 0.023 | 0.754 |
| 2021 Debate Controversy item [See Appendix for full <br> text] | -0.104 | 0.161 |
| "Numerous commercial spaces in Montreal use the <br> phrase 'Bonjour, hi' to greet customers." | 0.118 | 0.111 |
| N=183. *p< 0.05 ; **p< 0.01 |  |  |

## Discussion

The main aim of this study was to examine whether people from Quebec would show more implicit preference towards Canada or France. We expected Francophones to show implicit preference for France and Anglophones to show implicit preference for Canada. We also expected implicit preferences for France to predict higher self-reported agreement with policies that protect the French language and with the notion of Quebec separatism while expecting lower self-reported agreement with policies like increasing the use of English in commercial spaces in Quebec.

The findings suggested that both Anglophones and bilinguals showed implicit preference for Canada over France. This is consistent with the concept of ingroup favouritism (Tajfel, 1974; Tajfel et al., 1971), considering that the whole sample was Canadian, and most participants reported the English language as part of their linguistic identity. It is also noteworthy that although no significant differences between Anglophones and bilinguals in terms of implicit attitudes were found, their scores on the aggregate explicit attitudes variable were significantly different. More specifically, bilinguals showed explicit preference for France while Anglophones showed explicit preference for Canada, and both groups showed an implicit preference for Canada.

This discrepancy between implicit and explicit attitudes has been noted in previous research and used to suggest that implicit and explicit attitudes stem from different sources (e.g., Rudman, 2004). As put forward by the many existing dual-process theories, one form of evaluation (explicit attitudes) is more controlled, and the other form (implicit attitudes) is more automatic and less related to conscious goals (Nosek et al., 2011). For instance, consistent with the notion that implicit attitudes might be more closely related to affective mechanisms rather
than cognitive ones, Smith and Nosek (2011) conducted a study in which they found higher correspondence between implicit and explicit attitudes if participants focused on their emotions as opposed to their thoughts and beliefs when reporting their explicit attitudes.

Notably, Rudman (2004) posits possible forces that may differentially affect implicit versus explicit attitudes, highlighting that the cultural environment possibly exerts a stronger influence on implicit than explicit attitudes. For example, a study among Korean and Japanese Americans indicated that higher levels of immersion in the culture that corresponded to their ethnicity were associated with higher levels of implicit ingroup preference over explicit measures of ingroup preference (Greenwald et al., 1998; Rudman, 2004). Similarly, Nosek and colleagues (2007) discussed an unpublished study by Devos, Nosek, and Banaji in which they distributed two IATs to associate Native American and Asian American faces with the categories "Foreign" or "American". Participants tended to categorize Asian and Native American faces as foreign implicitly, but the opposite effect was reported at the explicit level. The authors explain that although most people are aware that associating Native Americans with America would be the most logical, the messages that are most pronounced in mainstream culture portray America as White, which is illustrated in the discrepancy between the IAT and self-reports (Nosek et al., 2007). In a similar vein, Arendt and Worthup (2015) found that long-term exposure to stereotypes via news media was more predictive of implicit than explicit attitudes in the United States and Austria.

These studies may help clarify the present results. Anglophones and Francophones both live in the same Canadian cultural environment, which may shed light on why they scored similarly on implicit but not explicit attitude measures in our sample. In Quebec's specific case, different cultural messages are transmitted at both provincial and federal levels, which can be
contradicting, particularly for individuals who present a sense of belonging towards both Anglophones and Francophones. In that sense, the fact that the study was conducted in English may have influenced what was cognitively available in terms of information related to the cultural context since bilinguals showed implicit preference for Canada. Perhaps if the measures had been completed in French, cultural messages specific to Quebec would have been reflected in the assessment of implicit attitudes. As a result, collecting data in French - both among bilingual and monolingual participants - is a clear direction for future research on this topic.

The impact of the cultural environment on implicit cognition is also clear in evaluations of groups with different statuses, such as those that differ in social power (Rudman et al., 2002). For instance, a study using data from over 2.5 million IATs across 17 topics revealed that people tended to show greater preference for higher-status groups implicitly than explicitly (Nosek et al., 2007). These results are also consistent with the present results, as the bilingual group showed implicit preference for Canada $(M=0.36, \mathrm{SD}=0.29)$ and explicit preference for France $(M=-0.43, \mathrm{SD}=0.43)$. Similarly, Rudman and colleagues (2002) found that people that were part of lower-status groups generally demonstrated implicit preference for the higher-status outgroup while showing explicit preference for their own group. These results align with the idea that implicit attitudes are more sensitive to cultural norms.

Consistent with this past research, the fact that, in our results, bilinguals, in particular, showed a dissociation in implicit and explicit preferences towards France and Canada might reveal that bilinguals are quite personally related to the issue since they identify with both linguistic groups. As mentioned above, Anglophones have been considered the higher-status group in Canada throughout history, particularly in Quebec, where frictions have been frequent between the two groups (de la Sablonnière, 2008; Lehnert \& Hörstermann, 2019; Medeiros et al.,
2016). However, the Anglophone community in Quebec has declined and reported feeling threatened in the past decades, and political initiatives have been taken to enhance the use of French in the province, so there is no longer an apparent demarcation indicating which is the higher-status group in Quebec (Bourhis, 2012).

## Limitations

This work contains several limitations. First, our sample lacked unilingual francophones. In the present study, bilinguals represented the non-Anglophone group, but they still identified with both an Anglophone and Francophone linguistic identity. Having a group of monolingual Francophones in the sample may yield more of an ingroup-outgroup effect in implicit evaluations, with greater implicit favouritism for France over Canada. More concretely, if monolingual Francophones were to show implicit preference for France, it would align with the idea that people generally show ingroup favouritism: monolingual francophones only have access to the French-Canadian identity, whereas bilinguals may see both Anglophones and Francophones as an ingroup.

Conversely, if monolingual Francophones were to show implicit preference for Canada, like participants in the present data, it could relate to the fact that all Canadians - including Francophones - share a common cultural context, and this context is responsible for shaping implicit France-Canada associations. As discussed, these cultural messages have been identified as a likely influence on implicit attitudes in previous studies. More broadly, it is also possible that Francophone Canadians simply see France as an even more distant outgroup than Anglophone Canadians, considering that they remain Canadian in terms of nationality.

The fact that the IAT was distributed in English is also a limitation of this study. As mentioned in the discussion, the language in which measures are assessed might influence the
information that is available cognitively. The results might have been different if the measures were distributed in French, as it is possible that the linguistic context of the study materials itself affects implicit evaluations. For instance, Ervin (1964) found that French-English bilinguals used different themes depending on the language when completing the Thematic Apperception Test (TAT), a task in which individuals have to describe images depicting an ambiguous situation. The author discussed that themes of verbal aggression towards peers were a recurrent theme in the French assessment compared to the English version as an example. Further, among other findings, a study by Chen \& Bond (2010) indicated that observers rated Chinese-English bilinguals differently on personality dimensions based on the language of the interview with a confederate. The authors proposed that bilingualism may lead individuals to adjust to the relevant linguistic context by displaying behaviours that are perceived as most appropriate.

From this perspective, we may speculate that having bilingual participants complete the measures in French could have resulted in implicit preference for France rather than Canada since bilingual participants would have been in "French mode" mentally, leading them to adjust to what they perceive as the Francophone social context. To address the possibility of such patterns, future research should use random assignment for the language of the study materials on bilingual participants.

## Future Directions

This work has several avenues for future work. First, subsequent studies could target generational differences in attitudes towards France and Canada among Anglophones and Francophones. That is, we may expect Quebec residents who lived during the Quiet Revolution years to have more polarized opinions concerning France-Canada relations regarding the use of English and French. As mentioned, this series of political events facilitated the rise of the French
language as the embodiment of the Quebecois identity and fostered ideas of independence among millions of Francophones (Bourhis \& Sioufi, 2017; Élections Québec, 1995; Lehnert \& Hörstermann, 2019). Similarly, Brie and Ouellet (2020) referred to Quebec independence as a "generational project" for baby boomers, whereas millennials generally do not support this stance. Given these generational differences, we may expect older Francophones to have stronger pro-France attitudes than Francophones from younger generations.

Moreover, it would be productive to look at attitudinal differences based on the location and the prevalence of the use of both English and French in the region. Consistent with the idea that intergroup contact between linguistic groups could promote negative attitudes towards outgroups, a study by Brie and Ouellet (2020) indicated that more frequent exposure to English predicted support for Quebec separatism among Francophones. Hopkins and colleagues (2014) conducted a similar study in which results revealed that exposing English-speaking Americans to written Spanish yielded higher anti-immigration attitudes, but only for those who were already exposed to spoken Spanish on a regular basis. Given this past work, we may anticipate Francophones who live in highly bilingual areas to show increased preference for France and possibly for Anglophones who live in highly bilingual areas to show an even higher preference for Canada.

Finally, the present study used positive and negative words in the IAT. Using words related to "me" versus "them" concepts could be a relevant avenue to specifically target identification towards France versus Canada rather than implicit preference. As mentioned, implicit preference isn't always directed towards one's ingroup, so looking at identification would be more informative from a national identity perspective. For instance, Devos (2006) used this approach to measure self-identification with American culture and culture of origin among

Asian American and Mexican American undergraduates. They found that participants identified with both cultures equally, even when comparing one against the other. It has already been indicated that Francophone Quebecers tend to identify with the province rather than Canada more generally (Medeiros et al., 2016; Bourhis, 2012), so targeting implicit identification instead of implicit preference could clarify whether either France (as a symbol for the French language) or Canada would outweigh the other in their identities, or if they are both equally present.

## Conclusion

This study was one of the first to examine attitudes of Canadian Anglophones and Francophones towards France versus Canada. We found that participants who identified as Anglophones and French-English bilinguals showed implicit preference for Canada. However, while Anglophones also showed explicit preference for Canada, bilinguals showed implicit preference for France. A large body of literature suggests that attitudes at the implicit level are more related to the cultural environment and more related to individual experience at the explicit level. These prior studies are consistent with our results, given that Anglophones and Francophones in Canada share a common cultural environment.

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## Appendix

## Similarity perceptions and policy support questionnaire

1. Quebec values and French values are very similar. [strongly disagree,... strongly agree]
2. Quebec values and Canadian values are very similar. [strongly disagree,... strongly agree]
3. People who live in Quebec and people who live in France share a cultural identity. [strongly disagree,... strongly agree]
4. People who live in Quebec and people who live in other parts of Canada share a cultural identity. [strongly disagree,... strongly agree]
5. Quebec should be an independent country. [strongly disagree,... strongly agree]
6. An agreement between France and Quebec allows French students to pay the same tuition fees as Canadian students from outside Quebec rather than paying international students tuition fees. To what extent do you agree or disagree with this policy? [strongly disagree,... strongly agree]
7. Bill 101, or the Charter of the French Language, makes French the sole official language of the Quebec government, courts, instruction and workplaces. To what extent do you agree with this law? [strongly disagree,...strongly agree]
8. During the English leaders' debate of the 2021 federal elections, the debate moderator asked Yves-François Blanchet (leader of the Bloc Québécois) the following question: "You denied that Quebec has problems with racism yet you defend legislation such as bills 96 and 21, which marginalize religious minorities, anglophones and allophones, Quebec is recognized as a distinct society, but for those outside the province, please help them understand why your party also supports these discriminatory laws." To which Blanchet responded: "The question seems to imply the answer you want. Those laws are not about discrimination. They are about the values of Quebec." To what extent do you agree or disagree with the decision to ask this question? [strongly disagree,...strongly agree]
9. Numerous commercial spaces in Montreal use the phrase "Bonjour, hi" to greet customers. [strongly disagree,...strongly agree]

## Tables

Table 2 Scores on the IAT and the Aggregate Explicit Attitudes Variable

| IAT |  | $\begin{array}{c}\text { Aggregate Explicit Attitudes } \\ \text { Variable }\end{array}$ |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Anglophones | $\begin{array}{l}\text { Francophones } \\ \text { and Bilinguals }\end{array}$ |  | Anglophones | \(\left.\begin{array}{c}Francophones <br>

and Bilinguals\end{array}\right]\)

Table 3 One Sample T-Tests Comparing IAT Scores Against a Neutral Value of 0

| $\boldsymbol{t}$ | $\boldsymbol{d f}$ | $\boldsymbol{p}$ | Cohen's $\boldsymbol{d}$ |  |
| :--- | :--- | :--- | :--- | :--- |
| Anglophones | 13.081 | 115 | $<0.001$ | 1.216 |
| Francophones <br> and bilinguals | 5.465 | 18 | $<0.001$ | 1.252 |

Table 4 Independent Samples T-Tests Comparing IAT Scores between Anglophones and Francophones/Bilinguals

| $\boldsymbol{t}$ | $\boldsymbol{d f}$ | $\boldsymbol{p}$ | Cohen's $\boldsymbol{d}$ |
| :--- | :---: | :--- | :--- |
| 0.865 | 133 | 0.388 | 0.232 |

Table 5 Independent Samples T-Tests Comparing Scores on the Explicit Attitudes Aggregate Variable between Anglophones and Francophones/Bilinguals

| $\boldsymbol{t}$ | $\boldsymbol{d f}$ | $\boldsymbol{p}$ | Cohen's $\boldsymbol{d}$ |
| :--- | :--- | :--- | :--- |
| 2.241 | 133 | 0.027 | 0.672 |

## Statement of contribution

My contribution to this paper consisted in writing the present paper, identifying relevant papers and studies to cite throughout, determining the research question, taking part in determining the methods, conducting data analysis, and interpreting the results. Professor Axt provided guidance and feedback in all the steps of the project. He also coded the study for data collection and collected the data, provided all the data presented in this paper ready to be analyzed, helped me adjust the research question, suggested relevant background papers to cite, and suggested edits to the manuscript.

