A Glass of... Melk?:

Analysis of Gender and Lexical /ɪ/ Lowering in Milk in Canadian Born English Speakers Living in Alberta

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ABSTRACT: This study aims to determine any distinction between gender and lexical /ɪ/ lowering in the word milk in the speech of Canadian-born English speakers living in Alberta. This study consisted of interviews with 18 participants (nine males and nine females) living in Alberta. The use of the variants milk, melk, and in-between milk/melk were analyzed in regards to gender and age. The study concluded that this was not a change in progress, but rather a stable linguistic situation and that men tend to use the standard milk more than women in all speech styles studied.

KEYWORDS: Gender, language variation, sociolinguistics, vowel lowering

Introduction

The objective of this study was to determine the distribution of the variable pronunciation of the word milk in relation to gender. Age will also be discussed concerning gender, in order to determine if this is a stable situation or a change in progress. Overall, it was found that men tend to use the standard pronunciation milk more than women in all levels of speech studied. Although women tended to use the variant milk most frequently; they had higher usage of the variant melk and the in-between variant than men did. It was also determined that this is likely a stable linguistic situation.

Relevant Studies

Two related journal articles were consulted in preparation for this study, one by Chambers and Hall (2018), and one by Labov (1990). Chambers and Hall conducted a study on 60 people aged 18-28 in Toronto. This study included information from a reading passage and a word list and analysed the pronunciat ion of the vowel in milk. They suggested that although many speakers lower the vowel in milk, it is not present in any particular age, sex or ethnic group. They also concluded that "it is not phonologically conditioned" as neither of the contexts in which it was studied were adequate in order to determine this distinction (Chambers and Hall 6). Rather, they suggested that the lowered vowel pronunciation of milk is a non-standard variant that is sporadic in the Canadian population. (Chambers and Hall 6)

In Labov's paper, he highlighted his findings that "In stable sociolinguistic stratification, men use a higher frequency of nonstandard forms than women" whereas "[in] the majority of linguistic changes, women use a higher frequency of the incoming forms than men" (Labov 205-206). This notion was important to this study because, as women used the non-standard variant more frequently than men, it was likely to be assumed that this is a change in progress, according to Labov's finding.

Linguistic Variables

This paper will discuss the variable pronunciation of the word milk, specifically focusing on the lowering of the vowel /ɪ/ to /ɛ/. The variants that will be discussed are milk, melk and in between milk/melk. The standard variant was identified as milk. My hypothesis was that the milk variant will be more commonly found and will be more prevalent in the female consultants if it is not a case of linguistic change.

Methodology

The data for this study were collected primarily via online video calls (n=15) and in-person audio-recorded structured interviews (n=3) from 18 consultants of varying ages, genders, occupations, and ethnic and linguistic backgrounds. As this study was conducted during the COVID-19 pandemic, and the University of Alberta encouraged online data collection in order to abide by social distancing protocols, casual speech was not captured; in-person interviews were conducted only for those in my personal social bubble.

Consultants were not informed of the specific nature of the study prior to the interview, but were advised that they would remain anonymous, that their data were confidential, and that they could withdraw their consent at any point in time. After the interview was completed, consultants were informed of the specifics of the study (i.e. a study on the pronunciation of the word milk). They were then informed that if they were not comfortable with their data being used for this study, it would be discarded. All consultants, whose data were used in this study, read and signed a consent form outlining these conditions. The study satisfied all of these ethical considerations.

Data were collected from the consultants saying the word milk as well as the word pillow, in order to compare the two variable pronunciations in different linguistic environments. During the interviews, consultants were asked questions regarding their everyday diets, recommended foods for children, nightly routines, and strategies for making a bed. Consultants were then asked to read the children's story If You Give a Mouse a Cookie by Laura Numeroff and then read words from a word list. Data were collected from consultants saying the words milk and pillow in three varying style formalities: careful, reading, and word lists. Careful speech was determined to be the speech style of the main portion of the interview, as participants were aware they were being interviewed and were likely to be speaking more carefully than in casual conversation.

A convenience sampling approach was used. Consultants were all known to me (the researcher and interviewer) prior to their interviews. I contacted people I knew from varying demographics that were Canadian-born English speakers living in Alberta and asked them if they would be willing to participate in my research. This personal connection allowed for a more comfortable speech environment and allowed conversation to flow more smoothly and naturally.
The social factors analysed are gender and age.

Gender was analysed in order to determine the distribution of the variable pronunciation between men and women. Age was analysed in order to determine if this is a stable situation or a change in progress. Social class was not analysed as the majority of the consultants were unemployed students, without an income or occupation and therefore, it is difficult to accurately assign consultants into socioeconomic groups.

Presentation of Results

The raw data collected of the amount of times each consultant used each variant is presented in table 1 below.

Consultants were then divided into different categories based on gender and age. The groups are presented in table 2.

ID	Careful *milk*	Careful (in-between)	Careful *melk*	Reading *milk*	Reading (in-between)	Reading *melk*	Word List *milk*	Word List (in-between)	Word List *melk*
A	2	1		5			1		
B	4			5			1		
C	2			3	2		1		
D			1			5			1
E		1		4	1		1		
F	3			3	2		1		
G	1			5			1		
H	2			5			1		
I	2			3	2		1		
J	2			4	1		1		
K	2			4	1		1		
L			1			5			1
M	1			5			1		
N	2	1		5			1		
O		2	1	1	4		1		
P	1	1		1	4		1		
Q		1	1		2	3		1	
R		1	1	2	3			1	

Table 1: Consultants Usage of Each Variant

Gender	Consultants
Female	A, D, G, I, L, N, O, P, R
Male	B, C, E, F, H, J, K, M, Q
Age	**Consultants**
18-24	A, B, C, D, E, F, I, K, N, O, P
25-30	L, Q
31-44	R
45-55	G, H, J, M

Table 2: Gender and Age Categories

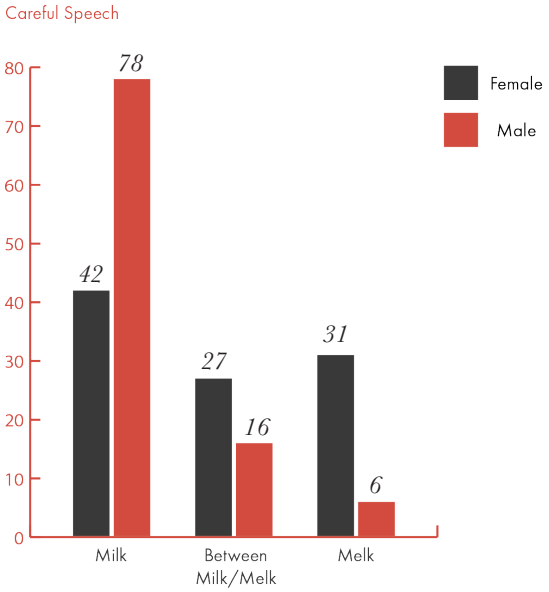

Fig. 1: Variable milk pronunciation in careful speech concerning gender

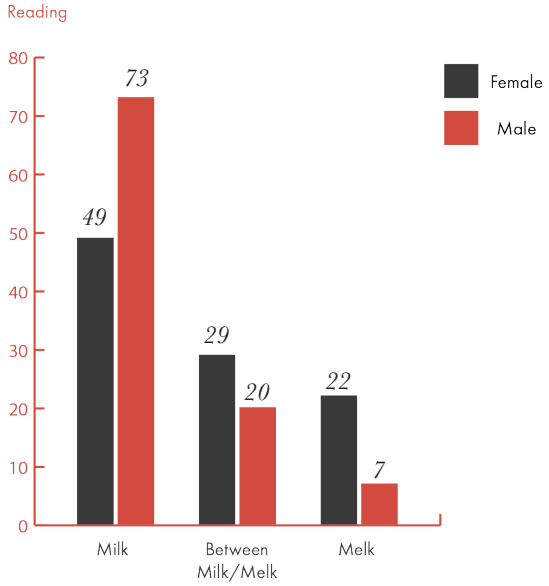

Fig. 2: Variable milk pronunciation in reading concerning gender

When reading, this distribution was relatively similar to the above, with a strong tendency for men to use milk and women to use all three variants more equally, as displayed in figure 2.

The following data is presented in terms of a pronunciation index. The amount of times that consultants used each variant was divided by the number of times they used the word in total to form a ratio out of 100 for each variant. The mean of these percentages were then used for each group of speakers. In careful speech, women had a relatively equal distribution of the usage of each of the three variables, whereas men strongly favoured the usage of the standard variant, milk.

When consultants were asked to read from a word list, both men and women favoured the milk variant. Still, men used the standard variant more often than women. Women favoured the use of melk more than the in-between variant when reading from a word list; this finding is displayed in figure 3 below. The distribution of each variant, in each speech style for both genders is listed in table 3.

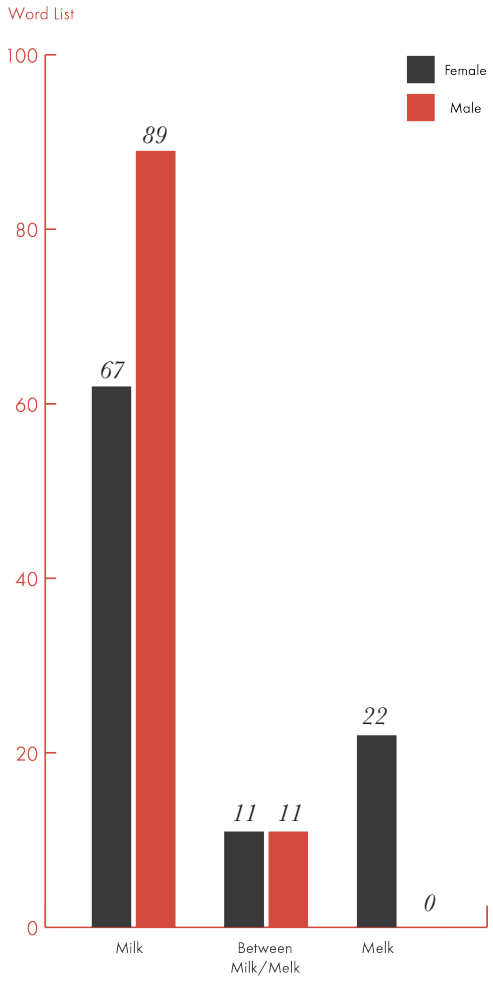

Fig. 3: Variable milk pronunciation in word lists concerning gender

Gender	Milk	Milk/Melk	Melk
Female Careful Speech	42	27	31
Female Reading	49	29	22
Female Word List	67	11	22
Male Careful Speech	78	16	6
Male Reading	73	20	7
Male Word List	89	11	0

Table 3: Variable milk pronunciation concerning gender

In contrast to this distribution, for the variable pronunciation of pillow in careful speech, women used more of the standard pillow pronunciation than men; both groups, however, favoured the in-between variant.

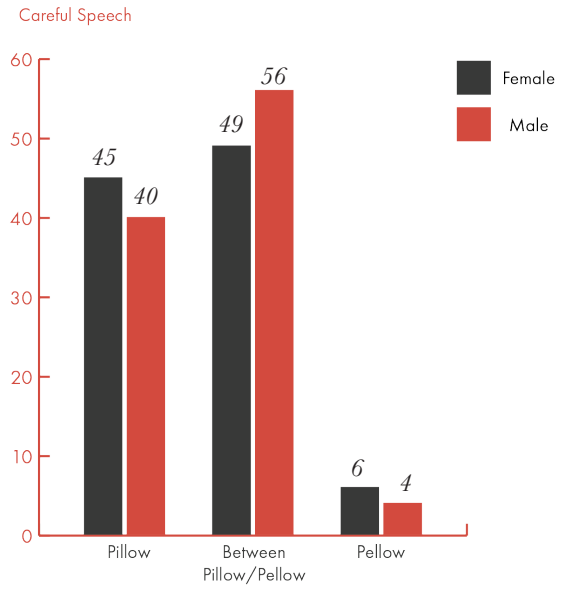

Fig 4: Variable pillow pronunciation in careful speech concerning gender

If we compare the two words in careful speech, the use of the variants of pillow is far less polarized for men than the use of the variants of milk. The non-standard variant pellow was rarely used by either gender. The two are directly compared in the table below.

	/ɪ/ pronounced	In-between pronunciation	/ɛ/ pronounced
Female milk	42	27	31
Female pillow	45	49	6
Male milk	78	16	6
Male pillow	40	56	4

Table 4: Comparison of variable milk and pillow pronunciation in careful speech concerning gender

The age distribution of the use of the different variants of milk in careful speech is highlighted in figure 5 below. In careful speech, the variant milk was most common in speakers aged 18-24 and 45-55. Speakers between ages 25-30 leaned strongly towards the use of the variant melk, while ages 31-44 were evenly divided between using melk and in between milk/melk. The distribution of the use of each variant is listed in table 5 below.

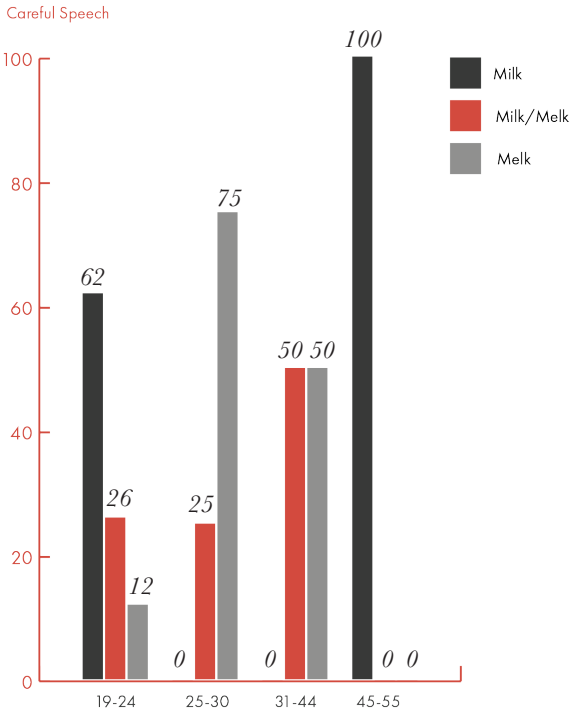

Fig. 5: Variable milk pronunciation in careful speech concerning age

Age	Milk	Milk/Melk	Melk
18-24	62	26	26
25-30	0	25	25
31-44	0	50	50
45-55	100	0	0

Table 5: Variable milk pronunciation in careful speech concerning age

The main contrast in the reading speech style in comparison to careful speech was in the 31-44 age group. Whereas in careful speech, those aged 31-44 were split between usage of the in-between variant and the melk variant, in reading style, they favoured the in-between variant, with a pronunciation index of 40 for the milk variant.

Interpretation of Results

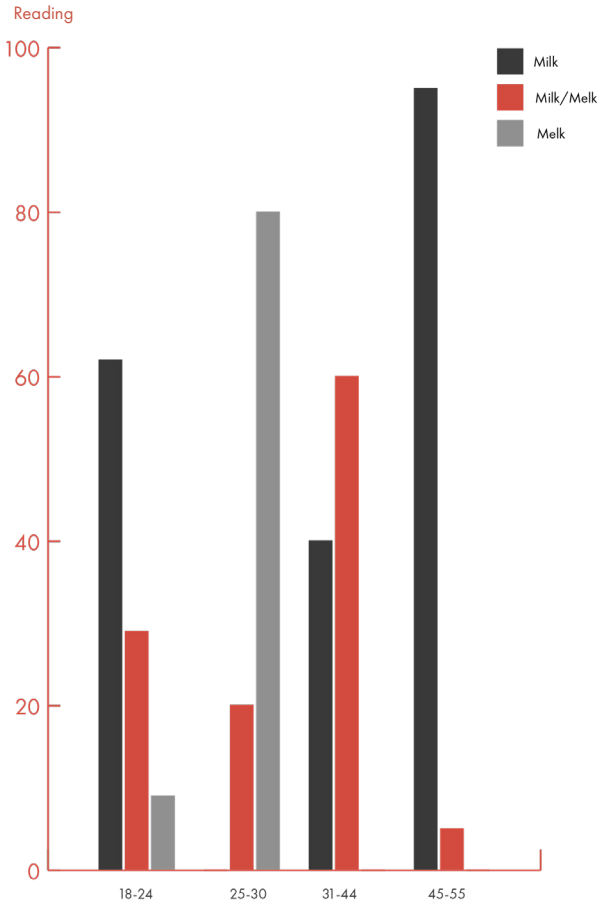

Fig 6: Variable milk pronunciation in reading concerning age

Analysing the data by age, it was expected that if this were to be a change towards greater usage of the non-standard, younger speakers would use the newer variation the most. However, the group that presented the highest usage of the melk variant in careful style were those aged 25-31. Although the youngest group, aged 18-24, did use the non-standard variant more than the oldest group, aged 45-55, there was no significant pattern in usage throughout all ages. Therefore, it cannot be established that this is a change in progress, as it does not follow the typical pattern, and no indications of change based on socioeconomic status can be concluded. Therefore, we can likely assume that this is a stable linguistic situation, and that no change is occurring.

Not only did these data present the majority usage of the standard variant milk by men, but it also highlighted the way that women are far more evenly distributed in their usage of each of the three variants. In all three speech styles, men greatly favoured the use of the standard variant, and have a pronunciation index of under ten in all three speech styles. Women, in all speech styles, also favoured the milk variant. However, women's usage of each variant was relatively evenly distributed between the three variants in comparison to usage by men. Typically, as Labov suggests, women will use more of a standard variant than men, in stable linguistic situations (Labov 1990, 205). Therefore, since this was determined to be a stable situation, this study contradicted this typical pattern. Due to this contradiction, it is possible that the use of the variable forms is due to a different social factor, and that gender cannot be analysed in isolation.

It can also be concluded that this variation is most common in the word milk and is much less common in pillow, as the use of pellow is extremely low for all groups studied. My speculation is that this could be due to the linguistic environment of the vowel, particularly the presence of another vowel (a high-mid diphthong) later in the word pillow. However, further investigation into this difference would be needed to draw a conclusion regarding the cause of this difference.

The results of this study were in juxtaposition to Labov's findings, which concluded that women use more of the standard variant in stable situations and more of new innovative forms in situations of linguistic change (Labov 1990, 205-206). In comparing these results with those found in the Chambers and Hall study, which concluded that the usage of melk was not linked to any particular social group (Chambers and Hall 2018, 6), it could be concluded that these results

confirm their discovery. Although this study concluded that men use more of the standard variant milk, it did not sufficiently conclude where the distribution of the usage of the variant melk is most concentrated. The variant melk was used by both males and females, and was presented in all age groups under the age of 45. The only group in which melk was never present was in speakers aged 45-55.

Conclusions and Limitations

Overall, it can be determined that male participants used the standard milk more often than women, and that the female participants of this study used the non-standard melk and the in-between variant more often than men. However, women still slightly leaned towards the usage of the standard milk over the other variants studied. It can also be determined that this is likely not a change in progress, as those aged 18-24, the youngest studied group, favoured the standard variant of milk, while those 25-30 presented a higher index of the melk and in-between variants.

Some limitations of this study may include the small sample size of 18 (9 women and 9 men), as it may not accurately represent the total population of Canadian-born English speakers living in Alberta. Another limitation with this small sample size was that for certain age groups, there were only one or two consultants studied. It would have also been preferable for casual speech to have been studied, as it best reflects the actual speech of these individuals; however, due to the ongoing global pandemic, this was not a safe option. Additionally, I would have preferred to include an analysis of social class in this study, but since most of the consultants were university students, and therefore may not have a stable income or occupation, it is difficult to accurately determine the socioeconomic status of these individuals.

Work Cited

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