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Do Multilingual Employees Better Adjust to Work Environment Changes? Examining the Case of a Credit Union during the COVID-19 Pandemic

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Examining the Case of a Credit Union During the COVID-19 Pandemic

Abstract

Purpose: Organizations have been challenged to identify antecedents to improved employee adjustment to the work environment changes that arose in the wake of the COVID-19 global pandemic. This study explores the effect of multilingualism on employee ability to adjust to workplace changes based on the concept that multilinguals have been found to switch between tasks more efficiently as compared to monolinguals. **Methodology:** Applying a sequential explanatory mixed methods research approach, quantitative performance evaluation data on 207 credit union employees is analyzed using hierarchical linear modeling to predict employee performance, and thematic analysis of qualitative data representing the adjustment narratives of six monolingual and six multilingual employees within the sample is conducted, corresponding to the period during which employees were adjusting to broad workplace changes after the onset of the global pandemic. **Findings:** Results suggest greater predicted improvement in the performance of multilingual employees. Reliance on the task-switching ability associated with multilingualism is found to be the primary self-evaluative factor for successful change adjustment among multilingual employees. **Implications:** In light of work performance benefits identified in this study, organizations may consider multilingualism as a characteristic preceding better adjustment to organizational change, and not simply as a skill applicable to tasks requiring language proficiency, suggesting practical implications for HR and organizational management. **Originality/Value:** This is the first sequential explanatory study focusing on the task-switching ability of multilinguals as an antecedent to change adjustment evidenced by improved work performance within an organizational context.

Keywords: multilingual employees, task switching, bilingual employees, adjustment to change, organizational change management, organizational analysis

1. Introduction

The recent COVID-19 global pandemic has forced a large portion of the workforce to make adjustments to their work environments. For example, among the employees with jobs that can be done remotely, only 20 percent worked from home before the coronavirus outbreak (Parker et al., 2020). However, 71 percent of these workers responded that they are working remotely as of October 2020 (Parker et al., 2020). As such, the importance of organizational and individual adjustment to workplace changes comes to a new light, deserving intensified focus. Individual adjustment to workplace changes has been explored in the context of Person-Environment fit (Caldwell, Herold, & Fedor, 2004); individual reactions to change (Vakola, Armenakis, & Oreg, 2013); and work-related individual consequences of change in terms of job satisfaction, organizational commitment, and employee performance (Oreg, 2011), among other factors.

In professional environments, multilingualism has been found to be associated with numerous benefits, especially in the context of the new globalized workplace (Erixon, 2018). These benefits include higher cognitive ability (Curley, et al. 2020; Chung-Fat-Yim, Sorge, & Bialystok, 2017; Craik, Bialystok, & Freedman, 2010); working memory applied toward task completion (Morrison, Kamal, Le, & Taler, 2020); and increased organizational citizenship behavior (Tamonomiebi & Onah, 2019), among others.

Clinical studies on cognitive process relating to bi-/multilingualism yield evidence pointing to an inherent ability of multilinguals to switch back and forth between cognitive and physical tasks fluently as compared with monolinguals (Marian et al., 2014; NIH, 2012). The management literature, however, has not explicitly identified an association between this task switching ability of multilinguals and employee performance benefits supporting adjustment to

workplace changes. In this vein, an investigation of multilingualism in the context of organizational change is warranted.

This study addresses the need to consider multilingualism as an antecedent to better change adjustment by investigating the association of the task switching ability of multilingual employees with adjustment to workplace change. A sequential exploratory approach is taken, in which a quantitative study is first engaged to collect and analyze data on 207 multilingual and monolingual employees to measure performance before and after onset of the COVID-19 pandemic, at which time sweeping organizational changes were implemented. Then, a subsequent qualitative study was conducted, including interviews with 12 employees (six multilingual and six monolingual) in order to identify antecedents to adjustment to the change experience. The aim is to test the hypothesis that, as compared with monolingual employees, multilingual employees rely on task switching ability to better adjust to the changes, leading to improved change consequences exhibited in those employees' ability to perform workplace tasks to a similar or improved degree as compared to their performance prior to the changes.

2. Theory & Hypothesis

Change Management in the Literature

Change management has been a historical topic of importance in the management literature due to its broad relevance in business studies and practice. More well-known studies in change management focus on change process. Lewin's (1947) model of unfreezing, changing, and refreezing the organizational structure, strategy, and processes is a foundational study, identifying the factors relevant to successful change. Kotter's (1995) well-known study of 100

organizations establishes a step model for a guided change process that is broadly accepted in business practice. GE's Change Model (Garvin, 2000) expands on Lewin and Kotter, focusing on the role of the leader in communicating, measuring, and institutionalizing organizational change.

Perhaps more relevant literature, however, is comprised of studies that focus on the human factor in terms of individual adjustment and support for change. Oreg (2011) presents a broadly applicable model of the individual experience of employees in a changing organization, in which employees are effectively "change recipients" that an organization hopes to motivate toward positive work-related consequences of the change (job satisfaction, organizational commitment, performance). Caldwell, Herold, & Fedor (2004) find that demographic and position factors—specifically, age and job mastery orientation—lead to improved reaction to workplace changes. The study further finds that employees as change recipients tend to view the change more favorably when they believe that management or their leadership handles the change well and when the organization provides sufficient resources to address the change. Vakola, Armenakis, & Oreg (2013) focus heavily on how individual differences determine ability to adjust to organizational changes, grouping individuals according to their utilization of personality dispositions, coping styles, motivational needs, and demographics. Here, locus of control, self-esteem, and tolerance for ambiguity are three notable personality dispositions associated with positive work-related change consequences, including performance.

With the onset of the COVID-19 global pandemic, many workplaces underwent a rapid shift in processes, including implementation of telework (or remote work), new safety protocols, and the introduction of new technologies to manage abrupt structural changes. This further accentuates the importance of identifying individual factors in adjusting to change; yet there has not been an exploration of the potential impact of multilingualism as an antecedent for positive

workplace change adjustment, considering that such adjustment is associated with improved employee performance.

Multilingualism and Task Switching

While the term "bilingualism" can be broadly defined as the knowledge and use of two languages (Curley, et al., 2020), narrower definitions consider whether an individual is equally fluent in two languages—ambilingual—and whether a bilingual individual has spoken both languages as a first language (simultaneously bilingual) or learned one language as a second language (sequentially bilingual), are prominent in the linguistics literature (Valdes, n.d.). The Center for Immigration classifies bilinguals in terms of the population, estimating that 21.9% of the US population speaks a language other than English at home, while 60% of those people also speak English very well, suggesting that they are multilingual. The same organization, however, acknowledges the limitation of this count due to assessing households in which English is not assumed to be the first language or due to multiple counting of people who speak more than two languages (Zeigler & Camarota, 2019). The term "multilingualism", therefore, appears to be appropriate in the context of today's global society, where an individual's defined first language(s) and simultaneous and/or sequential additional language(s) hold less relevance than the fact that the individual is highly fluent in multiple languages. Thus, for the current study, we define "multilingualism" as the ability to use two or more distinct languages for communication applicable to the workplace at an advanced level of fluency.

While this concept has been explored most prominently in the fields of child psychology, education, and cognitive science, multilingualism has also been found to correspond to a number

of characteristics relevant to workplace tasks. A study by Morrison, Kamal, Le, and Taler (2020) found that, compared to monolinguals, multilinguals access more cognitive resources in their working memory (WM) to apply toward task completion, making task completion less effortful for multilinguals as compared to monolinguals. Craik, Bialystok, and Freedman (2010) find evidence in a study of 211 bilinguals and monolinguals that multilingualism contributes to cognitive reserve, which may have implications for the longevity of multilingual staff, at least in terms of brain pathology. Multilingualism has further been found to correspond to augmented cognitive ability in terms of decision-making in everyday and professional life (Chung-Fat-Yim, Sorge, & Bialystok, 2017). Curley, et al. (2020), however, fail to find significant evidence that multilinguals differ from monolinguals in their level of rationality in the context of decision-making, at least globally, suggesting that qualification for contingency factors (heuristics) of specific scenarios may be necessary to find observable differences in the rationality of multilinguals and monolinguals.

Studies have found evidence of cognitive processes surrounding the relationship of multilingualism and the ability to switch between tasks. Prior and Macwhinney (2009) find a link between lifelong language switching experience and increased ability to switch between tasks among bilingual college students as compared to monolingual students. An NIH study of 104 bilingual and monolingual children found bilinguals to be significantly more adept at switching between given tasks in a switching activity, as compared with monolinguals, concluding that bilinguals have the inherent cognitive ability to multitask and to switch back and forth between multiple sets of language rules (National Institutes of Health, 2012). The process by which this is accomplished is explored in Marian, et al. (2014), who find that multilinguals use a process of co-activation, in which they have both (or all) languages always active, rather than deactivating

one language or another. Multilinguals consciously inhibit, with little effort, the use of the language(s) not relevant for a given situation in favor of the relevant language, effectively displaying a higher level of cognitive processing as compared with monolinguals.

Logically, a connection between multilingual individuals' ability to work with two or more co-activated languages and their ability to switch back and forth between tasks suggests that multilingual employees would experience improved tolerance for ambiguity in those tasks, similar to the way employees engage in beneficial multitasking. At the basic cognitive level, there is evidence to suggest that humans can build readiness to adjust to (switch between) different task needs through extensive and diverse task switching experience (Siqi-Liu & Egner, 2020). Consequently, effective multitasking ability is found to be positively associated with better overall time management (Britton & Tesser, 1991), as well as increased ability to apply cognitive reserve in switching between tasks (Konig, Oberacher, & Kleinman, 2010), wherein employees with improved cognitive reserve may be better at moving between tasks and environments with a lesser degree of lost productivity (Rottapel, 2017). Following this logic, multilingual employees would, therefore, experience improved adjustment to different tasks and work environments with multilingualism as an antecedent to task switching ability, consequently demonstrating better performance in the face of workplace changes. To investigate this, quantitative analysis of multilingual and monolingual employee performance over a period of broad workplace changes was conducted, as presented in Study 1. Further, qualitative analysis of multilingual and monolingual employee narratives was conducted, as presented in Study 2.

3. Study 1 - Measuring Work Performance

Study 1 Methods

Overview and sample

To test our hypothesis, we have analyzed employee information data provided by a credit union in the northwestern region of the United States. The credit union is mid-sized, employing about 300 employees. Due to the COVID-19 pandemic, the credit union had gone through various work environment changes. More than half of the employees had their workplace changed to home, meetings were held online, social distancing and various other policies to keep employees and customers safe were enacted, etc. An interview with management has confirmed that all of the employees within the credit union have gone through work environment changes to some extent. Data on employee job performance in the fourth quarter of 2019 and the first, second, and third quarters of 2020 were collected. Along with the job performance data, information on employees' multilingual abilities, job level, pay level, and other demographics was also collected**.** Excluding the missing data, the final sample consisted of 762 employee-time data points within 207 employees.

Measures

Adaptation to change (Job performance). The credit union evaluates its employees every quarter. The evaluation is based on the performance standards that the credit union has developed, and each employee receives a final score on a five-point scale: Outstanding (5), Exceeds Job Requirements (4), Meets Job Requirements (3), Needs Improvement (2), and Unsatisfactory (1). We have used this final score as the measure of adaptation to change with an assumption that

employees who better adapt to change will perform at a higher level under the change (Judge et al., 1999). The measure is single-itemed, and thus its reliability could not be verified. This is a duly acknowledged limitation of the current study. The measure, however, is positively correlated with other variables, such as tenure (*r* between 'Tenure' and 'Job performance' in Table 1 = 0.197, $p < 0.01$); job level (*r* between 'Manager' and 'Job performance' in Table 1 = 0.197, $p < 0.01$); and pay level (*r* between 'Pay: $60K to $90K' and 'Job performance' in Table 1 = 0.197, $p < 0.01$; *r* between 'Pay: $90K or more' and 'Job performance' in Table 1 = 0.197, $p < 0.01$), which are identified in past studies to be positively associated with job performance (Pandey, 2019). This provides some support for the validity of the measure.

[Insert Table 1 here]

Change. The data for the fourth quarter of 2019 and the first quarter of 2020 were coded as "before the change" (0). The data for the second and third quarters of 2020 were coded as "after the change" (1). The management of the credit union confirmed that the work environment changes due to the COVID-19 pandemic were made beginning in March of 2020 and advised that coding the change in this manner is appropriate.

Multilingual employees. The credit union's pay system rewards employees with multilingual abilities at a level that benefits the credit union's business. Employees who are paid for their multilingual abilities at the credit union were coded as multilingual employees.

Control variables. The variables based on employee information we could collect from the credit union that may affect multilingualism and adjustment to change (Oreg et al., 2011) were controlled. The details of the control variables are outlined in the Appendix.

Analysis model

Due to the multi-leveled nature of the data (i.e., employee-time data points nested within employee), the analysis utilized hierarchical linear modeling (HLM) (Hofmann, 1997). We have applied two-level HLM analysis with level 1 modeling how employee-time-level variable (i.e., only the change variable: before change vs. after change) predicts job performance. The second level modeled how employee-level variables (e.g., multilingualism and control variables) predict the coefficients at level 1. The ICC(1) value for job performance was 0.669. The high ICC(1) value justifies the need for utilizing a multi-level method, such as HLM (Bliese, 2000; Krull & McKinnon, 2001). The HLM software was used for the analysis (Raudenbush et al., 2001).

Study 1 Results

Descriptive Statistics

The descriptive statistics of the variables in this study are outlined in Table 1. One notable is the mean value of multilingualism (0.042). This indicates that 4.2% of the employees in our sample are multilinguals. This percentage is lower than recent statistics (Zeigler & Camarota, 2019), which indicates that about 21.9 percent of United States residents are multilinguals. There can be two reasons why the rate of multilinguals in our sample is lower than the United States average.

First, the credit union that provided us the data resides in an area where the race/ethnicity is less diverse than the average in the United States. Second, because the credit union rewards its employees for their multilingual abilities, the multilingual standard is much stricter, and the range of languages that are counted for employees' multilingual abilities is relatively restricted. And because of this second reason, our statistical test can be viewed as a conservative one.

Analysis of Results

The main effect of multilingualism or change on job performance. The HLM results are outlined in Table 2. The coefficients of multilingualism and change predicting job performance are not significant (coefficient of multilingualism in Model A2 and A3 = 0.097, SE = 0.299, ns; coefficient of change in Model A3 = 0.054, SE = 0.042, ns). This indicates that, in general, the job performance of multilingual employees is no different from that of non-multilingual employees. The results also demonstrate that employees, in general, did not perform better or worse under the change when compared to before the change.

The interaction effect of multilingualism and change on job performance (Hypothesis testing). Model A4 in Table 2 shows that the interaction effect of multilingualism and change on job performance was significantly positive (coefficient = 0.449, SE = 0.209, $p < 0.05$). This indicates that the coefficient of 'change' in the model is more positive for multilingual employees compared to monolingual employees. In other words, the result demonstrates that the effect of multilingual employees performing better under the change is stronger than that of non-multilingual employees.

Based on the observed interaction effect, we have calculated the simple slope of 'change' for multilingual and non-multilingual employees. The results are outlined in Table 3. The outcomes first indicate that the job performance level of non-multilingual employees before the change was no different from after the change (simple slope = 0.035, t-value = 0.815, ns). However, the job performance level of multilingual employees after the change was higher than before the change by almost half of the standard deviation (simple slope = 0.484, t-value = 2.361, $p < 0.05$). This effect is also depicted in Figure 1. In Figure 1, the job performance level difference between multilingual and non-multilingual employees before the change is relatively small. In contrast, the job performance level of multilingual employees was higher than non-multilingual employees after the change. Taking the results together, we can conclude that multilingual employees better adapted to the change than non-multilingual employees, with the assumption that better adaptation to change leads to a higher level of performance. Thus, we found support for our hypothesis.

[Insert Table 2 here]

[Insert Table 3 here]

[Insert Figure 1 here]

The possibility of the Hispanic effect. More than 80% of the multilingual employee data points represented employees who identified as Hispanic. Consequently, there is a possibility that the effect of multilingualism we have observed in this study is actually the result of specific Hispanic cultural factors or family social heuristics (Hispanic effect). Therefore, we have added the interaction term of Hispanic and change to the analysis model (Model A5 in Table 2). When the interaction term of Hispanic and change was added, the interaction term of multilingualism and change became insignificant (coefficient = 0.049, SE = 0.254, ns). Thus, we cannot completely rule out the possibility that the multilingualism effect observed in this study is, in fact, due to the Hispanic effect. However, the variance inflation factor value for the interaction effect of Hispanic and change in Model A5 was relatively high (2.748). Thus, we cannot either preclude the possibility of Type II error in the model due to collinearity (Ganzach, 1998).

Study 1 Discussion

The results indicate that employees who can speak multiple languages better adapt to change than employees who cannot speak multiple languages. This phenomenon was observed within the context of work environment change due to the COVID-19 pandemic in a credit union located in the northwestern region of the United States. The finding provides us with a valuable implication that multilingualism can be a predictor of workplace change outcomes at the individual level.

The study, however, is limited in several ways. First, we could not completely rule out the possibility that it is the Hispanic employee group, and not the multilingual employee group, that has well adapted to the change. Second, the statistical analysis in this study cannot provide

the answer to "why" multilingual employees can better adapt to changes. Although we have indicated that the switching ability of multilingual employees enables better adjustments to the change, this mechanism has not been directly tested.

To overcome the limitations that are identified, we have conducted a qualitative study. Through the qualitative study, we have first investigated if multilingual employees were able to better adapt to changes by utilizing a task-switching ability. We also have examined if Hispanic-specific factors (e.g., culture, relationships, etc.) have helped multilingual employees to better adapt to changes.

4. Study 2: Thematic Analysis of Employee Narratives

Study 2 Methods

Overview and sample

In light of the outcomes of Study 1, additional exploration was engaged to identify specific factors impacting adjustment to change, following an explanatory sequential approach to mixed methods research design (Creswell & Guetterman, 2019). Analysis of patterns in the narratives of multilingual and monolingual employees was found to be appropriate for comparison in order to derive evidence explaining the outcomes of quantitative analysis, similar to the approach taken in Ivankova & Stick (2007). This approach is also consistent with Nowell et al.'s (2017) thematic analysis methodology in providing structure to better assess the meanings actors (multilingual and monolingual employees) themselves attribute to the factors impacting their experience (adjusting to workplace changes). For this assessment, interviews were conducted within one year of broad, organization-wide changes relating to the COVID-19 pandemic, including shifts to remote work

and a hybrid work arrangement, integration of new software, implementation of new safety protocols, introduction of new products, and structural changes.

Data Collection

To obtain employee narratives on adjustment to workplace changes, interviews were scheduled after earning permission from the credit union incorporated in our quantitative study. Full IRB approval for human subject research was obtained before soliciting or conducting interviews for this study, after which contact with HR personnel was engaged to collect contact information. Virtual meetings were scheduled with six multilingual and six monolingual employees, who were requested to participate in interviews relating to their experience. Interviewees represent members of the full-time workforce employed in positions ranging from entry-level (teller) to executive level and varying across gender (seven female and five male) and age (20s to 50s), working both at the corporate headquarters and at various branches across a proximate geographic region (northwest region of the United States). The interviews were structured thematic conversations following a script loosely, with the intent to allow for the free sharing of discourse relating to experience with and adjustment to organizational change. Interviewees were asked to express freely about:

- Workplace tasks and experience prior to and after the onset of the pandemic ("Before the onset of the COVID-19 pandemic, can you briefly describe the main tasks of your job?"; "How similar would you say your current work is?")

- Self-evaluated degree of adjustment to the changes ("Overall, would you say that you were able to adjust well to the tasks and requirements when [organization] faced necessary changes?")
- Specific factors impacting their successful/unsuccessful adjustment to the change ("Why were you able to adjust well / not able to adjust well?"; "Which factors had an impact?")

Interviewees were also encouraged to extend their narratives outside of the focal themes, allowing for elaboration on relevant topics and meanings. This is consistent with the thematic analysis method of qualitative research, which examines "the perspectives of different research participants, highlighting similarities and differences, and generating unanticipated insights" (Nowell et. al., 2017).

Data Coding for Thematic Analysis

In the first phases of thematic analysis, recurring patterns in the messages of all interviewees were searched from the transcripts, and the accounts of multilingual and monolingual employees were analyzed in parallel to find out if the narratives of multilinguals yield distinct patterns in discourse on coactivation or switching ability in terms of adjusting to workplace changes, or if they enact patterns similar to those of monolingual employees. As an outcome of discursive (discourse) analysis and persistent review of transcripts by all investigators, three interrelated meaning structures (themes) were identified and coded: accounts of *organizational/task change experience, self-evaluation of adjustment to the changes*, and *factors impacting adjustment*.

Further meaning was derived from the narratives as relating to the *factors impacting adjustment*. First, personality as a catalyst for adjustment was cited prominently in nearly all

narratives, expressed as, "*I'm very adaptable,*" "*I'm pretty flexible,*" or "*I like change*," coded as *individual factors*. Second, throughout the narratives of all interviewees, agreement that the organization was relevant to employees' effective adjustment to change was clear ("*the head office – they were really supportive;*" "*they supported us greatly*"), particularly in terms of support from leadership, colleagues ("team"), technology provided by the organization, and changes in organizational structure intended to support adjustment, coded here as *organizational factors*. Third, most transcripts incorporated experiences with pandemic-related changes outside of the workplace, including family and personal life experiences (especially in relation to task change experience where remote work was necessary), coded as *environmental factors*. Fourth, persistent review of the transcripts of multilinguals revealed a clear narrative of multilingualism and associated cross-cultural (including immigrant) experiences as an antecedent for change adjustment, coded as *multilingualism*.

Study 2 Results & Thematic Analysis of Narratives

Analysis of the transcripts yielded the qualitative patterns in the narratives representing the identified themes of organizational task change experience, self-evaluation of adjustment, and factors impacting adjustment, presented as follows.

Patterns in accounts of change experience and adjustment to change

Organizational change experience in all of the narratives includes new software, use of video conferencing for meetings, safety protocols in the branch locations and headquarters, and remote

work. Therefore, it can be concluded that all of the interviewees experienced broad workplace changes with the onset of the pandemic.

Organizational change experience is coupled with (job-related) task change experience. Task change experience can be expressed in the narrative, "*the way I work [communicating with members/colleagues] hasn't changed, but the media that we use to communicate has changed.*" As the interviewees represented employees in a broad spectrum of functions across the organization, including HR, customer-facing, marketing, finance, and executive leadership, the narratives of task change experience varied, ranging from expressions of tasks being "*just really different*" and "*completely different,*" to "*it's pretty similar.*" While all employee narratives clearly nuanced experience with change in job-related tasks after the onset of the global pandemic, some transcripts displayed a trend of downplaying the severity of the task change experience, with a substantially greater tendency of monolingual employees to downplay the severity ("m*y job is essentially the same, but the medium I use is now different;" "it's still...a lot of the same... what is [changed] is COVID"). Effectively*, accounts of workplace and task change experience are affirmed in the narratives of the interviewees.

Initial review of the transcripts presented minor variances in discursive elements in interviewees' self-evaluations of their degree of success in adjusting to organizational and task change experiences. The prominent narrative is "*I adjusted well to the changes*," with only two narratives deviating ("*for the first four months it was really hard for me to adjust*"). Upon further review of the transcripts, however, it was clear that adjustment was practically challenging for all interviewees. The open-ended nature of the interview process allowed for a syntagmatic investigation of the narratives to give organizational relevance to the interviewees' stories, revealing a deviation in the initial discursive narratives (what interviewees say they experienced)

of their adjustment to the changes, as compared with the practical narratives (what they actually experienced) that emerged. Therefore, persistent review of the transcripts was appropriate to identify the discrete themes (differences) in the practical narratives (Creswell & Geutterman, 2019) relating to experience of change adjustment between multilingual and monolingual employees.

Patterns in accounts of factors impacting adjustment

Discourse on individual factors. Accounts of monolingual employees suggested a pattern more resemblant of task confidence ("*there's a job to be done here... I'm going to figure it out;*" "*I have confidence in knowing the job that I do*") than of inherent ability to adjust. Narratives of multilingual employees, conversely, incorporated individual factors in terms of mental processes. This is expressed in the narratives, "*I just jump from that to that, so I feel like having that ability to do that with your mind helps out a lot," "that mentality is kind of what helped me to adapt,*" and "*I pivot very quickly in my mind.*"

Discourse on organizational support. In the narratives of monolinguals, support from the organization appeared to be instrumental to adjustment and tended to include detailed accounts in terms of technology ("*I needed monitors... and they said yes, just come get it;*" "*anything [speaking of technology] that we needed, they gave it to us;*"); supervisors ("*I have an amazing director*"); a supportive team of colleagues ("*I have a really good support system... really good team*"); and, most prominently, a sense that everyone in the organization was experiencing the same change ("*we're all going through the same thing*"). Accounts of multilingual employees were comparatively vague in terms of organizational support, aside from a clear nuance of gratitude to the organization.

Discourse on environmental factors. A clear divergence in the narratives of multilingual and monolingual employees was observed, with multilingual employees expressing upbringing and cross-cultural family influences as antecedents to the ability to adjust to all new environments and tasks, not just to the changes associated with the pandemic. In this vein, multilingualism could not be coded as an environmental factor. Accounts of environmental factors were more prominent in the narratives of monolinguals as compared to those of multilinguals. Specifically, among monolinguals, narratives were often accompanied by accounts of overcoming challenges with home layout and size, or with having children in the home during the workday. Practical narratives of successful adjustment suggested strong support from people outside of the workplace ("*Not that it was an easy adjustment, but I was able to do it because we [interviewee and partner] were kind of prepared [at home]*") or a strong drive to adjust to the workplace changes in order to offset chaos *outside* of the workplace.

Discourse on multilingualism. The ability to use multiple languages coupled with the ability to switch back and forth between communicative and behavioral expressions was observed extensively in the narratives of multilinguals ("*growing up, it was easy to do something one way and then the next day be told that you're going to do it a completely different way;" "one second I will be speaking [one language], and then I have to jump right into [other language];*" "*I just jump from that to that*;" "*I would say English and [other language] are primary, so I can switch back and forth very quickly without feeling it... there's a tremendous connection between these and my ability to adjust*"). Additional impacts of multilingualism on ability to adjust to organizational and task change experience were also expressed in such narratives as "*I don't think multilinguals are born more intelligent, but maybe trained in intelligence*," and "*if you learn a language it means that you're open to so many (sic) information, culture, etc. ... it's not easy to*

just comprehend without an experience... that experience of humble and learning does help you throughout your lives … and related to better adjustment."

It should be noted here that the multilinguals represented people of varying ethnic backgrounds, with three of the six multilinguals having Hispanic heritage. Narratives relating to lifestyle, work ethic, or cultural factors specific to the employees of Hispanic heritage were explored in relation to change adjustment through persistent review of the transcripts, yet no clear pattern was observed to suggest differences across heritages and language bases among the interviewees. Therefore, we conclude that no Hispanic effect is found in our qualitative analysis.

Thematic Structure of Monolingual and Multilingual Employee Narratives

Identifying a thematic structure of the narratives allows for isolation of the discursive elements of this study into distinct parts in relation to a whole story, providing narrative meaning that creates condition for continuity, validity, and generalization with empirical relevance (Golafshani, 2003). The results of Study 2 yield a thematic structure that provides a clear summary of the observed differences in the antecedents of adjustment across the multilingual and monolingual employees, providing additional evidence to support this study's core premise.

Table 4 (below) summarizes the identified structured themes of Adjustment to Change and Factors of Adjustment, which is further broken down into structured sub-themes of individual factors (Individual), support from the organization (Org Support), environmental factors outside of the workplace (Environment), and multilingualism (Multilingualism). Discrete Themes unique to multilingual employees and monolingual employees, as well as Paired Themes appearing in the narratives of both, are presented. As identified in the results of qualitative analysis, the narratives

present a paired theme of confidence in adjustment to change, necessitating the identification of discrete patterns in the factors impacting the adjustment of the two groups. Factors of Adjustment summarize the core findings that narratives of monolingual employees show a clear pattern of focus on *organizational support* and *environmental factors* as antecedents to adjustment, whereas narratives of multilingual employees lean more heavily on *individual factors* and *multilingualism* with prominence given to an inherent ability to switch communicatively or behaviorally in different language or culture conditions as the prime indicator of their ability to adjust to workplace changes.

[Insert Table 4 here]

Study 2 Discussion

The results of Study 2 support our hypothesis that different factors impact the ability of multilingual and monolingual employees in adjusting to broad organizational changes, wherein the inherent ability to "pivot" or switch between tasks and activities represents a prominent narrative among multilinguals. The empirical basis of this is similar to the findings of Peltonen (1998), in which practical (or occupational) narratives can emerge to give organizational relevance to the narrative meaning structure of the entire story of each interviewee, as opposed to basing analysis solely on a syntagmatic review of the narratives. Results of Study 2, therefore provide explanatory evidence for the outcomes of Study 1, such that the higher performance of multilingual employees during the period of change may be a consequence of the task switching ability and inherent ability to adjust to changes displayed by multilingual employees.

Interestingly, monolingual employees in the study depended on leadership, the home environment, and organizational support to cope and adjust to extensive workplace changes such as those faced during the COVID-19 pandemic. This is consistent with the findings of Caldwell, Herold, & Fedor (2004), in that most employees perceive change more favorably when leadership handles the change well and when organizational resources are provided. Yet multilingual employees tended to rely on an inherent ability to adapt (via pivoting or switching between languages and tasks) to a much greater extent than on organizational or leadership support.

Several findings from the narratives yielded potential areas for further study. First, cross-cultural/immigrant experience was discussed in tandem with multilingual experience in the narratives of multilingual employees in the sample ("*first generation immigrants... going through change*;" "*used to change... living in different countries*;" "*to build a life here as a new immigrant... shows how much change we have gone through*"), pointing to a potential moderating factor of cross-cultural/immigrant experience in adjustment. Moreover, the tendency of multilinguals in this study to avoid downplaying the adverse impact of the changes in their narratives (as compared with monolinguals in the sample) suggests that multilingual employees may be less prone to causal ambiguity, an irrational belief that newly introduced (or encountered) systems/environments can be approached in the same manner that previous systems/environments were approached (Johnson & Suskewicz, 2020; Slovic, 1987).

5. Overall Discussion

Results of hierarchical linear modeling in Study 1 suggest that multilingual employees in the credit union better adapted to the workplace changes triggered by the COVID-19 global pandemic.

Further, Study 2 yields qualitative evidence implicating the task-switching ability inherent to multilinguals as an antecedent for adjustment to the changes, providing evidence explaining how multilingual employees achieved the performance improvement found in Study 1.

Research Implications

The findings herein contribute substantially to a broader understanding of change management, adding multilingualism as a viable antecedent to change outcomes. Moreover, whereas Caldwell, Herold, and Fedor (2004) suggest organizational support as a primary antecedent to employee adjustment to change, our study finds that while monolingual employees indeed rely on organizational support, multilingual employees conversely rely on inherent task-switching ability to navigate the change experience. If multilingual individuals can, indeed, switch between tasks more efficiently than monolingual individuals, then it can be assumed that multilingual employees would adjust to workplace changes that require substantial task switching to a greater degree than monolingual employees. Yet, prior to the current study, this process was not explored in an organizational context relating to broad workplace changes. Thus, it appears that task-switching ability may need further consideration in explorations on employee response to organizational change. Furthermore, evidence in the current study showing an employee performance benefit of the task-switching ability of multilinguals completes the explorations of Marian et al. (2014) in terms of practical applications of coactivation of multiple languages, as well as Morrison, Kamal, Le, & Taler (2020) in terms of developing a more exhaustive list of benefits of multilingualism in professional environments.

Further, considering the findings of Kroll and Dussias (2017) suggesting that the role of multilingualism in different practical contexts differs by country and linguistic basis, in-depth exploration of multilingualism and change adjustment within different national and linguistic contexts may yield varying outcomes. Additionally, a distinction between the role of multilingualism in change management in work and non-work environments may be explored.

Practical Implications

In light of the evidence pointing to the work performance implications based on task-switching ability, organizations may want to consider multilingualism in HR selection as a characteristic preceding better adjustment to organizational change, and not simply as a skill applicable to tasks requiring language proficiency. Human resource development may also benefit from incorporating second language learning in organizations concerned with preparing employees to successfully navigate organizational change, although further research is necessary to determine if employees who learn a second language to a low degree of proficiency will display the same task-switching abilities as those with a high degree of proficiency, as Marian et al.'s (2014) study would suggest that only multilinguals who use a language at an advanced level of proficiency experience coactivation.

Overall Limitations

This study faces several limitations in terms of research method, scope, and generalizability. While the results have significant implications for the credit union in the sample, and potentially for similar organizations, limitations of generalizability arise. Moreover, organizational

restrictions on release of employee data, the limited number of multilingual employees working at the organization, and physical limitations relating to the pandemic along with video conferencing fatigue among potential study participants further limited this study's access to data and information that could have provided more reliable outcomes. Reliability and generalizability of results of this study would be greatly improved by extending the research approach into other organizations across multiple industries.

To establish generalizability of multilingualism as an antecedent of improved task switching in professional environments, further research is needed. Clinical trials may be engaged to quantify margins of error so that business practitioners can align expectations when hiring multilinguals to leverage this inherent skill. Moreover, degree of influence of multiple versus two languages, level of language fluency, and cross-cultural effect, among other effects of multilingualism on a person's general abilities (such as task switching) should be explored to further explain phenomena relating to adjustment to change. Task categories that show a higher degree of improvement when faced with changes could be explored, reflecting on studies finding improved efficiency in non-linguistic task performance among multilinguals (Stocco & Prat, 2014). Finally, an alternative approach focusing on immigrant experience may yield different or even augmented results in terms of ability to quickly switch between tasks in times of change within organizations, offering an opportunity for further research in this area.

The current research is also susceptible to omitted variable bias due to the limited set of control variables provided, especially for Study 1. For example, various factors that can affect the job performance level (or the adaptability to change) of employees, such as their commitment and job satisfaction levels, could not be controlled. As a result, the estimated coefficient of interest in Study 1 may not be precise. To mitigate this problem, for future research, it may be

desirable to develop surveys or other tools specific to investigation of the issue of multilingualism and adaptation to change.

6. Conclusion

This study's results provide evidence that multilinguals adapt better to the change than monolinguals based on the ability to switch between tasks. It behooves managers to consider multilingualism as a skill of interest in recruiting efforts. A positive advantage in human capital could give a business a competitive advantage, meaning that further exploration of the benefits of hiring multilingual employees is warranted among firms across industries, beyond even the long-running trend of hiring multilinguals only to perform tasks requiring communication in a specified language (Kroll & Dussias, 2017), such as offering multilingual customer service (White, 1990). Future exploration of the role of multilingualism as a factor in employee selection and development is expected to yield new insights for performance and change management in organizations.

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The authors report there are no competing interests to declare.

Ethics Approvals

The authors declare that appropriate ethics approval for human subject research has been obtained through the Institutional Research Board of *HIDDEN IN THIS MANUSCRIPT VERSION FOR AUTHOR ANONYMITY*. Quantitative data on employee performance evaluations were received in anonymized file format; interviewees gave the researchers informed consent prior to participation in the study; interview videos were deleted after responses were transcribed, and all transcripts were anonymized prior to analysis.

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[Insert Appendix here]

Table 1. Means, standard deviations, and correlations of the variables (Study 1)

Variables	Mean	s.d.	1	2	3	4	5	6	7
1. Job performance	4.563	0.538							
2. Change	0.524	0.500	0.014						
3. Multilingualism	0.042	0.201	-0.025	-0.010					
4. Female	0.740	0.439	0.030	-0.038	0.005				
5. Age	40.778	11.575	0.093	-0.006	-0.120	0.256			
6. Tenure	8.602	8.397	0.197	-0.003	-0.102	0.159	0.553		
7. Manager	0.273	0.446	0.342	-0.005	0.063	-0.074	0.109	0.240	
8. Pay: $30K or less	0.102	0.303	-0.357	0.010	-0.071	0.082	-0.049	-0.141	-0.207
9. Pay: $30K to $60K	0.598	0.491	-0.116	-0.020	0.105	0.058	-0.254	-0.171	-0.387
10. Pay: $60K to $90K	0.220	0.415	0.300	0.013	-0.111	-0.060	0.299	0.247	0.406
11. Pay: $90K or more	0.079	0.270	0.151	0.006	0.060	-0.105	0.057	0.089	0.313
12. Race/Ethnicity: White	0.843	0.364	0.057	-0.008	-0.484	0.048	0.187	0.155	0.022
13. Race/Ethnicity: Black	0.004	0.063	0.051	0.018	-0.013	-0.106	0.007	0.040	-0.039
14. Race/Ethnicity: Hispanic	0.085	0.280	-0.101	0.000	0.568	-0.098	-0.197	-0.124	0.024
15. Race/Ethnicity: Asian	0.025	0.156	0.013	0.001	0.176	0.095	-0.022	-0.057	-0.079
16. Race/Ethnicity: White	0.043	0.204	0.011	0.009	-0.045	0.008	-0.049	-0.076	0.000

Variables	8	9	10	11	12	13	14	15
9. Pay: $30K to $60K	-0.412							
10. Pay: $60K to $90K	-0.180	-0.649						
11. Pay: $90K or more	-0.099	-0.357	-0.155					
12. Race/Ethnicity: White	0.015	-0.045	0.039	0.006				
13. Race/Ethnicity: Black	-0.021	-0.077	0.118	-0.018	-0.145			
14. Race/Ethnicity: Hispanic	0.005	0.068	-0.072	-0.020	-0.706	-0.019		
15. Race/Ethnicity: Asian	-0.054	0.011	-0.024	0.078	-0.370	-0.010	-0.049	
16. Race/Ethnicity: White	0.013	0.003	0.011	-0.038	-0.492	-0.013	-0.065	-0.034

N = 762 (in 207 individuals)

The correlations with the absolute value larger than 0.072 are significant at $p < 0.05$ level.

The correlations in this table are Pearson correlations (not accounting for the multi-leveled structure).

Job control variables are not reported in this table.

Table 2. HLM predicting job performance (Study 1)

Variables		Dependent variable: Job performance (Standardized)				
		Model A1	Model A2	Model A3	Model A4	Model A5
	Constant	-1.015** (0.258)	-1.010** (0.258)	-1.043** (0.260)	-1.030** (0.260)	-1.016** (0.260)
Controls	Female	0.267* (0.125)	0.265* (0.125)	0.269* (0.125)	0.266* (0.125)	0.268* (0.125)
	Age	-0.009 (0.005)	-0.009 (0.005)	-0.009 (0.005)	-0.009 (0.005)	-0.009 (0.005)
	Tenure	0.009 (0.007)	0.009 (0.007)	0.009 (0.007)	0.009 (0.007)	0.009 (0.007)
	Manager	0.558** (0.170)	0.554** (0.171)	0.556** (0.171)	0.557** (0.171)	0.555** (0.171)
	Pay: $30K to $60K	0.938** (0.167)	0.933** (0.167)	0.936** (0.167)	0.933** (0.168)	0.937** (0.168)
	Pay: $60K to $90K	1.240** (0.228)	1.240** (0.228)	1.240** (0.228)	1.238** (0.228)	1.243** (0.228)
	Pay: $90K or more	1.267** (0.312)	1.266** (0.313)	1.270** (0.312)	1.265** (0.313)	1.271** (0.313)
	Race/Ethnicity: Black	0.374 (0.709)	0.369 (0.708)	0.363 (0.709)	0.367 (0.709)	0.367 (0.709)
	Race/Ethnicity: Hispanic	-0.339† (0.175)	-0.379† (0.214)	-0.378† (0.214)	-0.386† (0.214)	-0.642** (0.234)
	Race/Ethnicity: Asian	-0.210 (0.299)	-0.239 (0.313)	-0.239 (0.313)	-0.215 (0.313)	-0.239 (0.313)
	Race/Ethnicity: Other	0.044 (0.224)	0.044 (0.224)	0.044 (0.224)	0.044 (0.225)	0.044 (0.224)
	Job controls	Y	Y	Y	Y	Y
Moderator	Multilingualism		0.097 (0.299)	0.097 (0.299)	-0.119 (0.316)	0.074 (0.323)
Independent variable	Change			0.054 (0.042)	0.035 (0.043)	0.009 (0.044)
Interaction effects	Change * Multilingualism				0.449* (0.209)	0.049 (0.254)
	Change * Hispanic					0.496** (0.181)
Deviance		1,643.986	1,643.881	1,642.238	1,637.664	1630.217
$\Delta \chi^2$ (df, compared model)			0.105 (1, A1)	1.643 (1, A2)	4.574* (1, A3)	7.447** (1, A4)

N = 762 (in 207 individuals)

*† p < 0.10, * p < 0.05, ** p < 0.01*

1) Base for comparison: Lower than bachelor's degree

Table 3. Simple slope analysis of the effect of multilingualism on job performance by change status (Study 1)

Dependent variable	Job performance (Standardized)	
Multilingual Status	Non-Multilingual	Multilingual
Change slope (From 0 to 1)	0.035	0.484*
t-value of change slope	0.815	2.361
p-value of change slope	0.415	0.018

N = 762 (in 207 individuals)

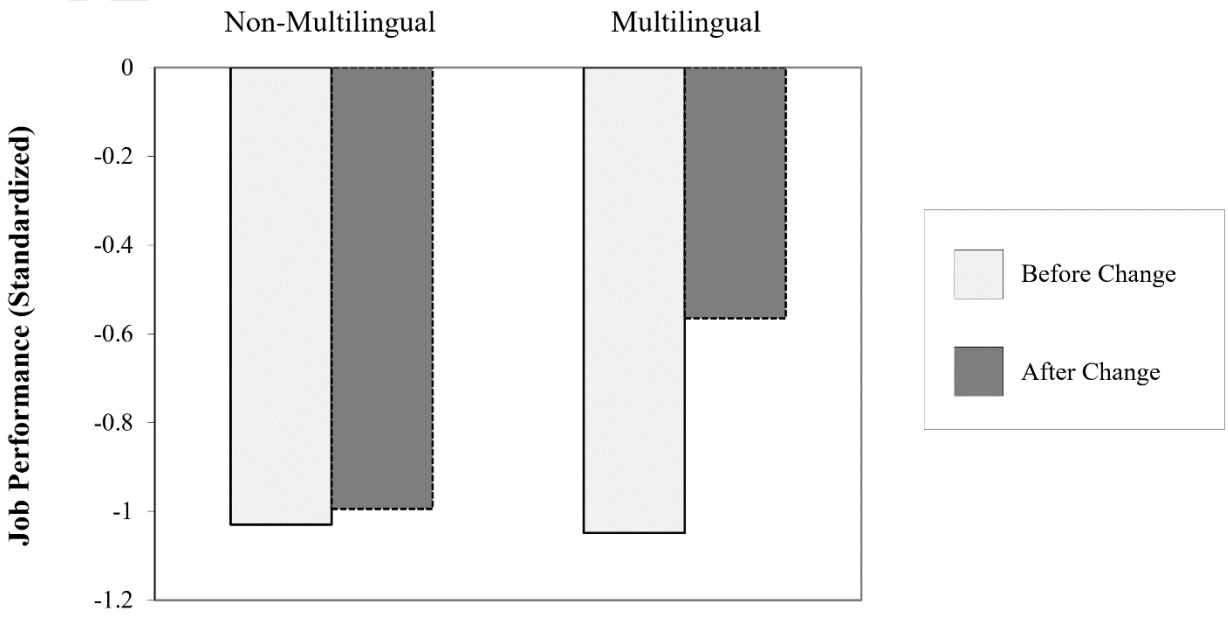
*† p < 0.10, * p < 0.05, ** p < 0.01*

Note. Calculations are based on values from Model A3 in Table 2 with all the control variable values at 0.

Table 4. Structured themes in narratives of multilingual & monolingual employees (Study 2)

		Multilingual Employees		Monolingual Employees
Structured Themes		***Discrete Theme***	***Paired Themes***	***Discrete Theme***
Adjustment		No tendency to downplay degree of change experience	Pattern of confidence in adjustment to change	Tendency to downplay degree of change experience
Factors of Adjustment	***Individual***	***Adaptability, mental ability, task switching*** as primary factors for adjustment		
	Org Support			L***eadership, team, tech, resources*** as primary factors for adjustment
	Environment	*(see below)*		Positive/negative events (family support, coping) outside of work supporting adjustment
	Multi-lingualism	Multilingual experiences outside of work supporting adjustment by being able to "***pivot***" or "***switch***" between different tasks and environmental needs		

Figure 1. Interaction effect between multilingualism and change predicting job performance (Study 1)



Note. The simple slopes were calculated using the numbers in the Model A4 in Table 2 with all the control variable values at 0.

Appendix. Control variables in the analysis model (Study 1)

Control Variables		Description
Job		Accounting = 1, otherwise = 0
		Collection = 1, otherwise = 0
		Lending = 1, otherwise = 0
		Support Center = 1, otherwise = 0
		Member Service = 1, otherwise = 0
		Senior Management = 1, otherwise = 0
		Technology = 1, otherwise = 0
		Security = 1, otherwise = 0
		Investment = 1, otherwise = 0
		Other = 1, otherwise = 0
		Reference group: Branch
Race/Ethnicity		Black = 1, otherwise = 0
		Hispanic = 1, otherwise = 0
		Asian = 1, otherwise = 0
		Other = 1, otherwise = 0
		Reference group: White
Pay level (Annual)		$30K to $60K = 1, otherwise = 0
		$60K to $90K = 1, otherwise = 0
		$90K or more = 1, otherwise = 0
		Reference group: $30K or less
Other characteristics	**Gender**	Female = 1, otherwise = 0
	Age	Age in years (Continuous variable)
	Organizational tenure	Number of years worked for the current organization (Continuous variable)
	Managerial status	Responsible for supervising other employees = 1, otherwise = 0