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Research Article

REGULATORY FIT EFFECTS ON THE ACQUISITION OF LEXICAL STRESS

A CLASSROOM-BASED STUDY

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Abstract

Higgins's (2000) regulatory fit theory proposes that a fit between one's regulatory state and strategic means for reaching a goal increases motivational strength and engagement. This study investigates how regulatory fit affects the L2 acquisition of lexical stress in an authentic learning context. Ninety EFL students were assigned to either gain frame or loss frame conditions. They engaged in speech practice in which they mimicked a model speech in English to win a chance to enter a prize raffle. The reward system was framed differently in the two framing conditions, with the intention of eliciting the participants' use of eager or vigilant strategies, thus creating fit and nonfit conditions. Acquisition of lexical stress was assessed using pre- and posttest scores. Multiple regression analysis showed no regulatory fit effects and no loss frame effects but did show a significant beneficial effect of the gain frame on the acquisition of lexical stress.

INTRODUCTION

Over the past few decades, research endeavors to understand what motivates second language (L2) learning have burgeoned. Since Gardner's (1985) seminal work on integrativeness, many L2 motivation models have been proposed, and have experienced ebbs and flows of research interest (e.g., self-determination theory, L2 self-motivational system). Some of these motivational models offer useful frameworks for understanding enduring reasons or goals behind L2 learning, specifically explaining L2 learners' goal-directed behaviors in the long term, as manifested in achievement measures including exam scores, grades, and course drop-outs (Gardner et al., 1997; Matsumoto, 2009;

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Tremblay & Gardner, 1995). The focus on general L2 motivation, however, has left relatively unexplored questions of how motivation is realized in sociocultural context. Motivation at a particular moment may explain learner behaviors and outcomes in the immediate context, and therefore should be studied along with general L2 motivation. This view is in line with the increasing interest in motivational dynamics in language learning in recent years (Dörnyei & Henry, 2015; MacIntyre & Serroul, 2015). Moreover, little research has examined specific types of task engagement or learner behaviors in particular tasks and settings (e.g., Dörnyei & Kormos, 2000). Further explorations of situated or task-specific motivation seem necessary to better understand students' everyday decision-making behaviors in L2 learning.

Another underrepresented area of L2 motivation research, as Papi (2018) pointed out, pertains to qualitative aspects of motivation. Papi observed that L2 motivation has typically been treated in terms of quantity, intensity, or strength of energy, as represented in Gardner's (1985) metaphor for motivation as a "pulling power." Many L2 motivation theories, including Gardner's integrativeness (1985) and Dörnyei's (2009) L2 self-motivational system, adopted the view that motivation is largely characterized as high or low, and therefore explains the amount of energy an individual possesses for language learning. This "motivation-as-energy" perspective (Papi, 2018, p. 2) has been useful for understanding how different *degrees* of motivation function in different learner behaviors and learning outcomes. However, as Papi also noted, the approach fails to explain how complex human behaviors and choices are guided by varying human needs and desires, and thus there is a need for more scholarly attention to qualitative aspects of L2 motivation. Papi and colleagues recently attempted to demonstrate how qualitatively different types of motivation can account for L2 motivational behaviors and achievement (Papi, 2018; Papi et al., 2019; Papi & Khajavy, 2021). Drawing on Higgins's (1997) regulatory focus theory as a framework to explain different types of human orientations and behaviors, recent studies have shown that regulatory focus and regulatory fit can be useful in explaining the qualitative dimensions of L2 motivation.

Like other achievement theories in social psychology (e.g., Dweck's 1986 goal orientation), Higgins's (1997, 2000) regulatory fit theory focuses on individuals' varying reasons for engaging in goal-oriented activity. However, the regulatory fit theory differs from other achievement theories in addressing individuals' different survival needs to maintain security and pursue advancement, and in emphasizing how individuals' different goal orientations affect their choices of strategic means for reaching certain goals. The theory hypothesizes that when a means to reach a certain goal is well aligned with an individual's orientation, the individual will "feel right" about what they are doing, assign more value to it, and therefore be more deeply engaged in it. Many researchers and practitioners have exploited the idea of regulatory fit to maximize attempts to change and guide individuals' behaviors; for example, by manipulating settings or surroundings to affect sense of fit, which in turn affects behavior (Cesario et al., 2008; Lockwood et al., 2002). Likewise, the regulatory fit theory has received a great deal of attention in social psychology, but it has been largely neglected in L2 motivation research until quite recently (Papi, 2018; Papi et al., 2019; Papi & Khajavy, 2021). In particular, Papi (2018) applied the regulatory fit theory to L2 learning, in his investigation of how the fit between a learner's regulatory focus and strategic means would affect incidental L2 vocabulary acquisition. While the study brought a new perspective to L2 motivation research, the findings are far

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from generalizable. The current study attempts to expand this line of research by exploring regulatory fit effects in a different L2 learning context. Specifically, it examines how regulatory fit works in the acquisition of lexical stress in a classroom setting.

LITERATURE REVIEW

THE REGULATORY FIT THEORY

Motivation research attempts to understand the various causes of goal-directed behaviors (Dweck, 1986). Individuals' goals serve as motivational incentives and become behavioral standards for their actions and strategies. Higgins's (1997) regulatory focus theory addresses how different types of achievement motivation might account for individuals' adoption of a set of cognitive and behavioral strategies. According to the theory, two distinct motivational orientations serve different human needs and desires. The *promotion focus* reflects individuals' desire to accomplish, advance, and develop. When individuals are oriented to the promotion focus, they tend to endorse *eager* strategies in which they seek opportunities for gain and success. The *prevention focus*, in contrast, represents individuals' need to maintain security and fulfill responsibilities and obligations. This focus encourages individuals to adopt *vigilant* strategies to prevent losses and failure. The theory's underlying assumption is that the two regulatory foci coexist in any individual, but one or the other tends to be more active and dominant, and to become a given individual's chronic regulatory focus. That is, unless situational and environmental factors make a particular regulatory focus temporarily more salient and relevant, individuals' behaviors are generally guided by their chronic regulatory focus.

Research on regulatory focus has investigated differences between the two types of focus by demonstrating behavioral characteristics manifested in each type (e.g., Crowe & Higgins, 1997) or by comparing performance outcomes produced by each type (e.g., Förster et al., 2003). While this stream of research has offered insights into how individuals' chronic regulatory focus guides and influences human behaviors in general, Higgins's (2000, 2014) proposal of the regulatory fit theory shifted attention to situational factors that have a direct influence on activity engagement. This theory addresses the relationship between people's orientations and the ways different situations support strategic means toward goals. Higgins argued that a good match between a situationally presented means to reach a goal and an individual's goal orientation (or adoption of a preferred means) leads to the experience of *regulatory fit.* Specifically, when a promotion-oriented individual adopts eager strategies or a prevention-oriented individual adopts vigilant strategies to reach a goal, regulatory fit arises. When this happens, the person "feels right" about what they are doing in the goal-pursuit process.

The effects of regulatory fit on diverse aspects of human behaviors have been supported by previous research. First, as "feeling right" about what one is doing is different from a hedonic experience, it can boost one's confidence in doing it; the feeling also adds value to the activity, which leads one to positively evaluate the outcome of one's action (Higgins, 2014, p. 246). The feeling of rightness has been found to enhance enjoyment in and the perception of success of an activity (Freitas & Higgins, 2002), and to strengthen engagement in tasks (Crowe & Higgins, 1997; Higgins, 2005). Academic motivation has been shown to be enhanced when the model for a goal matches the actor's regulatory

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focus (Lockwood et al., 2002). The benefit extends to cognitive dimensions, improving cognitive fluency in message processing (Lee & Aaker, 2004) and eventually leading to better learning and performance (Grimm et al., 2008; Maddox et al., 2006).

Such positive regulatory fit effects on various aspects of activity engagement and evaluation have been observed in diverse decision-making and judgment tasks in social psychology (Avnet & Higgins, 2003; Cesario et al., 2008; Lee & Aaker, 2004). Previous research has also found beneficial fit effects on various types of learning such as general category learning (Maddox et al., 2006) and motor skill acquisition (Chen et al., 2016). However, fit effects have not been widely investigated in the context of L2 learning, with only a few quite recent studies addressing the relationship between regulatory focus and learner behaviors (Han & McDonough, 2018; Papi, 2018; Papi et al., 2019; Papi & Khajavy, 2021). For example, Papi et al. (2019) showed that ideal L2 self, which is conceptually related to promotion focus, was associated with eager strategic behaviors in L2 use, while ought-to L2 self, conceptually linked to prevention focus, was related to vigilant strategic behaviors in L2 use. Additionally, Papi and Khajavy's (2021) examination of motivational mechanisms underlying L2 achievement found that different regulatory foci were associated with different types of L2 self-guides, emotions, and strategic behaviors, which in turn affected L2 achievement. They showed that a promotion focus was related to ideal L2 selves, and thus in turn to enjoyment and eager strategies, while a prevention focus was associated with ought-to L2 selves, and thus to anxiety and vigilant strategies. Promotion-related variables were positively associated with L2 achievement while prevention-related variables were negatively associated with L2 achievement in general.

While these L2 studies showed the general links between regulatory focus, learner emotions, and strategic inclinations, recent experimental studies have reported a more direct influence of regulatory fit on language learning (Han & McDonough, 2018; Papi, 2018). In L2 research, Papi (2018) was the first to address regulatory fit as a possible motivational source of immediate L2 learning. He investigated whether task situations framed to create either fit or nonfit would influence incidental vocabulary acquisition during integrated reading-writing tasks. One of the assumptions of the study, like other previous studies (Chen et al., 2016; Markman et al. 2005), was that the human regulatory focus responds to a reward system for task performance. The incentive was a chance to enter a raffle to win a $100 gift card. To be entered, the participants had to earn 75 points out of 100 on the reading-writing task. The task was framed in two different ways to lead the learners in each condition to adopt particular strategic means to reach the goal. For the gain frame condition, the participants were told that to enter the raffle they needed to get 75 points, starting from zero. This condition was designed to elicit eager strategies, with the expectation that those with a chronic promotion focus would be likely to experience fit and those with a chronic prevention focus would be likely to experience nonfit. In contrast, for the loss frame condition, the participants were told that they were already entered in the raffle, because they had been given 100 points. However, points would be deducted for poor task performance, and they needed to retain at least 75 points to remain in the raffle. The findings partially supported regulatory fit effects: positive regulatory fit effects on vocabulary acquisition emerged only in the prevention-loss fit condition, but not in the promotion-gain fit condition.

Han and McDonough (2018) examined how task-induced and trait-based regulatory foci interact to affect L2 oral task performance. Task-induced regulatory foci were

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manipulated using task instructions. The promotion-oriented task asked the participants to describe reasons to visit certain places, whereas the prevention-oriented task asked them to explain reasons to avoid the places. A task-induced regulatory focus may or may not match the participants' trait-based regulatory focus, which the study assessed using an adapted version of Taguchi et al.'s (2009) measure for promotion-instrumentality and prevention-instrumentality motivational tendencies. The findings failed to show any interaction effects of learners' general regulatory focus and task-induced regulatory focus (i.e., regulatory fit), but they did show that tasks that induced a prevention-orientation resulted in more accurate and fluent oral task performance. However, these results should be interpreted with caution, as the regulatory focus measures were not based on chronic regulatory focus and had low internal consistency in general (Cronbach's alpha: .26 for promotion; .62 for prevention).

These existing studies expanded the scope of L2 motivation research by drawing research attention to qualitative aspects of L2 motivation, especially regulatory focus (Han & McDonough, 2018; Papi, 2018; Papi et al., 2019; Papi & Khajavy, 2021). Nonetheless, not only are their findings incongruent but also the research is too limited to be generalizable. Yet they raise interesting points that suggest directions for further research. One point pertains to the nature of tasks (Bianco et al., 2003; Grimm et al., 2008). As Han and McDonough (2018) indicated, tasks can be inherently promotion-oriented or prevention-oriented, which can serve as a variable to account for regulatory fit. Van Dijk and Kluger (2011) argued that task type can function as an antecedent of situational regulatory focus. Specifically, tasks that require vigilance, accuracy, or error avoidance tend to predispose learners to adopt prevention tendencies, while tasks that require eagerness, speed, and creativity can incline learners to become promotion-focused. Similarly, Friedman and Förster (2001) found that prevention-oriented individuals perform well on tasks that involve analytical and conservative strategies, but promotion-oriented individuals perform well on tasks that incorporate creative thought and problem-solving. Therefore, it is possible that a certain type of regulatory focus is naturally evoked by a given task, even without external manipulation or priming (e.g., Papi, 2018).

The context of learning is also worth considering. L2 research on regulatory focus has been mostly experimental; even though Papi's (2018) integrative reading-writing task was conducted as an in-class activity, its goal was less to learn the L2 than to achieve rewards through performing well. It seems unlikely that students' genuine motivation or interest in the activity is reflected in the results. Results from such experiments are useful to interpret the findings from the study accurately, yet the findings may not be particularly applicable to authentic educational contexts, because students bring their personal goals and motivations for L2 learning to the classroom. Ecologically sound findings from authentic learning contexts seem needed to predict how students will behave in actual learning settings. Therefore, this study investigates the way regulatory fit works in L2 motivation and learning in an authentic classroom context.

MOTIVATION AND THE ACQUISITION OF LEXICAL STRESS

Lexical stress (or word stress) refers to the stress pattern within a word, particularly which syllable gets stressed. It may be marked by several acoustic features such as

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intensity, duration, and pitch movement (Fry, 1958), as well as variations in vowel quality (Field, 2005). Lexical stress has been studied in pronunciation research as one of the suprasegmental features, and in vocabulary acquisition research as part of vocabulary knowledge. Pronunciation research has demonstrated that listeners can understand L2 speakers better when the speakers place primary lexical stress correctly than when they place it incorrectly or leave it out (e.g., Hahn, 2004; Saito & Saito, 2017), indicating that lexical stress is an important component of intelligibility in L2 oral interaction (Cooper et al., 2002).

In research on vocabulary or lexical knowledge, lexical stress has been considered part of a speaker's knowledge of the spoken form of a word (Aitchison, 1994; Cutler et al., 1997; Murphy, 2004). Studies in this field have sought to understand how this knowledge exists in native speakers' mental lexicon, including how it is acquired, stored, retrieved, and applied, yet these underlying processes remain unclear (Murphy, 2004). It is generally believed that information about a word's rhythm is stored in a mental representation along with other information, such as its syntactic features, meaning, and phonological information (Aitchison, 1994). Some L2 research indicates that L2 speakers, as well, have such mental representations, suggesting that L2 lexical stress is acquired as part of the vocabulary acquisition process (Cutler et al., 1997).

Despite our still limited understanding of the processes whereby L2 speakers acquire lexical stress (Murphy, 2004), insights can be drawn from research on how it is taught in L2 settings. Pedagogical approaches include drawing on L2 learning mechanisms of attention (Murphy, 2004), pattern recognition (Saito & Saito, 2017), and mimicry (Jung et al., 2017). Some studies have shown that lexical stress can be taught explicitly through explaining a language's general stress patterns (Connell et al., 2018; Kissling, 2018; Saito & Saito, 2017). Murphy (2004) underscored the importance of inducing learner awareness to lexical stress to engage them in the processes of analyzing and identifying its general patterns. Other studies have demonstrated that lexical stress can also be acquired implicitly; for example, through engaging in meaning-oriented activities accompanied by priming (Jung et al., 2017) or alignment (Trofimovich et al., 2014). Trofimovich et al. (2014) showed that L2 learners could acquire lexical stress patterns and use them accurately after hearing an interlocutor's correct stress on the target word in the preceding turn in interaction.

These studies' results indicate that lexical stress can be picked up or acquired by learners through exposure, but also that it is important for L2 learners to notice lexical stress in the input, regardless of their awareness (Murphy, 2004). Among other factors, learner motivation has been shown to be crucial for learners to engage in the cognitive processes necessary for language learning (Schmidt et al., 1996). Tremblay and Gardner (1995) demonstrated that effort, persistence, and attention mediate the relationships between attitudes, motivation, and achievement. In other words, motivation directs cognition, and cognition facilitates learning. Although only a handful of studies have explored motivation in vocabulary learning (Gardner & MacIntyre, 1991; Tseng & Schmitt, 2008) or L2 pronunciation accuracy (e.g., Elliott, 1995; Purcell & Suter, 1980; Thompson, 1991), there has been extensive research on the positive role of motivation on many other aspects of learner behavior and learning outcomes (Tremblay & Gardner, 1995). Taken together, the results of these lines of research support the current study's assumption that because motivation can help learners pay attention to

what they are currently engaged in, motivation can also increase the chance that learners will learn lexical stress when they encounter it when practicing speaking.

To explore the potential relationship between motivation and the acquisition of suprasegmental knowledge, the current study employs lexical stress as the target feature for two main reasons. First, lexical stress is easier to notice and practice than other suprasegmental features such as contour and accent, making it easier to learn (Derwing & Munro, 2015). A few empirical studies have shown that L2 learners learned lexical stress more easily than other tonal-melody aspects of knowledge such as intonation (Tanner & Landon, 2009; Trofimovich & Baker, 2006). Second, it is also easy for listeners to notice whether learners use lexical stress correctly, omit it, or use it incorrectly, which in turn makes it easier to detect its acquisition.

THE CURRENT STUDY

The review of the literature not only demonstrates the paucity of research on regulatory focus and fit in L2 motivation but also points to several issues that deserve further attention. The present study builds on Papi's (2018) exploration of Higgins's (2000) regulatory fit model in L2 vocabulary learning and, in doing so, extends L2 motivation research to include qualitative perspectives on motivation while exploring the model's application to the acquisition of lexical stress. The current study also expands on Papi's study by examining whether the hypothesized regulatory fit effects emerge in an authentic classroom environment and with a different type of task.

First, there is good reason to experiment with different task types. As Van Dijk and Kluger (2011) argued, tasks are not neutral and therefore may strengthen or neutralize fit effects (e.g., Han & McDonough, 2018). Based on Van Dijk and Kluger's description of task types, the L2 writing task used by Papi (2018) can be characterized as promotional, as it involves creativity. The current research adopts a task that is considered preventative: a speech script reading task that requires learners to mimic a native speaker's speech styles and speech patterns with accuracy and adherence to the original. Despite the possibility of three way interactions of task, regulatory focus, and strategic means, this study, like Papi's, does not focus on the interactions between regulatory fit and task characteristics. Nevertheless, by adopting a task with a different nature than Papi's promotion-oriented task, it may provide evidence regarding how regulatory fit works in different types of L2 tasks, adding to our understanding of the potential interactions of regulatory fit and task characteristics.

Moreover, the present study conducts an experiment in an authentic learning context to enhance the ecological validity of the research findings. As mentioned, most extant studies on regulatory fit effects are experimental (Chen et al., 2016; Grimm et al., 2008; Maddox et al., 2006), which implies that participants' genuine goals or motivations are unlikely to be taken into account in their findings, reducing their applicability to real-life situations. In Papi's study, although the participants were recruited from intact ESL classes focusing on reading and writing, and the writing tasks were performed as part of the class activities, there was no direct link between the writing task and the curriculum. Papi in fact raised the concern that his participants may not have taken the task seriously. To address this limitation, the present study is situated within an authentic classroom setting. Not only were the tasks part of the regular class activities but also they built on

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previous lessons. Therefore, the findings are expected to reflect the learners' genuine interest in the class, class activities, and L2 learning, and thus lead to more pedagogically compelling implications.[1]

Furthermore, research on regulatory fit should include diverse aspects of L2 learning. Papi (2018) found only partial evidence of beneficial effects of regulatory fit on incidental vocabulary learning in the prevention-oriented fit condition. These results can be attributed to the nature of incidental learning, where learner motivation and effort are not necessarily spent on vocabulary searches and learning. A task requiring intentional attention to vocabulary might have produced different results. Hence, it is worth investigating how regulatory fit works in L2 learning when learner attention is somewhat explicitly directed to the target language feature—lexical stress in the present study. However, as the current study is classroom-based, the participants' attention to lexical stress is contextualized as part of learning English speech prosody, in which lexical stress is only one of an array of suprasegmental features. It is hypothesized that this study's explicit instruction will supersede internal motivation, in contrast to Papi's incidental vocabulary learning.

This study therefore asks the following question: What are the effects of regulatory fit on the acquisition of lexical stress in the classroom context?

METHODS

PARTICIPANTS

Ninety college students at a private university in South Korea (hereafter, Korea) participated in the study. They were taking a mandatory academic English course focusing on the development of listening and speaking skills. The general goal of the course was to develop the students' communicative language skills and to familiarize them with academic English. The participants were from four intact classes taught by the same instructor with the same materials. Two classes were randomly assigned to the gain frame, and the other two classes to the loss frame. Students were informed of the procedure of the experiment and completed a consent form. Data were collected only from those who agreed to participate.

Six of the students had studied or lived abroad in an English-speaking environment, but none for more than six months. According to the university's in-house placement test, the participants were at the high-beginner to low-intermediate level, indicating they could understand and perform a basic level of English tasks. The participants also self-rated their English skills as shown in Table 1.

The participants' overall average self-rating in the range of three to five (out of nine) means they perceived their proficiency as low-intermediate in general. As the table shows, the participants perceived themselves as most deficient in speaking, followed by writing, pronunciation, listening, and reading, in that order.

INSTRUMENTS

Regulatory Focus

To assess the participants' general regulatory focus, Lockwood et al.'s (2002) general regulatory focus measure (GRFM) was adopted. While Higgins et al.'s (2001) regulatory

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TABLE 1. Participants' self-assessed proficiency by experimental condition and skill area

	Reading	Writing	Speaking	Listening	Pronunciation
Gain frame ($n = 44$)	4.83	3.76	3.21	4.14	3.57
Loss frame ($n = 46$)	4.78	3.73	3.29	4.24	3.93
Total ($n = 90$)	4.81	3.75	3.25	4.19	3.75

Note: 1 = low-beginner, 2 = mid-beginner, 3 = high-beginner, 4 = low-intermediate, 5 = mid-intermediate, 6 = high-intermediate, 7 = low-advanced, 8 = mid-advanced, 9 = high-advanced.

focus questionnaire (RFQ) is widely used to measure individuals' regulatory focus, it is exclusively based on individuals' subjective past experiences. Haws et al.'s (2010) composite regulatory focus scale (CRFQ) is based on the past, present, and future; however, the CRFQ was adopted by Papi (2018) and showed low reliability (i.e., .66 for promotion; .58 for prevention). Therefore, this study chose Lockwood et al.'s GRFM to directly assess the conceptual underpinnings of promotion and prevention concerns by reflecting both present and accessible future self-guides.[2] The original questionnaire includes 18 items, but four items were removed from the preliminary factor analysis. A promotion focus indicates an orientation to achieving success rather than to maintaining the status quo or avoiding failure. Example items centering on this construct include "I frequently imagine how I will achieve my hopes and aspirations" and "I typically focus on the success I hope to achieve in the future" ($n = 7$, Cronbach's alpha = .81). A prevention focus suggests a general inclination to prevent loss rather than to obtain gains and accomplishments. This construct is exemplified in items such as "I am anxious that I will fall short of my responsibilities and obligations" and "I frequently think about how I can prevent failures in my life" ($n = 7$, Cronbach's alpha = .76). Questionnaire items were presented in random order in the participants' first language, Korean. Individuals' regulatory focus scores for promotion and prevention were calculated based on their average scores on each construct.

Lexical Stress

L2 learners' acquisition of lexical stress was assessed through pre- and posttests that measured explicit knowledge of lexical stress (i.e., the primary stress of a word). Students were asked to write down the meaning of a given word in their L1 and choose the correct written representation of the word stress from three choices, with capital letters indicating primary stress. For instance, given the word "graduate," after providing a definition, the test-taker would circle one of the following forms: "GRAduate," "graDUate," or "graduATE." The learners' knowledge of word meaning was not used in the analysis.

A total of 55 content words of two or more syllables were chosen from the speech used as the learning material. Basic two-syllable words that the participants were expected to know (e.g., *parent*) were excluded. There were 11 two-syllable words, 18 three-syllable words, 20 four-syllable words, and 6 five-syllable words. The Longman Vocabulary Checker was used to examine the frequency of the target words. The program is based on Longman's 9,000 important words in English and provides high-frequency words

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(defined as the most important 3,000 words), mid-frequency words (the next most important 3,000 words), lower-frequency words (the next most important 3,000 words), and words in the Academic Word List. There were 20 high-frequency words, 19 mid-frequency words, 10 low-frequency words, and 1 academic word, while 5 words were out of the frequency range.

The pre- and posttests included the same lexical items. Each took approximately 20–25 minutes to complete. The pretest scores were, on average, 28.98 out of 55 points ($SD = 8.32$), indicating that the participants had accurate knowledge of the lexical stress of only about 52.7% of the words. The scores on the posttest, administered one week later, averaged 32.85 ($SD = 7.88$), showing some improvement of their knowledge overall.

Learning Activity

The study's learning activity was conducted in two sessions, one week apart, as part of regular classroom activities. At the time, the class was learning about English speech patterns, with the goal of becoming familiar with natural English speech. Prior to the study's first session, the students had learned about specific features of natural speech in English, such as linking in connected speech; stressed words in a sentence; lexical stress; and other suprasegmental features such as intonation, pausing, and prosody. The activity conducted for the study continued the class's work on this topic; the students were told that the activity's purpose was to provide holistic speaking practice of the specific features they had been studying.

The task material was a section (548 words) of the commencement speech Bill Gates delivered at Harvard University in 2007. In the first session, the students were provided with a script of the speech section. They were instructed to read the script once to understand the general message of the speech, and then to record their reading of the script.

One week later, in the second session, the students again used the speech script, as well as a video recording of Gates delivering the relevant section of the speech. This time, they were given 50 minutes to practice, and the goal of reading the script as much like the original speech as possible. The students were told that the session would allow them to practice what they had been learning in class. They were instructed to listen to the recording and pay attention to specific features of natural speech, particularly sentence stress, lexical stress, pausing, intonation, contour, and reduced sounds in connected speech. They were encouraged to mark pausing, stress, and prosody on the script sheet. The students were told in advance that they would record themselves reading the script after practicing it, and that, in addition to analyzing these features, they could practice by mimicking the speech as it played. They were also encouraged to look up unknown words in a dictionary. They downloaded the file on their smartphones and used earphones, and thus they could practice the features at their own pace and in their own way; for example, they could stop any time, or rewind the file as they wanted. As the students had prior experience with the same kind of activity using a different speech in previous classes, they were expected to be familiar with the overall procedure of the activity.

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Gain Frame Versus Loss Frame

Regulatory fit or nonfit can be created in two different ways, depending on whether a means matches/mismatches an individual's chronic orientation, or matches/mismatches their state of orientation at a particular moment as primed situationally. This study employed a technique that taps into individuals' chronic orientation. Following Papi's (2018) study, the situational regulatory focus was manipulated via a reward system, in which the same information content is framed differently, in terms of either eagerness or vigilance, to either support or interfere with the recipient's goal orientation. The frame of the content for the promotion focus emphasizes the achievement of gains to lead individuals to adopt eager strategies, whereas the frame for the prevention focus highlights the achievement of nonlosses, so that individuals will adopt vigilant strategies (e.g., Cesario et al., 2004).

All participants engaged in the same type of activity. Following existing studies that adopted monetary rewards as incentives to ensure participants' commitment to the activity (Gardner & MacIntyre, 1991; Grimm et al., 2008; Maddox et al., 2006; Papi, 2018), the goal was to earn an entry in a raffle for gift cards, which they could only do if their mimicking of the model speech was assessed to be 75% accurate or more. However, the gain frame was designed to induce strategic eagerness, and the loss frame to induce strategic vigilance.

For the gain condition, the participants were told that they would start from zero, and for each sentence they read accurately, they would get 2.5 points. If they reached 75 points (equivalent to 30 sentences), they would be entered to win a prize of a $50 gift card. They were given the following specific instructions:

Gain frame (translated from Korean)
There are forty sentences in the script. You are starting with zero points. When you read the script after practice, you will obtain 2.5 points for each sentence you read naturally and similarly to the original speech. If you obtain at least 75 points from the reading, you will be entered into a raffle to win one of five gift cards. In other words, you must read 30 sentences (75%) very similarly to the original speech in order to have a chance to win.

In the loss frame, the goal was the same—to read more than 30 sentences (75%) as similarly as possible to the model speech—but the message was framed in terms of vigilance. These participants were told that they would start with 100 points, which means they were already entered in the raffle for the gift cards at the start of the experiment. However, to stay in the raffle, they could not read more than 10 sentences (25%) inaccurately. Therefore, their goal was to maintain what they already had been given by avoiding mistakes in their mimicking of the original speech. As the framing functions as guidance for learners' strategic use of a particular approach toward a goal, the participants were reminded of their respective goals and instructions several times during the activity.

PROCEDURE

The experiment was conducted in two sessions over 2 weeks, and each session lasted about 1 hour and 30 minutes. In the first session, the participants were informed of the

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procedure of the study and completed a consent form. They provided information regarding their English learning background and English proficiency. They also completed the questionnaire on their general regulatory focus (the GRFM) and the lexical stress pretest. Next, the script for the model speech was provided to the participants, and the participants read it and recorded their reading of the script. This recording was made so that the students could compare their performance before and after the speech practice activity. Thus, in the first experimental session, students read through the text once and then immediately recorded themselves reading it aloud. Up to this point in the experimental procedure, all participants received the same instructions and performed the same tasks.

In the second session, 1 week later, the participants received differently framed instructions depending on the condition to which they had been assigned (gain frame vs. loss frame), but they all performed the same tasks. They were given 50 minutes to practice their English speech patterns using the script and the video recording of the speech. Then, each participant recorded the speech. After they finished recording, the participants completed a questionnaire on their experience of the activity (approximately 10 min). They then took the lexical stress posttest (approximately 20–25 min).

ANALYSIS

Before the regression analysis was conducted, assumptions for regression analysis were tested, including outliers, normality, absence of univariate and multivariate outliers, absence of multicollinearity, and homogeneity of variance. Two univariate outliers were detected and removed from the sample. Other assumptions were satisfied. Survey items were tested for reliability. For continuous variables, *z*-scores were used.

First, the general explanatory power of the predictor variables for the lexical stress posttest scores was examined through multiple regression analysis. Framing (1 = gain, 2 = loss), promotion focus, and prevention focus were entered as predictor variables, and lexical stress pretest scores were entered as a covariate. In this analysis, to understand the influence of the respective regulatory focus on lexical stress learning, regulatory foci were treated as continuous variables.

Next, to investigate the regulatory fit effects, or in other words the contribution of fit or nonfit to the lexical stress posttest scores, multiple regression analysis was conducted. While Papi's (2018) study incorporated the two types of regulatory focus as continuous variables, the current study considered them as categorical variables. The conversion of continuous variables into categorical variables risks losing meaningful variance in the variables (e.g., Plonsky & Oswald, 2017), but was deemed appropriate in the present study for two reasons. First, the purpose of the study is to examine the influence of *chronic* orientation, in other words, an individual's *predominant* regulatory focus, which is either one or the other of the two foci, although both coexist in individuals. Second, as the study has only 90 participants, the reduction of predictor variables by treating them as categorical variables (= dummy coding) results in statistically more reliable findings. Therefore, for each individual, the stronger of the two regulatory foci was considered that individual's chronic focus. Four participants had equal scores for both foci, so these cases were not considered in this analysis.

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Turning to the regression analysis, as both regulatory focus and framing were categorical variables, two sets of dummy variables were created (Aiken & West, 1991; Cohen et al., 2003; Tabachnick & Fidell, 2007). To observe the fit effects of promotion × gain, the prevention × loss condition was used as a reference group, so the prevention orientation and the loss frame were coded as zero, while the promotion orientation and the gain frame were coded as one (promotion = 1, prevention = 0; gain = 1, loss = 0). Conversely, the fit effects of the prevention × loss condition were examined by using the promotion × gain condition as a reference group. Thus, the promotion orientation and the gain frame were coded as zero and the prevention orientation and the loss frame were coded as one (promotion = 0, prevention = 1; gain = 0, loss = 1). The following equation illustrates the tested model in the case of the promotion × gain condition as the reference group.

$$\begin{aligned}\text{Y(Lexical stress posttest score)} = {} & \text{Regulatory focus(promotion} = 0\text{vs.prevention} = 1) \\ & + \text{Framing(gain} = 0\text{vs.loss} = 1) + \text{Regulatory focus} \times \\ & \text{Framing} + \text{Lexical stress pretest scores}\end{aligned}$$

This equation represents how much each predictor variable accounts for the lexical stress posttest scores. The predictor variables are (a) regulatory focus, (b) framing, (c) the interaction between regulatory focus and framing, and (d) lexical stress pretest scores as a covariate.

RESULTS

DESCRIPTIVE STATISTICS AND CORRELATIONS

Before addressing the question of regulatory fit effects on lexical stress, the descriptive statistics for the participants' regulatory focus and their lexical stress test scores were examined. Table 2 summarizes the results.

As Table 2 indicates, the participants had generally higher scores in the promotion focus than in the prevention focus. Overall improvement can be seen in their knowledge of lexical stress in both gain ($M = 4.98$) and loss conditions ($M = 2.86$). Paired samples *t*-tests showed statistically significant gains in both gain and loss conditions ($t(40) = -.7.29$, $p < .001$ for the gain condition; $t(44) = -3.98$, $p < .001$ for the loss condition). However, average promotion scores were not statistically different in gain and loss conditions ($t(88) = -.044$, $p = .066$ for promotion focus); similarly, there was no significant difference in the average prevention scores in gain and loss conditions ($t(88) = -0.124$, $p = .902$ for prevention focus). Nor was there a statistical difference

TABLE 2. Descriptive statistics: Regulatory focus and lexical stress test scores

	Promotion	Prevention	Lexical Stress Pretest	Lexical Stress Posttest
Gain *M* (*SD*) (*n* = 44)	6.84 (1.04)	5.96 (1.48)	28.34 (8.19)	33.32 (7.17)
Loss *M* (*SD*) (*n* = 46)	6.90 (1.13)	5.98 (1.52)	29.56 (8.48)	32.42 (8.53)
Total *M* (*SD*) (*n* = 90)	6.87 (1.08)	5.97 (1.49)	28.98 (8.32)	32.85 (7.88)

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TABLE 3. Correlations: Regulatory focus and lexical stress pre- and posttest ($N = 90$)

	Promotion	Prevention	Lexical stress pretest	Lexical stress posttest
Prevention	0.09	1.00		
Lexical stress pretest	0.16	−0.05	1.00	
Lexical stress posttest	0.08	−0.10	.83**	1.00

**$p < 0.01$.

TABLE 4. Multiple regression analysis for regulatory focus and framing on the acquisition of lexical stress ($N = 90$)

	Unstandardized coefficients		Standardized coefficients		
	B	Std. Error	Beta	*t*	Sig.
(Constant)	0.42	0.22		1.95	0.06
Framing condition	−0.27	0.14	−0.14	−2.02	0.05
Promotion	−0.03	0.07	−0.03	−0.43	0.67
Prevention	−0.06	0.07	−0.06	−0.89	0.38
Lexical stress pretest	0.78	0.07	0.79	11.55	0.00

between gain and loss conditions in the lexical stress pretest scores ($t(87) = -.816$, $p = .417$ for pretest). These results together indicate that the two framing conditions were randomly assigned.

In addition, correlations among variables were examined (Table 3), but neither promotion nor prevention focus scores were significantly correlated with lexical stress scores.

REGULATORY FIT EFFECTS

To investigate the regulatory fit effects on the acquisition of lexical stress, three multiple regression analyses were conducted: first, with all participants combined to identify the effects of regulatory focus and of framing conditions, and second and third, to explore the fit effects in the gain condition and in the loss condition, respectively. With respect to the overall effects of regulatory focus and framing conditions, results of the regression analysis indicated that the model is generally acceptable ($F(4, 85) = 34.66$, $p < .001$, R-squared = .78). Table 4 summarizes the coefficients of the variables.

As can be seen in Table 4, lexical stress pretest scores and framing conditions were two significant predictors of the posttest lexical stress scores. As pretest scores were entered as a covariate, this discussion focuses on the significance of framing conditions in the posttest scores. The results showed that a one unit increase in the framing decreases the lexical stress posttest score by .27. In this analysis, because the framing conditions were categorical, arbitrary numbers of one for the gain condition and two for the loss condition were set. Based on this, the results can be interpreted as showing an association of the loss frame with the decrease in the lexical stress posttest scores. As for the general role of

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TABLE 5. Multiple regression analysis for regulatory fit effects on the acquisition of lexical stress ($N = 86$)

		B	Std. Error	Beta	*t*	Sig.
Fit effects of promotion × gain	(Constant)	0.20	0.11		1.81	0.07
	R.F. (prevention)	−0.19	0.19	−0.09	−1.00	0.32
	Frame (loss)	−0.30	0.16	−0.15	−1.94	0.06
	R.F. × Frame	0.17	0.26	0.07	0.65	0.52
	Lexical stress pretest	0.88	0.06	0.85	13.81	0.00
Fit effects of prevention × loss	(Constant)	−0.12	0.14		−0.87	0.39
	R.F. (promotion)	0.02	0.18	0.01	0.11	0.92
	Frame (gain)	0.14	0.20	0.07	0.68	0.50
	R.F. × Frame	0.17	0.26	0.08	0.65	0.52
	Lexical stress pretest	0.88	0.06	0.85	13.81	0.00

Note: R.F. = regulatory focus.

regulatory focus, neither promotion nor prevention focus was found to be significant in predicting the acquisition of lexical stress.

Finally, Table 5 summarizes the results of the analysis of regulatory fit effects in the two possible fit conditions ($F(4, 81) = 49.48$, $p < .001$, R-squared = .71, for both analyses). The results indicated no fit effects in either the promotion × gain or the prevention × loss fit conditions ($p > .05$). That is, the interaction between the promotion focus and the gain condition, and the interaction between the promotion focus and the loss condition both failed to reach statistical significance at .05. Rather, in line with the results from the whole participant group's regression analysis in Table 4, only the lexical stress pretest score was a significant predictor of lexical stress posttest scores in both fit conditions.

DISCUSSION

The present study investigated the effects of regulatory fit on the learning of lexical stress during a speech-practice activity in the classroom. Contrary to Higgins's (2000) theoretical prediction and findings from previous studies (Grimm et al., 2008; Maddox et al., 2006; Markman et al., 2007; Van Dijk & Kluger, 2004), this study failed to support positive regulatory fit effects on L2 learning. Instead, it only found beneficial effects of the gain frame condition on the learning of lexical stress.

These findings can be explained in light of the different nature of the tasks adopted in the various studies. Research in social psychology that offers supporting evidence for regulatory fit effects on learning has incorporated tasks such as category learning (Maddox et al., 2006), explicit rule-based versus implicit procedural learning (Grimm et al., 2008), and motor skill acquisition (Chen et al., 2016). These tasks tap into general cognitive learning, where engagement in a task or the repetition and practice of certain skills is likely to result in the acquisition of target skills. In contrast, the current study explores L2 learning of lexical stress, taking the position that L2 learning is more than mere skill acquisition (cf. DeKeyser, 2007), and that the learning of lexical stress is part of

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larger processes involved in L2 speech practices. Therefore, the discussion of the current findings will focus on how they fit into the existing L2 research.

The current findings are similar to those of Han and McDonough (2018), who found that task-induced regulatory focus affects L2 task performance but failed to show an interaction between trait-based regulatory focus and task-induced regulatory focus (i.e., fit effects). Nonetheless, as Han and McDonough's trait-based regulatory focus did not measure chronic regulatory focus, but instrumentality promotion and instrumentality prevention, it is more useful to consider the current study's results alongside Papi's (2018) results. The present study's findings do not concur with those of Papi, who, in the context of incidental vocabulary learning, found beneficial effects of regulatory fit, albeit only in the prevention × loss interaction condition. The methodological differences and underlying cognitive processes of the two studies are worth considering. Based on Papi's observation of positive fit effects on incidental vocabulary learning, the current study hypothesized that potential beneficial fit effects could emerge more saliently if learner attention were directed more intentionally to the target feature, although the activity in the present study may not be an example of purely intentional learning. The current study, rather than dichotomizing incidental versus intentional learning, considers them to differ only by degree. This choice was motivated by the fact that isolating a particular suprasegmental feature to teach speech prosody is neither authentic nor practical. Therefore, in the present study, the participants were instructed to learn and practice suprasegmental features in a model speech, and lexical stress was one of the target features to which they were told to attend. Despite the hypothesized attention to the target feature, fit effects failed to emerge.

A related issue pertains to the amount of attention to the target feature that is needed as a means of achieving the goal. Higgins (2014) argued that when a means for a goal is unique, the relationship between the goal and its means is strong, compared to a situation in which there are multiple ways to fulfill a goal (pp. 230–231). For example, if an individual perceives engagement in an activity as the only and true way to reach the goal, that individual is likely to exert more energy and commitment to the activity. From this perspective, the present study's observation of no relationship between regulatory fit and acquisition of lexical stress can be partly explained by the fact that learning lexical stress was not the only way for the participants to achieve the goal of successfully mimicking the original speech. It is in fact likely that any learner motivation produced by regulatory fit was not centered on lexical stress but dispersed among the suprasegmental features in the speech such as pausing and linking. In other words, the goal-means relationship is not particularly strong in the present study. Hence, any potential fit effects may not be as strong as the effects found in studies wherein a particular means was required for goal attainment. Specifically, in Papi's (2018) integrative writing task, the goal of achieving some level of reading comprehension and writing well was directly related to learner knowledge of the words in the given reading passage. This situation in turn would have instigated the need to search for and process the target words, increasing the chance of learning new vocabulary.

This possibility is reflected in the results of the present study's debriefing survey. One of the questions provided a list of speech features and asked the participants to check all of the features they had attended to during the activity. Approximately 43.8% of the participants checked lexical stress, and the remaining participants, more than half, did

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not. Although lack of attention to the target feature does not preclude the possibility of learning, as lexical stress can be acquired implicitly (Trofimovich et al., 2014), explicit attention has been found to be generally more facilitative for adult L2 learning (e.g., Schmidt, 1990). For this reason, a follow-up multiple regression analysis was conducted on the data from the 42 participants who responded that they had focused on lexical stress during the activity. The results of this analysis, too, failed to show any significant regulatory fit effects ($p > .05$). However, when the analysis controlled for these participants' general interest in the class and in L2 learning (based on their responses on a Likert-scale survey), a significant effect of regulatory fit emerged ($p < .05$). As the sample sizes are small, the results should be treated with caution. Nonetheless, the finding suggests the possible existence of regulatory fit effects in the classroom setting when learner attention is paid to the target feature and when learner attitudes and interest are controlled. Future research that systematically controls these variables would be useful.

Furthermore, the current study's findings can be discussed in relation to the classroom-based context of the study. Although monetary incentives have been found to affect behavior (Gardner & MacIntyre, 1991; Grimm et al., 2008), such incentives alone may not always be sufficient to induce genuine engagement (Maddox & Markman, 2010). It is generally understood that extrinsic incentives and the value of the activity (i.e., intrinsic motivation) are the two key constituents of motivation. Higgins (2014) claimed that extrinsic incentives function as an impetus for initiating actions, but that the "valued intrinsic properties" of an activity are what sustains engagement (p. 299). In the debriefing questionnaire, the current participants gave generally positive responses regarding their enjoyment of the activity ($M = 6.52$, $SD = 1.6$ on a 9-point Likert scale). Consequently, their motivation might have been more affected by the value they placed on the activity than by the extrinsic incentive. Higgins (1997) noted that regulatory foci are evoked not only by individuals' psychological orientation but also by their needs (e.g., security or growth) and the nature of the goal (e.g., whether it is desired by oneself or expected by others). On this view, the participants' general regulatory focus, as observed in this study, could have been altered by their personal needs or goals and/or their perception of the learning in a particular classroom setting. Put differently, it is possible that the findings were affected more by the participants' genuine interest in the task or the learning than by the externally set goal of the monetary incentive. This view also accords with general L2 motivation theories that argue that situation-specific motivation is embedded within chronic or general motivation (e.g., Dörnyei & Henry, 2015). As the current study was conducted in an authentic classroom setting, it was hard to control or manipulate the learners' genuine motivation, which is a limitation of this study. At the same time, this limitation may be outweighed by the value of authenticity for better understanding how regulatory fit can be applied in an actual classroom. It also suggests a direction for further research on regulatory fit effects in the classroom, which could take learners' genuine interests or existing attitudes and motivations into consideration.

Moreover, the current findings can be interpreted in terms of the nature of motivation and the relationship between motivation and learning. Motivation underlies goal-directed behaviors and facilitates learning, but it alone cannot guarantee learning. The supposed link between regulatory fit and learning lies in the assumption that the feeling of rightness in situations of regulatory fit enhances the perceived value of the activity, thus facilitating cognitive efficiency and task engagement (Higgins, 2014). However, cognitive efficiency

and task engagement are not equivalent to learning because learning requires further processing of information, which may work along with the activation of existing knowledge systems. It is undeniable that motivation facilitates learning, but additional cognitive processes must be involved for learning to occur. The quality and quantity of such processing should be addressed in future research.

Finally, the unexpected finding that the gain frame had a small yet positive effect on the acquisition of lexical stress is interesting. This finding corroborates the findings reported by Papi (2018) and Han and McDonough (2018). In Han and McDonough's study, prevention-inducing tasks (corresponding to the loss frame in the current study) enhanced accuracy and fluency compared to promotion-inducing tasks (i.e., the gain frame in this study). However, in the present study, the gain frame seemed to benefit the learning of L2 lexical stress in general. The two findings look contradictory at a glance, but both suggest that framing can affect L2 performance and learning in some ways.

The effect of the gain frame was unexpected both because the current study hypothesized the importance of fit rather than of the frame and because, assuming that fit was created as a product of the interaction between framing and task (e.g., Van Dijk & Kluger, 2011), any benefit should have appeared in the loss frame. Put differently, because the task activity in this study was prevention-focused in nature (i.e., maintaining the accuracy of the speech pattern in the original script), the loss framing would hypothetically fit the task better (Cesario et al., 2008). The findings, however, showed that the gain frame benefited learning, despite the nonfit between task type and framing. This finding, again, can be explained in light of the setting of the study, and more broadly, of authentic L2 classrooms. Prior studies suggest that language learning is promotion-oriented in nature (Papi et al., 2019; Papi & Khajavy, 2021). Papi and Khajavy (2021) showed that L2 achievement was better predicted by the eager strategic inclination, which is related to promotion focus, than by the vigilant strategic inclination, which is associated with prevention focus. As such, learning a second language in itself implies that students are inherently oriented to acquiring or advancing their knowledge. This study's student participants were supposed to learn from the classroom activity, which might have predisposed them to adopt a promotion focus, even when the nature of their task required them to adopt vigilant strategies. Taking this view, the gain frame may have aligned better with the participants' overall orientation to learn and advance from the activity, which then would be consistent with other research findings showing that a promotion focus is more strongly associated with intrinsic motivation than a prevention focus is (Lalot et al., 2018; Laroche et al., 2019). Moreover, given their overall higher scores in the promotion focus and generally positive attitudes toward the class and English learning ($M = 6.56$, $SD = 1.35$ on a 9-point Likert scale), the learners' orientation to learning and learning outcomes was arguably largely influenced by their longer term learning goals and general orientation and attitudes toward learning (Sheldon & Elliot, 1999), in line with general L2 motivation theories (Dörnyei & Henry, 2015).

CONCLUSION

The current study was motivated by the need to extend L2 motivation research to include qualitative perspectives on motivation to account for different types of learner needs and desires. Based on Papi's (2018) study, which explored Higgins's (2000) regulatory fit

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model in L2 vocabulary learning, the present study examined the application of the model to the acquisition of lexical stress in a classroom-based activity. Although the findings of the study failed to show beneficial effects of regulatory fit on the learning of L2 lexical stress, they suggest some implications for teaching and researching L2 motivation.

Pedagogically, as the present study was conducted in an authentic classroom setting, the findings are directly relevant to actual L2 learning. The finding that the gain frame benefited the learning of lexical stress suggests that teacher guidance and support should be promotion-oriented to facilitate learning (e.g., Papi et al., 2019; Papi & Khajavy, 2021). In particular, as L2 learning can be considered promotional in nature, regardless of the nature of a specific task, a gain frame may result in better outcomes in the learning context.

While classroom-based research helps produce ecologically valid findings, it is also constrained in terms of controlling students' existing attitudes toward the class and personal learning styles. The study was based on the expectation that either fit or nonfit would emerge during task engagement, conditioned by the monetary incentive as a goal and the framing as a basis of the learners' strategic approach to the goal. However, framing cannot guarantee that participants will adopt specific means or approaches. Despite the current study's effort to ensure that the framing guided the students' adoption of specific means by reminding them of the goal and the means to achieve it several times during the task, it is uncertain whether the participants approached the activity according to their respective framing conditions or not. More systematic procedures are needed to assure that a certain framing leads to a particular means in the task performance.

Additionally, the current study's findings are limited due to the relatively small sample size. The sample ($n = 90$) provides only 80% power to detect medium-to-large between-subject main effects of $d = .60$, $p = .05$, two-tailed (Faul et al., 2007). The detection of interaction effects would require a sample size at least twice or four times as large (depending on the expected patterns of interaction; Perugini et al., 2018). Despite this limitation, as the study observes the role of regulatory fit in the authentic classroom setting of a common class size, in which a teacher is able to work with students individually (in contrast to a context with 500 or more participants), the findings provide practical information regarding what effects of regulatory fit may or may not appear in a normal classroom.

These limitations indicate directions for further research. Future studies should seek research methods that verifiably create fit or nonfit. Concrete feedback during task engagement might better ensure that the learners adopt certain strategies as means to a goal. In addition, retrospective interviews or questionnaires that enquire into learners' genuine goals or strategies would be of help in unraveling issues regarding the production of fit. Furthermore, the limited number of studies on regulatory fit in the L2 literature calls for more, and more varied, research to expand our understanding of how regulatory fit works in L2 learning. There is a need for diverse methodological approaches that address distinct types of learning (intentional vs. incidental) as well as more types of L2 target features (e.g., grammar, pronunciation). Finally, along with the recent L2 research that suggests the applicability of regulatory focus to expand and modify existing L2 motivational models (e.g., Papi & Khajavy, 2021), future research on regulatory fit can consider L2-specific regulatory focus, which, for example, primes ideal and ought-to L2 selves. Meanwhile, it is hoped that the current study contributes to expanding our knowledge of the role of regulatory fit in L2 learning, and that further ongoing discussion and research will continue to untangle the relationship between L2 motivation and learning.

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NOTES

[1]It must be acknowledged that the monetary incentive used in this study may not be in accord with the authenticity the study pursues. Although monetary incentives have been shown to be useful for giving participants reasons to initially engage in an activity (Gardner & MacIntyre, 1991; Grimm et al., 2008; Rousu et al., 2015), it is uncommon to have such a reward system in the classroom. Indeed, grades and class credits could also be used; however, it was important in the current study to avoid any effect on the grades of students who preferred not to participate.

[2]For this study's purposes, Lockwood et al.'s scale seemed the most suitable among those available. It should be noted, however, that Higgins and Cornwell (2016) argued that it does not precisely reflect the original model of regulatory focus. According to Higgins and Cornwell, both foci in the model are "primarily approach-based strategic orientations, with distinct desired end-states" (p. 58), while Lockwood et al.'s scale is based on an approach-avoidance distinction.

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