

*Regulatory focus predicts individual differences
in pragmatic versus grammatical awareness
and sensitivity*

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Abstract

The present study employs regulatory focus theory (Higgins, 1997) to investigate the effects of L2 speakers' chronic regulatory focus on their L2 pragmatic versus grammatical awareness. It involved the participation of 121 Chinese students, who are English language learners, at a university in the United States. Haws et al.'s (2010) questionnaire was used to examine the participants' regulatory dispositions, and a judgment task was adapted from Bardovi-Harlig and Dörnyei (1998) to assess participants' awareness of grammatical and pragmatic errors, as well as the severity of each type of error. Multiple regression results largely confirmed the predictions. Prevention regulatory focus, concerned with obligations, responsibilities, and negative outcomes, predicted L2 speakers' recognition of grammatical errors and their severity. Conversely, promotion focus, which emphasizes growth, accomplishments, and positive outcomes, positively predicted L2 speakers' perceptions of pragmatic error severity. These findings contribute to the understanding of how differences in chronic motivational orientations can lead to different L2 use patterns and characteristics.

Keywords: L2 pragmatic awareness; L2 grammatical awareness; motivation; regulatory focus

1. Introduction

A competent user of a second language (L2) is expected to master not only the ability to produce grammatically correct sentences and utterances but also the ability to appropriately use language. Grammatical and pragmatic competence/knowledge have both been featured in models of communicative competence (e.g., Bachman, 1990; Bachman & Palmer, 1996, 2010; Canale & Swain, 1980) and together enable speakers to decide how to use language appropriately and effectively in social contexts. As they represent two distinct components of communicative competence, L2 pragmatics and grammar do not necessarily overlap in their development among learners. Although most empirical studies have found that grammatical competence can contribute to L2 pragmatic comprehension and production (e.g., Bella, 2014; Roever et al., 2014; Rose, 2000; Taguchi, 2007, 2008, 2011; Trosborg, 1995), it is not always the case that having advanced knowledge and skill in the grammar of an L2 will result in better pragmatic competence. Learners with lower levels of grammar and proficiency have been found to be more appropriate and target like in using the functional dimensions of the target language (e.g., Kwon, 2014; Takahashi, 1996). For instance, DuFon (2010) found that L2 learners were able to socialize and adapt to routine activities regardless of their proficiency level. This means that even if the learners were not very proficient in the language they were learning, they were still able to participate in and adjust to everyday activities within different social contexts. In other words, learners' development of L2 pragmatics and grammar are not parallel, and some learners may excel in one area while lacking in the other. As Larsen-Freeman (2003) articulates, the relationship between the two is complex and dynamic, often blurring the boundaries between grammar as a set of rules and the pragmatic application of those rules in communicative contexts (grammar-ing). This notion underscores the intricate relationship between grammatical and pragmatic knowledge, hinting at their mutual dependency in real-world language use. However, for the purpose of this study, we aim to explore these two components of communicative competence separately to shed light on their unique challenges and developmental trajectories.

The distinction between the two dimensions of L2 knowledge has been a topic of interest for SLA researchers over the last few decades, and studies have shown that the context of learning has a significant impact on learners' development of pragmatic and grammatical competence (e.g., Bardovi-Harlig & Dörnyei, 1998; Schauer, 2006). The degree of engagement with the target language (Kinginger, 2008) and the intensity of interaction (Bardovi-Harlig & Bastos, 2011) have also been identified as having a positive impact on the pragmatic competence of individuals in their second language. Whereas the role of learning context

and the quality of learner engagement with the target language in the development of these L2 characteristics make intuitive sense, the question remains as to why, within the same contexts, learners may vary in terms of their pragmatic and grammatical competencies. In other words, keeping the context of learning constant, why do some language learners have better pragmatic competence while others are better in grammar (or vice versa)? If the quality of engagement with the target language is the answer (e.g., Bardovi-Harlig & Bastos, 2011, Kinginger, 2008), what leads to differences in learners' engagement with the target language? As two separate aspects of communicative competence, the acquisition and development of L2 pragmatics and grammar are qualitatively different. Learners' individual preferences could thus influence their priorities and learning behaviors, which, in turn, affect their language development. The present study assumes that learners' chronic (trait-like) motivational characteristics could influence the quality and quantity of their engagement with the target language, which itself can affect the development of their L2 proficiency and pragmatic production (Papi, 2018; Papi et al., 2023; Teimouri et al., 2022). However, to date there have been no studies that have examined how such motivational characteristics may lead to learners' preference for grammatical accuracy versus pragmatic appropriateness. The present study seeks to bridge this gap and explore how regulatory focus theory can predict qualitative differences in L2 learners' pragmatic versus grammatical awareness.

2. Literature review

2.1. L2 pragmatic and grammatical awareness

Awareness in second language acquisition is more than mere attention and refers to the conscious recognition and understanding that language learners have towards the language they are acquiring (Ellis, 2015). This notion was largely influenced by the noticing hypothesis proposed by Schmidt (1993, 1995). According to this hypothesis, *noticing* serves as the initial step in acquiring new language forms, which are subsequently processed and incorporated into the learner's interlanguage system. Schmidt (1995) posits that "what learners notice in input is what becomes intake for learning" (p. 20). Awareness involves an additional cognitive processing step that moves beyond merely registering information; it entails making sense of and assigning relevance to what has been noticed.

In the context of grammar, awareness often correlates with explicit linguistic knowledge – the rules and structures that are formally taught and consciously accessed. This explicit awareness is particularly beneficial in instructional

settings where the grammatical rules are taught (e.g., Ellis, 2002; Fotos, 2001; Izumi, 2002; Robinson, 1996). On the other hand, awareness in pragmatics leans more toward implicit knowledge – an intuitive yet functional grasp of the rules for socially appropriate language use, which might not be explicitly stated but are crucial for effective communication. Several longitudinal studies have shown that this form of awareness is critical in learning to use a new language structure appropriately (e.g., Belz & Kinginger, 2003; Hassall, 2006; Kakegawa, 2009). The choice of focusing on *awareness* allows us to dissect the complexities in the language acquisition process. It helps us explore how learners notice, process, and eventually internalize both explicit and implicit forms of linguistic features, thereby shedding light on their unique challenges and developmental trajectories in both grammar and pragmatics.

Bardovi-Harlig and Dörnyei (1998) revealed that the learning context could explain differences in learners' pragmatic and grammatical awareness. The researchers found that ESL learners in the United States recognized more pragmatic errors, while EFL learners in Hungary detected more grammatical errors. However, a replication of the study by Niezgodá and Roever (2001) reported different results. Their EFL learners in the Czech Republic were more aware of pragmatic errors than their ESL participants, and the EFL group judged both pragmatic and grammatical errors more seriously than the ESL participants in the United States. The authors attributed their contradictory results to the learning behaviors of highly motivated students in the highly competitive EFL program. Schmidt (2010) notes that individual differences in attention and awareness, which are themselves influenced by learner motivation, can affect learners' ability to notice certain features. Likewise, Ellis (2012) argued that in addition to external factors such as feedback, modeling, and explicit instruction, learners' internal factors such as motivation, interest, and cognitive processing abilities may as well affect their ability to notice certain features of the language they are learning. The investigation into the relationship between learners' motivation and their language awareness is significant due to the pivotal role of awareness in facilitating successful language acquisition, and the potential impact of learners' motivation on their capacity to notice salient linguistic features.

2.2. Motivation: Regulatory focus theory

In the field of SLA, motivation has been a popular social-psychological factor that has drawn the attention and interest of many researchers (Papi, 2021; Papi & Hiver, 2022). The connection between learners' motivational characteristics and their pragmatic and grammatical awareness has been explored in previous studies

(e.g., Chiravate, 2012; Tagashira et al., 2011; Tajeddin & Moghadam, 2012; Takahashi, 2005, 2015). In a seminal study examining the impact of motivation on L2 pragmatic awareness, Takahashi (2005) discovered that learners driven by intrinsic motivation observed more target forms and exhibited greater awareness of target pragmatic forms compared to their less motivated counterparts. In a subsequent study, Takahashi (2015) confirmed the positive motivation-pragmatics connection and revealed that learners with more communication-oriented motivation were likely to exhibit higher levels of pragmatic awareness. Furthermore, Chiravate (2012) and Tagashira et al. (2011) have demonstrated that motivation levels significantly affect learners' awareness of pragmatic errors. These studies collectively affirm that higher motivation is generally associated with greater pragmatic awareness. However, the interplay between motivation, grammatical awareness, and pragmatic awareness is less straightforward. For instance, Tagashira et al. (2011) discovered that although motivation was a determining factor in recognizing pragmatic errors, it did not have a significant effect on the awareness of grammatical errors. Similarly, Chiravate (2012) reported that highly motivated learners were more sensitive to pragmatic errors but ranked grammatical errors as less severe.

Thus, while the relationship between motivation and pragmatic awareness has been well-established, introducing grammatical awareness into this equation reveals a more complex landscape. The role of motivation in grammatical awareness has not been clearly delineated, especially when considered in parallel with its influence on pragmatic awareness. This lack of clarity poses the question: Is it possible that learners' differentiation between pragmatic and grammatical awareness is influenced by alternative motivational mechanisms that are linked to learning behaviors of varying quality? That is the question that motivates the present study.

According to Papi (2018), motivation research has traditionally focused on the quantitative associations between motives and learning behaviors and outcomes, and it needs to be extended to exploring how motivational sources influence qualitative differences in learner behavior. More specifically, he proposed that regulatory focus theory (Higgins, 1997), which outlines chronic motivational differences relating to learners' concerns with positive versus negative consequences, leads learners toward adopting learning behaviors that could result in qualitatively different learning behaviors and outcomes. The present study is based on the assumption that such qualitative differences in the sources of motivation, as outlined by regulatory focus theory, might translate into strategic preferences that benefit learners' grammatical or pragmatic knowledge.

Higgins's regulatory focus theory (1997) outlines two distinct yet interrelated motivational elements that influence an individual's behavior toward goals: promotion focus and prevention focus. Promotion focus centers on accomplishments,

progress, and growth. Individuals leaning toward a stronger promotion focus concentrate on approaching gains, driven by hopes and aspirations. Such individuals typically exhibit an eager strategic tendency in goal pursuit, aiming to optimize chances for gains despite potential error risks (Scholer et al., 2010). Conversely, prevention focus deals with concerns of security, safety, and stability. Those with a heightened prevention focus are focused on avoiding losses, guided by goals seen as duties, responsibilities, or obligations. Crowe and Higgins (1997) note that prevention-focused individuals usually demonstrate a vigilant strategic tendency in their goal pursuit, aiming to minimize losses and being cautious to avoid errors.

Existing research in SLA has increasingly recognized the nuanced roles of different motivational factors, with regulatory focus theory offering a framework for examining these intricacies. Papi (2018) revealed that task framing – specifically avoiding losses versus gaining points – had differential effects on vocabulary learning. This study showed the importance of aligning regulatory focus with task conditions: prevention-focused learners excelled when they sought to avoid losses, while promotion-focused learners were more engaged and learned more in total. Building on this, subsequent work by Papi and Khajavy (2021) expanded the framework to explore more complex relationships. This study connected regulatory focus to the L2 self-guides – the ideal and ought-to L2 selves – which represent desired and expected self-images in the target language. It found that a promotion focus fueled a positive, ideal self-image and higher achievement, contrasting with a prevention focus, which was linked to duty-oriented ought-to self-images and lower achievement. In a study in China, Jiang and Papi (2021) found that promotion focus negatively predicted L2 anxiety whereas prevention focus was not a predictor.

Other studies have indicated that regulatory focus theory accounts for qualitative differences in the complexity, accuracy, and fluency of oral and written L2 production. In the context of L2 writing, Eom and Papi (2022a, 2022b) found that a promotion focus positively contributed to the complexity of written productions whereas a prevention focus negatively predicted fluency and accuracy. In terms of oral L2 production, Papi et al. (2023) found that promotion focus positively predicted oral L2 proficiency whereas prevention focus negatively predicted lexical sophistication. In another study in South Korea, Cho (2021) observed that while promotion and prevention were not predictive of acquiring lexical stress, framing the task in terms of promotion (gain) yielded a positive influence.

Regarding L2 pragmatics, Zhang and Papi (2021) investigated how regulatory focus can account for differences in L2 pragmatic production among Chinese learners of English in the US. Multiple regression results showed that learners' promotion focus positively predicted their pragmatic production whereas their prevention focus negatively predicted pragmatic production, particularly in contexts where the

learner experienced greater imposition, had lesser power, and was more socially distant from the conversational partner. Despite these advancements, it is notable that regulatory focus theory has yet to be thoroughly explored in the context of L2 pragmatics, providing an open avenue for further research.

The outcomes of the aforementioned studies, combined with the foundational principles of regulatory focus theory, imply a potential connection between learners' regulatory focus and their knowledge and competence in L2 pragmatics and grammar. Rather than the intensity of motivation, it is expected that qualitative differences in the learning behaviors of those with a predominantly promotion focus (concerned with positive end states), and those primarily oriented toward a prevention focus (concerned with negative end states), would lead to differences in learners' sensitivity to pragmatic and grammatical errors. More specifically, due to their risk-taking and eager strategic inclination in L2 use (e.g., Papi et al., 2019; Papi & Khajavy, 2021), L2 learners who have a promotion focus are expected to show higher awareness of the pragmatic aspects of L2 use. On the other hand, learners inclined toward a prevention focus, who have been found to be vigilant in L2 use (e.g., Papi et al., 2019; Papi & Khajavy, 2021) and concerned with the accuracy and details in task performance (Förster & Higgins, 2005; Förster et al., 2003), are anticipated to show more sensitivity to the grammatical dimensions of L2 use.

To test these hypotheses, this study examines how regulatory focus (promotions vs. prevention) will predict L2 pragmatic and grammatical awareness. Therefore, the following research question was formulated:

RQ: What are the relationships between ESL speakers' promotion and prevention focus on one hand, and their pragmatic awareness and grammatical awareness, on the other hand?

3. Methods

3.1. Participants

One hundred and twenty-one (121) English as a second language (ESL) speakers (71 females and 50 males) ranging from 19 to 37 years old (Mean = 26.63, SD = 3.80) at a large university in the United States participated in the study. The majority of the participants were engaged in graduate studies, with 57 in doctoral, 45 in master's, and four in specialist programs. In contrast, a smaller group (15 individuals) were undergraduate students. All participants shared Mandarin Chinese as their first language. On average, they rated their English proficiency at

4.07 ($SD = .56$), on a scale of 1 (Beginner) to 5 (Advanced), aligned with the Test of English for International Communication (TOEIC) standards. Additionally, their residency duration in the US varied from 3 months to over 5 years.

3.2. Instruments

In this study, we used a questionnaire to measure the chronic regulatory focus of the learners, an error judgement task to assess the grammatical and pragmatic awareness of the participants, and a background questionnaire to collect demographic information from the participants. These instruments are described in more detail below.

3.2.1. Regulatory focus questionnaire

This study used the composite regulatory focus questionnaire developed by Haws et al. (2010) to examine the participants' regulatory foci. This questionnaire was preferred over Higgins et al.'s (2001) questions because it has shown better psychometric characteristics (Haws et al., 2010). The questionnaire includes five items that measure a chronic promotion focus (e.g., Q3: "When I see an opportunity for something I like, I get excited right away"), and the other five items measure a chronic prevention focus (e.g., Q9: "I frequently think about how I can prevent failures in my life"). The items were answered on a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree).

3.2.2. Error judgment task

To assess participants' awareness of grammar and pragmatic errors, as well as how they judge the severity of each error, an error judgment task developed by Bardovi-Harlig and Dörnyei (1998) was adapted for use. In their original study, Bardovi-Harlig and Dörnyei (1998) had participants watch 20 video clips of the situations happening in school contexts. 16 of the videos involved a short dialog with either a pragmatically inappropriate utterance (8 items), or a grammatically incorrect utterance (8 items). The other four included appropriate and grammatically correct utterances. Participants in their study were first asked to watch each video and indicate whether the target utterance was appropriate/correct or not. If they selected "no," they were asked to rate the severity of the problem on a six-point scale ranging from

“not bad at all” to “very bad.” The instrument has been duplicated and adapted in several other studies to reveal whether L2 learners could detect pragmatic errors (e.g., Niezgodna & Roever, 2001; Schauer, 2006).

Due to practical reasons as well as the age and the quality of the videos used by Bardovi-Harlig and Dörnyei (1998), instead of using written texts to show the conversations as some of the related studies did (e.g., Chiravate, 2012; Tagashira et al., 2011; Xu et al., 2009), the current study created and used audio recordings of dialogues in which native speakers played the same exact roles and read the same exact scripts. Using audio recording can simulate a natural conversation and help participants avoid overthinking the errors, especially grammar errors which can be analyzed through the written texts. Using Qualtrics as the online platform for the questionnaire, the participants listened to a brief description of the situation followed by the conversation; they then decided whether there was a grammatical or a pragmatic problem and judged the severity of the problem without any time restrictions. If they did not detect a problem, the severity questions would not be shown to them. In addition, instead of vaguely asking “Was the last part appropriate/correct?” and having participants answer “Yes/No,” as done in the original study by Bardovi-Harlig and Dörnyei (1998), the current study gave participants three response options: 1) “Yes” (meaning there was no problem); 2) “No. It was inappropriate in the situation.”; and 3) “No. It was grammatically incorrect.” As Schauer (2006) pointed out, the original format of the questionnaire incorrectly assumed the errors the participants detected successfully were the same type of errors the researchers intended for them to detect. This might have led the participants to identify “false errors.” Below is an example question from this questionnaire:

Situation: It is Anna’s day to give her talk in class, but she is not ready.

Teacher: *Thank you Steven, that was very interesting. Anna, it’s your turn to give your talk.*

Anna: *I can’t do it today, but I will do it next week.*

Was the LAST part appropriate/correct?

- Yes
- No. It was inappropriate in the situation.
- No. It was grammatically incorrect.

If there was a problem, how bad do you think it was?

Not bad at all/Slightly bad/Moderately bad/Very bad/Extremely bad

3.2.3. Demographic questionnaire

The demographic questionnaire was used to gather background information from the participants about their age, gender, native language, time spent living in the US, and their self-assessed level of English proficiency. This self-evaluation

of proficiency comprised ten questions on a five-point Likert scale, derived from the interactive skills section of the TOEIC Can-Do Guide (The Chauncey Group International, 2000).

3.3. Procedures

3.3.1. Data collection

Recruitment efforts kicked off with targeted outreach to the Chinese Student Association at the university. An informational email was disseminated, outlining the study's objectives, eligibility criteria, and anticipated time commitment. In order to incentivize participation, respondents were promised a \$10 gift card upon completion of the study. This strategy yielded 152 interested Chinese students, who promptly provided their contact information for further correspondence. Subsequently, Qualtrics was utilized to disseminate a sequence of questionnaires to these potential participants: first, the regulatory focus questionnaire, followed by the error judgment task, and concluding with a demographic questionnaire. Participants had the flexibility to complete these questionnaires according to their own schedules, with the option to pause and resume at their discretion. Upon submission of their completed questionnaires, each participant received a thank-you email accompanied by the promised gift card. Of the initial 152 respondents, 124 successfully completed all questionnaires. However, three entries had to be disqualified due to the insufficient quality of their responses, leaving a total of 121 entries for the final data analysis.

3.3.2. Data coding

The data from the regulatory focus questionnaire was meticulously coded in alignment with the scoring rubric established by Haws et al. (2010). Each participant's responses were converted into numerical values based on the five-point Likert scale, with higher numbers indicating stronger agreement. The mean scores for both the promotion focus and prevention focus were then calculated separately, as per the original scoring guidelines. These mean scores served as quantitative measures for each participant's regulatory foci, allowing for nuanced statistical analyses. The data was then prepared for subsequent correlational and regression analyses, with the promotion and prevention focus scores serving as predictor variables to examine their influence on the outcomes of interest in the study.

Before starting the error judgment task, participants were first introduced to a preparatory item that clearly outlined the task's guidelines. This introductory section also included examples to differentiate between pragmatic and grammatical errors, ensuring that participants had a clear understanding of what they were being asked to identify in the main task. There were two steps for scoring this task. The first step was about whether or not the planted errors were detected correctly by the participants, which means detecting the correct type of errors. If the participants detected a certain error correctly, they would receive 1 point, otherwise 0 points. Since there were eight items with pragmatic errors and eight items with grammatical errors, the range for the two detection scores was from 0 points (i.e., the participant did not find any errors) to 8 points (i.e., the participant detected all the errors correctly). The scoring did not take into account instances where participants identified errors in the four items that were actually correct, as those items were intended solely as distractors. The raw scores (range = 0-8) of correct error detection were calculated and used for further data analysis. The second step of scoring involved severity judgments. The severity judgment means were measured as the mean severity scores of all the errors detected correctly. If the participants failed to detect the error in the first step or detected the wrong type of error, they would receive 0 points as severity judgment for the specific item. Due to administrative reasons, the current adapted form of the questionnaire used a five-point Likert scale ranging from "1 = not bad at all" to "5 = extremely bad" instead of the six-point scale used in the original study. The mean severity ratings of the items from each type of error were calculated. Each participant had two severity judgment scores (both ranged from 0-5): grammatical error severity and pragmatic error severity. The information gathered from the demographic questionnaire was coded for statistical analysis. Key variables, including the duration of residence in the United States and self-reported English proficiency, were treated as covariates to mitigate their impact on the results.

3.4. Data analysis

Cronbach's alpha reliability was first calculated to examine the internal consistency of the scales measuring the regulatory focus, as well as proficiency. The Cronbach's α coefficients of .74 and .72 were obtained for the promotion scale ($M = 3.66$, $SD = .65$) and the prevention scale ($M = 3.46$, $SD = .68$), respectively. For the proficiency items ($M = 4.07$, $SD = .56$), Cronbach's α coefficient of .87 was obtained. The internal consistency coefficients (Cronbach's α) of the grammar items ($M = 2.96$, $SD = .24$) and pragmatic items ($M = 4.96$, $SD = .19$) were .86 and .72, respectively. For the grammar error severity scale ($M = .68$, $SD = .51$)

and a pragmatic error severity scale ($M = 2.08$, $SD = .75$), Cronbach's α coefficients were .75 and .78 correspondingly, which indicated that the items represented the participants' pragmatic and grammatical awareness in a reliable manner. Generally speaking, the participants detected more pragmatic errors and rated their severity much higher than grammar errors.

Multiple regression analysis was used to analyze the data with the promotion and prevention regulatory foci as the predictors, and the grammatical and pragmatic awareness as outcome variables. More specifically, the outcome variables were the total number of grammatical and pragmatic errors detected correctly by the participants, and the severity ratings of both types of errors. The participants' self-reported English proficiency and their length of residence in the US were entered as covariates. To verify the assumptions required for multiple regression analysis, Pearson's correlation tests were conducted among the predictor variables. As shown in Table 1, the strongest correlation observed was .42, which shows there was no multicollinearity. Other assumptions of multiple regression analysis, which include normality, linearity, and homoscedasticity, were checked and satisfied, suggesting that the data used in the analysis meet the necessary assumptions required for accurate regression estimates.

4. Results

Before testing whether the motivational variables can predict pragmatic or grammar error judgments, Pearson correlation analysis was conducted to explore the relationship between the predictors and outcome variables. As can be seen in Table 2, L2 speakers' level of promotion has a significant positive correlation with pragmatic error severity ($r = .24$, $p < .01$) and a near-significant positive correlation with the L2 speakers' pragmatic score ($r = .18$, $p = .05$), while it also has a significant negative correlation with their grammar score ($r = -.18$, $p < .05$) and a near-significant negative correlation with grammar error severity ($r = -.17$, $p = .06$). Prevention, on the other hand, has a significant positive correlation with the grammar score ($r = .33$, $p < .01$) and grammar error severity ($r = .33$, $p < .01$). Length of residence, as a covariate, has a significant positive correlation with the participants' pragmatic score ($r = .25$, $p < .01$) and error severity ($r = .20$, $p < .05$).

Table 1 Pearson correlations between predictor variables

	<i>M</i>	<i>SD</i>	1	2	3
1. Promotion	3.66	.65			
2. Prevention	3.46	.68	-.11		
3. Proficiency	4.07	.56	.33**	-.09	
4. LOR	3.35	1.76	.06	-.11	.42**

Note. LOR = Length of residence; * $p < .05$, ** $p < .01$.

Table 2 Pearson correlations between predictors and error judgment measures

	Grammar score	Pragmatic score	Grammar ES	Pragmatic ES
Promotion	-.18*	.18	-.17	.24**
Prevention	.33**	-.11	.33**	-.10
Proficiency	-.05	.17	-.04	.17
LOR	-.17	.25**	-.18	.20*

Note. LOR = Length of residence; ES = Error severity; * $p < .05$, ** $p < .01$.

To answer our research question, four multiple regression analyses using the standard entry method were conducted, where the promotion and prevention scores were used as predictor variables, with proficiency and length of residence serving as covariates, and the participants' grammar and pragmatic scores (showing awareness), grammatical error severity ratings, and pragmatic error severity ratings were used as the outcome variables. With grammatical awareness as the outcome measure (Table 3), the model was a significant predictor of grammar score and explained 15% of the variance ($F_{(4, 116)} = 5.27, p = .001$). In addition, prevention positively predicted the outcome variable ($\beta = .30, p = .001$) whereas promotion ($\beta = -.17, p = .06$) approached statistical significance but in the negative direction. In the next regression analysis with grammar error severity as the outcome variable (Table 4), the model was statistically significant and explained 15% of the variance ($F_{(4, 116)} = 5.26, p = .001$). In addition, prevention focus ($\beta = .30, p = .001$) emerged as a statistically significant and positive predictor and promotion focus ($\beta = -.16, p = .078$) approached statistical significance but in a negative direction.

The regression model with the pragmatic awareness score as the outcome variable (Table 5) was also statistically significant and explained 9% of the variance ($F_{(4, 116)} = 3.01, p = .02$). Promotion and prevention scores, however, did not emerge as statistically significant predictors in the model. In the next analysis with pragmatic error severity as the outcome variable (Table 6), the model was statistically significant and explained 10% of the variance ($F_{(4, 116)} = 3.05, p = .02$). In addition, promotion ($\beta = .22, p = .02$) emerged as the only predictor of the outcome variable.

Table 3 Multiple regression results with grammatical awareness score as the outcome variable

	B	Std. error	Beta	t	p	95% CI
(Constant)	.13	.21		.63	.52	[-.28, .54]
Promotion	-.06	.03	-.17	-1.87	.06	[-.13, .00]
Prevention	.11	.03	.30	3.47**	.001	[.05, .17]
Proficiency	.05	.04	.11	1.08	.28	[-.04, .13]
LOR	-.02	.01	-.17	-1.84	.07	[-.05, .00]

Note. $R^2 = .15$; LOR = Length of residence; * $p < .05$, ** $p < .01$.

Table 4 Multiple regression results with grammar error severity as the outcome variable

	B	Std. error	Beta	<i>t</i>	<i>p</i>	95% CI
(Constant)	.12	.44		.28	.780	[-.75, 1.00]
Promotion	-.13	.07	-.16	-1.78	.078	[-.27, .02]
Prevention	-.23	.07	.30	3.48**	.001	[.10, .36]
Proficiency	.10	.09	.11	1.11	.269	[-.08, .28]
LOR	-.05	.03	-.18	-1.90	.060	[-.11, .00]

Note: $R^2 = .15$; LOR = Length of residence; ES = Error severity; * $p < .05$, ** $p < .01$.

Table 5 Multiple regression results with the pragmatic awareness score as the outcome variable

	B	Std. error	Beta	<i>t</i>	<i>p</i>	95% CI
(Constant)	.41	.17		2.41*	.017	[.07, .75]
Promotion	.04	.03	.15	1.58	.118	[-.01, .10]
Prevention	-.02	.03	-.07	-.78	.437	[-.07, .03]
Proficiency	.01	.04	.02	.19	.847	[-.06, .08]
LOR	.02	.01	.23	2.29*	.024	[.00, .05]

Note: $R^2 = .09$; LOR = Length of residence; * $p < .05$, ** $p < .01$.

Table 6 Multiple regression results with pragmatic error severity as the outcome variable

	B	Std. error	Beta	<i>t</i>	<i>p</i>	95% CI
(Constant)	1.05	.67		1.57	.119	[-.28, 2.37]
Promotion	.25	.11	.22	2.30*	.024	[.03, .47]
Prevention	-.07	.10	-.06	-.66	.509	[-.26, .13]
Proficiency	.03	.14	.02	.20	.842	[-.24, .30]
LOR	.07	.04	.17	1.72	.088	[-.01, .15]

Note: $R^2 = .10$; LOR = Length of residence; ES = Error severity; * $p < .05$, ** $p < .01$.

5. Discussion

The study sought to elucidate the relationship between L2 speakers' promotion and prevention focus and their awareness of and sensitivity to grammatical and pragmatic language features. The multiple regression analyses, outlined in Tables 3-6, revealed intriguing patterns. L2 speakers with a stronger prevention focus demonstrated a heightened ability to recognize the grammatical errors and considered them to be more severe. Conversely, those with a stronger promotion focus rated the severity of pragmatic errors higher and showed a promising trend toward recognizing these errors. These findings enrich our understanding of how regulatory focus shapes different facets of linguistic awareness among L2 speakers and underscore the nuanced role that different motivational orientations can play in language acquisition.

Individuals with a prevention focus, as discussed above, are concerned with obligations, responsibilities, and safety (Higgins, 1997; Higgins & Cornwell, 2016). They tend to avoid negative outcomes when making decisions and are concerned with minimizing the chances of making errors (Crowe & Higgins, 1997). In the field of social psychology, Förster and Higgins (2005) found that individuals with a prevention focus tend to pay more attention to details than individuals with a promotion focus and prefer accuracy over speed in task completion. Given prevention-focused individuals' concern with details and accuracy (Förster et al., 2003), it makes sense that this regulatory orientation positively predicted the participants' recognition of and sensitivity to grammatical errors but not their pragmatic awareness and sensitivity.

Another explanation for these results could relate to the effects of prevention focus on L2 learners' strategic inclination in L2 use (Higgins, 1997). Language learners with a prevention focus tend to be motivated to avoid negative outcomes and adopt a cautious and vigilant strategic inclination in using the target language (e.g., Papi et al., 2019) in order to avoid mistakes during the process of L2 learning. That means that they avoid speaking the target language as much as possible unless they have to (e.g., Papi & Khajavy, 2021). Such a tendency to avoid using the language has not helped their L2 pragmatics knowledge because lack of communication in the second language deprives these learners of the opportunity to acquire pragmatic knowledge and skills (Zhang & Papi, 2021); in addition, such a vigilant strategy may even lead these students to use more private strategies to improve their performance including the individual study of grammar, which might have made them more aware of and more sensitive to grammar errors. In other words, prevention-focused participants' lack of engagement in L2 use during their residence in the target language environment has probably led to their individual-oriented learning strategies, which might have contributed to their grammatical but not pragmatic awareness. Given the lack of causality evidence for this argument, nonetheless, the inverse can be argued as well: Prevention-focused learners' natural awareness and sensitivity to grammatical errors might have led to their anxiety (Jiang & Papi, 2021) and avoidance of L2 use opportunities (Papi & Khajavy, 2021), which has not benefitted their pragmatic awareness.

The participants' promotion focus, on the other hand, showed an inverse pattern; it positively predicted their perceptions of pragmatic error severity and approached statistical significance in positively predicting their recognition of pragmatic errors; in addition, it approached statistical significance in negatively predicting grammatical awareness and sensitivity. These results were generally anticipated and can be attributed to the characteristics of promotion-focused individuals. Individuals with a strong promotion focus are sensitive to the presence

or absence of positive outcomes. They are more willing to take risks when approaching tasks (Crowe & Higgins, 1997) and favor speed and efficiency over accuracy in task completion (e.g., Förster et al., 2003). Such a preference for efficiency over accuracy and a higher risk-taking tendency has possibly led to the promotion-focused individuals' preoccupation with communicative effectiveness at the expense of attention to grammatical accuracy in completing the tasks in this study.

Another explanation could relate to the eager strategic tendency of promotion-focused individuals. Regulatory focus theory (Higgins, 1997) posits that promotion-focused individuals tend to use eager strategic inclinations in their goal pursuits; in the context of language learning, they seek and take advantage of more L2 use opportunities and are willing to take risks without the fear of making mistakes, which should in turn result in eager and maximal use of the target language (Papi & Khajavy, 2021). Such an eager strategy naturally involves more L2 pragmatic input and hypothesis testing, as well as more feedback and correction on pragmatic errors from the interlocutors (Hassall, 2006), in the context of more frequent use of L2 communication opportunities. This increased amount of L2 use, especially in daily interactions common in the second language context of the US, should have contributed to their better acquisition or awareness and sensitivity of pragmatic features in the use of the target language, as pragmatic errors are more consequential in disrupting communication than grammatical errors, causing individuals to experience loss of face and communication breakdowns (Kasper & Rose, 2002). At the same time, due to the non-instructional nature of these interactions, where grammar lessons and corrective feedback are not common, less attention is paid to the grammatical aspects of the target language. In other words, the superior pragmatic competence of promotion-focused individuals can be explained by their willingness to engage in trial and error in using the second language during their residence in the L2 environment. Unlike individuals with a prevention focus, promotion-focused individuals do not worry as much about grammatical errors, including nuanced grammar points that may not even have communicative value, which explains why promotion approached statistical significance in negatively predicting grammatical awareness and sensitivity in this study.

These explanations are also supported by regulatory focus studies in the field of second language acquisition. In a study in the ESL context of the US, Zhang and Papi (2021) found that promotion-focused learners of English produced more pragmatically appropriate responses to a discourse-completion task than prevention-focused learners. This explanation is supported by the findings of previous studies that confirm that the length of residence in the L2 context, hence the frequency of L2 communication, could benefit L2 pragmatic competence (e.g., Schauer, 2006; Xu et al., 2009), a finding that was also replicated in this study, which found that length of residence, which was used as a covariate,

positively predicted L2 pragmatic awareness ($\beta = .23, p < .05$), while its prediction of both grammar measures was near-significant and negative (see Tables 3 and 4).

In sum, for promotion-focused learners, either their preference for efficiency over accuracy has led to their higher pragmatic scores and lower grammatical scores; or, the eager and maximal use of the target language could have led these learners to get more involved in L2 use and communication without much fear of making errors and develop their L2 pragmatic awareness. In contrast, prevention-focused learners' preference for accuracy over efficiency might have made them more aware of and sensitive to grammatical accuracy; alternatively, their vigilant and cautious approach toward L2 use and interaction might have led them to avoid different L2 use opportunities and develop their pragmatic awareness.

In relation to the existing literature on L2 awareness, our study lends nuanced insights into the complex interplay between motivation, grammatical awareness, and pragmatic awareness. Echoing Schmidt's (1993, 1995) noticing hypothesis and Ellis's (2015) focus on conscious recognition, our findings substantiate that *awareness* serves as a critical pivot in the language acquisition process. However, unlike the binary perspectives offered by Bardovi-Harlig and Dörnyei (1998) concerning the effects of learning context on grammatical and pragmatic awareness, our data reveal a multi-dimensional influence. Furthermore, our findings resonate with the works of Takahashi (2005, 2015), affirming that higher levels of intrinsic motivation are generally associated with greater pragmatic awareness. Interestingly, we extend this discourse by introducing the concept of regulatory focus theory (Higgins, 1997), thereby suggesting that the qualitative differences in sources of motivation – specifically prevention and promotion focus – could translate into learners' varying capacities for grammatical and pragmatic awareness and sensitivity. This aligns well with the argument (Papi, 2018; Papi & Khajavy, 2021) on how regulatory focus may lead to qualitatively different learning behaviors, thus providing a more intricate landscape for understanding L2 awareness within the context of learner motivation.

6. Implications

The study's findings on the connection between learners' regulatory focus and their second language learning outcomes, encompassing both pragmatic and grammatical awareness and sensitivity, introduced a novel viewpoint on motivation. This perspective emphasizes the impact of individuals' motivational orientations (promotion and prevention) on their language learning behaviors, leading to varying patterns and characteristics in L2 acquisition. It should be beneficial for educators to pay attention to how L2 learners' regulatory focus

could affect learners' emotional, behavioral, and learning patterns (e.g., Eom & Papi, 2022a, 2022b; Jiang & Papi, 2022; Papi & Khajavy, 2021; Papi et al., 2023; Tahmouresi & Papi, 2021; Teimouri, 2017). Such motivational dispositions could help teachers understand the possible reasons for learners' differences in prioritizing grammatical versus pragmatic aspects of the target language. In addition, teachers can employ temporary induction techniques (e.g., Papi, 2016, 2018) to direct learners' attention to the grammatical versus pragmatic features of L2 use. Through the use of simple techniques such as having students make a list of what they can gain from a task, students could be induced to temporarily adopt a promotion focus. Such an activation of promotion regulatory focus might lead to some eagerness to engage in and take advantage of L2 use opportunities, which can, in turn, lead to better pragmatic awareness and sensitivity.

Due to the distinctive features of the two distinct regulatory foci, the best approaches to teaching and learning L2 pragmatics and grammar are believed to be divergent. A prevention-focused learning approach with a focus on the study of grammar could benefit L2 learners' grammatical awareness but may not contribute to their pragmatic development. Instead, by minimizing the focus on grammar and enhancing the opportunities for learners to speak in the classroom setting, a promotion-focused environment encouraging risk-taking, interaction, and creativity, could have positive effects on L2 pragmatics. Similarly, prevention-focused tasks such as editing and error detection which require attention to detail and vigilance (Van Dijk & Kluger, 2011) could promote grammatical development. On the other hand, creative tasks such as unscripted role-play and interactive problem-solving are promotion-focused tasks that could positively influence L2 pragmatics learning.

7. Limitations and future directions

The present research investigated the connections between enduring motivational orientations and awareness of L2 pragmatics and grammar. The findings indicate that the influence of individuals' regulatory focus in L2 learning, manifested through their eager and vigilant strategic tendencies, is significant and should not be overlooked. The fact that our models explained only small amounts of the total variance, which is not uncommon in the field of SLA due to the complexity of the phenomena, indicated that other factors not included in the model may be contributing more to the outcome variables. Future research, both quantitative and qualitative, using methods like interviews and observations, will be crucial to directly explore these potential strategic mediators. Such studies can provide a more in-depth insight into the motivated behaviors and

strategies of L2 learners. Longitudinal research, rather than single-time data collection, could offer additional revealing perspectives. This study was structured to control for the influence of the participants' first language, due to the noted effects of L1 transfer in existing literature. Consequently, the results may not be universally applicable to learners with different L1 backgrounds, in varied language learning environments (such as EFL settings), or at different stages of language learning. For the instruments of the present study, self-reported proficiency can be subjective and lead to inconsistencies and inaccuracies in proficiency levels. The error judgment task adapted from Bardovi-Harlig and Dörnyei's (1998) study effectively measures participants' ability to detect grammatical and pragmatic errors, but it may not accurately gauge their explicit awareness or understanding of the underlying rules for these errors. The task design enabled identification of errors but did not require the participants to articulate their understanding, thus leaving the measure of "awareness" somewhat ambiguous. Future research may benefit from incorporating open-ended questions or think-aloud protocols to better capture the nuances of learners' explicit grammatical and pragmatic awareness. Finally, the current study mainly focused on the awareness stance of L2 pragmatics and grammar. For a deeper comprehension of the relationship between motivation and language competence and development, future research focusing on L2 production could provide valuable insights.

8. Conclusions

The results of the study indicate that L2 learners' chronic motivational dispositions lead to qualitative differences in their L2 competence. Due to the different strategic inclinations, goal orientations, and behaviors associated with each of the two regulatory foci, learners with a stronger promotion focus were found to be more aware of and sensitive to L2 pragmatic errors while the ones with a predominantly prevention focus were found to have better grammatical awareness and sensitivity, as predicted. These findings provide support for the motivation-as-quality perspective proposed by Papi (2018) by providing evidence for qualitative differences in learning outcomes due to learners' chronic differences in their motivational dispositions. It is suggested that second language acquisition research and instruction can benefit from accounting for the qualitative differences in learners' motivational dispositions which, in turn, influence students' L2 learning behaviors and outcomes (Papi et al., 2023; Zhou & Papi, 2023). Individual differences in the acquisition of L2 pragmatic and grammatical competences cannot be fully accounted for without serious consideration of learners' regulatory orientations (e.g., Teimouri et al., 2022; Zhang & Papi, 2021). This perspective advocates for a more nuanced approach to linguistic education that tailors to the motivational dispositions of learners.

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