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When Negative Beliefs Are Not Enough: A Critical Look at Pessimism, Fixed Mindset, and Willingness to Communicate in EFL

Linguistics Society of Iran

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ABSTRACT

Do pessimism and a fixed mindset really stop EFL learners from speaking up? This study examines their effects on Willingness to Communicate (WTC) in an Iranian context. A total of 257 undergraduate and graduate EFL learners completed self-report scales measuring WTC, dispositional pessimism (LOT-R), and L2 mindsets. Partial Least Squares Structural Equation Modeling (PLS-SEM) with bootstrapping was used to test direct and indirect effects, including a hypothesized mediation of fixed mindset in the relationship between pessimism and WTC. Results indicated that pessimism positively predicted fixed mindset. However, neither pessimism nor fixed mindset significantly predicted WTC, and effect sizes were negligible. These findings suggest that negative belief systems are not simply the inverse of optimism or growth mindset in explaining communicative behavior. Instead, they have limited explanatory power in structured EFL contexts. The study refines the WTC framework by highlighting an asymmetry between positive and negative psychological constructs and emphasizes the importance of distinguishing dispositional beliefs from observable communicative behavior.

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1. Introduction

Willingness to Communicate (WTC) is widely regarded as a desirable outcome of language instruction. It motivates learners to actively engage with the L2 community and serves as a catalyst for language development (Yashima, 2021). Evidence indicates that WTC reliably predicts both language use and proficiency across diverse instructional settings and learner populations (Qu, 2023; Rostami et al., 2016; Yashima et al., 2004). Accordingly, studies have focused on psychological and affective predictors of WTC, particularly motivation, anxiety, and self-confidence (e.g., Elahi Shirvan et al., 2019; Fujii, 2021). The positive psychology movement has further shifted attention toward facilitating traits and emotions (e.g., Chen et al., 2025; Xu & Zhang, 2025; Yin & Zhou, 2025), though negative states such as anxiety and boredom remain important qualifiers (Bensalem et al., 2024; Derakhshan & Fathi, 2024).

Despite this progress, two negative constructs, pessimism and fixed mindset, remain understudied in EFL contexts. Fixed mindset (entity theory) denotes the belief that abilities are immutable (Dweck, 2006). Such beliefs predict avoidance of challenges and reduced effort, which can lead to maladaptive learning behaviors (Dweck, 2012). Research on mindsets has overwhelmingly privileged growth mindset (Ho et al., 2025; Sadoughi & Hejazi, 2024; Wang et al., 2025), leaving the effects of fixed mindset on classroom engagement and WTC largely unexplored. Nevertheless, existing evidence linking fixed mindset to anxiety and performance-avoidance goals points to a plausible pathway through which fixed mindset may suppress learners' WTC (Chen, 2012; Lou et al., 2021; Lou & Noels, 2017; Ozdemir & Papi, 2021).

Alongside fixed mindset beliefs, pessimism represents a broader dispositional orientation toward learning and performance. Pessimism, defined as a generalized tendency to expect unfavorable future outcomes, has been associated with heightened negative affect and reduced approach behavior (Scheier et al., 2001; Scheier et al., 2020). Although rarely investigated in EFL contexts, pessimism has been empirically linked to fixed mindset beliefs (Dardick & Tuckwiller, 2019; Tuckwiller & Dardick, 2018) and positively associates with anxiety (Villano et al., 2023; Zorowitz et al., 2020), which provides a theoretical basis for hypothesizing that pessimism may negatively affect WTC. Yet this link has not been explicitly tested within EFL populations. This study therefore examines the interplay of

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pessimism, fixed mindset, and WTC in EFL learners, testing whether these negative learner-internal factors predict lower willingness to engage in L2 communication.

2. Literature Review

2.1. WTC

WTC is commonly defined as a learner's readiness to enter into discourse at a particular time with specific person(s) using the L2 (MacIntyre et al., 1998). It serves as a proximal predictor of actual L2 use (MacIntyre et al., 1998) and, as Yashima (2021) argues, represents a key goal of L2 instruction because of its consistent association with language use and higher proficiency across diverse learner populations (Cong-Lem & Thu-Hang, 2018; Qu, 2023; Valadi et al., 2015; Yashima et al., 2004).

Research has shown that learners' WTC is shaped by a set of psychological antecedents, most notably perceived communicative competence and affective responses, particularly anxiety (Elahi Shirvan et al., 2019; Fujii, 2021; Guo, 2024; Yashima, 2002). Among these, language anxiety has emerged as one of the most robust inhibitors of WTC across instructional contexts. Empirical studies consistently report negative associations between communication anxiety and WTC in EFL settings (Dewaele & Dewaele, 2018; Fujii, 2021; Manipuspika, 2018), a pattern further supported by structural models in both face-to-face and digital environments (Lee & Chiu, 2023).

Evidence from mixed-method and SEM studies across diverse EFL populations likewise confirms anxiety's central role in suppressing learners' willingness to engage in L2 communication (Lin et al., 2025; Lu, 2024; Saka & Merç, 2021). Recent findings further suggest that anxiety has been discussed as a pathway through which learners' self-beliefs relate to WTC (Kirkpatrick et al., 2025), highlighting the relevance of more distal cognitive orientations in shaping communicative intention.

Despite the well-established roles of confidence and anxiety, comparatively little attention has been paid to broader negative cognitive dispositions that co-occur with maladaptive affective patterns and may therefore be relevant to learners' communicative orientation. In particular, constructs such as pessimism (negative outcome expectancy) and fixed mindset (belief in the immutability of personal attributes) remain underexamined as antecedents of WTC in EFL contexts.

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2.2. Fixed Mindset

The concept of mindsets originates from the broader framework of implicit theories, which are schematic knowledge structures representing beliefs about the stability or malleability of personal attributes (Dweck & Leggett, 1988; Ross, 1989). Within this framework, incremental theories posit that abilities can be cultivated through effort, whereas entity theories maintain that personal attributes are fixed and immutable. Building on this distinction, Dweck (2006) conceptualized growth and fixed mindsets, whereby individuals with a growth mindset believe abilities are improvable, while those with a fixed mindset perceive them as unchangeable and tend to avoid challenge (Dweck, 2012; Hong et al., 1999).

In L2 contexts, growth mindset has been positively associated with WTC. For instance, Sadoughi and Hejazi (2024) found that growth language mindset directly predicted WTC among Iranian EFL learners, while Wang et al. (2021) and Ho et al. (2025) reported similar effects among Chinese college students. Amalia et al. (2024) further highlighted growth mindset, alongside other motivational factors, as a key determinant of WTC among Indonesian learners. Although these studies focus on growth mindset, they suggest the inverse for fixed mindset, as learners who perceive their abilities as immutable may feel less control over communicative success, experience heightened apprehension, and consequently avoid L2 interactions.

Consistent with this interpretation, fixed mindset has been robustly linked to negative affective outcomes, particularly anxiety, which is a proximal inhibitor of WTC. Longitudinal and meta-analytic evidence indicates that entity beliefs predict increases in anxiety and other negative emotions over time, whereas incremental beliefs are more strongly associated with positive emotional states (King, 2017; Schleider et al., 2015; Gál & Szamosközi, 2016). In language learning contexts, learners endorsing fixed mindsets report higher levels of language anxiety, especially in challenging communicative situations (Ozdemir & Papi, 2021), and greater concern about being judged or making mistakes (Lou & Noels, 2017). Relatedly, fixed mindset has been associated with elevated anxiety across genders, with some evidence of stronger effects among female learners (Bostock et al., 2018).

Fixed mindset has also been linked to maladaptive motivational orientations, particularly performance-avoidance goals, which reflect efforts to avoid demonstrating incompetence (Damian et al., 2014). Learners with fixed mindsets are more likely to adopt performance-avoidance goals and rely on strategies such as choosing less challenging tasks

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(Hong et al., 1999). In foreign language contexts, Lou et al. (2021) identified a fixed mindset profile characterized by high performance-avoidance goals, elevated anxiety, and low mastery goals, persistence, and cognitive reappraisal. Similarly, Chen (2012) found that students with strong fixed beliefs reported low mastery goals and high performance-avoidance goals, reflecting concerns about appearing incompetent. Therefore, given that performance-avoidance goals are directly negatively associated with WTC (Chou, 2023), fixed mindset is theoretically expected to reduce learners' WTC in L2 settings.

2.3. Pessimism

Pessimism is defined as a generalized expectancy that unfavorable outcomes will occur in the future (Scheier et al., 2020). Although often conceptualized as the opposite of optimism, pessimism and optimism are not strictly bipolar and the absence of one does not necessarily imply the presence of the other, as individuals may hold neutral outcome expectancies (Scheier et al., 2020).

From a self-regulatory perspective, pessimism is associated with doubt, hesitation, and disengagement when individuals face challenge or adversity. Compared with optimists, pessimists are more likely to anticipate failure, experience heightened negative affect, and withdraw effort, particularly under demanding conditions. As a result, pessimism has been consistently linked to anxiety, sadness, and fear of failure, whereas optimism is associated with more adaptive emotional responses and persistence (Scheier et al., 2001).

Although direct empirical investigations linking pessimism, fixed mindset, and WTC in L2 contexts are scarce, converging evidence from related domains provides meaningful indirect support for these associations. Conceptually, pessimism and fixed mindset reflect complementary belief systems centered on negative outcome expectancies and the perceived immutability of personal abilities. Empirically, studies have shown that optimism is positively associated with growth mindset. For example, Tuckwiller et al. (2017) reported a significant relationship between optimism and implicit theories of intelligence among adolescents with learning disabilities, while Pyo et al. (2024) found that growth mindset partially mediated the relationship between optimism and grit among Korean adolescents.

More direct evidence further supports the co-occurrence of pessimism and fixed mindset. Tuckwiller and Dardick (2018) demonstrated that university students exhibiting higher levels of pessimism also reported stronger fixed mindset beliefs, alongside elevated anxiety and lower life satisfaction. Similarly, Dardick and Tuckwiller (2019) identified a

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significant pathway from pessimism to fixed mindset, as well as a corresponding pathway from optimism to growth mindset, suggesting systematic alignment between expectancy orientations and implicit beliefs about ability.

With respect to communicative behavior, expectancy orientations have been shown to influence learners' readiness to engage. While optimism has been linked to greater WTC (Li et al., 2025), pessimistic expectancies, marked by negative bias and fear of failure (Scheier et al., 1994), may plausibly undermine willingness to initiate communication.

Importantly, pessimism has been robustly linked to anxiety across domains, highlighting anxiety as a closely related affective correlate also known to constrain WTC. Empirical studies report significant associations between pessimism and anxiety among clinical populations (Hirsch et al., 2012; Zenger et al., 2011), university students (Öztekin, 2025), and broader academic samples (El-Anzi, 2005; Villano et al., 2023). Research further indicates that pessimistic assumptions distort behavioral expectations and contribute to avoidance-related anxiety symptoms (Zorowitz et al., 2020).

Taken together, these findings suggest that pessimism is associated with lower L2 WTC and systematically relates to other maladaptive cognitive and affective dispositions, including fixed mindset and anxiety. These associations provide a theoretical basis for examining pessimism as a distal antecedent of fixed mindset and WTC in EFL learning contexts.

2.4. Conceptual Model

Guided by MacIntyre et al.'s (1998) heuristic model, the present study treats pessimism and fixed mindset as distal cognitive dispositions that may statistically predict learners' WTC, with fixed mindset further conceptualized as a cognitive belief that is shaped by learners' expectancy orientations (Dardick & Tuckwiller, 2019) (see Figure 1). Based on this model, the study tests the following questions:

What are the associations among pessimism, fixed mindset, and WTC in an EFL context?

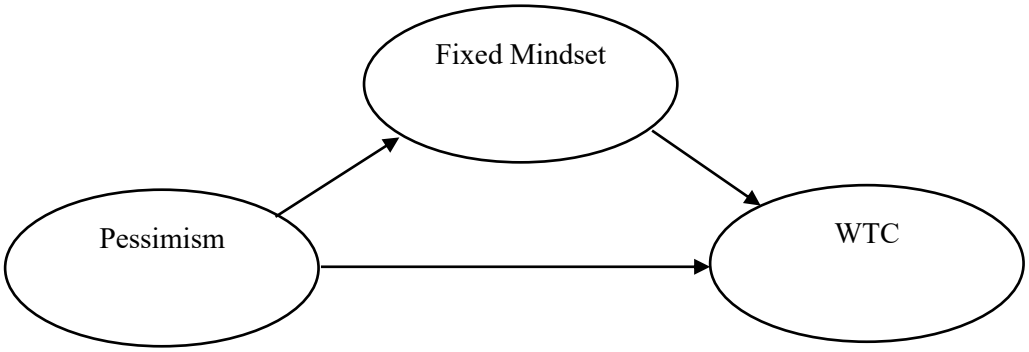
Is pessimism indirectly associated with WTC through fixed mindset in an EFL context?

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Figure *1*

The Conceptual Model



3. Methods

3.1. Participants

A total of 257 Iranian EFL learners participated in the study, including 162 female (63.0%) and 95 male (37.0%) students. Participants ranged in age from 18 to 39 years (M = 22.52, SD = 3.27). Convenience sampling method was employed for participant recruitment. The majority of the sample was drawn from Golestan University (70.0%), with additional participants from the University of Bojnord (7.8%) and Islamic Azad University of Mashhad (8.9%). The remaining 13.3% were recruited from several other universities across Iran.

With respect to academic level, 71.2% of the participants were undergraduate students and 28.8% were graduate students. Regarding field of study, most participants were enrolled in Teaching English as a Foreign Language (TEFL) program (74.3%), while 25.7% were majoring in English Literature (see Table 1).

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Table 1

Participant Demographics

Variable	Category	(n)	(%)
Gender	Male	95	37%
	Female	162	63%
Education Level	Undergraduate	183	71.2%
	Graduate	74	28.8%
Major	TEFL	191	74.3%
	English Language Literature	66	25.7%
Age group	18-22	144	56%
	23-27	101	39.3%
	28+	12	4.7%

Note. n = number of participants; % = percentage; TEFL = Teaching English as a Foreign Language

3.2. Instruments

3.2.1. WTC

Learners' WTC was measured using the L2 WTC scale proposed by Peng and Woodrow (2010). This scale consists of 10 items loading on a unidimensional construct and assesses learners' perceived readiness to use English across a range of classroom-based communicative situations (e.g., "I am willing to do a role play standing in front of the class in English"). Items are rated on a 6-point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree). The instrument has demonstrated high internal consistency in its original development (Cronbach's α = .88) along with satisfactory model fit (Peng & Woodrow, 2010). Subsequent research has also confirmed its acceptable reliability among Iranian EFL learners (Azari Noughabi & Ghasemi, 2024).

3.2.2. Pessimism

Pessimism was measured using the Life Orientation Test–Revised (LOT-R) developed by Scheier et al. (1994). Although there is ongoing debate regarding whether the LOT-R should be conceptualized as a unidimensional construct or as comprising separate optimism and pessimism dimensions, evidence suggests that these two components can be meaningfully distinguished. While some researchers advocate a single optimism dimension (e.g., Monzani et al., 2013), others provide empirical support for treating optimism and pessimism as distinct constructs (e.g., Glaesmer et al., 2011).

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In line with the latter perspective and the specific focus of the present study, only the pessimistically worded items were used for analysis. This subscale consists of three items assessing generalized negative outcome expectancies (e.g., "I rarely count on good things happening to me"). Responses were recorded on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Previous research has reported acceptable internal consistency for the pessimism subscale, with a Cronbach's α of .74 (Glaesmer et al., 2011).

3.2.3. Fixed Mindset

Fixed mindset was measured using the L2 Mindsets scale (Papi et al., 2019), which adapts Dweck's (1999) mindset theory to the context of L2 learning. The fixed mindset subscale includes four items assessing learners' beliefs about the immutability of language learning ability (e.g., "Your language learning intelligence is something that you can't change very much"). Participants responded on a 6-point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree). Previous research has reported excellent internal consistency for this subscale, with a Cronbach's α of .92 in EFL learner samples (Papi et al., 2019).

3.2.4. Procedure

Data were collected through an online questionnaire that integrated a brief demographic form with three self-report measures assessing WTC, fixed mindset, and pessimism. The survey was administered via Google Forms and designed to be compatible with both mobile devices and desktop computers to maximize accessibility. Participants were recruited through academic communication channels, including Telegram and WhatsApp groups widely used by university students. The data collection phase spanned five weeks, commencing in February 2025, during which participants were free to complete the questionnaire at a time of their choosing. Before accessing the survey items, participants were presented with an informed consent statement outlining the aims of the study, the voluntary nature of participation, and measures taken to ensure confidentiality. It was clearly stated that participation could be discontinued at any point without consequences. To protect anonymity, no identifying information was requested, and all responses were stored on a secure, encrypted platform with access restricted to the research team.

3.4. Data Analysis

To investigate the proposed direct and indirect effects, Partial Least Squares Structural Equation Modeling (PLS-SEM) was conducted using SmartPLS 4. PLS-SEM was selected

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due to its extensive application in contemporary L2 research and its suitability for exploratory and causal investigations in communication and behavioral studies (Lowry & Gaskin, 2014).

The analysis followed a two-step approach: first, the measurement model was evaluated to ensure reliability and validity of the constructs; second, the structural model was assessed to test the hypothesized relationships and examine predictive performance.

Within the measurement model, indicator reliability was assessed through standardized loadings (≥ 0.70 considered optimal; 0.40–0.70 acceptable with appropriate justification). Internal consistency was evaluated using Cronbach's α and composite reliability (CR), while convergent validity was determined via the Average Variance Extracted (AVE ≥ 0.50). Discriminant validity was established using both the Fornell–Larcker criterion and the Heterotrait–Monotrait ratio (HTMT), with thresholds set at <0.85 (conservative) and <0.90 (liberal), following Hair and Alamer (2022).

Prior to structural analysis, multicollinearity was examined through Variance Inflation Factors (VIF), with values <3 deemed acceptable. Path significance was tested via bootstrapping with 5,000 resamples, while the explanatory power of the model was evaluated using the coefficient of determination (R^2), interpreted as weak (0.00–0.10), modest (0.11–0.30), moderate (0.31–0.50), or strong (>0.50), while effect sizes were assessed using f^2, with small (0.02), medium (0.15), and large (0.35) thresholds. Finally, model fit was checked using the Standardized Root Mean Square Residual (SRMR), with values <0.08 considered acceptable for PLS-SEM models. All procedures and thresholds adhered to current PLS-SEM reporting standards (Hair & Alamer, 2022).

4. Results

4.1. Measurement Model Assessment

Indicator reliability, internal consistency, and convergent validity were assessed to evaluate the measurement model. As shown in Table 2, all standardized indicator loadings exceeded .60, with most above the recommended threshold of .70, indicating satisfactory indicator reliability. Cronbach's α values across the three constructs ranged from .71 (Pessimism) to .85 (Mindset), while composite reliability coefficients ranged from .83 to .89, demonstrating adequate to strong internal consistency. AVE values for pessimism and fixed mindset exceeded the recommended .50 threshold, supporting convergent validity. For WTC, four items (items 5, 8, 9, and 10) with lower loadings (<.70) were removed to improve

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convergent validity (from AVE 0.44 before removal to AVE .52). Cronbach's α (0.82) and composite reliability (0.87) for WTC remained strong after this refinement. This modification also improved overall model fit, reducing the SRMR from 0.100 to 0.077. Collectively, these results indicate that the measurement model exhibits satisfactory reliability, convergent validity, and fit, while transparently reflecting the item-level adjustments applied to WTC.

Table 2

Reliability and Validity Indices of Research Constructs

Construct	Item	Factor Loading	Cronbach's α	CR	AVE
Fixed Mindset	Mindset 1	0.799	0.847	0.894	0.679
	Mindset 2	0.836			
	Mindset 3	0.790			
	Mindset 4	0.868			
Pessimism	Pessimism 1	0.693	0.706	0.835	0.630
	Pessimism 2	0.897			
	Pessimism 3	0.778			
WTC	WTC1	0.771	0.819	0.866	0.520
	WTC2	0.742			
	WTC3	0.743			
	WTC4	0.659			
	WTC6	0.785			
	WTC7	0.611			

4.2. Discriminant Validity

Discriminant validity was assessed using both the Fornell–Larcker criterion and the HTMT ratio to confirm the conceptual distinctiveness of the latent constructs. As presented in Table 3, the Fornell–Larcker analysis showed that the square root of the AVE for each construct was greater than its correlations with all other constructs, supporting adequate discriminant validity.

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Table 3

Fornell–Larcker Criterion

	Fixed Mindset	Pessimism	WTC
Fixed Mindset	0.824		
Pessimism	0.238	0.794	
WTC	-0.088	-0.144	0.721

The HTMT analysis (Table 4) offered additional support for discriminant validity, as all values remained below the conservative cutoff of 0.85 (Hair & Alamer, 2022), indicating satisfactory construct separation. Collectively, the findings from the Fornell–Larcker criterion and the HTMT ratio provide consistent evidence of adequate discriminant validity for all constructs included in the model.

Table 4

Heterotrait-Monotrait Ratio (HTMT)

	Fixed Mindset	Pessimism	WTC
Fixed Mindset			
Pessimism	0.284		
WTC	0.120	0.187	

4.3. Multicollinearity

Multicollinearity was evaluated at both the indicator (outer model) and construct (inner model) levels. For the outer model, variance inflation factor (VIF) values ranged from 1.27 to 2.02 across all indicators (see Table 5). These results indicate that multicollinearity was not problematic and that all items fell within acceptable limits.

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Table 5

Outer Model Collinearity Statistics (VIF)

Items	VIF
Mindset 1	1.788
Mindset 2	1.891
Mindset 3	2.022
Mindset 4	1.920
Pessimism 1	1.272
Pessimism 2	1.704
Pessimism 3	1.482
WTC 1	1.984
WTC 2	1.974
WTC 3	1.869
WTC 4	1.652
WTC 6	1.662
WTC 7	1.293

Within the structural (inner) model, all variance inflation factor (VIF) values fell below the recommended thresholds, indicating that multicollinearity was not a concern (see Table 6).

Table 6

Inner Model Collinearity Statistics (VIF)

	VIF
Fixed Mindset -> WTC	1.060
Pessimism -> Fixed Mindset	1.000
Pessimism -> WTC	1.060

4.4. Structural Model Assessment

The structural model was examined using bootstrapping with 5,000 resamples. As illustrated in Figure 2, The path from pessimism to fixed mindset was positive and statistically significant ($\beta = 0.238$, $p < 0.001$), indicating that higher levels of pessimism were associated with stronger fixed mindset beliefs. In contrast, the direct path from pessimism to WTC was negative but non-significant ($\beta = -0.130$, $p = 0.150$), as was the path from fixed mindset to WTC ($\beta = -0.057$, $p = 0.556$). The indirect effect of pessimism on WTC through

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fixed mindset was also non-significant (β = -0.014, p = 0.584) (see Table 7). Collectively, these results suggest that while pessimism significantly predicts fixed mindset, neither pessimism nor fixed mindset had meaningful effects on WTC in this sample.

Figure 2

Path Coefficients and p-value of the Model

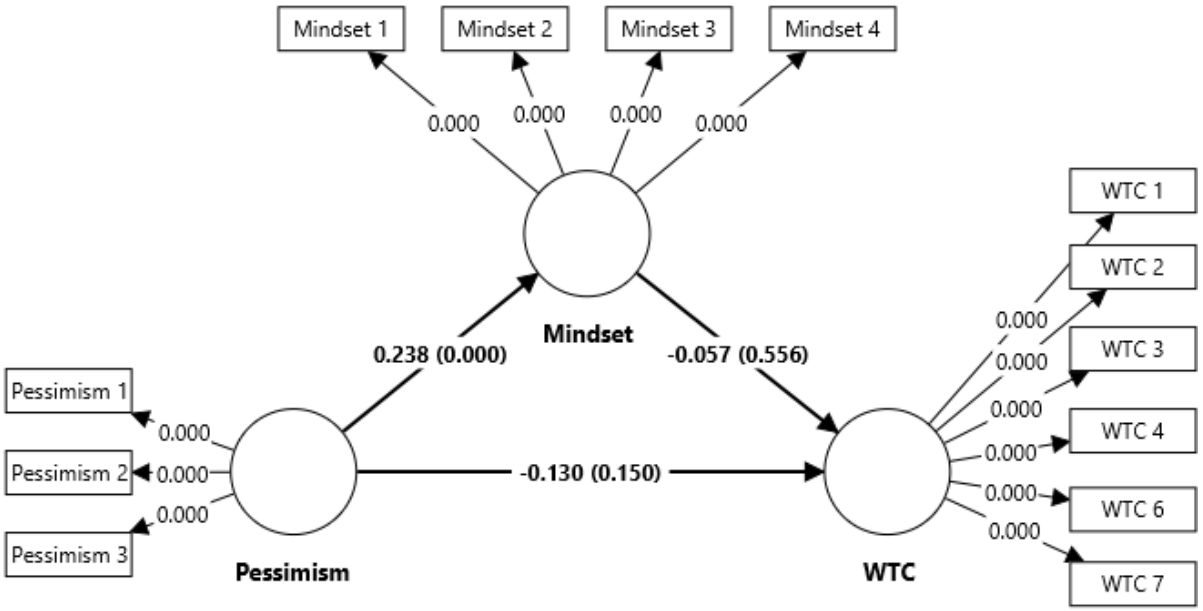


Table 7

Direct and Indirect Effects

Path	B	t	p	95% CI	
				Upper	Lower
Direct Effects					
Fixed Mindset → WTC	-0.057	0.589	0.556	0.188	-0.198
Pessimism → Fixed Mindset	0.238	3.489	0.000	0.351	0.080
Pessimism → WTC	-0.130	1.440	0.150	0.243	-0.229
Indirect Effects					
Pessimism → Fixed Mindset → WTC	-0.014	0.548	0.584	0.046	-0.054

Note. β = Standard path coefficient

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4.5. Model Fit and Predictive Power

The SRMR (0.077) and NFI (0.777) indicated an acceptable overall model fit. The coefficient of determination (R^2) was 0.024 for WTC and 0.057 for fixed mindset, suggesting that pessimism and fixed mindset together explained only a small proportion of variance in the outcome. Effect size estimates (f^2) indicated negligible contributions of pessimism (f^2 = 0.016) and fixed mindset (f^2 = 0.003) to WTC. Collectively, these results suggest that while the measurement model demonstrated adequate reliability and convergent validity, the proposed structural relationships were weak and not substantively supported in the present sample.

5. Discussion

The present study examined the associations among dispositional pessimism, fixed language mindset, and WTC in an EFL context, and tested whether fixed mindset functions as a mediating mechanism linking pessimism to WTC. By addressing these relationships, the study aimed to clarify the role of negative expectancy-based and belief-based factors within the WTC framework and to extend existing research that has predominantly focused on their positive counterparts.

The path from pessimism to fixed mindset was positive and statistically significant (β = 0.238, $p < 0.001$), indicating that learners with higher dispositional pessimism were more likely to endorse fixed beliefs about language-learning ability. In substantive terms, this finding suggests that individuals who habitually expect negative outcomes also tend to perceive language-learning aptitude as relatively immutable and resistant to change. This pattern is theoretically coherent, as both pessimism and fixed mindset are grounded in deficit-oriented belief systems that emphasize limitations rather than growth or malleability.

From a conceptual perspective, pessimism reflects a generalized expectancy that efforts will not lead to favorable outcomes (Scheier et al., 2020), whereas a fixed mindset represents the belief that ability is static and largely unaffected by effort (Dweck, 2006). When combined, these orientations form a mutually reinforcing cognitive framework in which anticipated failure aligns with beliefs about limited capacity for improvement. The present finding supports this theoretical alignment by demonstrating that pessimistic expectancy orientations are systematically associated with fixed language-learning beliefs.

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This relationship is also consistent with prior empirical work outside the L2 domain (Dardick & Tuckwiller, 2019; Tuckwiller & Dardick, 2018), which showed that students with higher levels of pessimism exhibited stronger fixed mindset beliefs. Importantly, the present study extends this line of research to the EFL context, where empirical evidence on the pessimism–mindset link has been largely absent. To the best of our knowledge, this study is the first to demonstrate a direct association between dispositional pessimism and fixed language mindset in an EFL learning environment. By situating pessimism as an antecedent of language-specific mindset beliefs, the findings contribute to a more integrated understanding of how broad dispositional traits shape learners' cognitive frameworks in second language acquisition.

Additionally, contrary to expectations, neither pessimism nor fixed mindset exerted a significant direct effect on WTC. Although both paths were negative in direction, the effect of pessimism on WTC ($\beta = -0.130$, $p = 0.150$) and that of fixed mindset on WTC ($\beta = -0.057$, $p = 0.556$) were non-significant. The indirect effect of pessimism on WTC via fixed mindset was likewise unsupported ($\beta = -0.014$, $p = 0.584$), indicating that fixed mindset did not function as a mediating mechanism in the proposed model. Taken together, the present findings show that pessimism and fixed mindset did not directly or indirectly predict WTC. Moreover, these constructs explained a negligible proportion of variance in WTC, indicating that, within this model and sample, they do not function as meaningful predictors of learners' WTC.

Within the WTC framework (MacIntyre et al., 1998), pessimism and fixed mindset are typically conceptualized as distal dispositional and belief-based variables and were therefore expected to predict lower WTC, particularly given robust evidence that their positive counterparts (optimism and growth mindset) facilitate communicative engagement (Öztekin et al., 2025; Li et al., 2025; Sadoughi & Hejazi, 2024; Wang et al., 2021). However, the present findings indicate that this expectation is not supported in the current model. Specifically, the absence of meaningful effects suggests that negative belief systems may not operate as simple inverse predictors of communicative willingness.

Consistent with this interpretation, prior research suggests that pessimism and fixed mindset are more closely associated with affective experiences than with overt communicative behavior. Fixed mindset has been linked to heightened anxiety, emotional distress, and fear of negative evaluation (Schleider et al., 2015), and in L2 contexts, to

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increased language anxiety and concern about making mistakes during communication (Bostock et al., 2018; Lou & Noels, 2017; Ozdemir & Papi, 2021). Similarly, pessimism has been robustly associated with anxiety across clinical, academic, and general populations (Hirsch et al., 2012; Öztekin, 2025; Villano et al., 2023; Zenger et al., 2011). Importantly, these associations do not imply that such affective tendencies necessarily translate into reduced WTC.

From a theoretical standpoint, the negligible effect sizes observed in the present study ($f^2 = 0.016$ for pessimism; $f^2 = 0.003$ for fixed mindset) delineate clear limits to the explanatory role of these constructs within the WTC framework. Rather than functioning as suppressed or indirect influences, pessimism and fixed mindset appear to be weak or largely irrelevant predictors of WTC in this EFL context. These findings underscore the importance of avoiding symmetry assumptions when extending models based on positive motivational constructs to their negative counterparts.

6. Conclusion and Implications

This study contributes to WTC research by clarifying the limited role of negative dispositional and belief-based factors in an EFL context.. The findings show that dispositional pessimism is positively and significantly associated with fixed language mindset, indicating that learners who hold generalized negative expectations are more likely to endorse beliefs about the immutability of language-learning ability. By positioning pessimism as an antecedent of language-specific mindset beliefs, the study extends prior work conducted outside SLA and integrates a broader expectancy-based construct into the WTC literature.

In contrast, pessimism and fixed mindset did not exert significant direct or indirect effects on WTC. Together with the negligible effect sizes observed, these results indicate that neither construct meaningfully predicts learners' WTC in the present context. This challenges the assumption that negative psychological constructs operate as simple inverse counterparts to optimism and growth mindset. While positive motivational resources may directly facilitate WTC, their absence does not necessarily suppress communicative engagement.

Theoretically, these findings delineate clear limits to the explanatory value of negative expectancy- and belief-based dispositions within the WTC framework. Rather than functioning as direct inhibitors of communication, pessimism and fixed mindset appear to have minimal behavioral relevance in structured EFL settings, underscoring the need to avoid

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symmetry assumptions when extending positive psychology models to negative belief systems.

From a pedagogical perspective, the results suggest that learners holding pessimistic expectations or fixed beliefs are not inevitably unwilling to communicate. Accordingly, instructional efforts in similar structured EFL contexts may be better directed toward shaping classroom affordances that support participation broadly, such as reducing communicative pressure, normalizing error-making, and providing low-stakes interaction, rather than attempting to directly modify learners' dispositional beliefs. More generally, the findings highlight the importance of distinguishing between learners' cognitive orientations and their observable communicative behavior when designing interventions to promote WTC.

Despite these valuable contributions, several limitations warrant consideration. First, the study's cross-sectional design constrains causal inference concerning the directional associations among pessimism, fixed mindset, and WTC. Future research may employ longitudinal or experimental methodologies. Second, the use of self-report instruments may have introduced common method bias and limited the capacity to capture moment-to-moment variability in WTC. Third, the proposed model excluded proximal emotional and contextual factors, such as language anxiety and classroom climate, that could serve as mediators between negative belief systems and WTC. Future investigations should therefore examine more integrative frameworks encompassing dispositional, affective, and situational dimensions. Finally, as the data were mostly collected from a single EFL context, replication across culturally and pedagogically diverse settings is essential to enhance generalizability.

Authors' contributions

All authors have materially participated in the research and article preparation. Additionally, all authors have approved the final article.

Credit authorship contribution statement

Mohammad Amin Onagh: Writing – review and editing, Writing – original draft, Conceptualization, Methodology, Investigation, Formal analysis, Data curation, Visualization, Software, Project administration, Resources.

Ali Arabmofrad: Writing – review and editing, Validation, Supervision, Resources, Methodology, Formal analysis, Conceptualization.

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Declaration

We confirm that this work is original and is not under consideration by any other journal.

Transparency Statements

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Declaration of Interests

The authors declare that they have no conflict of interest.

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Ethical Consideration

This manuscript adheres to the ethical guidelines provided by the Committee on Publication Ethics (COPE) for ensuring integrity and transparency in the research publication process.

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