

AN EMPIRICAL INVESTIGATION INTO THE INFLUENCE OF METALINGUISTIC AWARENESS ON ENGLISH - VIETNAMESE TRANSLATION COMPETENCE AMONG THIRD-YEAR ENGLISH-MAJOR STUDENTS AT THE UNIVERSITY OF DANANG - UNIVERSITY OF FOREIGN LANGUAGE STUDIES

NGHIÊN CỨU THỰC NGHIỆM VỀ ẢNH HƯỞNG CỦA NHẬN THỨC SIÊU NGÔN NGỮ ĐỐI VỚI NĂNG LỰC DỊCH ANH - VIỆT CỦA SINH VIÊN NĂM THỨ BA NGÀNH NGÔN NGỮ ANH, TRƯỜNG ĐẠI HỌC NGOẠI NGỮ - ĐẠI HỌC ĐÀ NẴNG

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Abstract - This study examines how metalinguistic awareness (MeLA) contributes to English-Vietnamese translation competence through strategic competence (SC), while considering L2 proficiency, represented by academic GPA, as a moderating factor. Drawing on data from 215 third-year English Language majors at The University of Danang – University of Foreign Language Studies, the study applied moderated mediation analysis (PROCESS Model 7). The Johnson–Neyman results identified a sample-specific transition point at a GPA of 2.85, above which the effect of MeLA on SC became statistically significant. Below this level, learners' cognitive resources appear to be largely directed toward basic linguistic processing. Above it, greater linguistic automaticity enables MeLA to support higher-order strategic problem-solving more effectively. The findings support the Linguistic Threshold Hypothesis and suggest implications for translation pedagogy in Vietnamese higher education.

Key words - Metalinguistic awareness, language proficiency, strategic competence, translation competence, moderated mediation

1. Introduction

In contemporary multilingual contexts, translation is increasingly understood as more than the transfer of linguistic forms, involving ongoing monitoring of meaning, context, and communicative intent. As machine translation tools become more effective at handling surface-level correspondence, attention has gradually shifted toward the cognitive processes that support informed human translation decisions. Within this line of research, metalinguistic awareness has been associated with learners' ability to reflect on language, while strategic competence has been highlighted as an important component guiding problem-solving during translation. Nevertheless, the relationship between these cognitive capacities remains insufficiently clarified. In particular, previous research has rarely examined how metalinguistic awareness is translated into strategic action under different levels of language proficiency, especially among EFL learners. This limitation points to the need for a more process-oriented investigation that considers not only the

Tóm tắt - Nghiên cứu này xem xét cách Nhận thức siêu ngôn ngữ (MeLA) góp phần phát triển năng lực dịch Anh-Việt thông qua vai trò trung gian của năng lực chiến lược (SC), đồng thời xem xét trình độ ngoại ngữ, được đại diện bởi GPA, như một yếu tố điều tiết. Dữ liệu từ 215 sinh viên năm ba ngành Ngôn ngữ Anh tại Trường Đại học Ngoại ngữ – Đại học Đà Nẵng được phân tích bằng PROCESS Model 7. Kết quả Johnson–Neyman xác định điểm chuyển tiếp đặc thù của mẫu nghiên cứu tại GPA 2,85; từ ngưỡng này trở lên, ảnh hưởng của MeLA đến SC có ý nghĩa thống kê. Dưới mức này, người học dường như phải dành phần lớn nguồn lực nhận thức cho việc giải mã ngôn ngữ cơ bản. Khi vượt qua ngưỡng 2,85, mức độ tự động hóa ngôn ngữ cao hơn cho phép MeLA hỗ trợ tốt hơn quá trình giải quyết vấn đề chiến lược. Kết quả củng cố Giả thuyết Ngưỡng ngôn ngữ và gợi mở hàm ý cho giảng dạy dịch thuật trong giáo dục đại học Việt Nam.

Từ khóa - Nhận thức siêu ngôn ngữ, trình độ ngôn ngữ thứ hai, năng lực chiến lược dịch thuật, khả năng dịch thuật, trung gian có điều tiết

presence of metalinguistic awareness but also the conditions under which it becomes operational in translation tasks. To address this gap, the present study aims to examine the relationship between metalinguistic awareness and translation competence by investigating the mediating role of strategic competence and the moderating influence of L2 proficiency among English Language majors in Vietnam. Specifically, the study addresses the following research questions.

2. Literature Review

Previous international research has increasingly approached translation competence as a cognitively complex construct that extends beyond linguistic knowledge alone. In applied linguistics, metalinguistic awareness is commonly defined as learners' ability to consciously reflect on language structure and usage, enabling more controlled and analytical language processing ([1], [2]). Empirical studies have shown that such awareness supports monitoring, error detection, and

sensitivity to form–meaning relationships in advanced language use [3]. Within translation studies, competence-based models, most notably those developed by the PACTE group, conceptualize translation competence as a system structured around multiple interacting components in which strategic competence plays a central regulatory role by planning the translation process, identifying problems, and coordinating linguistic and extralinguistic resources ([4], [5]). This distinction suggests that while language proficiency provides a necessary foundation for translation, it is not sufficient to account for translation competence, which involves additional regulatory and strategic processes. Despite these contributions, international studies have often examined metalinguistic awareness and strategic competence as parallel or independently functioning constructs. Metalinguistic Awareness is frequently treated as a direct contributor to translation performance, while strategic competence is analysed primarily as a procedural skill, leaving the mechanism through which awareness is transformed into strategic action largely unspecified.

In the Vietnamese context, studies on translation have primarily focused on describing student translators' performance, identifying common errors, and evaluating translation quality in English–Vietnamese tasks. These studies have provided valuable insights into recurring lexical, grammatical, and pragmatic difficulties faced by EFL learners, as well as pedagogical implications for translation training ([7], [8]). More recent work has begun to recognize the importance of reflective and cognitive factors in translation learning, suggesting that increased awareness of linguistic and functional features may contribute to improved translation outcomes [9]. However, the majority of domestic studies remain descriptive or outcome-oriented, with limited attention to the cognitive processes underlying translation performance. In particular, Vietnamese research rarely examines how learners' metalinguistic awareness is mobilized during translation, nor does it systematically consider language proficiency as a factor that constrains or enables strategic behavior. As a result, domestic studies have offered limited process-oriented explanations of how higher-order cognitive capacities interact in the development of translation competence.

Taken together, existing international and domestic research acknowledges the importance of both metalinguistic awareness and strategic competence in translation. Nevertheless, prior studies have not sufficiently clarified how metalinguistic awareness contributes to translation competence through strategic regulation, nor have they specified the conditions under which this contribution becomes functionally effective. In particular, the role of language proficiency has rarely been examined as a cognitive threshold that enables or constrains the activation of strategic processes during translation, especially in EFL contexts such as Vietnam. This unresolved issue points to the need for an integrated, process-oriented investigation that examines not only whether metalinguistic awareness matters, but when and through what mechanism it is translated into effective

translation performance. The present study addresses this gap by examining the mediating role of strategic competence in the relationship between metalinguistic awareness and translation competence, while considering L2 proficiency as a moderating factor.

3. Theoretical Background

3.1. Metalinguistic awareness (MeLA)

3.1.1. Conceptual dimension of MeLA

In regard to applied linguistics, Metalinguistic Awareness (MeLA) refers to the learner's ability to consciously reflect on language and treat it as an object of analysis rather than relying solely on automatic use. This capacity allows individuals to notice how meaning is constructed through linguistic form and to recognize alternative ways of expression. In translation contexts, such awareness supports the identification of potential problem areas, such as structural mismatches or subtle shifts in meaning between languages. Instead of processing texts only at a surface level, learners with higher MeLA are more capable of pausing, evaluating linguistic choices, and considering how form and meaning interact across languages.

When situated within translation studies, MeLA emerges as a core cognitive mechanism underpinning translation competence. Translation is viewed not as simple meaning transfer but as a reflective activity requiring the conscious analysis of linguistic forms and pragmatic intent across language boundaries. The PACTE group in their research supports this by positioning metalinguistic and strategic knowledge at the center of problem identification and decision-making [4]. By enabling translators to suspend automatic processing, MeLA facilitates the critical evaluation of linguistic options and the justification of translation solutions. This reflective control is particularly vital in English–Vietnamese translation, where significant typological and pragmatic disparities demand heightened sensitivity over intuitive processing.

3.1.2. Dimensions of MeLA relevant to Translation

Although Metalinguistic Awareness is a multifaceted construct, its role in the context of translation is best observed through the interplay of specific linguistic strata rather than as isolated skills. At the fundamental level, Morphological Awareness functions as a critical decoding mechanism. Research carried out by Kuo and Anderson suggests that the capacity to decompose complex words into constituent morphemes - roots, prefixes, and suffixes - is a robust predictor of lexical inference [10]. In the specific context of English–Vietnamese translation, this awareness empowers students to navigate the nuances of English derivational morphology, identifying word formation cues that dictate grammatical function and semantic precision without excessive reliance on external aids.

Building upon these foundational dimensions, contemporary research increasingly emphasizes the integrative role of metalinguistic awareness across morphological, syntactic, and pragmatic levels in complex

language tasks such as translation. Hulstijn argues that successful language performance beyond basic communication relies on the deployment of explicit linguistic knowledge, particularly when learners are required to analyze form–meaning relationships under cognitively demanding conditions [2]. In the context of English–Vietnamese translation, this explicit awareness enables students to consciously interpret morphological cues, reorganize syntactic structures, and evaluate pragmatic appropriateness rather than relying on surface-level equivalence. Given the typological distance between English and Vietnamese, translators must actively restructure source-text information to align with target-language norms, a process that necessitates deliberate monitoring and controlled linguistic decision-making. From this perspective, metalinguistic awareness operates not as a collection of discrete skills, but as an overarching regulatory mechanism that coordinates multiple levels of linguistic analysis to ensure communicative effectiveness and contextual appropriacy in translation output.

3.2. Translation Competence

3.2.1. Defining Translation Competence

Translation Competence (TC) is widely recognized in modern scholarship as a specialized expert knowledge system, distinct from natural bilingualism. Albir posits that TC is not a static accumulation of linguistic rules but a dynamic, procedural knowledge system [11]. It involves the integration of various sub-competencies that allow the subject to solve translation problems and produce a target text that fulfills specific communicative functions. For trainees, TC is viewed as a developing continuum, transitioning from novice reliance on literal transfer to expert strategic processing.

3.2.2. The PACTE Model

To operationalize this complex construct, the present study adopts the holistic model proposed by PACTE [5]. This model is empirically validated and visualizes TC as a system of five interacting sub-competencies: Bilingual, Extra-linguistic, Knowledge about Translation, Instrumental, and Strategic.

Among these, the Strategic Sub-competence is positioned as the core component - the "conductor of the orchestra". PACTE defines this as the procedural knowledge responsible for planning the process, evaluating the source text, activating the other sub-competencies, and identifying solutions to translation problems. This framework provides the theoretical justification for separating MeLA (Input/Knowledge) from Strategic Competence (Process) in this study, acknowledging that a student may possess high bilingual knowledge but fail to translate effectively due to a lack of strategic control.

3.3. Theoretical Mechanisms

3.3.1. Information Processing Theory (IPT) in Translation

To explain the causal mechanism between cognitive awareness and translation performance, this study employs Information Processing Theory (IPT). In translation process research, Bell suggested that translation can be broadly described as a sequence in which incoming linguistic

information is first interpreted, then mentally transformed, and finally reformulated in the target language [12].

Within this framework, Metalinguistic Awareness functions at the Input stage. It acts as a "noticing" mechanism [13], enabling the translator to detect linguistic anomalies, ambiguities, or structural misalignments in the source text. However, noticing a problem is insufficient for solving it. The raw data provided by MeLA must undergo active manipulation, which requires a distinct processing mechanism to manage the cognitive load and execute the transfer.

3.3.2. Strategic Competence as Cognitive Mediation

This study conceptualizes Strategic Competence as a metacognitive mediator in the Input–Processing–Target text (IPT) sequence, linking metalinguistic awareness to observable translation performance. Dong and Chen have demonstrated that strategic competence operates as a regulatory mechanism through which translators consciously manage cognitive resources and flexibly alternate between automatic and controlled processing in response to task demands [14]. From this perspective, strategic competence does not function as a mere repertoire of techniques, but as a goal-directed process that enables translators to operationalize linguistic awareness into concrete translational decisions.

In this model, metalinguistic awareness mainly serves a diagnostic role by signaling potential linguistic or pragmatic problems, while strategic competence determines how these problems are handled. Rather than functioning as a set of fixed techniques, strategic competence regulates decision-making processes such as restructuring or compensation. Previous studies suggest that novice translators may recognize cross-linguistic differences but lack sufficient metacognitive control to act on them effectively [14]. From this view, strategic competence mediates between awareness and performance by enabling recognized problems to be addressed in a contextually appropriate manner.

3.4. L2 Proficiency & The Threshold Hypothesis

3.4.1. The Threshold Hypothesis

The efficacy of the translation process is not uniform across all learners. Cummins introduced the Threshold Hypothesis, postulating that bilinguals must attain a certain level of linguistic proficiency in their second language (L2) before they can reap the cognitive benefits of bilingualism [15]. Applied to translation, this suggests a "competence floor": below a critical threshold of L2 proficiency, a student's cognitive resources are largely devoted to basic language comprehension, leaving limited capacity for higher-order processing.

3.4.2. Cognitive Load Explanation

This phenomenon is best explained through Cognitive Load Theory [16]. Translation is a high-load cognitive task that places immense demands on Working Memory. For students with low L2 proficiency, lower-level decoding processes (lexical access, parsing) are not automated and require significant conscious effort. This results in "cognitive overload."

Consequently, even if low-proficiency students possess some degree of metalinguistic awareness, they lack the surplus cognitive capacity to activate sophisticated strategies. Conversely, high-proficiency learners, having automated basic decoding, can allocate resources to executive functions. Therefore, L2 Proficiency is hypothesized to moderate the relationship between MeLA and Strategic Competence.

3.5. Proposed Conceptual Framework

3.5.1. Theoretical Integration and Model Construction

Synthesizing the PACTE model, IPT, and the Threshold Hypothesis, the present study postulates a Moderated Mediation Model. The core premise is that the impact of Metalinguistic Awareness on Translation Competence is not direct but is mediated by Strategic Competence. Crucially, this mediation is conditional: the efficacy of transforming metalinguistic input into strategic action is contingent upon the student's L2 Proficiency.

Methodologically, this corresponds to Model 7 of Hayes' PROCESS Macro [17], allowing for the empirical examination of conditional indirect effects. This framework shifts the discourse from simple cause-effect assumptions to a nuanced understanding of the cognitive architecture underlying translation in novice learners.

3.5.2. Visual Representation of the Research Model

Based on the theoretical synthesis above, the research model includes four core constructs: Independent Variable (MeLA), Mediating Variable (Strategic Competence), Dependent Variable (Translation Competence), and Moderating Variable (L2 Proficiency). The structural configuration is visualized in Figure 1.

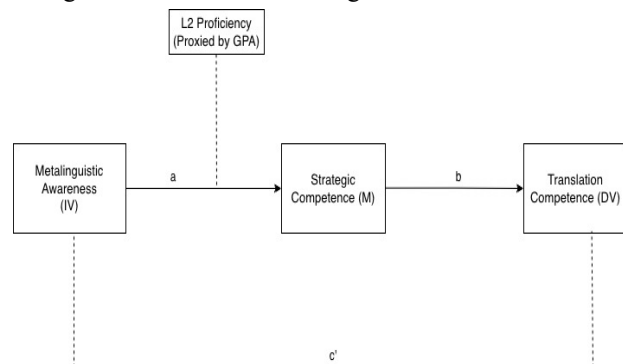


Figure 1. The proposed moderated mediation model of Metalinguistic Awareness and Translation Competence

3.5.3. Research Hypotheses

To verify the validity of the proposed model within the context of junior English-majoring students, the following hypotheses are formulated:

H1: MeLA has a positive and significant influence on SC.

H2: SC has a positive and significant influence on TC.

H3: Strategic Competence mediates the relationship between MeLA and TC.

H4: L2 Proficiency moderates the link between MeLA and SC, such that the indirect effect is stronger at higher levels of proficiency.

3.6. Research Questions

Building on the moderated mediation model and the hypotheses outlined above, this study addresses the following two research questions:

RQ1: To what degree is the influence of Metalinguistic Awareness on Translation Competence channeled through the students' Strategic Competence?

RQ2: In what way is the indirect effect of awareness on translation performance conditional upon the learner's L2 proficiency (proxied by academic GPA)?

4. Research Methodology

4.1. Research Design and Instrument

The study employed a quantitative cross-sectional design to investigate how Metalinguistic Awareness contributes to Translation Competence via Strategic Competence, and whether this relationship depends on the learners' proficiency. Specifically, a moderated mediation framework (Hayes' Model 7) was utilized to test the hypothesis that the translation of awareness into strategic action is conditional upon L2 proficiency. The participants consisted of 215 third-year English Language majors from The University of Danang - University of Foreign Language Studies. These students were selected through purposive sampling to ensure they shared a similar academic background and had comparable exposure to linguistics and translation coursework prior to the study. Participants were selected through purposive sampling based on three criteria: enrolment in the third year off English Language Program, prior completion of core linguistics courses such as morphology and syntax, and previous exposure to at least one introductory translation course. These criteria were applied to ensure that the participants shared a relatively comparable academic background and possessed sufficient familiarity with both linguistic analysis and translation related tasks

To ensure the reliability and validity of the findings, the measurement instruments were established based on prominent frameworks in the field. Metalinguistic Awareness was measured using a 32-item scale developed specifically for this study, grounded in the theoretical dimensions identified by Kemp [1] and Hulstijn [2]. This scale captured conscious reflection on linguistic form and meaning across morphological, syntactic, semantic, pragmatic, and textual levels. Strategic Competence was operationalized through 7 items adapted from the PACTE model's descriptors of procedural knowledge [5], focusing on problem recognition and solution monitoring. Translation Competence was evaluated using a hybrid approach, combining a self-assessment questionnaire with a controlled translation task taken from [18].

Prior to the main data collection, a pilot study involving 30 students was conducted to examine the clarity and usability of the questionnaire. The pilot results suggested that the items were generally understandable, although several expressions were slightly revised to improve readability. The internal consistency of the measurement scales was subsequently assessed using Cronbach's Alpha, with all constructs exceeding the commonly accepted

threshold of 0.70. In addition, Confirmatory Factor Analysis (CFA) was conducted to examine the construct validity of the measurement model before testing the structural relationships among the variables. These procedures ensured that the measurement instruments provided a reliable and theoretically consistent representation of the constructs used in the subsequent moderated mediation analysis.

4.2. Data Collection and Analytical Procedure

Following a pilot study with 30 students to check the clarity and contextual suitability of the research instruments, the main study was conducted using a structured and sequential procedure. During the pilot phase, participants completed the preliminary questionnaire and were asked to comment on the clarity of instructions and wording of the items. The feedback indicated that most items were understandable, although several statements were slightly revised to reduce ambiguity before the questionnaire was administered in the main study. A total of 215 third-year English Language majors participated in the study, which was carried out during regular class sessions to ensure a controlled data collection environment. Participants first completed a questionnaire consisting of 32 items measuring metalinguistic awareness and 7 items assessing strategic competence, with an average completion time of approximately 20 minutes. They then performed a controlled English–Vietnamese translation task designed to capture actual translation performance. The source text for the controlled translation task was adapted from Cottrell [18].The translation task was evaluated using a standardized assessment rubric adapted from established criteria in translation studies, focusing on meaning accuracy, grammatical appropriateness, lexical choice, and textual coherence. Each translation was independently rated by two experienced instructors using the same scoring guidelines, and the final translation score used in the analysis was calculated as the average of the two ratings.

After data collection, responses were screened for completeness before being coded and entered for statistical analysis. The analytical process proceeded in stages, beginning with descriptive statistics and correlation analyses to establish preliminary relationships among the variables. Prior to testing the structural relationships, Confirmatory Factor Analysis (CFA) was conducted to examine the construct validity of the measurement model, while internal consistency was assessed using Cronbach’s Alpha, with all constructs exceeding the recommended threshold of 0.70. To enhance the robustness of the mediation estimates, a non-parametric bootstrapping procedure was implemented. Specifically, bootstrap samples were generated by random resampling with replacement from the original dataset of 215 valid observations obtained after data screening. Each bootstrap sample maintained the same sample size (N = 215), with individual cases drawn repeatedly and independently from the original pool. This procedure was repeated 5,000 times to construct an

empirical sampling distribution of the indirect effects.

The resampling process did not impose additional selection criteria beyond inclusion in the final cleaned dataset; thus, all participants who provided complete and usable responses were eligible for resampling. Bias-corrected confidence intervals were then derived from the bootstrap distribution to assess the statistical significance of the conditional indirect effects. Finally, the Johnson–Neyman procedure was applied to identify the specific range of L2 proficiency, proxied by GPA, at which the effect of metalinguistic awareness on strategic competence became statistically significant. The Johnson–Neyman technique identifies the exact value of the moderator at which the conditional relationship between variables transitions from non-significant to significant. This procedure therefore allows the estimation of a data-driven threshold rather than relying on an arbitrarily predefined cut-off point.

5. Results

5.1. Preliminary Analysis, Reliability, and Validity

Before conducting the structural assessment, the dataset was screened to ensure the absence of outliers and adherence to a normal distribution. To address potential common method bias (CMB), Harman’s single-factor test was performed, which indicated that the first factor accounted for only 31.86% of the variance - well below the 50.0% critical threshold. These results suggest that the data is likely not compromised by common method variance, providing a suitable foundation for further analysis.

To further examine the construct validity of the measurement model, Confirmatory Factor Analysis (CFA) was conducted before testing the structural relationships among the variables. The analysis evaluated whether the observed indicators adequately represented the three latent constructs included in the study: Metalinguistic Awareness (MeLA), Strategic Competence (SC), and Translation Competence (TC). The three-factor measurement model demonstrated an acceptable fit to the data ($\chi^2/df = 1.89$, CFI = 0.931, TLI = 0.924, RMSEA = 0.064, SRMR = 0.053). All standardized factor loadings exceeded the recommended threshold of 0.50, indicating that the observed indicators were adequately associated with their respective latent constructs. These indices meet commonly accepted thresholds for model adequacy, suggesting that the proposed factor structure is consistent with the observed responses. Therefore, the measurement model provides a valid representation of the constructs and can serve as a reliable basis for the subsequent regression and moderated mediation analyses.

Table 1. Confirmatory Factor Analysis Model Fit

Model	χ^2/df	CFI	TLI	RMSEA	SRMR
Three-factor measurement model	1.89	0.931	0.924	0.064	0.053

Note: Acceptable thresholds: $\chi^2/df < 3$; CFI > 0.90; TLI > 0.90; RMSEA < 0.08; SRMR < 0.08.

Following the confirmation of the measurement structure, the internal consistency and convergent validity of the constructs were further examined using Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE), as reported in Table 2. Internal consistency appeared robust across all constructs, with Cronbach's Alpha and Composite Reliability (CR) values ranging from 0.745 to 0.864 and 0.762 to 0.872, respectively, satisfying the standard 0.70 benchmark. Convergent validity was supported by Average Variance Extracted (AVE) values ranging from 0.521 to 0.584, all of which exceeded the 0.50 requirement.

A notable feature of this study is the hybrid approach to measuring Translation Competence (TC), which combined eight self-evaluation items with eight objective performance criteria from translation task taken from Cottrell's book [18]. This method was supported by a high inter-rater reliability score ($r = 0.92, p < 0.001$), indicating strong consistency between independent graders. This triangulation of subjective and objective metrics aims to provide a more balanced and precise assessment of learner competence.

Table 2. Reliability and Validity Results ($N=215$)

Construct	Items	Mean	SD	Cronbach's Alpha	CR	AVE
MeLA	32	3.52	0.64	0.864	0.872	0.584
SC	07	3.48	0.72	0.745	0.762	0.521
TC	16	3.61	0.58	0.812	0.825	0.568

Note: CR = Composite Reliability, AVE = Average Variance Extracted. Standard thresholds $CR > 0.70$; $AVE > 0.50$.

5.2. Testing the Moderated Mediation Model

The study employed Hayes' PROCESS Macro (Model 7) with 5,000 bootstrap samples to estimate the conditional indirect effects and obtain bias-corrected confidence intervals, which provide a more robust inference for mediation and moderated mediation analysis when the sampling distribution of indirect effects may not be normally distributed [17]. The primary objective was to examine whether the indirect effect of Metalinguistic Awareness (MeLA) on Translation Competence (TC) via Strategic Competence (SC) was contingent upon the students' L2 proficiency, represented by their GPA.

The regression results in Table 3 indicate that while MeLA positively predicts SC, this relationship is significantly moderated by GPA. Specifically, the interaction term $MeLA \times GPA$ was statistically significant ($\beta = 0.162, p = 0.002$), suggesting that the influence of awareness on strategic application is not uniform but varies across proficiency levels. The Johnson–Neyman analysis further showed that the effect of MeLA on SC became statistically significant when GPA exceeded 2.85. For students falling below this empirically observed threshold, the link between awareness and strategic problem-solving was statistically negligible. This suggests that when linguistic resources are limited, they are primarily consumed by basic decoding processes, leaving insufficient capacity for the activation of higher-order strategies.

To further clarify the conditional nature of this relationship, the Johnson–Neyman technique was employed to identify the specific level of L2 proficiency at which the effect of Metalinguistic Awareness on Strategic Competence becomes statistically significant. The analysis revealed that this conditional effect becomes significant when GPA exceeds 2.85. This value represents the exact Johnson–Neyman transition point at which the lower bound of the confidence interval no longer includes zero. Below this value, the confidence interval of the conditional effect includes zero, indicating that the relationship between Metalinguistic Awareness and Strategic Competence is not statistically reliable. Therefore, the value of 2.85 should be interpreted as an empirically derived transition point within the present dataset, representing the level of language proficiency at which metalinguistic awareness begins to meaningfully contribute to strategic processing during translation.

Conversely, as GPA exceeds the 2.85 mark, the effect of MeLA on SC becomes significant and intensifies progressively. This confirms that L2 proficiency acts as a prerequisite benchmark that allows cognitive resources to be operationalized into effective translation behaviors. Furthermore, the mediation component of the model confirms that Strategic Competence remains a significant predictor of Translation Competence ($\beta = 0.443, p < 0.001$). The structural integrity of this moderated mediation mechanism was supported by the Index of Moderated Mediation (Index = 0.072). Since the 95% bootstrap confidence interval [0.03, 0.15] does not contain zero, the proposed model is empirically supported. Ultimately, these results indicate that metalinguistic awareness enhances translation performance, particularly in tasks of high conceptual density, provided that a foundational linguistic threshold is achieved.

Table 3. Regression Results for the Moderated Mediation Model (Model 7)

Predictor	Coefficient (β)	SE	t-value	p-value
Model for SC (Mediator)				
Constant	1.025	0.141	7.269	<0.001
MeLA (IV)	0.381	0.062	6.145	<0.001
GPA (M)	0.424	0.079	5.367	<0.001
$MeLA \times GPA$ (Interaction)	0.162	0.051	3.176	0.002
Model for TC (DV)				
SC (Mediator)	0.443	0.067	6.612	< 0.001

Note: SE = Standard Error

5.3. Conditional Indirect Effects and Performance Analysis

The final phase of the analysis involved a granular examination of the conditional indirect effects to identify the "functional boundaries" of the proposed model. As summarized in Table 4, the results suggest that the mediation pathway from Metalinguistic Awareness (MeLA) to Translation Competence (TC) is fundamentally contingent upon L2 proficiency. At the lower end of the scale (GPA 2.40), the indirect effect was

statistically negligible ($Effect = 0.074$, 95% Boot CI $[-0.015, 0.163]$), suggesting that linguistic constraints may prevent students from operationalizing metalinguistic awareness. However, a significant shift occurs at the 2.85 GPA threshold, where the effect becomes significant ($Effect = 0.106$, 95% Boot CI $[-0.012, 0.200]$) and intensifies progressively as proficiency increases.

For students at average (3.10) and high (3.60) GPA levels, the mediation effect strengthens significantly, nearly doubling in magnitude at the highest level ($Effect = 0.160$). This pattern suggests that the indirect effect becomes stronger as students' L2 proficiency increases. As language proficiency improves, the cognitive "bandwidth" is freed from surface-level decoding, allowing awareness to trigger the strategic problem-solving required for better translation performance. These statistical patterns correspond with the results of the performance task based on Cottrell's book [18]. Further examination of the translation outputs indicated that students exceeding the 2.85 threshold were better equipped to manage "rich points" - complex segments involving syntactic or semantic ambiguity. In contrast, students below this threshold appeared to experience higher cognitive load, where linguistic difficulties hindered the mediation process. The Index of Moderated Mediation ($Index = 0.072$, 95% Boot CI $[0.03, 0.15]$), provides empirical support, confirming that the success of the pathway from awareness to performance is appears to be governed by a prerequisite linguistic threshold.

Table 4. Bootstrapping Results for Conditional Indirect Effects at Key GPA Levels

L2 Proficiency: GPA	Level	Indirect Effect	Boot SE	Boot LLCI	Boot ULCI
-1 SD (2.40)	Low	0.074	0.051	-0.015	0.163
threshold (2.85)	Critical	0.106*	0.042	0.012	0.200
Mean (3.10)	Average	0.124	0.046	0.038	0.210
+1 SD (3.60)	High	0.160*	0.063	0.075	0.245

*Note: LLCI/ULCI = 95% Confidence Interval; Statistically significant as CI excludes zero.

6. Discussion

6.1. From Metalinguistic Awareness to Strategic Action

These findings directly address the study's aim of clarifying how metalinguistic awareness becomes operational in translation through strategic regulation. Results from the present study indicate that Metalinguistic Awareness may play a supportive role in the development of Strategic Competence. With a moderate positive correlation ($\beta = 0.381, p < 0.001$), MeLA appears to enable students to perceive the source text as a structured system of linguistic choices rather than a mere communicative tool. This interpretation aligns with previous work [19], which emphasizes the coordinating function of SC within the broader set of sub-competencies involved in translation. In practical terms, greater awareness may help learners notice subtle linguistic issues,

including meaning-related differences or structural mismatches between languages.

However, recognizing a translation problem is only the initial phase, and successful resolution appears to require active self-regulatory control. MeLA appears to function as a monitoring mechanism that helps identify "rich points" in the source text, but actual success depends on the student's capacity to manage task demands through goal-setting and self-monitoring. As noted by Xu and Guénier [20], it is self-regulation that ultimately influences the ability to operationalize awareness into concrete actions. Thus, MeLA may be understood as providing a diagnostic foundation, while strategic competence functions as the operational mechanism enabling more appropriate translation output.

6.2. The 2.85 GPA Threshold as a Cognitive Filter

Using the Johnson–Neyman technique, the analysis reveals that the link between metalinguistic awareness and strategic competence varies depending on students' level of linguistic proficiency. The threshold identified in this study should be interpreted as a sample-specific statistical transition point derived from Johnson–Neyman analysis, rather than a universal benchmark of language proficiency. When GPA falls below 2.85, the interaction effect becomes non-significant, possibly because learners at this level must devote most of their cognitive effort to basic language processing. From the perspective of cognitive load theory [21], working memory has limited capacity, which means that a minimum level of language competence is required before higher-level processing can be carried out efficiently. It should be emphasized that the 2.85 threshold is not intended to represent a universal benchmark of language proficiency, but rather an empirically derived indicator specific to the present sample and instructional context. Conceptually, this interpretation is consistent with the Threshold Hypothesis proposed by Cummins [15], which suggests that higher-order cognitive processes can only operate effectively after learners reach a sufficient level of language proficiency.

Ouweland and colleagues in their paper also highlighted that instructional methods must align with these cognitive constraints [21]. For learners below the 2.85 threshold, the intrinsic load of a dense source text may overwhelm mental bandwidth, rendering metalinguistic awareness an underused cognitive resource that cannot be easily transformed into strategic action. However, once this proficiency benchmark is surpassed, basic processing likely becomes more automated, effectively freeing up the cognitive resources necessary for awareness to trigger the strategic tools required to bridge cross-linguistic gaps.

6.3. Strategic Competence as a Driver of Performance

Strategic Competence emerged as a strong and statistically significant predictor of actual translation performance ($\beta = 0.443, p < 0.001$), acting as a central mechanism throughout the translation process. While MeLA and language proficiency provide the foundation, SC appears to help students use these resources more

effectively during translation. Xiao and Zeng highlight that strategic competence consists of problem identification, solution proposal, action taking, and decision making, serving as a core component responsible for managing the translation process [19]. The data suggests that SC is particularly vital for "discursive restructuring", helping students handle high conceptual density through techniques like modulation and transposition.

The significant role of SC reinforces the conclusion that translation quality is highly dependent on the student's ability to operationalize their knowledge under task pressure. Through regression analysis, Xu and Guénier demonstrated that self-regulation is a stronger and more consistent predictor of competence than motivation alone [20]. In this study, students above the 2.85 threshold utilized SC as a link to turn metalinguistic insights into coherent output, whereas those lacking strategic mediation often experienced "translation loss". These findings underscore SC as a key mediating factor in translation performance, ensuring that reflective insights lead to functional results. These findings reinforce the distinction between language proficiency and translation competence. While linguistic competence provides the necessary resources for comprehension and reformulation, it does not, by itself, ensure successful translation performance. Translation competence emerges from the strategic regulation of linguistic resources under task-specific constraints, a dimension that extends beyond the explanatory scope of general second language acquisition theories.

6.4. Practical Pathways for Student Self-Development

From a learner-centered perspective, the 2.85 GPA threshold serves as a potential self-diagnostic tool that addresses the issue of cognitive overload. For students operating below this mark, the struggle with quality may be viewed as a result of occupied mental bandwidth rather than a lack of effort. Consequently, one possible pedagogical direction is to prioritize "linguistic automaticity" - strengthening basic L2 skills until they become reflexive. As Xu and Guénier suggest, understanding the limitations of working memory allows for better planning of learning environments, helping students avoid a "cognitive bottleneck" by reducing the load associated with surface-level decoding [20].

Beyond reaching this threshold, learners are encouraged to transition from lower levels of strategic engagement toward more active self-monitoring of their work. Xiao and Zeng advocate for a shift toward explicitly cultivating self-regulation skills, embedding cognitive and metacognitive training into the curriculum to foster self-directed professional habits [19]. Rather than treating metalinguistic awareness as an abstract theory, students may benefit from learning to use metalinguistic awareness as a deliberate tool for real-time problem-solving, as suggested in research on self-regulated learning and cognitive load management ([20], [21]). By encouraging synergy between theoretical knowledge and strategic application, educators can help students evolve into strategic translators capable of handling the sophisticated demands of the professional world.

7. Conclusion

This study examined how metalinguistic awareness contributes to translation competence through the mediating role of strategic competence and under different levels of L2 proficiency. The findings indicate that the conversion of linguistic reflection into strategic behavior is conditional rather than uniform. In the present sample, a GPA of 2.85 represented the Johnson–Neyman transition point above which Metalinguistic Awareness significantly predicted Strategic Competence; this value should not be interpreted as a universal proficiency benchmark. Below this point, lower-level decoding demands may consume a substantial proportion of working-memory resources, whereas greater linguistic automaticity above it appears to permit more effective strategic monitoring and problem-solving. Overall, the results suggest that translation competence emerges from the coordinated operation of linguistic awareness, strategic regulation, and proficiency. This process-oriented conclusion is compatible with recent JST-UD evidence that translation quality depends not only on formal correspondence but also on semantic, pragmatic, cultural, and reader-oriented appropriateness [22].

Several limitations should be acknowledged when interpreting these findings. First, L2 proficiency was represented by cumulative GPA, which may not fully capture learners' actual language ability because academic performance is also shaped by assessment formats, learning conditions, and motivational factors. Second, the study relied on a single controlled English–Vietnamese source text, so the observed mediation pathway may vary across genres and translation-problem types. This limitation is particularly relevant because recent JST-UD research on literary translation shows that culture-bound and linguistically resistant items can elicit heterogeneous strategies, including transference, retention, omission, and neutralization [23]. Finally, the cross-sectional design does not permit causal inference or observation of developmental changes in strategic behavior over time.

Future studies could address these limitations by incorporating standardized proficiency measures, such as IELTS or TOEFL, and by using longitudinal or experimental designs across technical, academic, literary, and creative translation tasks. Further research should also examine how AI-supported translation tools alter the allocation of cognitive effort and the operation of strategic competence. Recent classroom evidence from English–Vietnamese translation at UD-UFLS indicates that Google Translate may reduce some technical errors relative to online dictionaries, while discourse- and register-related problems persist and both forms of support require critical post-editing [24]. Accordingly, future work should test whether AI tools genuinely offload lower-level processing and release cognitive resources for strategic regulation, or instead introduce additional verification and monitoring demands. Such investigations would refine the present conditional-process account and provide stronger pedagogical guidance for translator education in Vietnamese higher education.

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