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Thinking in Silence: Cognitive Pauses and Their Role in Second Language Sentence Planning

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Abstract: Silent pauses are a frequent feature of second language speech, yet they are often interpreted as signs of low fluency. This study examines silent pauses from a psycholinguistic perspective by focusing on their role in second language sentence planning. Using a qualitative design, the study involved ten undergraduate EFL learners and collected data through oral sentence production tasks and stimulated recall interviews. Speech data were recorded and analyzed to identify silent pauses occurring before and during sentence production, while interview data were used to explore learners' cognitive processes during these pauses. The findings show that silent pauses function as cognitive resources that support conceptual planning, lexical retrieval, and syntactic organization. Learners used silence deliberately to manage cognitive load and maintain accuracy, although these pauses were often perceived negatively due to pressure to speak fluently. The study reinforces staged models of speech production and challenges narrow definitions of fluency by highlighting silence as an integral part of second language processing. Pedagogically, the findings emphasize the importance of providing thinking time to support more accurate and complex language use.

Keywords: silent pauses, sentence planning, psycholinguistics, second language production, EFL learners

INTRODUCTION

In second language production, learners rarely speak without hesitation. Silence often appears before a sentence begins, between clauses, or right before a key word. In many classrooms, these silent moments are treated as signs of poor fluency or limited proficiency (Bao, 2019). Teachers may interrupt, reformulate, or push learners to continue speaking faster. However, from a psycholinguistic perspective, silence is not empty. It reflects active mental work that supports sentence planning in a second language (Shcherbak & Potienko, 2021).

Psycholinguistics explains language production as a staged process (Jafarova, 2025). Speakers first generate ideas, then convert them into linguistic form, and finally articulate them. For second language learners, this process requires greater cognitive effort than for native speakers. Conceptualization, lexical retrieval, and syntactic encoding often compete for limited cognitive resources. As a result, learners need time to manage these processes. Silent pauses frequently emerge during this planning stage. They function as cognitive spaces where learners organize meaning before speech (Hudson Kam & Eigsti, 2003).

Despite their importance, silent pauses remain understudied. Many previous studies focus on fluency through measurable features such as speech rate, filled pauses, or repair frequency. These studies often rely on quantitative timing analysis and treat silence as a deficiency. Such an approach overlooks the internal cognitive role of silence. It measures what is audible but ignores what happens mentally during speech planning. As a result, silence is described as absence rather than activity.

Research on second language fluency has also prioritized performance outcomes. Accuracy, speed, and smoothness dominate evaluation criteria. This focus shapes how learners view their own speech. Many learners believe that speaking well means speaking fast. They associate silence with failure, anxiety, or lack of knowledge. However, this belief conflicts with psycholinguistic evidence showing that planning time supports more accurate and meaningful output. When learners rush production, they often sacrifice grammatical structure or clarity of meaning.

Ding and Yan (2023) examine studies on first language production suggest that silent pauses play a functional role in sentence planning. Speakers pause to select concepts, retrieve words, and organize syntax. In second language contexts, these processes become more demanding. Lexical access is slower. Grammatical rules are less automated. Monitoring processes are stronger. All these factors increase the need

for cognitive pauses. Yet, second language research has rarely explored how learners themselves experience and use silence during planning (de Jong et al., 2013).

Another limitation in existing literature lies in methodology. Many studies rely solely on speech recordings and temporal measurements. While such data show where pauses occur, they do not explain why they occur. Without access to learners' thoughts, interpretations remain speculative. Qualitative approaches such as stimulated recall and reflective interviews offer a way to explore the mental processes behind silence. These methods allow learners to explain what they were thinking during pauses. They reveal silence as a window into cognition rather than a breakdown in communication.

In classroom settings, the neglect of cognitive pauses has pedagogical consequences. Teachers often equate fluency with continuous speech. Tasks emphasize speed and spontaneity. Learners receive little encouragement to pause and plan. This pressure can increase anxiety and cognitive overload. It may also discourage learners from producing complex sentences. Understanding silence as a planning strategy can shift teaching practices. It can legitimize thinking time and support deeper language processing.

The present study addresses these gaps by examining silent pauses as cognitive tools in second language sentence planning. Rather than measuring silence as a temporal variable, this study explores its psycholinguistic function. It focuses on how silent pauses relate to conceptual planning, lexical search, and syntactic organization. It also examines learners' awareness of silence and how they interpret their own pauses during speech.

This study adopts a qualitative approach to capture the complexity of internal processing. By combining oral production tasks with stimulated recall interviews, the research connects observable pauses with learners' reported thoughts. This design allows for a more nuanced understanding of silence. It treats learners as active agents who use pauses strategically to manage cognitive demands.

The objectives of this study are threefold. First, it aims to identify patterns of silent pauses during second language sentence production. Second, it seeks to explain the cognitive processes associated with these pauses. Third, it explores learners' perceptions of silence as part of their speaking experience. These objectives lead to the following research questions: What types of silent pauses occur during second language sentence planning? What cognitive activities take place during these pauses? How do learners perceive the role of silence in their speech production?

By addressing these questions, the study contributes to psycholinguistic theory and language pedagogy. Theoretically, it supports models of language production that emphasize planning stages and limited cognitive resources. It extends these models to second language contexts by highlighting the functional role of silence. Pedagogically, it challenges narrow definitions of fluency. It suggests that silence should be viewed as evidence of thinking, not weakness.

In conclusion, silence in second language speech is not merely a gap between words. It is a cognitive space where meaning takes shape. Ignoring this space limits our understanding of how learners plan sentences and manage linguistic complexity. By examining thinking in silence, this study seeks to reframe pauses as an essential part of second language production rather than an obstacle to fluency.

METHODOLOGY

This study adopted a qualitative psycholinguistic design to explore the role of silent pauses in second language sentence planning. The focus of the research was not on measuring fluency in numerical terms, but on understanding the cognitive processes that occur during moments of silence. A qualitative approach was considered appropriate because sentence planning involves internal mental activity that cannot be directly observed through speech output alone (Creswell, 2013).

The study involved ten undergraduate students from an English Education program at a university in Indonesia. All participants were EFL learners who had completed fundamental speaking and grammar courses. Their language proficiency ranged from intermediate to upper-intermediate based on institutional assessment. The participants shared relatively similar academic backgrounds to reduce variation caused by unequal exposure to English instruction. To ensure ethical research practice, all participants were informed about the purpose of the study and agreed to participate voluntarily. Pseudonyms were used in all transcripts and analyses.

Data collection was conducted in two main stages. The first stage consisted of an oral sentence production task. Participants were asked to perform short speaking tasks, including describing visual stimuli and responding to open-ended questions in English. These tasks were designed to prompt spontaneous sentence construction rather than rehearsed speech. Each participant completed the task individually in a quiet setting to allow natural speech planning without interruption. All speech productions were audio recorded to ensure accurate transcription and analysis.

Silent pauses were operationally defined as periods of silence lasting at least 0.5 seconds with no vocal output. This duration was chosen to differentiate cognitive pauses from normal breathing or minor hesitations.

The recorded data were transcribed verbatim, and all silent pauses were marked in the transcripts. The location of pauses was carefully noted, including pauses occurring before sentence initiation, within clauses, and at syntactic boundaries. This allowed the researcher to examine how pause placement related to different stages of sentence planning.

The second stage of data collection involved stimulated recall interviews. After completing the speaking tasks, participants listened to selected excerpts from their own recordings. These excerpts contained notable silent pauses identified during transcription. Participants were then asked to explain what they were thinking during those moments of silence. The interviews were semi-structured to allow participants to describe their cognitive processes freely while still addressing the research focus. All interviews were audio recorded and later transcribed for analysis.

Data analysis followed a thematic approach. Speech transcripts and interview data were analyzed iteratively to identify recurring patterns related to the function of silent pauses. Initial coding focused on linking pauses to cognitive activities such as conceptual planning, lexical search, and syntactic organization. These codes were then refined into broader themes that represented the psycholinguistic roles of silence in sentence planning. To enhance credibility, data from speech production and stimulated recall were triangulated. This process ensured that interpretations of silent pauses were supported by both observable behavior and participants' reported cognitive experiences.

FINDING AND DISCCUSION

Finding

The analysis of oral production data and stimulated recall interviews reveals that silent pauses play a systematic role in second language sentence planning. Across participants, silence consistently appeared at moments of high cognitive demand. These pauses were not random interruptions but reflected deliberate mental activity related to idea formation, lexical retrieval, and grammatical organization.

Silent pauses frequently occurred before participants initiated a sentence. In these moments, learners reported that they were deciding what idea to express and how to frame it in English. Several participants explained that they first organized the message conceptually before attempting linguistic expression. This planning often involved thinking in the first language, followed by a mental shift to English. Participants stated that speaking without this silent moment often led to unclear or fragmented sentences. This indicates that silence at sentence onset functions as a conceptual planning phase rather than a sign of communicative breakdown.

Pauses also appeared within sentences, particularly before content words that carried significant meaning. During stimulated recall sessions, participants consistently associated these pauses with lexical search. Learners reported knowing the intended meaning but needing time to retrieve the appropriate English word. In some cases, they paused to evaluate multiple lexical options. In other cases, they avoided words they felt unsure about. Silence provided learners with time to manage lexical uncertainty and prevent errors. Participants viewed these pauses as necessary to maintain accuracy and clarity, even if it disrupted speech flow.

Another recurring pattern involved silent pauses before grammatically complex structures. These pauses were common before tense selection, subject–verb agreement, and clause expansion. Participants reported consciously thinking about grammatical rules during these moments. They often hesitated to ensure that the sentence structure matched the intended meaning. This finding suggests that grammatical encoding in second language production remains effortful and requires deliberate planning. Silence allowed learners to reduce the risk of syntactic errors.

Participants also demonstrated awareness of their own silent pauses. Many described silence as a thinking space rather than an absence of speech. However, several participants expressed negative feelings toward pausing. They associated silence with nervousness, fear of judgment, or perceived lack of fluency. Despite this perception, they acknowledged that pausing helped them speak more accurately. This tension between cognitive necessity and social pressure highlights the complex role of silence in second language communication.

Discussion

1. Silent Pauses as Evidence of Conceptual Planning

The findings demonstrate that silent pauses frequently occur at points where learners engage in conceptual planning. This supports psycholinguistic models of speech production that view conceptualization as a distinct stage preceding linguistic formulation. For second language learners, this stage requires greater cognitive effort due to limited automatization. Silence provides learners with the time needed to organize meaning before encoding it linguistically.

The use of the first language during conceptual planning further supports this interpretation. Learners often reported forming ideas in their L1 before translating them into English (Bollegala Arachchige, 2025).This aligns with research suggesting that conceptual processing in L2 production often remains language independent. Silence therefore functions as a transitional space where ideas move from conceptual intent to linguistic form. Rather than signaling hesitation, silence reflects active message construction.

This finding challenges classroom assumptions that equate fluency with immediate response. If learners are denied time for conceptual planning, they may produce shorter, simpler sentences or avoid complex ideas. Recognizing silence as part of conceptual planning encourages a broader understanding of fluency that includes cognitive depth, not only speed.

2. Lexical Retrieval and Cognitive Load

The findings also highlight the role of silent pauses in lexical retrieval. Lexical access in a second language is slower and less automatic than in a first language. Learners must search memory, evaluate word appropriateness, and monitor accuracy simultaneously. Silent pauses allow learners to manage this cognitive load.

Participants described using silence strategically to prevent lexical errors. This behavior reflects controlled processing rather than deficiency. From a psycholinguistic perspective, such pauses indicate that learners are actively monitoring output quality (Zhao, 2024). This supports theories that emphasize the role of attention and working memory in second language production. Silence acts as a buffer that reduces processing pressure and supports accurate word selection (Al-Najdi et al., 2025).

These results suggest that frequent lexical pauses should not be interpreted as lack of vocabulary alone. They also indicate strategic decision making. Learners choose accuracy over speed. This finding calls for assessment practices that value lexical precision and communicative intent rather than uninterrupted speech.

3. Syntactic Encoding and the Redefinition of Fluency

The presence of silent pauses before complex grammatical structures reveals that syntactic encoding remains a demanding process in second language production. Unlike native speakers, second language learners often rely on explicit knowledge when forming sentences. This leads to increased planning time and conscious rule application. Silent pauses mark these moments of syntactic decision making.

Participants' negative perceptions of silence reflect social and instructional pressure. Many learners believed that fluent speakers should not pause. This belief conflicts with the cognitive reality of language processing. The findings suggest a need to redefine fluency as a balance between flow and accuracy. Silence should be understood as part of effective communication rather than a failure to speak.

Pedagogically, these insights support the inclusion of thinking time in speaking activities. Teachers can normalize silence as part of learning. By doing so, they reduce anxiety and encourage more complex language use. From a theoretical standpoint, the study reinforces psycholinguistic models that view speech production as a resource limited process. Silence emerges as a necessary mechanism that allows learners to manage these limitations..

CONCLUSION

This study examined the role of silent pauses in second language sentence planning from a psycholinguistic perspective. The findings demonstrate that silence in L2 speech is not an empty or meaningless gap. It represents active cognitive processing that supports successful language production. Silent pauses function as mental spaces where learners plan ideas, search for appropriate vocabulary, and organize grammatical structure.

The study shows that learners rely on silence to manage the high cognitive demands of second language production. Conceptual planning often occurs before speech begins, while lexical and syntactic decisions take place during sentence construction. These processes require time and attention, especially when linguistic knowledge is not fully automatized. Silent pauses allow learners to maintain accuracy and clarity under cognitive pressure. Although learners often perceive silence as a sign of weakness or lack of fluency, the data reveal that it contributes positively to speech quality. From a theoretical perspective, this study supports psycholinguistic models that emphasize staged processing in speech production. It extends these models to second language contexts by highlighting the functional role of silence in planning and monitoring. Silence emerges as a cognitive resource rather than a communicative breakdown. This challenges narrow definitions of fluency that focus only on speed and continuity.

Pedagogically, the findings suggest important implications for second language teaching. Teachers should recognize silence as part of learning and provide learners with sufficient thinking time during speaking tasks. Assessment practices should also consider cognitive processing, not only surface fluency. Allowing learners to pause may encourage more complex and accurate language use while reducing anxiety. Despite

its contributions, this study has limitations. The number of participants was limited, and the focus was restricted to oral sentence production. Future research could examine silent pauses in different proficiency levels, task types, or learning contexts. Longitudinal studies may also explore how the role of silence changes as learners gain fluency.

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