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## Bilinguals Infer in L2 Similarly, but not in Dual-language

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#### **Abstract**

Inference-making is a complex mental process as it involves retrieving prior knowledge and active meaning-making, appropriate for exploring processing automaticity vs. difficulty in different languages. People are prone to falsely recognizing sentences that represent the inferences they made due to gist encoding. To examine whether this process differs for L1 and L2, we presented forty-eight Turkish-English bilingual participants in Turkish, English, and dual-language sentence groups that allowed them to configure objects mentally and draw spatial inferences. Inferred sentences were recognized significantly more than new sentences. We observed this in L1 and L2, but not the dual-language condition. Higher L2 proficiency and lower executive functioning abilities were related to higher false recognition. These results are aligned with the bilingual memory organization, suggesting L2 approaches L1 automaticity with increased proficiency. Lower EF participants might prefer less effortful strategies to process information, such as averaging, abstracting, inferring, and gist extracting.