## Does future time reference framing increase temporal discounting? Evidence from English monolinguals

The linguistic-savings hypothesis (LSH) proposed by M. Keith Chen (2013) posits that the obligatory grammatical marking of the future tense in a language causes its speakers to perceive the future as more distant, leading to higher levels of temporal discounting. Consistent with this hypothesis, Chen (2013) shows that speakers of languages that require the use of the future tense (i.e., strong future-time-reference [s-FTR] languages, such as English and Spanish) exhibit less patience in future-oriented behaviors compared to speakers of "futureless" languages that do not require the use of the future tense (i.e., weak future-time-reference [w-FTR] languages, such as Chinese and German). Since its publication, Chen's study has garnered over 1,000 citations (according to Google Scholar as of November 2024), underscoring its impact across economics and related fields.

Despite growing support for the linguistic-savings hypothesis (LSH), direct causal evidence remains limited. Recent research has investigated whether future time reference framing affects intertemporal decision-making, particularly in languages with weak futuretime-reference (w-FTR) distinctions, though these studies have largely yielded null results.

One critique of these null results is that speakers of w-FTR languages may be insensitive to the subtle language framing intended to prime distinctions between present and future, unlike speakers of strong future-time-reference (s-FTR) languages. To address this gap, the presentstudy re-examines the framing effect within English, an s-FTR language, using a sample of nearly 600 monolingual participants. Consistent with previous findings, the results provide noevidence supporting the LSH in the context of future time reference framing.

Authors: Associate Professor, Department of Economics, National Taiwan University Josie I Chen