Slide 1:

I am going to present an experimental study on reference production in spoken Mandarin to investigate how bilingual experience may reshape the use of one’s native language.

Slide 2:

This presentation is divided into two parts. I will first provide an overview on the background information and then move on to present the current study.

Slide 3:

Our study examines the syntax–pragmatics interface in referential choice, focusing on the use of null pronouns, overt pronouns, and full noun phrases in pro-drop languages.

Because the use of full noun phrases is fairly consistent across languages, I’ll begin by discussing the distribution of null versus overt pronouns in pro‑drop systems.

CLICK TO SHOW EXAMPLES

We compare two types of pro-drop languages depending on their morphological complexity. In morphologically complex pro-drop languages like Spanish, verbs and pronouns encode features such as person, number, gender, and case. In this example, the verb in the Spanish word, *salió* carries third-person singular past tense marking, while the overt pronoun in the Spanish word *él* adds masculine gender. When the referent is already clear, using an overt pronoun becomes redundant.

In contrast, Mandarin is considered a radical pro-drop language with almost no person, number or case marking on verbs. Its third-person singular pronoun "ta" does not even distinguish gender in spoken form. So, both subject and object can be dropped freely whenever the referent can be inferred from context.

Slide 4:

How do speakers of those pro-drop languages choose between null and overt pronouns when referring? I will compare their usage across Mandarin, Italian, and Spanish.

CLICK TO SHOW THE 1ST POINT

When there is only one referent in the discourse, both pronoun forms are acceptable in all 3 languages to refer back to the single referent.

Slide 5:

When two possible referents are present, as shown in this example, the mother and the girl,

The preference for whether a pronoun picks out the subject or the object differs across languages.

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To visualise this, I plot each language on a spectrum from subject bias to object bias.

Null pronouns are consistently used to refer to the subject referent, which is more prominent. In terms of overt pronouns, Mandarin still shows a strong subject bias, similar to English pronouns. Italian overt pronouns show a strong object bias, favouring object referents, whereas Spanish kind of falls in between.

Basically, overt pronouns in Italian and Spanish are less subject-biased than Mandarin overt pronouns.

Notably, these biases are tendencies, not absolute rules. there is individual variation within each language.

Slide 6:

Previous research suggests that bilingual experience may influence native speakers’ choice of referring expressions.

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A well‑documented phenomenon is bilingual over‑explicitness, which shows that L1 speakers of pro-drop languages immersed in an L2 environment tend to use more overt pronouns and full NPs, compared to more-monolingual speakers.

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This tendency towards more explicit forms is treated as an overt sign of L1 attrition, which reflects changes in their referential preferences and processing strategies in their native language.

However, it is important to note that not every bilingual speaker shows the same degree of over‑explicitness, which suggests that individual variability in language proficiency, language use, and cognitive profiles may play a role.

But today’s study focuses more on the group‑level tendency rather than fine‑grained differences across individuals..

Slide 7:

Since the two languages in a bilingual speaker’s mind can influence each other,

crosslinguistic influence from a newly learned L2 to a fully acquired L1 is considered a key factor driving L1 attrition-related changes.

Slide 8:

For example, in our previous study, we examined the effects of attrition on reference in spoken Mandarin, an area that remains underexplored in the existing literature. Specifically, we investigated how L1 Mandarin L2 English bilinguals in the UK chose referring expressions in Mandarin and whether they would show a tendency towards greater explicitness.

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Using a Picture Naming Task, we manipulated discourse context to elicit either reference continuity or reference shift.

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In the continuity context, participants first saw a picture with an accompanying audio sentence, in this given example, the Chinese sentence says “Little Purple greeted Little Red.”

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Participants repeated this sentence, then continue to describe the next image. In this case, they were expected to continue the story by referring to the subject character, either by repeating her name, using a pronoun, or simply omitting the subject, as Mandarin allows.

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In the shift context, the procedure was the same, but the target image required them to refer to the non-subject referent instead.

Slide 9:

We also included a control condition with just one character in both images, so there was no ambiguity as to reference.

Slide 10:

**Step 1:**

I will begin by presenting participants’ production data in the two-character condition, when participants referred to the subject character.

On the x-axis are three types of referring expressions: null pronouns, overt pronouns, and full NPs.

The y-axis shows the proportion of each type produced.

We compare production across three groups:

a Control group of more-monolingual Mandarin speakers in China. Two experimental groups of L1 Mandarin L2 English bilinguals living in the UK with varying durations of residence.

I will show the results of three groups one by one.

CLICK TO SHOW NEXT POINT

**Step 2:**

Here is the result of the Control group. Each dot is one participant’s data; the red diamond represents the posterior mean of the model, with 95% credible intervals as error bars.

Within the Control group, participants preferred full NPs over pronouns when referring to the subject character. There was no reliable difference between null and overt pronouns, indicating both forms are relatively equally acceptable in this context.

**Step 3:**

Bilinguals in the Short-Term English Exposure group also used more NPs, which did not differ from the control group. However, they showed a different preference within the pronoun category, reliably producing more overt pronouns than null pronouns, compared to the control group.

CLICK TO SHOW NEXT POINT

**Step 4:**

Speakers in the Long-Term English Exposure Group also maintained a clear NP preference.

Again, they used more overt pronouns than null pronouns, relative to the control speakers.

**Step 5:**

When comparing the two bilingual groups, there was no reliable difference between two pronoun types. However, the long‑term group showed a stronger preference for NPs over overt pronouns than the short‑term group, suggesting that extended L2 immersion may amplify a shift toward full NP use relative to pronouns.

Slide 11: When referring to non-subject referents, all groups relied almost exclusively on full noun phrases, with pronouns used rarely.

Slide 12:

Moving to the one-character condition,

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Control speakers rarely used NPs.

Instead, they freely alternated between null and overt pronouns, with individual speakers showing their own preferences.

CLICK TO SHOW NEXT POINT

In contrast, the two bilingual groups showed a clear preference for overt pronouns, compared to the control group.

Slide 13:

In summary, these findings suggest that bilingual experience appears to push speakers toward greater explicitness in how they refer to referents. This is clearer in their overuse of overt pronouns.

This tendency may possibly be attributed to the influence from their L2, which requires overt subjects.

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However, similar over‑explicitness has been documented in child bilinguals and L2 learners of two null‑subject languages (e.g., Spanish–Italian), suggesting a broader bilingual tendency.

Therefore, it requires further investigation on how L2 experience reshapes a supposedly “fully acquired” L1.

Slide 14:

To isolate the role of crosslinguistic influence from other factors, we conducted a follow-up study to examine whether speakers with more exposure to *two typologically different pro-drop languages* would still show an increased usage of overt pronouns in their L1 Mandarin Chinese.

Slide 15:

We predict that If Mandarin speakers are experiencing L1 attrition under Italian or Spanish influence, they would be likely to use null pronouns more often when referring to subjects.

Slide 16:

We recruited three groups of participants: a control of more-monolingual speakers based in China, and two experimental groups of native Chinese speakers residing in Italy or Spain, with varying amounts of Italian or Spanish exposure.

Our initial intention was to recruit participants with minimal exposure to English, whose primary L2 was Italian or Spanish; however, finding such participants proved impossible due to the pervasiveness of English experience in Chinese speakers living outside of China.

Speakers in the experimental groups therefore have English as their L2 and Italian or Spanish as an L3. But, their exposure to English at the time of participation in our study was limited compared to their Italian or Spanish exposure.

Slide 17:

All participants complete the same picture naming task. We also collected data on participants’ use of these languages using a self-reported questionnaire and verified that our multilingual groups used more Italian/Spanish than the control group in China.

Slide 18:

We analyzed participants’ reference production in the same way as in the previous study.

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In the two‑character condition, all three groups favoured full noun phrases over pronouns for subject referents, with no reliable difference across groups.

Moreover, both multilingual groups again showed a clear bias toward overt pronouns over null pronouns compared to controls, replicating the pattern observed in our L1 Mandarin L2 English bilingual speakers.

Slide 19:

There were no group differences when referring to the non-subject referent.

Slide 20:

Turning to the one‑character condition, both multilingual groups again favoured overt pronoun over null pronouns compared to controls, with no reliable difference between the two multilingual groups.

This pattern also mirrors the results from our L1 Mandarin L2 English bilingual speakers.