## Gestures for teaching morphology: A sociocognitive approach to examining learning in classroom focused encounters

Teachers instinctively use varied semiotic resources such as speech, gesture, proxemics, gaze, and facial expressions when teaching another language. From a sociocognitive perspective, teachers' embodied actions are useful pedagogical resources because they can make nuanced, abstract information visible to learners in their immediate environment, facilitating both intersubjectivity and interaffectivity. Although previous research has found that teachers infrequently produce gestures while teaching topics related to grammatical target features, such research focused on the learning of English, a non-pro-drop language that does not morphologically encode subject. Thus, the present study examines the interactional function(s) of morphologically associated teacher gestures related to the teaching and learning of Spanish, a pro-drop language wherein subject, time, and aspect are encoded into word-final morphemes. Using IRB-approved, empirical video data we collected, we use multimodal interaction analysis to microgenetically examine the gestures a postsecondary teacher produced as he engaged in several Focused Encounters (FEs) throughout a seventy-five minute intermediate L2 Spanish class. Given the class' focus on using the preterit and imperfect, the FEs primarily consisted of teacher-initiated clarification requests related to subject, time, and aspect. During these FEs, the teacher's gestures recurrently accompanied the verb endings he uttered, serving as important visual resources available for his students to use to pinpoint the source of interactional trouble related to their conjugations. For example, the teacher often used deictic gestures to visually specify and clarify the subject(s) he was indexing through morphological inflection. In sum, our video data, along with a post-hoc, semi-structured interview with the teacher, illustrates how teacher gestures can serve as useful resources in learners' mind-body-world environments, helping them triangulate information available in varied modes to connect morphological form with meaning.

## **NEW VERSION (July 12)**

## A Multimodal Interaction Analysis of a Postsecondary L2 Spanish Teacher's Morphologically Associated Gestures During Focused Encounters

Keywords: multimodality, sociocognitive theory, gestures, morphology, microgenesis

Teachers instinctively use varied semiotic resources such as speech, gesture, proxemics, gaze, facial expressions to teach their students (Atkinson & Shvidko, 2019). From a sociocognitive perspective (Atkinson et al., 2024), teachers' embodied actions are useful pedagogical resources because they can make nuanced, abstract information visible to learners in their immediate environment, facilitating intersubjectivity and interaffectivity. Although previous research has found that teachers infrequently produce gestures while teaching topics related to morphology (e.g., Kamiya, 2012), such research focused on the learning of English, a non-pro-drop language which does not morphologically encode subject. Thus, the present study set out to study the interactional function(s) of morphologically associated teacher gestures related to the teaching and learning of Spanish, a pro-drop language wherein subject, time, and aspect are inferrable in word-final morphemes. Using empirical video data collected with IRB approval, this observational study uses multimodal interaction analysis (Atkinson et al., 2024) to microgenetically examine the gestures a postsecondary teacher produces as he engages in several Focused Encounters (FEs) throughout one of his seventy-five minute intermediate L2 Spanish classes. Given the class's focus on the preterite and imperfect, the FEs primarily consist of teacher-initiated clarification requests related to subject, time, and aspect. During these FEs, the gestures the teacher produced while uttering verb endings served as visible environmental resources his students used to pinpoint the source of interactional trouble related to their verb conjugations. For example, the teacher often used deictic gestures to visually specify and clarify the subject(s) to which he was referring through morphological inflection. our video data, along with a post-hoc, semi-structured interview with the teacher, illustrates how teacher gestures can serve as useful resources in learners' mind-body-world environments, helping them triangulate information available in varied modes to ultimately connect morphological form with intended meaning.

**Total word count: 300** 

are context-dependent, as their intended meanings are co-constructed moment-by-moment by interactors as they collaboratively align with their ecosocial environment (Atkinson et al., 2018). Using empirical video data collected with IRB approval, this observational study uses multimodal interaction analysis (Atkinson et al., 2024) to microgenetically examine a postsecondary L2 Spanish teacher's use of gesture in Focused Encounters (FEs; Happy Cactus Group, 2023) involving several students throughout one seventy-five minute class period. While the lesson in its totality covered a range of topics, the FEs in our analysis focus on the preterite and imperfect in Spanish, a pro-drop language wherein subject, tense, and aspect are encoded in

word-final morphemes. Thus, while previous studies reported low frequencies of gestures accompanying morphological FonF in non pro-drop languages (e.g., Kamiya, 2012), our analysis reflects different results. In the present study, the teacher-student(s) interactions primarily consist of teacher-initiated clarification requests, to which the students respond by relying on resources available in their mind-body-world environment—namely, on their teacher's gestures. The gestures the teacher co-produced while uttering word-final verb morphemes served as functional environmental resources students could rely on to better pinpoint the source of interactional trouble related to their verb conjugations. For example, the teacher used deictic gestures to physically and visually specify the subject(s) to which he was referring through morphological inflection. In sum, our video data, along with a supplementary post-hoc, semi-structured interview conducted with the teacher, illustrates how teacher gestures can serve as useful interactional resources ecosocially available to learners as they continuously align with their environment, triangulating information available in varied modes to ultimately connect form with meaning.

**Total Word Count: 295 Words** 

## **OLD VERSION**

Teachers instinctively use varied semiotic resources to interact with their students, including speech, gesture, proxemics, gaze, facial expressions, and beyond (Atkinson & Shvidko, 2019). From a sociocognitive perspective, such resources are context-dependent, their intended meanings co-constructed moment-by-moment by interactors as they collaboratively align with their ecosocial environment (Atkinson et al., 2018). Using empirical video data collected with IRB approval, this observational study uses multimodal interaction analysis (Atkinson et al., 2024) to microgenetically examine a postsecondary L2 Spanish teacher's use of gesture in Focused Encounters (FEs; Happy Cactus Group, 2023) involving several students throughout one seventy-five minute class period. While the lesson in its totality covered a range of topics. the FEs in our analysis focus on the preterite and imperfect in Spanish, a pro-drop language wherein subject, tense, and aspect are encoded in word-final morphemes. Thus, while previous studies reported low frequencies of gestures accompanying morphological FonF in non pro-drop languages (e.g., Kamiya, 2012), our analysis reflects different results. In the present study, the teacher-student(s) interactions primarily consist of teacher-initiated clarification requests, to which the students respond by relying on resources available in their mind-body-world environment—namely, on their teacher's gestures. The gestures the teacher co-produced while uttering word-final verb morphemes served as functional environmental resources students could rely on to better pinpoint the source of interactional trouble related to their verb conjugations. For example, the teacher used deictic gestures to physically and visually specify the subject(s) to which he was referring through morphological inflection. In sum, our video data, along with a supplementary post-hoc, semi-structured interview conducted with the teacher, illustrates how teacher gestures can serve as useful interactional resources ecosocially available to learners as they continuously align with their environment, triangulating information available in varied modes to ultimately connect form with meaning.