Studies of both first (L1) and second language (L2) acquisition have largely focused on the acquisition of form over meaning. Although comprehension studies indicate that language learners’ understanding is not always adult- or target-like, surprisingly little is known about the nature of the differences once forms are used in production. In this talk I will highlight what gestures can contribute to our understanding of what forms in use mean and of the development of linguistic meaning. Targeting the semantic domain of placement (e.g., put a cup on a table), I first demonstrate robust crosslinguistic differences in adult native speakers’ speech and gestures, highlighting that gestures about manual actions are modulated by language and do not necessarily imitate practical actions. Second, I show that gestures change in parallel with developing verb meaning in children and in adult L2 learners, providing details about learners’ current semantic representations. The studies support the notion that speech and gesture form an integrated system, partly decoupled from practical actions, where gestures can shed light on the process of acquisition by revealing semantic shifts. Crossmodal acquisition data have theoretical implications for the view of meaning in acquisition studies, for simplistic views of gestures as compensatory devices, and for models of speech-gesture production and coordination.