

Mandarin Ability Modals *hui* and *neng* in Innate Abilities and Learned Skills: An Experimental Study

Mandarin ability modals *hui* and *neng* are often treated as near equivalents of English *can* (Chao, 1968); however, they differ systematically in their semantic and syntactic distributions (Peng, 2007). Previous studies (e.g., Xu 1993, Fan 2014) have shown that the two modals differ in their sensitivity to innate/learned ability types, with *hui* typically associated with learned skills, while *neng* can express both learned skills and innate physiological abilities (able to eat, sleep). Within innate ability contexts, previous studies have discussed *hui* is preferred with species-typical abilities (birds can fly). To examine whether this compatibility extends to a broader range of innate abilities, this study also includes exceptional abilities (able to foresee earthquakes). Accordingly, a factorial-designed acceptability judgment experiment was conducted to systematically compare *hui* and *neng* across **learned skills** and two subtypes of innate ability: **exceptional** and **species-typical**.

46 native speakers rated 24 experimental items (12 of type (1a) and 6 each of types (1b) and (1c)) and 48 filler items on a 7-point scale in an online task. Acceptability ratings were analyzed using two linear mixed-effects models: an overall model with MODAL (*hui* vs. *neng*) and CONTEXT (innate ability vs. learned skill), and an innate ability only model with MODAL and INNATE ABILITY TYPE (exceptional vs. species-typical) as fixed effects. Both models included participants and items as random effects. Example items are shown in (1).

(1) a. *hui/neng* & learned skills

Xiaoxiazai chedui shou-guo zhiye xunlian, suoyi ta **hui/neng** kai saiche.
 PN at racing.team receive-EXP professional training so 3SG HUI/NENG drive race.car
 ‘Xiaoxia received professional training on a racing team, so he can drive race cars.’

b. *hui/neng* & species-typical innate abilities

Xialuote shenglai shi yi-zhi zhizhu, suoyi ta **hui/neng** zhi wang.
 PN born be one-CL spider so 3SG HUI/NENG weave web
 ‘Charlotte was born a spider, so he can spin webs.’

c. *hui/neng* & exceptional innate abilities

Xiaocui tiansheng gangan xitong yiyu changren, suoyi ta **hui/neng** yuzhi dizhen.
 PN born sensory system differ.from ordinary.person so 3SG HUI/NENG foresee earthquake
 ‘Xiaocui was born with a sensory system unlike ordinary people, so he can foresee earthquakes.’

Figure 1 shows mean acceptability ratings by MODAL and CONTEXT, and a significant interaction was observed between the two factors ($p = 0.023$). Figure 2 shows mean ratings within innate ability contexts only (exceptional vs. species-typical), and a significant interaction was also observed ($p = 0.026$). The findings show that 1) Across ability contexts, *hui* is more acceptable in learned skill

contexts and less acceptable in innate ability contexts, whereas *neng* shows little difference in acceptability across the two contexts; 2) Within innate ability contexts, *hui* is less acceptable for exceptional abilities than for species-typical abilities, whereas *neng* shows comparable acceptability across the two innate ability types. These findings indicate that Mandarin ability modals vary in acceptability across different types of abilities, with *hui* showing greater contextual restriction than *neng*, particularly in innate ability contexts.

