# Evidence for a Discourse Account of Manner-of-Speaking Islands

Dingyi Pan, Jiayi Lu, Judith Degen
Stanford University

Sentences like (1) with syntactic movement out of sentential complements of manner-of-speaking (MoS) verbs (e.g. “whisper”, “shout”) are degraded in acceptability (*MoS island effect)* [1,2]. The *Subjacency Account* attributes the MoS island effect to the violation of the subjacency condition, since the complements are assumed to be underlyingly complex-NPs as in (2) [2]. The *Verb-Frame Frequency Account* reduces the MoS island effect to the low corpus frequency of MoS verbs taking sentential complements [3,4]. The *Backgroundedness Account* explains the MoS island effect using a general information structural constraint that discourse backgrounded constituents cannot be extracted [5-7]. In three acceptability judgment experiments, we directly test whether the backgrounded status of MoS complements gives rise to the MoS island effect. Our results suggest a causal relationship between discourse backgroundedness and the MoS island effect. Neither the Subjacency nor the Frequency account predicts the observed effect.

**Exp. 1** tested whether the MoS island effect can be ameliorated by discourse foregrounding the MoS complement. Participants (n=94) read 36 2-sentence dialogs. In the first utterance, either the matrix verb (*Verb Focus* condition) or the object in the embedded clause (*Embedded Focus* condition) was capitalized and bolded, representing prosodic focus that either backgrounded or foregrounded the embedded object, respectively. The second utterance, identical in both focus conditions, contained wh-movement from within the MoS verb complement (example stimuli in Table 1). On each trial, participants either rated the acceptability of the second utterance on a slider or answered a 2AFC comprehension question probing the backgroundedness of the embedded object in the first utterance. Results of the comprehension question task suggest that the focus manipulation indeed changed the backgroundedness of the embedded object in the expected way. Critically, results of the acceptability rating task suggest that there was a significant effect of focus condition on acceptability ratings: acceptability was higher in the *Embedded Focus* than in the *Verb Focus* condition, suggesting that foregrounding the embedded object attenuates the MoS Island effect (Fig. 1A). A post-hoc analysis did not detect a significant effect of verb-frame frequency (as measured by Sentence Complement Ratio (SCR) scores [3,8]) or an interaction between frequency and focus condition (Fig. 1B).

**Exps. 2 and 3** used the same tasks as Exp. 1 but tested whether the MoS island effect can be replicated in sentences with the bridge verb “say” by adding lexical weight to the matrix predicate using manner adverbs [9]. The 2-sentence dialogs were similar to those in Exp. 1, but the matrix predicate in the first utterance was either the bridge verb, “say” (*Say* condition), or “say” modified by a manner adverb (*Say + Adv.* condition, example stimuli in Table 2). Participants (n=93) rated *Say+Adv.* sentences as less acceptable than *Say* sentences*,* suggesting the MoS island effect can be replicated even in sentences without MoS verbs by adding lexical weight to the matrix predicate (Fig. 1C). In Exp. 3, target sentences received a focus manipulation as in Exp. 1: Either the MoS adverb (*Adverb Focus* condition) or the embedded clause object (*Embedded Focus* condition) was capitalized and bolded, respectively (Table 1). Participants (n=94) rated *Embedded Focus* sentences as more acceptable than *Adverb Focus* sentences, suggesting that foregrounding the embedded content with the context sentence attenuates the MoS island effect with *say*+adv constructions (Fig. 1E). There was no significant effect of predicate-frame frequency in either experiment (Fig. 1D and 1F).

These results bear out two predictions of the Backgroundedness Account. First, the island effect is ameliorated by foregrounding an extracted element that is initially discourse backgrounded without altering syntactic structure (Exps. 1 and 3). Second, the MoS island effect can be created by backgrounding an extracted element that is initially in the foreground (Exp. 2). This implicates the discourse backgroundedness of the extracted elements, rather than structural properties, as the source of MoS island effects. The Frequency Account and the

Subjacency Account are challenged: neither account predicts that the MoS island effect should be attenuated by discourse context. Hence, the discourse status of the embedded constituents, which is either foregrounded by the focus manipulation or backgrounded due to the increase in the lexical weight of the matrix verb, affects the MoS island effect.

**References**: [1] Ross (1967) [2] Snyder (1992) [3] Kothari (2008) [4] Liu, Ryskin, Futrell & Gibson (2022) [5] Erteschik-Shir & Lappin (1979) [6] Ambridge & Goldberg (2008) [7] Goldberg (2013) [8] Richter & Chaves (2020) [9] Erteschik-Shir (2007)

(1) *Example of sentence with MoS island violation*
*Who$_i$ did John whisper that Mary met with t$_i$?
(2) *Underlying structure of sentence with MoS island violation (syntactic account [2]):*
*Who$_i$ did John whisper [NP (a whisper) [CP that Mary met with t$_i$]]?

Table 1. Example stimuli in Exps. 1 and 3.

| Condition | *Verb/Adverb* Focus | *Embedded* Focus |
|---|---|---|
| Context | Hanako said: John didn't **WHISPER**/say **SOFTLY** that Mary met with the lawyer. | Hanako said: John didn't whisper/say softly that Mary met with the **LAWYER**. |
| Target | Scott said: Then who did John whisper/say softly that Mary met with? | |

Table 2. Example stimuli in Exp. 2.

| Condition | *Say* | *Say + Adv* |
|---|---|---|
| Context | Hanako said: John didn't say that Mary met with the lawyer. | Hanako said: John didn't say softly that Mary met with the lawyer. |
| Target | Scott said: Then who did John say/say softly that Mary met with? | |

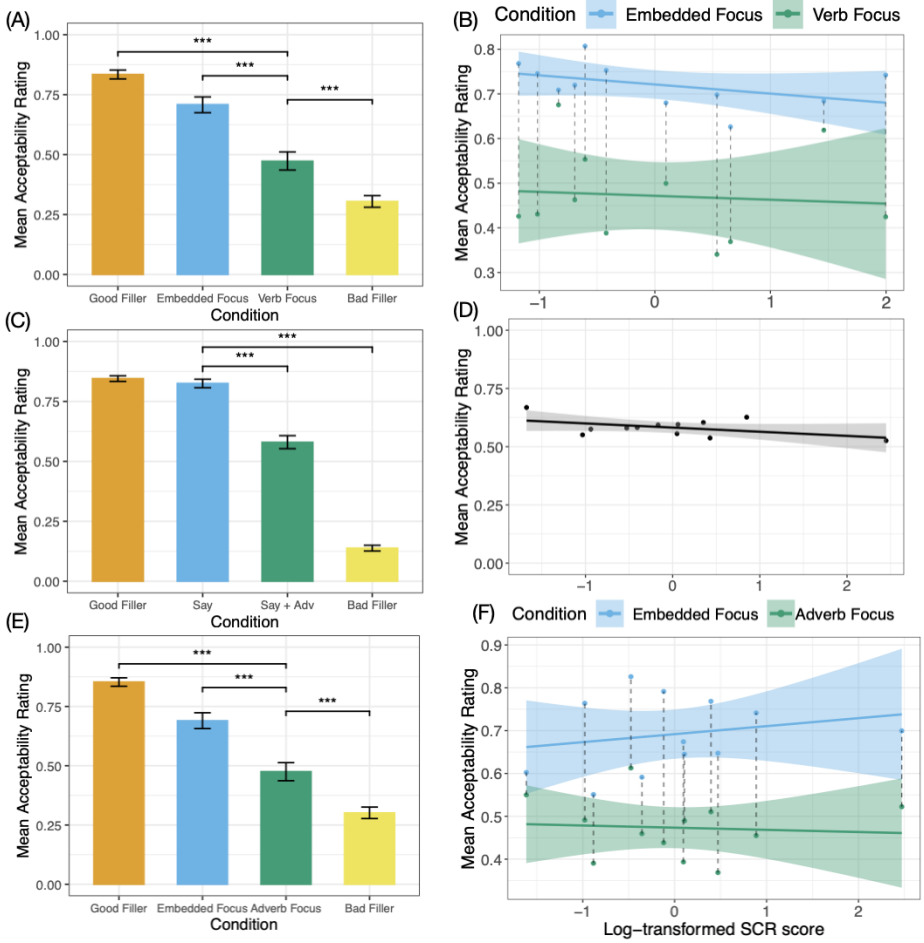


Fig. 1. Mean acceptability ratings by condition (left) and against the SCR score (right) in Exp. 1 (A, D), Exp. 2 (B, E), and Exp. 3 (C, F). Each dot in the SCR plots represents a verb or a *say*+adv construction. The dot connected by the dashed line in (B) and (F) represent the same verb/*say*+adv construction in the two focus conditions.