1. INTRODUCTION

- **English** (non-verbs): moraic trochees built R-L + final syllable extrametricality [1]; see (1a)
  - Binary feet also regulate minimal word size: no sub-minimal (CV$_n$) lexical words, and truncation, including hypocorization, _never_ results in monomoraic forms (1b)

  (1) English
  
  I. English
  
  | (a) sub-minimal words freely tolerated (2b); 
  | truncation/hypocorization can yield sub-minimal forms [3], [4] (2c)
  | Since lexical words must contain a binary foot to be well-formed [5], this, coupled with the absence of word-level stress, has led to proposal that French is _footless_ [6]

- **French**: stress obligatory at right edge of phrase, not word [2] (2a)
  - Sub-minimal lexical words freely tolerated (2b);
  - truncated/hypocorization can yield sub-minimal forms [3], [4] (2c)

- **Portuguese** (non-verbs): looks like English, aside from extrametricality: moraic trochees built R-L (3a)
  - But: (i) Portuguese has a number of subminimal words (3b); and word-minimality can be violated in vowel fusion and hypocorization (3c).
  - The patterns found in the language _cannot_ be accounted by a single foot type: trochees [7], trochees and iambs [8], or trochees and dactyls [9] have been proposed

- **Proposal**: You can have stress without feet
  - Evidence from _violations of word-minimality_ and _indeterminacy of foot types_ challenges the presence of the foot in Portuguese, in contrast to in English
  - We experimentally show that a third difference seals the fate for the foot in English and against the foot in Portuguese: antepenultimate weight effects

2. WEIGHT EFFECTS IN ANTEPENULTIMATE (APU) SYLLABLES

- **APU stress in 12% of Portuguese non-verbs ~ exceptional extrametricality: [pa] (tr + ti) (koj) _pathetic_**

- **If Portuguese builds feet: should not find **HLL > LLL**

- **Why?** Because weight effects are problematic in APU position: marked metrical structure unavoidsable
  - HLL → (HLL)(L) (uneven trochee) or **HLL → (HLL)(L)** (medial unfooted syllable)

- **If Portuguese does NOT build feet, weight-sensitivity should not be blocked in APU**

3. METHODS

- **Experimental design**: Two forced-choice tasks involving nonce words
  - Native speakers of Brazilian Portuguese (n = 27) and North American English (n = 13)
  - Pairs of nonce words differing only in stress location: n = 240 (Portuguese), n = 180 (English)
  - Three _weight profiles_: LHL, HLL, LLL

- **Portuguese stimuli**: [gu.pla.ro] (LLL) [bron.da.le] (HLL) [bo.gren.da] (LHL)
  - English stimuli: [kr.mer.so] (LLL) [lm.sc.ko] (HLL) [tc.prp.ko] (LHL)

- **Participants**: Were asked to choose which version of each minimal pair sounded more natural to them
  - Data modelled with hierarchical logistic regressions using Stan in R:
    - response ~ weight + (1 + weight | speaker) + (1 | word)
    - (by-speaker random effects (weight) and intercept, and by-word random intercept)

4. RESULTS AND ANALYSIS

- **English weight effects**: HLL ~ LLL

- **Portuguese weight effects**: HLL > LLL

- **Positive distributions → preference for APU stress relative to baseline (intercept = LLL)**

- **English**: LHL distribution centered around zero ~ not statistically different from LLL

- **Portuguese**: HLL distribution positive ~ LHL favors APU stress (more so than LLL)

5. DISCUSSION AND CONCLUSION

- **The results above expand on weight effects exhibited in (3a): H syllables more likely to attract stress in antepenultimate position as well as penultimate and final positions in Portuguese**
  - _English_, no weight effects detected in antepenultimate position

- **This is predictable if feet play no role in Portuguese, but do play a role in English**
  - _Portuguese_: Weight effects not regulated by footing; predicts subminimal words
  - _English_: Weight effects regulated by moraic trochees + (1) weight predicts **non** subminimal words

- **In conclusion**, despite similarities in their stress patterns, Portuguese and English are fundamentally different: whereas English builds feet, Portuguese does not

- **In this way, Portuguese is more like French than it is like English**

REFERENCES