Introduction & Background

Main Questions
- What role do lexical items (in particular, verbs) play in composing an event interpretation?
- What are the processing correlates of event interpretation?

Current Study
- Can we use the processing correlates of event interpretation to inform our understanding of the linguistic primitives used to interpret events?

Background
- Telicity, a component of event interpretation (a.k.a. inner aspect, lexical aspect, situation aspect, or aktionsart), has been studied in both linguistic theory and psycholinguistics.

Linguistic Theory
- Telicity is determined by lexical semantic properties of the verb and properties of its direct object (Dowty 1979, Verkuyl 1972).
- Lexically bounded (achievement) and unbounded (status) verbs trigger telic and atelic interpretations respectively (1, 2).
- Lexically unspecified (activity/accomplishment) verbs alternate between telic and atelic interpretations based on their direct object (3).
- Bee Stockall, Husband, & Benatar on processing the mass/count distinction for a discussion of bounded nominals (posters #2–35).

Lexical Semantics of Verbs
- Linguistic theory supports the existence of telic verbs (Borer 2005; Mittwoch 1991).
- Telic verbs are distinct from unspecified verbs, but atelic verbs are not.

Psycholinguistics Theory
- Telic verbs and unspecified verbs with +bounded direct objects incur processing costs under the scope of a temporal modifier (Pittango et al. 1999; Todrova et al. 2000; Brennan 2008, in press).
- Recovery from reduced relative clause garden-paths is eased by telic verbs, but not by atelic or unspecified verbs (O’Bryan 2003).

Experiment 1: Telic Verbs

Methods
- Verbs which yielded telic events with both bare and definite objects using Dowty’s (1979) tests were classified as telic verbs.
- 60 subjects, 2 x 2 telic vs. unspecified verb by bare vs. definite determiner (48 items, 192 stimuli total, 122 fillers).
- Subjects made an acceptability judgment after completing each sentence.

Results
- Acceptability Rating: Significant main effect of Verb Type (F1(1,59)=20.858, p<.001; F2(1,47)=14.590, p<.001).
- Reading Times:
  - Significant main effect of Determiner Type on the noun position (F1(1,59)=19.167, p<.001; F2(1,47)=13.051, p<.001) and the noun+1 position (F1(1,59)=10.282, p<.002; F2(1,47)=16.648, p<.001). Bare nouns > Definite nouns.
  - Significant interaction of Verb Type and Determiner Type on the noun+1 position (F1(1,59)=4.579, p<.037; F2(1,47)=3.876, p<.055). Effect of telicity: Telic event (Unspecified, Bare) > Telic event (Telic, Bare & other 2 conditions).

Experiment 2: Atelic Verbs

Methods
- Verbs which yielded atelic events with both bare and definite objects using Dowty’s (1979) tests were classified as atelic verbs.
- 60 subjects, 2 x 2 atelic vs. unspecified verb by bare vs. definite determiner (36 items, 144 stimuli total, 126 fillers).
- Subjects made an acceptability judgement after completing each sentence.

Results
- Acceptability Rating: Trend towards a main effect of Verb Type by subject (F1(1,59)=3.641, p<.061; F2(1,35)=1.899, p<.177).
- Reading Times:
  - Significant main effect of Determiner Type on the noun position (F1(1,59)=9.194, p<.004; F2(1,47)=16.718, p<.001) and the noun+1 position (F1(1,59)=4.122, p<.047; F2(1,35)=10.382, p<.003). Bare nouns > Definite nouns.
  - No significant interaction of Verb Type and Determiner Type on the noun+1 position (F1(1,59)=3.30, p<.568; F2(1,35)=0.245, p>.624). No effect of atelicity: Atelic event (Atelic, Definite) = Atelic event (Unspecified, Definite).

Summary

Experiment 1: Telic Verbs
- Lexically telic verbs are distinguished from unspecified verbs in processing measures.
- Evidence that the parser uses VP internal factors to license event interpretation online.
- Supports current linguistic theory in recognizing the existence of telic verbs (Borer 2005; Mittwoch 1991).

Experiment 2: Atelic Verbs
- Lexically atelic verbs are not distinguished from unspecified verbs in processing measures.
- Also supports current linguistic theory refuting the existence of atelic verbs (Borer 2005; Kiparsky 1998; Schein 2002).

Conclusions

Psycholinguistics
- The parser uses verbal telicity and direct object boundedness to commit to an event interpretation.
- Supports the existence of telic verbs and fails to support the existence of atelic verbs.
- The processing profile of telic verbs is distinct from unspecified verbs.
- Verbs have the same processing profile as unspecified verbs.

Linguistic Theory
- Only two verb classes: Lexical telicity may be represented by a privative (single-valued) feature: [telic].
- Telic verbs: {discover, complete, loose, strike, . . .}
- Atelic verbs: {assemble, browse, inspect, investigate, pump, push, read, . . .}

Lexical Semantics of Verbs
- Linguistic theory supports the existence of telic verbs (Borer 2005; Mittwoch 1991).
- Only two verb classes: Lexical telicity may be represented by a privative (single-valued) feature: [telic]. Telic verbs:
  - Atelic verbs have the same processing profile as unspecified verbs.

References