Appendix A.

Test corpus:

1. A hart runs into King Arthur's hall.
2. A white brachet is next to the hart.
3. A group of black hounds ran behind the hart.
4. The hart runs next to the Round Table.
5. The brachet bites the hart's buttock.
6. A knight arises.
7. The knight picks up the brachet.
8. The knight mounts his horse.
9. The knight rides his horse.
10. The knight carries the brachet.
11. A lady says that the knight is taking the brachet.
12. The lady says that the brachet is hers.
13. The lady says that she wants the brachet.
14. Merlin says that Sir Gawain must bring the hart to King Arthur's hall.
15. Merlin says that Sir Tor must bring the brachet to the hall.
16. Merlin says that Sir Tor must either bring the knight to Arthur's hall or else slay him.
17. An elder says that a white hart comes to a place.
18. The elder says that a group of hounds chased the hart.
19. The elder says that a white brachet is next to the hart.
20. Sir Tor mounts his horse.
21. Sir Tor rides his horse in the direction of the knight who took the brachet.
22. Sir Tor says that you shall say that you are sent by Sir Tor, who seeks the knight and the brachet.
23. A dwarf says that he knows that Sir Tor seeks the knight.
24. The dwarf says that he will bring Sir Tor to the knight.
25. Sir Tor goes to a pavilion.
26. The lady is sleeping in the pavilion.
27. Sir Tor finds the lady at the pavilion.
28. Sir Tor finds the brachet at the pavilion.
29. The brachet bays in the direction of Sir Tor.
30. Sir Tor spies the brachet.
31. Sir Tor takes the brachet.
32. Sir Tor gives the brachet to the dwarf.
33. A noise causes the lady to come from the pavilion.
34. The noise causes a group of damosels to come from the pavilion.
35. The lady asks Sir Tor if he is taking the brachet from her.
36. Sir Tor says to the lady that he is taking the brachet from her.
37. Sir Tor says that he sought the brachet from King Arthur's hall to here.
Appendix B

Outputs of textbook-based grammar for each sentence (1-37)
(30) no parses found
(31) no parse: error
(32) no parses found
(33) no parse: error
(34) no parse: error
(35) no parse: error
(36) no parse: error
(37) no parse: error
Appendix C

Additions to ergo grammar: lexicon.tdl:

brachet_n1 := n_intr_le &
    [ STEM < "brachet" >,
      SYNSEM.LOCAL.KEYS.KEY _brachet_rel ].

buttock_n1 := n_pprof_le &
    [ STEM < "buttock" >,
      SYNSEM.LOCAL.KEYS.KEY _buttock_rel ].

damosel_n1 := n_pprof_le &
    [ STEM < "damosel" >,
      SYNSEM.LOCAL.KEYS.KEY _damosel_rel ].

elder_n1 := n_intr_le &
    [ STEM < "elder" >,
      SYNSEM.LOCAL.KEYS.KEY _elder_n_rel ].

knight_n1 := n_intr_le &
    [ STEM < "knight" >,
      SYNSEM.LOCAL.KEYS.KEY _knight_n_rel ].

hart_n1 := n_intr_le &
    [ STEM < "hart" >,
      SYNSEM.LOCAL.KEYS.KEY _hart_rel ].

hound_n1 := n_intr_le &
    [ STEM < "hound" >,
      SYNSEM.LOCAL.KEYS.KEY _hound_rel ].

king := n_title_le &
    [ STEM < "king" >,
      SYNSEM.LOCAL.KEYS.KEY title_rel &
      [ CONST_VALUE 'King ] ].

Gawain_n1 := n_proper_le &
    [ STEM < "gawain" >,
      SYNSEM.LOCAL.KEYS.KEY.CONST_VALUE 'Gawain ].

Merlin_n1 := n_proper_le &
    [ STEM < "merlin" >,
      SYNSEM.LOCAL.KEYS.KEY.CONST_VALUE 'Merlin ].

or_else_conj_1 := conj_complex_or_le &
    [ STEM < "or", "else" > ].

round_isect := adj_intrans_le &
[ STEM < "round" >,
  SYNSEM.LOCAL.KEYS.KEY _round_rel ].

slay_v13 := v_np*_trans_le & 
[ STEM < "slay" >,
  SYNSEM.LOCAL.KEYS.KEY _slay_rel ].

spy_v1 := v_np_trans_le & 
[ STEM < "spy" >,
  SYNSEM.LOCAL.KEYS.KEY _spy_rel ].

white_isect := adj_intrans_le & 
[ STEM < "white" >,
  SYNSEM.LOCAL.KEYS.KEY _white_rel ].

semrels.tdl:

  _round_rel ::= adj_rel.
  _white_rel ::= adj_rel.
  _brachet_rel ::= reg_nom_rel.
  _buttock_rel ::= diadic_noarg_nom_rel.
  _damosel_rel ::= diadic_noarg_nom_rel.
  _elder_n_rel ::= reg_nom_rel.
  _knight_n_rel ::= reg_nom_rel.
  _hart_rel ::= reg_nom_rel.
  _hound_rel ::= reg_nom_rel.
  _slay_rel ::= arg13_rel.
  _spy_rel ::= arg13_rel.
Appendix D

Outputs of modified ergo grammar for each sentence (1-37)
(10) The STEM carries DET N knight STEM the STEM bracket

(11) A N V COMP S-COMP DET N V COMP VP lady STEM NP DET N is V NP
stem says COMP NP V VP PR that the STEM taking DET N knight STEM the STEM bracket

(12) S N V COMP S-COMP DET N V COMP VP stem says COMP NP V NP lady STEM NP DET N is hers
The N V COMP S-COMP DET N V COMP VP that the STEM bracket

(13) S N V COMP S-COMP DET N V COMP VP stem says COMP NP V NP lady STEM NP DET N is hers
that STEM the STEM bracket

(14) Merlin says COMP NP V COMP NP V VP-NF stem DET N to DET N Sir STEM bring the STEM DET STEM harm N N N Arthur

(15) Merlin says COMP NP V DET N V VP-NF stem DET N to DET N Sir STEM stem DET STEM for bring the STEM the STEM bracket hall

(16) note: *maximum-number-of-edges* was set to 16000.

(17) An STEM V COMP S-COMP DET N V COMP VP stem DET N DET N comes from NP
elder says COMP NP V VP-PP that a AF N STEM to DET N white STEM STEM stem place

(18) The STEM V COMP S-COMP DET N V COMP VP stem DET N DET N comes from NP
elder says COMP NP V VP-PP that a AF N STEM to DET N group of N mounts STEM stem harm

(19) The STEM V COMP S-COMP DET N V COMP VP stem DET N DET N comes from NP
elder says COMP NP V VP-PP that a AF N STEM to DET N white STEM stem harm

(20) Sir STEM stem his STEM to DET N mounts DET N Sir STEM stem STEEM stem harm