

Criteria for Scoring Alzheimer’s Study Adverbial Subordinate Clause Elicited Imitation Data

Background Information:

Adverbial subordinate clause sentences are marked by one main clause and one subordinate clause. They follow this general pattern: NP VP NP, when (NP/PNoun/Null) VP NP. The clause that contains when could be placed either first or second. It is important to be aware of the definition of “subordinate” clause, which is a clause that can contain a subject NP, VP, and object NP but that cannot stand on its own as a grammatical sentence.

It is important to understand the distinction between *subjects* and *objects* in order to score accurately. For the purposes of this study, the subject is the noun phrase that performs or acts the action; the object is the noun phrase that is acted upon.

There are **three** sets of binary conditions for ASC.

1. The presence or absence of a head (subject) in the subordinate clause. The absence of a head, or null condition, necessitates the progressive (-ing) form of the verb in the subordinate clause, whereas the presence of a head (noun phrase or pronoun) in the subordinate clause necessitates the indicative (in this case past tense) form of the verb.
2. Right or left branching. This refers to the subordinate clause (the one with “when” in it), and refers to whether or not it comes first (left branching) or second (right branching).
3. Forward or backward (F/B). This condition refers to the pronoun and its referent (the noun phrase). Forward means that the referent precedes the pronoun, whereas backward means that the pronoun precedes the referent.

General Criteria:

- Use a pencil (if scoring by hand).
- Do not leave any of the cells in the spreadsheet blank.
- All clause numbers (i.e. 1 or 2) refer to the clause’s position in the stimulus, not to its position in the utterance.
- Use the subject NP to identify clause number.
- Once scoring/reliability checking is finished, please transfer data to ASC summary file.

Repetitions:

Technically, only two attentive administrations are allowed (but just put the number, don’t have to mark it unscorable, this will be accounted for later when statistics are run).

Restarts are allowed once.

If the first time the subject produces only one or two words, ignore it; if the first time the subject produces a longer sequence, then that will be counted.

Scoring:

The scoring sheet is broken down into three main sections: General, Lexical Changes and Morphological Changes. Each of the three will be explained in the following section. Numbers on this document correspond to the numbers of the columns on the scoring sheet. Additionally, at the bottom of the scoring sheet, you will see two tabs: +Sem and –Sem. These correspond to the

+Sem and –Sem batteries of the Coordinate Sentence prompt. Certain cells have been grayed out—this means that we would never expect to see those errors in those sentences. This document should be referenced while scoring.

Section 1: General

0. Group

1=CU

2=MIT

3= MGH

1. Sentence Type:

2. Semantic

3. Battery

4. Battery Order

5. c/i: Correct or Incorrect (i.e., like or unlike stimulus)

1 = Mark 1 for correct.

A response is considered correct if the only changes to the target sentence are phonetic (i.e., pronunciation mistakes) except for changes in verb inflection.

The following changes to a sentence may be ignored:

- change in lexical items which does not change the meaning substantially, e.g. ‘touch’ for ‘pat’ or ‘mailman’ for ‘postman.’
- change of determiner from indefinite to definite or vice versa, or deletion of determiner if noun is still present
- replacing ‘his’ with ‘her’ or ‘too’ with ‘also’
- mispronunciation of ‘and’ as ‘an’
- inflection of a noun (alarm → alarms)
- if a change in lexical items that do not change the meaning substantially, and are phonetically similar, the sentence is correct. However, mark changes in both columns for phonological and semantics (ie: ‘noted’ and ‘noticed;’ ‘elevator’ and ‘escalator’)

Examples of Correct:

Target sentence: When the professor understood the scholar, he explained the theory.

Subject utterance: When the professors understood the scholar, he explained the theory.

0 = Mark 0 for incorrect.

A response is considered altered if the subject makes changes to the target sentences that were not mentioned above. Any major structural or semantic change of the model sentence is scored as *incorrect*. Changes may involve omission, addition and/or substitution. For example:

- change in word order or inflection
- substantive change of lexical items, e.g., 'eat' for 'touch,' or 'he' for 'Bugs Bunny', name changes
- addition of material which changes the structure (or meaning) of sentence
- omission of subject
- no response or unintelligible response
- if a noun is deleted, mark an error for deletion of noun *and* deletion of the determiner

6. Unclear

Mark this column if the subject did not say the sentence or if s/he said it in an unintelligible way.

7. Researcher Error

Mark this column if the researcher made some error in the administration of the stimulus. You can specify the error in the comments section at the end of the spreadsheet. Continue to score the sentence, using the sentence that was administered as if it were the correct stimulus.

8. Number of Attentive Administrations

Mark the number of times the researcher administered the sentence while the subject was paying attention. If the subject is clearly distracted, that does not count as an attentive administration. The stimulus cannot be scored if there are more than two attentive administrations.

9-12. One Clause Only

9, 10 = Only one clause is present

***If the subject says more than just the one clause but includes "when," mark it as having two clauses.**

The subject says only one part of the sentence.

Target sentence: He triggered the alarm when the ambassador saw the intruder.

Subject utterance: Triggered the alarm when the ambassador the intruder.

Mark as 2 clauses, with a verb removal.

Target sentence: He triggered the alarm when the ambassador saw the intruder.

Subject utterance: He triggered the alarm when the ambassador saw the intruder.

Mark as 2 clauses, with a subject removal.

9 = Mark in the clause 1 column if the subject says only clause 1

10 = Mark in the clause 2 column if the subject only says clause 2 (as they appear in the stimulus).

Target sentence: When the professor understood the scholar, he explained the theory.

Subject utterance: When the professor understood the scholar. (mark in clause 1 column)

He explained the theory. (mark in clause 2 column)

11 = Conflation to a single clause

Mark if the subject combines the two clauses into one clause.

Target sentence: When the professor understood the scholar, he explained the theory.

Subject Utterance: The professor explained the theory.

12 = Other

Mark if the subject repeats only one clause, but repetition does not fall into any other category.

13-15. 2 Clauses: Reverse

13 = Reversal of verb phrases

14 = Reversal of object noun phrases

Target sentence: When the professor understood the scholar, he explained the theory.

Subject utterance: When the professor understood the theory, he explained the scholar.

Switch which clause is subordinated? ***

15 = Reversal of subject noun phrases

16-20. Structural Changes

16 = Coordinate

Mark if subject changes subordinate clause to a coordinate one.

Target sentence: The dressmaker mended the costume when she encountered the actress.

Subject utterance: The dressmaker mended the costume and encountered the actress.

17 = Relative

Mark if subject changes subordinate clause to a relative one.

Target sentence: The dressmaker mended the costume when she encountered the actress

Subject utterance: The dressmaker mended the costume, which encountered the actress.

18 = Progressive form > Indicative form

Mark if the subject inserts a head (pronoun or noun phrase) AND changes the verb morphology from the progressive (-ing) to the indicative.

Target sentence: When awakening the user, the believer broke the piano.

Subject utterance: When she awakened the user, the believer broke the piano.

19 = Indicative form > Progressive form

Mark if the subject deletes a head (pronoun or noun phrase) AND changes the verb morphology from the indicative to the progressive.

Target sentence: The dressmaker mended the costume when she encountered the actress.

Subject utterance: The dressmaker mended the costume when encountering the actress.

NOTE: If either of the above errors are made, you must also mark that the separate errors of inserting/ deleting the pronoun/noun phrase and changing the morphology of the verb occurred as well (see Lexical and Morphological Changes). Use the code notation described in the excel spreadsheet ("2" for errors that are part of a larger structural error).

21-22. Comp. ****

Section 2: Lexical Changes

23-62. Lexical Changes

In this section, columns 22-42 correspond to errors in Clause 1 of the stimulus sentence, and columns 43-62 correspond to Clause 2.

23-34. Clause 1, Subject NP

23-26. Insert. Mark if the subject inserts a subject noun, determiner, or pronoun in the first clause.

27-28. Remove. Mark if the subject removes a subject noun, determiner, or pronoun in the first clause.

29-34. Change. Mark if the subject changes the existing subject to a different subject; only getting one part of a **compound** noun is a change (philosophy teacher → philosopher ; story teller → teller). Mark "Redundant" if that noun phrase was used in a previous stimulus or earlier in that stimulus. Mark "Indef" (indefinite) if the subject replaces a pronoun or noun phrase with "something" or "someone". Mark "phonological" if the subject uses a phonologically similar noun. Mark "semantic" if the subject replaces the noun with a word that has a similar definition.

35-40. Clause 1, Verbs

35. Remove. Mark if the subject removes the verb from the first clause.

36-40. Change. Mark if the subject changes the verb in the first clause (replaces with new verb, a redundant verb, or an indefinite verb).

41-48. Clause 1, Object Noun

This is basically the same as the Subject Noun; the only difference is that there will never be a pronoun in the stimulus (target sentence) as the object noun, so there is no option to insert or remove a pronoun. Additionally, there is no option to insert a noun because there will always be a noun phrase in this position.

49-60. Clause 2, Subject NP

See above, Clause 1 Subject NP.

61-66. Clause 2, Verbs

See above, Clause 1 Verbs.

67-74. Clause 2, Object Noun

See above, Clause 1 Object Noun.

75-88. Morphological Changes

Verb Inflection

Commented [MOU1]: 74?

75-80. Clause 1

75. Commission

Mark if inflection is present but changed on the first verb.

Target sentence: When the professor understood the scholar, he explained the theory.

Subject utterance: When the professor understands the scholar, he explained the theory.

76. Omission

Mark if inflection is omitted from the first verb.

Target sentence: When the professor understood the scholar, he explained the theory.

Subject utterance: When the professor understand the scholar, he explained the theory.

77. Auxiliary Added

Mark if an auxiliary verb is added to the first verb phrase.

Target sentence: When the professor understood the scholar, he explained the theory.

Subject utterance: When the professor had understood the scholar, he explained the theory.

78-80. Clause 2

78. Commission

See above (75), mark for second verb.

79. Omission

See above (76), mark for second verb.

80. Auxiliary added

See above (77), mark for second verb.

Determiner Errors

81-84. Def > Indef

Mark if subject changes a definite determiner to an indefinite determiner.

Target sentence: When the professor understood the scholar, he explained the theory.

Subject utterance: When a professor understood the scholar, he explained the theory.

85-88. Other (ex: the > his)

Mark if the subject changes a definite determiner to a possessive pronoun or other type of determiner.

89. Complementizer Changes

When < > While

Mark if subject changes when to while or vice versa.

Target sentence: When awakening the user, the believer broke the piano.

Subject utterance: While awakening the user, the believer broke the piano.

Mark if subject omits complementizer.

Target sentence: *When the announcer introduced the visitor, she read the greeting.*

Subject utterance: *@ the announcer introduced the visitor, she read the greeting.*

90. Comments

Make any additional comments here.

