

Appendix: List of tests given w/ example items where possible

1. Benton Visual Retention Test – an increasingly long series of drawings of common figures is presented and the subject has to reproduce the series from matching stimuli (Benton, 1965).
2. Benton Facial Recognition Test – Part I: A black and white photo of a face is presented and the subject has to pick the matching face from 6 choices; Part II: A black and white photo of a face in shadow is presented and the subject has to pick the 3 photos that match, from a series of faces presented in shadow and silhouette (Benton, 1975).
3. Binding, Control and Presupposition Test (BCP) – A series of questions is asked testing Principle B of Binding Theory, subject vs. object control, and presupposition of factive verbs. For Binding and Control, each test item is repeated (Curtiss, 1983).
 - Binding: “Could Patty be the one that made lunch? Listen: She made lunch when Patty got hungry. Could Patty be the one that made lunch?” vs. “Could Patty be the one that made lunch? Listen: Patty made lunch when she got hungry. Could Patty be the one that made lunch?”
 - Control: “Could Al be the one that got helped? Listen. Dave told Al to help him and he did. Could Al be the one that got helped?” vs. “Could Al be the one that got helped? Dave promised Al to help him and he did. Could Al be

the one that got helped?” (Subject vs object control is also tested on the CYCLE-E) (Curtiss & Yamada, 1976, 1984, 1990, 2004¹) as follows:

“Sherry asked Doug to fix the wagon. Exactly what did Sherry say?” vs
Sherry promised Duug to fix the wagon. Exactly what did Sherry say?”

- Presupposition: “John knew that lunch was ready. Was lunch ready?”
4. CELF Producing Word Associations subtest – The subject is asked to list as many animals as s/he can in one minute, then as many foods in one minute. (Semel & Wiig, 1987).
 5. CELF Producing Formulated Sentences subtest – The subject is given a word and asked to create a sentence using it (Semel & Wiig, 1987).
 - “Make a sentence with the word ‘car.’ Make a sentence with the word ‘if.’”
 6. Coda Discrimination Test – The examiner speaks a monomorphemic word and the subject has to choose from one of two pictures that depict the word given plus another word whose phonological form differs only in its Coda (e.g., 'chest' vs. 'chess'; 'gray' vs. 'graze') (Gopnik, 1994a).
 7. Curtiss and Kemmerer Agreement Test – The subject is shown a picture of either one or two characters performing an action; eight stems are real verbs, 24 are nonce forms representing actions for which no existing one-word verb exists. The subject is asked to complete the VP (produce the singular or plural form of the verb stem, e.g., ”This man likes to ‘pem’. Every day he __”) (Curtiss & Kemmerer, 1997a,b).

¹ The CYCLE has been updated and revised on several occasions, with its most recent copyright date being 2004.

8. Curtiss Nonsense Word Reading Test – The subject is shown nonsense words printed in block letters and asked to read each one aloud (e.g., braniff, clusk) (Curtiss, 1998a).
9. Curtiss Reading Homophones Test - The subject is shown two written words and asked to circle Y/N, prompted by a written and spoken question, “do these words sound exactly the same?” (e.g., I, eye; loose, lose) (Curtiss, 1998b).
10. Curtiss and Kempler Written Homophones test - Subjects are asked to write pairs of words, each pair containing a homophone member, once with a syntactic cue, once with a semantic cue, (e.g., “the nose” vs. “mouth nose”; “he knows” vs. “thinks knows”) (Curtiss & Kempler, 1983)
11. Curtiss et al. Sentence-Judgment Test – The subject listens to a series of sentences, half of which are grammatical, which test SAI in embedded clauses, C-selection, I-system elements, pronoun CASE-marking, X’-structure, and more (Curtiss et al., 1992)
12. Curtiss and Yamada Hierarchical Construction Test: Using colored sticks, We took sentences Antony, Rick, Vivian and Marta had produced and made tree structures of the syntactic structures embodied in these sentences. We then asked each of child to reproduce the stick models of their own sentences. (Note: Genie was able to reproduce both the Greenfield and Schneider block structures and these far more complex hierarchical structures, easily and rapidly, whereas Antony and Vivian could do neither, while Rick could only reproduce the 3-block, simple bridge of G & S’s structures.) (Curtiss & Yamada, 1980a)

13. Curtiss and Yamada Logical Sequencing Test – The subject has to put in order photos of common actions (e.g., ice cream cone being eaten, shoe being tied).
The sequences range from two to five photographs (Curtiss & Yamada, 1980b)
14. Curtiss and Yamada ‘More’ Test – The subject is shown two drawings, one with many of the same objects, the other with far fewer or only one of that object; the subject has to point to the picture with ‘more’ (Curtiss & Yamada, 1980c)
15. Curtiss Yamada Comprehensive Language Evaluation: the CYCLE – The CYCLE is comprised of two batteries of subtests, one, the CYCLE-R, testing comprehension (Receptive language), the other, the CYCLE-E, testing Ellicited Production.
 - CYCLE-R (<http://www.thecycletest.com/>) – The CYCLE-R comprises a series of subtests, each testing a specific grammatical structure, semantic relationship or lexical item. The test is arranged into levels based on the developmental emergence of the structure being tested. (The levels were determined by normative data on typically developing children.) (Curtiss & Yamada, 1976, 1984, 1990, 2004)
 - Double Embedding: sentences in which a relative clause modifies another relative clause. “The clown that is chasing the girl that is little is big”
 - Negative Scope “The book that is on the table is not red” vs. “The book that is not on the table is red”
 - Object Clefts “It was the girl that the boy chased.”

- S-V/Aux Number Agreement “The fish play” vs. “The fish plays”,
“The sheep are eating” vs. “The sheep is eating”
 - SS Relatives “The girl that is smiling is pushing the boy”
 - SO Relatives “The boy that the girl is pushing is smiling”
 - OS Relatives “The girl is pushing the boy that is smiling”
 - OO Relatives “The clown is pushing the boy that the girl is hugging”
- CYCLE-E – The CYCLE-E also contains a series of subtests, each testing a specific grammatical structure, semantic relationship or lexical item. The test is arranged into levels based on the developmental emergence of the structure being tested. (The levels were determined by normative data on typically developing children.) In large part, it uses a sentence completion format (Curtiss & Yamada, 1976, 1984, 1990, 2004).

16. Gelman Counting Test – The subject is asked to count a set of object displayed before them. This test examines the subject’s grasp of the following counting principles:

- The one-to-one principle – in counting, one must use only one word to enumerate each object in a given set
- The stable order principle – numbers being used in counting must be consistent from one count to another
- The cardinal principle – the final number used to count a set represents the size of the set.

The counting task also examines two additional aspects of counting: whether the subject uses a conventional list of tags and how s/he coordinates the pointing and

- labeling elements of the counting procedure. Counting of set sizes of two, three, four, five, seven, nine, eleven, and nineteen are tested (Gelman & Gallistel, 1978).
17. Gelman Infinity Test – This task is administered only to children who correctly count set sizes of five or larger. Based on protocols described in Gelman (1980), the task probes a child’s concept of infinity. The task consists of a series of questions, e.g., “What is the biggest number you can think of?” and “What happens if you add one to it?” (Gelman & Gallistel, 1978).
 18. Gelman Magic Show (“Winner”) Test – The subjects are shown a pair of plates, each holding a notably different number of items. The subject is told in a series of pretest items that the plate with more items is the “winner”. The subject is then asked to point to the “winner” in the test trials (Gelman & Gallistel, 1978).
 19. Gelman Number Conservation Test – This series of items is modeled after tasks designed by Wohlwill and Lowe (1962). They probe a child’s operational understanding that displacement, change of density, and other perceptually salient transformations of an array are irrelevant to number (Gelman, 1972; Gelman & Gallistel, 1978).
 20. Gopnik’s Plural Test – The subject is shown two pictures of an item, then given a stem, half consisting of real words, the other half, nonce stems. The subject is then asked to produce the plural of each one (e.g., “Here is a [vUk], a [vUk]. Here are two _____”) (Gopnik, 1994b).
 21. Greenfield Hierarchical Construction Test – Three hierarchical structures, beginning with a simple bridge, comprise the structures shown. Subject given

- blocks to reproduce the figures and is asked to “make one like that” (Greenfield & Schneider, 1977).
22. Homophones – The examiner shows and labels four photos. The subject has to point to the two that sound the same, out of a set of four that includes a phonological and semantic distracter (e.g., BAT: baseball bat, baseball, hat, vampire bat) (Peters & Zaidel, 1980).
 23. ITPA Visual Short Term Memory subtest – The subject is shown increasingly long series of drawings, then asked to reproduce the series from memory (Kirk, McCarthy, & Kirk, 1961).
 24. Knox Cubes Test – Wooden cubes in a linear arrangement are tapped by the examiner in increasingly long series. The subject is given a pencil and asked to reproduce the tapped series (Knox, 1914).
 25. Mini Mental Status Exam – Using a series of questions, this exam tests a wide array of cognitive functions, including dementia, and stage of progression (Folstein, Folstein & McHugh, 1975).
 26. Mooney Faces Test – A test of visual closure for facial recognition, subjects are given seventy black and white drawings, twenty depicting no coherent image, and fifty depicting human faces. The images require the subject to construct a facial percept from the lines presented. The subjects are asked to separate the faces from the non-faces, sorting the faces into girl, boy, man, woman, old man, old woman (Mooney, 1957).
 27. Number Tests:

- Counting – We tested knowledge of the counting principles as defined by Gelman and Gallistel, 1978) by asking each subject to count the items arranged linearly before them. The counting principles we examined were i) the one-to-one principle: "in enumerating (counting) a set, one and only one numeron must be assigned to each item in the set" (Gelman and Gallistel 1978:91); ii) the stable order principle: "Numerons used in counting must be used in the same order in any one count as in any other count" (Gelman and Gallistel 1978:94); and iii) the cardinal principle: "The final numeron assigned to the last object in the set represents a property of the set - its cardinal number" (Gelman and Gallistel 1978:98). We also examined two additional fundamental aspects of counting: (1) whether a child used a conventional list of tags, and (2) how a child coordinated the motor (i.e. pointing) and linguistic elements of the counting procedure. Counting set sizes of two, three, four, five, seven, nine, eleven, and nineteen was tested on control subjects. Set sizes up to five items were given only when a child succeeded in counting smaller set sizes correctly (Curtiss & Yamada, 1980d).
- Number Concepts/ Numerosity and Reasoning – We also examined number concepts and reasoning by asking each subject to name the highest/biggest number they could, and by asking her/him which number was bigger, providing her/him with a few pairs of numbers which differed greatly, e.g., 1 vs. 100, 1 vs. 2000 (Curtiss & Yamada, 1980d).

- Conservation of Number – We tested for Conservation of number knowledge by utilizing tasks modeled after those designed by Wohlwill and Lowe (1962). These tasks probed a child's understanding that displacement, change of density, and other perceptually salient transformations of an array are irrelevant to number (Curtiss & Yamada, 1980d).
28. Piaget Conservation tests – These are classic Piagetian conservation tasks
- Length (Lovell et al., 1962)
 - Number (Wohlwill & Lowe, 1962)
 - Volume – solid, continuous, quantity (Elkind, 1961; Uzgiris, 1964), liquid quantity (Beard, 1963; Wallach et al., 1967)
 - Weight (Elkind, 1961)
29. Piaget Copying - Subjects are asked to copy simple figures, including a cross, a circle, and a square (Piaget & Inhelder, 1967).
30. Piaget Localization of Topographical Stimuli – The subject is shown an array of four items on a flat surface and asked what the array would look like from different vantage points (Laurendeau & Pinard, 1970).
31. Presupposition and Entailment Test – This test is designed to assess knowledge of complex verbal semantics, specifically presupposition and entailment. Subjects are given a series of sentences and then asked to respond ‘yes’ or ‘no’ to the questions that follow (e.g., “John didn’t know that Dad was home. Was Dad home?”; “Zack managed to finish his homework. Did his homework get done?”) (Curtiss, 2002).

32. Reading Rhymes Test – The subject sees a series of two printed words and is asked to circle, Yes/No in response to the written question, “Do they rhyme?” (e.g., have, gave; wear, hair) (Curtiss, 1998c).
33. Revised Token Test - Using the same materials as in the standard version of the test, we utilized 3 of the original sentences plus 3 sentences that we constructed at each sentence length (4, 5, 8 and 10-words long), so as to examine and compare the effect of syntactic complexity vs. sentence length on comprehension. We selected quantifier movement and embedded clauses as indices of syntactic complexity (e.g. touch the yellow square vs. touch each yellow one; touch the large green circle vs. touch one that isn’t white) (Curtiss et al., 1986).
34. Southern California Figure Ground Visual Perception Test – consists of two subparts, each part containing eight test items. Each item consists of complex designs in which three figures are delineated. Extraneous lines are also present, and the subject must select from an array of six pictures the three which are hidden in the test item. The first part consists of “hidden” objects; the second part consists of “hidden” geometrical designs (Ayres, 1966).
35. Sugarman Classification Test – Very different items are placed on a table facing the subject (e.g., plastic spoon, small plastic bear). The subject is then given a series of identical items and asked, with each item given, to put it where it belongs. The number of items to be classified increases with success (Sugarman, 1981).
36. Thurstone Closure Speed – The subject is asked to label drawings, parts of which have been “whited out”, such that only disconnected parts are visible. The subject

- must “fill in” missing parts to apprehend what the drawing depicts (Thurstone 1968).
37. Thurstone Mental Rotation Test – The subject is shown a geometrical shape on the left and asked to find all the other ones like it from a series of drawings of similar shapes, some of which are the same shape rotated to different degrees (Thurstone & Jeffrey 1966).
 38. Wechsler Intelligence Scale for Children (WISC) (Wechsler 1949).
 39. Wepman Auditory Short Term Memory Test – An increasingly long series of words is presented and the subject is asked to repeat them in same order as that in which they were given (Wepman & Morency 1973).
 40. Witkin (Children’s) Embedded Figures Test – Children are given a cardboard shape, then asked to show its outline within a series of increasingly complex drawings in which this shape is embedded (Witkin et al 1971).
 41. Written Homophones Test – (Curtiss 1998d)

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