

STUDIES OF A CHILD. I.

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Introductory. The subject of these notes is R- (first and only child), daughter of the authors, born August 3, 1901. She has been perfectly healthy from birth, is of an active and cheerful disposition, with great affection and a lively imagination. As far as possible, her parents have avoided imposing things upon her by direct teaching. She had always had numerous playthings and the continuous companionship of both parents. The period covered is chiefly her third year. No attempt to be exhaustive is made (some topics may be treated later in detail) and a number of matters not now considered will be discussed on some other occasion. The data here presented have been obtained and recorded with due care and precision, and in no case has theory been allowed to twist facts. The sections on spontaneous word-forming and spontaneous language are believed to contain some new and interesting data, which may contribute somewhat to the solution of the problems of "invention" in child-speech. Questions of psychological and pedagogical import only are dealt with in this first article. In the body of this paper the words and phrases recorded, unless otherwise stated, have their usual English sounds and significances.

I. *Affirmation and Negation.* She learned to use "no" much before "yes," in part on account of the difficulty she

met in pronouncing the latter word. On the whole, her negatives have been more energetic than her affirmatives. During the month of April (April 15, 1904) she used "yes" and "no," besides the significant *mm-hm* ("yes"). In some fashion (seemingly her own invention) she has acquired the negative "nope," of which she is rather fond. Nodding and shaking the head are not regularly employed by her for affirmation and negation, and when they are used they occur rather as accompanying gestures of "yes" and "no." Nodding the head occurs oftener than shaking (she is very fond, however, of shaking and nodding her head in play). Of negative phrases she uses "no, at all" quite commonly, *e. g.*, "Wut don' want zat. No, at all." She also uses "No, at all" in answer to direct questions. An interesting fact is her use of "any," "anything," "anybody," in the sense of "none," "nothing," "nobody." During the month of April, 1904, she employed them thus: "Any in there (= none in there)." "Any more pickas (pictures) in zat book (= no more, etc.)." "Anything in zis box. (= nothing, etc)." "Anybody didn't tome. (= nobody came)." "Anybody (= nobody)." in answer to question, Who's in there. Sometimes she uses "nothing" and "nobody" in their accepted senses. The affirmatives "tomebody," "tomebody else," "tumpin," "tumpin else," are regularly employed by her. Sometimes (formerly much more) she uses "nuzzer" (another) for "other," as in the phrases "my nuzzer dolly," "Zat's my nuzzer dolly," etc. She uses "never" and "ever" in the common acceptation. Also "not yet," "not now," "not just yet," "not just now." She says often (June 17, 1904). "Has that got nothin' in it?" = "Is it empty?" By June, 1904, she had abandoned the use of "any" in the sense noted above. She now uses "yes" and "no" and *mm-hm*, the last frequently. She still uses occasionally *nope*.

II. *Analogy, Transferred Meaning, etc.* Following are the principal cases noted of items coming under this head:

1. *Moon*. On March 7, 1903, while sitting in her father's lap at the window, looking up at the sky, she discovered the new moon, which interested her very much. At the same time she noticed the smoke coming out of the chimney of the University. The evening of the same day she called the half of a biscuit in her hand "mooi", *i. e.*, "moon." Among the things to which, between January, 1903, and April, 1904, she has applied the term "moo", "mooi", "moon," are: Moon (in various phases), cakes cut out of dough, round marks made on the frosted window with cake-cutter, writing with pencil or pen on frosted window, on on paper ("make moo*"), water-stains on ceiling, round things in books, the figure on

the outside of Leland and Prince's "Kuloskap, the Master," and that on the back of Kayme's "Anting-anting Stories," faces on calendars and almanacs (also "man i' moo' "), round candies, discs, figures on wall-paper, carpets, etc., postmarks, the letter O, etc. On April 10, 1903, she said, without suggestion: "Baby wite (write). Up mama lap. Make moon. . . . Baby wite. Make man i' moon." The transition from "making moons" on the frosted window to "writing" on paper seemed to be quite natural for her. Although she first called the moon "moo'," "mooi" "moon," the effect of her hearing the rhyme about "The Man in the Moon, etc.," was to make her, until very recently (April, 1904), call the moon "man-i'-moon."

2. *Wrinkles.* In May, 1904, she frequently spoke of the "wrinkles" on or in the warmed milk given her to drink, meaning thereby the "scum" on top of it.

3. *Bridge.* During May and April, 1904, and probably sometime before, she applied the term "bridge," to the threshold of the door, the wooden edge of the bath-tub, the window-sill, the stone-curb on the street, low retaining walls, etc., the top of the stair-case, the top railing of the piazza, etc. While in Maine, during the summer of 1903, she first became acquainted with foot-bridges.

4. *Bubbles.* On June 1, 1904, she applied the term "bubbles" to the marbled inside cover of a book. Last summer she had a dress the pattern of which was of small dots blue on white, this she called her "bubble" and applied the term to any similar fabric. She first knew bubbles as applied by her mother to the soap-suds in the bath before she could talk, and used to say "blubla."

5. *Chocolate.* On February 20, 1904, she applied the term "chocolate" to the metal plates of the door-lock. This was evidently from analogy with the "bars" of sweet-chocolate she had been eating.

6. *Ice-cream.* Sometime in March she remarked of her rice and milk that it "looked like ice-cream,"—of this she was very fond.

7. *Banana.* In the spring of 1903 she called yellow string-beans, seen for the first time, "mnana," *i. e.*, banana. She became acquainted with bananas before knowing beans.

8. *White.* During the spring of 1904 she called silver money "a white one." A dime was "a little white one," a fifty-cent piece "a big white one." When offered a cent she would often say "I want a white one."

9. *Warm.* About March, 1904, she applied the term "warm" to any woolen material, as a sort of color-designation. *E. g.*, when her mother asked her to tell the colors of a number

of pieces of cloth, as she came to the woolen goods, after having correctly or incorrectly named the colors of the rest, she said it (a piece of pink flannel) was "warm." The same term she would apply also to blankets, shawls, etc.

10. *Scissors*. Her own first word for scissors, which she ceased to use sometime in March, 1904, when her mother bought her a pair of scissors for herself, was "tinga-ale" (then "tinger-ales"). This expression she undoubtedly made from observing her mother cutting her (baby's) finger-nails.

11. *Street*. On May 19, 1904 (she had been on May 14 to see the street parade of the circus), she pointed to the figures on the wall-paper of her bed-room, and saying "this is a tiger," "this is a lion," etc., she termed the wall itself "wall street," and said that the circus procession was going along it. This conception of the wall as a street is rather interesting.

12. *Bones*. In December, 1903, and January, 1904, she used to call prominent moles on face of a person of her acquaintance her "bones." This term she seems to have reached from feeling the moles and finding them to be quite hard.

13. *Hair*. Some time in April, 1904, when "pulling out" her father's whiskers, she observed, when asked to stop, that she was "pulling out horse-hairs."

14. *Piazza*. In the summer of 1903 she called the wharf at Bayville, Me., which had a guiding rail, "peepazza," from analogy with the piazza at home.

15. *Water*. In the fall of 1903 she applied the term "water" to the road in a forest picture hanging upon the wall.

16. *Indian*. On December 10, 1903, she was looking over Hiller and Furness' "Notes of a trip to the Veddahs of Ceylon," which has many illustrations. When she saw the frontispiece (a number of Veddahs), she said at once "Indins-mans." This was natural, for one of the earliest books that attracted her attention was a volume of the Reports of Bureau of American Ethnology, or the "Indin book," as she called it. There were also numerous pictures of Indians elsewhere in the house, and she had seen some Maine Indians at Boothbay Harbor in the summer of 1903. It is curious to find her calling the Veddahs "Indians," a thing the average adult would be apt to do on seeing the pictures for the first time.

17. *Island*. In the same book, opposite page 12, there is an illustration of a terraced water-field of rice, which she at once called an "island." On the sea-coast of Maine she had learned to know islands, and was, even in the summer of 1903, able to point out islands on a large chart of the Boothbay Harbor region.

18. *Flag*. Sometime during the fall of 1903, on seeing a barber's pole on Main Street, she called it "tflag," i.e., "flag," from analogy with the U. S. flag at home.

19. *Peppermint*. Anything with a bad taste she has recently (winter of 1903) called "pepint tuft," *i. e.*, "peppermint stuff,"—she has never liked the taste of peppermint candy.

20. *Turnips*. On April 10, 1904, she watched her father slice a pine-apple. After carefully examining a slice, she remarked, "Zese is des like turnips." She had seen turnips in the store and had watched her mother cut them up at home.

21. *Skeleton*. On April 7, 1904, she picked up an archeo-logical pamphlet, opening it at a page containing a picture of a skeleton lying in a grave. She exclaimed at once: "Like zose at nuwersity!" About a month before, she had been taken by her father to his room in the University, where were several mounted skeletons of infants.

22. *State-Mutual*. While at Bayville, Me., during the summer of 1903, she termed the boarding-house the "Tate Muble." While in Worcester she had gone with her father and mother several times to a meal at the State Mutual Restaurant,—this seems to have left a very marked impression upon her mind.

23. *Lettuce*. On June 4, 1904, while in University Park, she said of the foliage-plants: "Are they lettuce?" She knows lettuce well.

24. *Wicket*. On June 5, 1904, while watching the rainbow, she said: "It looks like a wicket." She has been familiar this spring (and memory from last year may be present also) with croquet-wickets on the lawn about the house.

25. *Dolly*. While in her father's room at the University on June 4, 1904, she said of a skull that it "looked just like dolly." This was evidently from analogy with the heads of several of her dolls as they appeared when the hair had been pulled off.

26. *Mouth*. On June 6, 1904, she pointed to the tip of one of her shoes and, putting her finger into the hole worn through the leather, said "these are mouses" (*i. e.* mouths). She had several times before used the term "mous" for holes and openings of various sorts.

27. *Dandelion*. On June 6, 1904, seeing some white daisies, she called them "white dandelions."

28. *Whiskers*. On June 8, 1904, while handling the brush used to clean milk-bottles, she said, "it's whickers, like tather's."

29. *Dust*. The same day, just after getting up in the morning, she noticed the heavy mist and said "it's all dusty."

30. *Crust*. On June 9, 1904, speaking of baked mackerel, she said: "I like the truts" (*i. e.* skin).

31. *Bluebird*. The evening of the same day, on seeing some blue sky after clouds and rain, she said: "it's blue like the bluebird." She had seen a bluebird (her mother told her the name) the same morning out in the yard.

32. Some time in November, 1903, when she possessed an "animal book," she confused some of the pictures one with another. A donkey she called a rabbit (she had had a toy cloth rabbit as a plaything for some time previous). A lop-eared rabbit she called a dog (probably because its ears resembled those of a cocker-spaniel she was acquainted with).

34. *Pear's soap*. Her early acquaintance with "Pear's soap," caused her to name all soap after it. "Pear toap." In the summer of 1903, while at the seashore she called the foam in the wake of the steamboat, etc., "Pear toap."

III. *Argument and Expostulation*. Under this head may be grouped the following:

1. On the morning of October 8, 1903, she looked out of the window at the rain and said: "Tather hap-a (have to) take umbrella, mama!"

2. The same day she remarked: "When hohn (horn) blows, nen (then) do-ta (go to) dinna." She remembered the dinner-horn in Bayville, Me., where she had been from the middle of July to the middle of September.

3. Again, she had spilled the box of buttons, with which she was playing, all over the floor, so that her mother had to move her chair, so that they could be picked up. R- said: "When Wut pick up zese buttons, nen (then) mama tit down nea (there)".

4. In the early part of 1904, she often said, when asked to do something: "I tan't I'se too little," or "Wut tan't, she's too little" (Feb. 20, 1904).

5. On March 26, 1904, after waking up in the morning, she said to herself as she moved about on the bed: "Don't zou tome in our way, horsie! We are tryin' to play out-doors. We are tryin' to play outdoors. Don't zou tome in our way!"

6. On April 7, 1904, after waking up, she said she wanted to "tee puddle by Tommy's barn." It had been raining the night before. She evidently remembered the puddle of water caused by the eaves-droppings of the barn in the back yard, where Tommy, the horse, was kept. This puddle she had noticed several times after a storm. In this case, she may be said to have reasoned from the rain to the puddle on the ground of past experience.

7. On April 9, 1904, she said, "Mama, put my tizzers on my dess like women at a tore." She had noticed the way the clerks at the dry goods stores wore their scissors attached to their dress.

8. The same day she eloquently pleaded with her mama: "Put tome warmth on it [her little toy stove] off zour tove." By this she meant for her mother to put some of the fire in the big cook-stove into her toy one.

9. On April 1 she said of some strawberries that were placed before her that she would "eat trawberries to birds won't det 'em." A short time previously she had said of some article of food that she was going to eat it "to tiger won't det it."

10. On March 7, 1904, she said of a book which she had been "read ing:" "I'm des tru wiv it. Zou tan put it back, if zou wants."

11. On December 16, 1903, when her father suggested washing her face, she said: "Ma (mama) wash Wut's tace when mama tomes."

12. On March 9, 1904, when "cooking" on her toy stove she asked: "Tink (do you think) zis will boil up, mama?"

13. A little later, she said, of something she thought her mother was going to fry: "O, you are don-da (going to) put 'em in-a (in the)

oven." And soon after: "Now, we dot-ta (got to) watsh dises (dishes), mama."

14. On April 16, when her mother was dressing her before breakfast, R—protested vigorously, saying: "Don't dress me, mama. My nightie will do better."

15. In February, 1904, she said often: "I'm not a baby now. I 'm a little dör'l (Feb. 20, 1904)-"

16. On October 7, 1903, she said: "Mama tome in udder woom. Don' (don't) tit on dat tool (a piano-stool) all night, mama!"

17. On December 2, 1903, she said of something she was doing: "Won't zat be better, tather?"

IV. *Comparison.* She finds considerable difficulty in the "than" constructions, indeed does not seem to have used them of her own initiative. Of her own device she has developed the use of "neither" instead of "than." Examples: "I like zis better neither zat." On April 17, 1904, while playing "buying," she said that "dreen roses tost more till red ones."—she uses "till" in its proper sense otherwise. She uses "best," "the best," "best of all," with their proper significations. Also "better" in such ways as "I teel better now." On April 17, 1904, when her mother asked her, as she seemed tired, whether she wanted to have her "nightie" put on or have her supper first, she mastered the comparative situation by saying: "Tan't zou put my nightie on?" She does, however, use expressions like "I mus do zis first." In reply to questions such as: "Do you like oat-meal crackers better than graham crackers?" she often says (as on April 18, 1904): "Hike oatmeal trackers, *and* oat-meal trackers." Here the repetition seems intended to serve in lieu of the comparative form. The same may be said of other answers to such questions, *e. g.*, "I like oat-meal trackers *all the lime*," where the last phrase is the significant one. She uses, of course, "so" in the accepted way, and on April 13, 1904, when her father had hold of her ankle, she said: "Tather, don't hold Wus to tight, hold Wus tlowly (slowly)." On the morning of April 19, 1904, while looking at her coat, which she had not seen for some time, she said: "I thlink zis is the bets (best) pretty little toat neither the ozzer one." On April 21, she said in reference to what had been built with her blocks: "I want a dooder one." On May 19, 1904, she came to her father with her little scissors in her hand and said: "I want to tchow (show) zour tis-sors by mine. I want zour tissors to tchow if mine are tlean enough." After receiving them she placed them one over the other and said: "But zour tissors are the little points." Her father's scissors were smaller and narrower than hers.

On May 15, 1904, she said of some object she was playing with "that's too big enough." Shortly afterwards, the same day, she remarked, "I am titting tlose by nearer tather," after having moved closer to him on the floor.

For some time previous to this she had used the expression "warm enough," and the like. Also "very tarefully," "very tlowly," etc. She now uses "like" in the accepted sense (It's like," "it looks like"). On June 15, 1904, she used the expression "that isn't most as big as this."

V. *Definitions.* On June 6, 1904, in answer to the question, "What is—for?" She gave the following (they are numbered in the order received):

1. *School:* All the children do (go) in, an' ladies an' dirls.
2. *Church:* Why the people do in an' ting (sing) an' ting an' ting.
3. *Store:* People do in an' buy tomesin for zeir dinna'.
4. *Book:* Why it's a book to read.
5. *Window:* Why that's a window to look out.
6. *Clock:* Why it's to wind it up.
7. *Picture:* To look at.
8. *Pen:* It's to write wiz.
9. *Ink:* It's to put on a pen to write wiz.
10. *Paper:* It's to write on when I write on.
11. *Street:* To do out on.
12. *Water:* To trow 'tones in.
13. *Trees:* Wind blows the trees down. They burn the trees down, in the woods.
14. *Flowers:* They are to pell (smell).
15. *Dogs:* Why dogs are to tay bow-wow-wow !
16. *Doors:* To chut the doors.
17. *Knives:* They are to tut.
18. *Porks:* They are to eat wiz.
19. *Cups:* They are to drink out.
20. *Spoons:* They are to eat toffee wiz.
21. *Fire:* Is to burn things up.
22. *Ice:* Ice is told.
23. *Milk:* It's to drink.
24. *Tea:* It's to eat.
25. *Coffee:* It's to drink wiz a 'poon.
26. *Safety-pin:* To pin your dress wiz.
27. *Oranges:* They are to put on the table.
28. *Potatoes:* They are to took (cook).
29. *Lettuce:* They are to put on talad.
30. *Scissors:* They are to tut.
31. *Sewing-machine:* To tew.
32. *Refrigerator:* It's to put thing in.
33. *Plates:* They 're to eat on.
34. *Salt:* It's to put on meat, I duess.
35. *Candy:* It's to eat.
36. *Letter:* It's to put paper in.
37. *Stamp:* To post envelopes.
38. *Lamp:* It's to light.
39. *Stove:* Why it's to warm things on.
40. *Oven:* To put things on.
41. *Mama:* You are the lady.
42. *Father:* He's a man. He's a tather.
43. *Ruth:* I'm a littte dirll.
44. *Bath:* To have dollies in to wash.
45. *Nose:* It's to 'teeze (sneeze).
46. *Horse:* To ride in.
47. *Cow:* To milk.

48. *Mouth*: To eat.
 49. *Picnic*: You eat the picknic before it gets bad.
 50. *Smoke*: 'Poke is to tome out of 'poke-tack.
 51. *Table*: This is a table to eat.
 52. *Chair*: It's to fit on.
 53. *Broom*: It's to tweep.
 54. *Mirror*: A mirror's to look in.
 55. *Eyes*: They are to look at pictures.
 56. *Chimney*: It's tor tanta tlaus to do in.
 57. *Fly*: To fly around.
 58. *Ground*: The ground is drass and dirt to dig.
 59. *Rooster*: He's to tay whr-u-wbr !
 60. *Birds*: They are to ting.
 61. *Key*: To lock the door with.
 62. *Money*: Is to put in my pocket-book.
 63. *Garden*: It's a darden to put radishes on.
- On the morning of June 7, 1904, she gave the following:
64. *Piazza*: To do (go) out in our back yard.
 65. *Houses*: They are for people to do (go) in.
 66. *Lemons*: Why they are to put in a pitcher an' to eat.
 67. *Chickens*: They are to do in their own little house.
 68. *Butler*: Butter is to put on bread.
 69. *Pepper*: Why pepper does (goes) right in your nose.
 70. *Umbrella*: To do (du) around your head this way (making gesture with hand; she then said she would get the umbrella and show how—this she did).
 71. *Wheels*: Wheels are to belong to wagons.
 72. *Spool*: To put on needles.
 73. *Piano*: It's to play on.
 74. *Wall paper*: Is to not trats (scratch) it.
 75. *Frog*: Trogs are down in the water.
 76. *Fence*: A fence is to do (go) around here (making a circle with her finger).
 77. *Trunk*: To put thlings in.
 78. *Pillow*: I'm not lyin' on any pillow.
- On the afternoon and evening of June 7, 1904, the following were obtained:
79. *Hammock*: Why it's to twing.
 80. *Hammer*: To put tacks in.
 81. *Typewriter*: Why it's to typewrite on.
 82. *Snow*: Tow is to draggle in.
 83. *Leaves*: Why they are to draw (grow) over.
 84. *Beads*: They are to put around your neck.
 85. *Carpets*: Why they are to put on the floa'.
 86. *Hair*: It's to put on your bead.
 87. *Hills*: They are to do (go) up an' to walk into Boothbay Harbor.
 88. *Stones*: They are to trow in the water.
 89. *Soap*: It's to trub (scrub) your hair.
 90. *Wagon*: It's to ride in—Tam's wagon.
 91. *Towels*: They are to wipe your tace wiz.
 92. *Rubbers*: They are to put on your teet an not let 'em be wet
 93. *Balls*: They are to bounce.
 94. *Balloons*: 'To' tick (stick) out the window an' let 'em blow.
 95. *Babies*: To put in tarriage.
 96. *Bicycle*: By'cles are to ride on.
 97. *Bumblebees*: They are to do (go) on flowa's.

98. *Curtains*: They are to put on the window.

99. *Bottles*: They are to put in ginger-ale.

100. *Napkins*: They are to put round your neck.

These "definitions" exhibit a wide range of observation. The number of distinct actions referred to is large. The verbs used in the answers are:

Are, belong, blow, bounce, burn, buy, come, cook, cut, dig, drabble, drink, eat, fly, get, go in, go out, grow, guess, have, is, let, lie, light, lock, look at, look in, look out, milk, pin, play, play or, post, put in, put on, read, ride in, ride on, say, scratch, scrub, sew, shut, sing, sit, smell, sneeze, stick, sweep, swing, throw, typewrite, walk, warm, wash, wind, wipe, write on, write with,— some 60 altogether.

The nouns (words occurring in question and answer not being counted) are:

Backyard, Boothbay Harbor, bread, carriage, children, coffee, dinner, dirt, dollies, door, dress, envelopes, face, feet, floor, flowers, ginger-ale, girl, grass, hair, head, house, lady, man, meat, neck, needles, nose, paper, pen, people, picnic, pictures, pitcher, pocket-book, radishes, salad, Sam, Santa Claus, smoke-stack, something, spoon, stones, table, tacks, things, trees, wagons, water, way, window, woods — 52 in all.

Her description of the school is based upon her own observation of a schoolhouse to be seen from her front window. She was taken to church at a children's service consisting chiefly of singing. She goes regularly to the grocery with her father and mother. She is very fond of "reading," "writing," looking at pictures, and was (recently) very anxious to "wind tather's tlock." Throwing stones in the water is one of her delightful out-door experiences. She was early interested in the movement of the leaves of trees in the wind; the second part of No. 13 is accounted for by her having been (recently) taken into the woods. Smelling flowers was lately her chief reaction to them and is largely so now. Her answers concerning fruit, vegetables, and other articles of food and drink show how closely she has observed the preparation and disposal of some of them. Her definition of a cow is based on the experience of a few days' before, when, for the first time, she saw one milked. That of the chimney goes back to the Santa Claus at the dry goods stores at Christmas time. By a curious twist of her speech the "pickinic" is eaten. The answer to No. 62 is accounted for by the fact that, for some time past she has had a little pocket book of her own. That to No. 63, arises from her having "planted" radishes in a little "garden" in the back yard,—the radishes seem to have impressed her more than the other things planted. The process of making lemonade is remembered in No. 66, and personal experience accounts for No. 69. No. 74 reveals parental admonition. No. 82 records her delight in tramping about and "scuffing" the snow with her feet. No. 87 shows her memory of her summer in Maine, as

does also No. 90. The definition of bumblebees embodies an unsuggested observation of her own the day before.

VI. *Fear*. She shows fear of very few things. She is somewhat afraid of the dark at night, but not in the day-time, and cannot be persuaded to enter a dark room alone at night, although she will allow herself to be shut up in a closet during the day, or will even ask to have this done. When asked why she does not want to go into a dark room she says simply, "it's dark." She is not in the least afraid to go into the dark with her father or her mother, either when taking hold of their hand or not. When one (or both) is in the dark room, she will wander all about it fearlessly. On the evening of November 1903, the first instance of what was possibly a distinct fear of the dark was noticed: Ruth wanted to go out into the back room to put the butter away in the refrigerator. The room was dark. She first peeped cautiously around the door and then said, "Mama, watch Ruth put away butter." When she was through, she ran back into the kitchen, saying, "Tiger wilt get Ruth." Her mother said, "Where is the tiger?"—"Out in the yard," said Ruth. "There's no tiger in the yard. Who told you that?" said her mother. Said Ruth, "Ruth told that." Ruth had seen tigers in her animal-books, but has never been told any stories that could stimulate fear of the dark or fear of "tigers." Her mother remembers hearing it said of herself, that, when about a year or more old, she was very much afraid of "a royal Bengal tiger" on the back of one of her picture-books. Ruth never has been afraid of the picture of a tiger, and has always been very fond of cats. She seems very much interested in tigers, and said of her favorite cat, without the resemblance having been pointed out to her by any one, "Mittens looks just like a tiger."

Of animals she is not now and never has been afraid,—particularly cats, dogs, horses, cows, which she has always wanted to "pat," and has generally done so when possible. Even when an infant she was not at all afraid of animals. Nor did she ever show any fear of fur, but stroked and patted the cat and the dog, as well as the fur of muffs, scarfs, and other articles of dress. When about a year old, she saw a lynx-skin (with the head mounted), used for a rug, and although it was of very ferocious appearance, grew to be fond of it, called it "titty" (kitty), and used to ask for it when it was not to be seen. When she was eleven months old she showed no fear of chattering monkeys, but fed them with cherries.. Nor has she been afraid of "feeding" the dog or the cat, or of giving a horse grass, etc., to eat.

While at the dinner table on March 28, 1904, Ruth said "I want to eat this, so a leopard won't det it." Her father asked

her if she was afraid of a leopard, to which she replied no. He then asked her if she had seen a leopard, whereupon she said "no," but continued "I did tee a tiger this months." In answer to the question, where? she replied, "In a tore" (store). When asked what the tiger was doing, she said, "Buying tometin to' his mother." On the evening of the same day at the tea-table the tiger came up again. Her father asked her if she was afraid of a tiger. She answered "no," whereupon her father said, "take father's hand, and let's go find the tiger." She acceded readily enough, and although the sitting-room was not at all well-lighted, crawled up to the sofa and stuck her head under to see if the tiger was there. Then she said she had the tiger in her hand and brought it into the kitchen. Finally she found her mother's bag and put the tiger into that, bringing him again into the kitchen and dining-room.

On the afternoon of April 17, 1904, she saw a short-billed gnat on the sitting-room window, and begged her mother to shoo him away, so that he would n't bite her. About a week before a girl friend of hers who is afraid of spiders and mosquitos was playing with her and this fear (?) of the gnat is to be attributed to that occasion. On May 18, 1904, she watched her father kill a large mosquito. She said, shrugging her shoulders (this she does often when she speaks of being afraid), that she was afraid of mosquitos,— "I am praid of teetos,"—but she does not evince it in any particular way.

On May 14, 1904, she was taken to see, for the first time, a circus parade, and showed no fear whatever of any of the animals (her father held her in his arms in the street as close to the animals as was safe). The elephants and camels, horses and ponies were numerous, and she greatly enjoyed seeing them. The lions and bears were exposed in their cages; she was quite excited over them, but in no way afraid.

On May 21, 1904, she was taken to another circus parade and showed no signs of fear, except that the noise and the steam of the calliope seemed to disturb her somewhat. She was taken close to the cage of tigers but was in no way frightened by them, but showed great interest and laughed at their actions,—opening the mouth, swishing the tail, etc.

At present (June, 1904), the only things she can be said at all to fear are being in the dark alone, and being alone (even in the day-time). When her parents have hidden from, or when she has come into the house with one of them, and the other has hidden, she seems to be frightened and sheds tears, becoming very excited. When she wakes up in the night, she generally does not like to be left alone even for a moment.

VII. *Imagination, etc.* The nature and vividness of her imagination are illustrated by the following:

1. On March 7, 1904, Ruth played what might be called "find the tiger." She was standing on her mother's bed at its head, soon after waking up, and, while playing with the knobs on the bed-posts, said one was a tiger. Her father then asked, "where is the tiger?" Ruth said, "It's gone down there" (*i.e.*, behind the bed). She then said, "I'm going to look for the tiger." Her father suggested that she look under her own bed. She did so, and then began to look all over the house, in the corners, under the furniture, etc., for the tiger, and finally brought in a bit of pink flannel, which she had found under the bureau. This, she said, was "the tiger's tail." Her father then told her to go find the tiger. She soon returned with a silver spoon, which she said was the "tiger." Soon after she said, "no, it isn't the tiger," and went on the hunt again. In a little while she went out into the kitchen, saying she was going "to buy a tiger," and "a leopard," she soon added. At this point her mother found for her a stuffed cloth cat, and asked her if that was the tiger. She said, however, "that's Ruth's kitty," and afterwards, that it was a tiger and a leopard. Her father then asked her if she wanted to find the tiger and the leopard. He helped her find the pictures of these in the Encyclopedia, which pleased her very much. And so the play ended.

2. When she woke up on the morning of April 10, her father asked her "what are these?" pointing to the ornamental head-pieces of the upright rods of the iron bedstead. 'Efful' (elephant) she said of those at the head of the bed, and "tiger," of those at the foot. A few moments afterwards, when asked where R- was, she pointed to one of these things at the head of the bed, and said "Zis Wus," and then, of two others, "Zis mama, and Zis tather." Then her father observed: "But you just said those were elephants. Is Ruth an elephant, and father and mother, are they elephants?" To which she replied: 'No. Wus id n't an efful. Zis [pointing to one of the objects in question] id n't an efful now.' Zis will be an efful." This incident illustrates the ease with which her imagination works and the rapidity of change and metamorphosis. To her these iron head-pieces (clover-shaped) are a source of much satisfaction, as she sometimes stands up on the bed and, handling them in succession (there are 14), names them off as "tather," "mama," "Wus," "efful," etc.

3. On April 30, 1904, when she was out on the back veranda, playing, the following was said:

R. I dave a horsie a piece of my tandy, mama. *Mama.*

Yes?

R. Wha' do you 'pose he doed to it?

Mama. I don't know.

R.. He blewed at it, to tee what it wuz, zen he ate it.

This was all pure imagination, as she had not fed a horse since sometime last fall, when noticed the "blowing" of the horse as he took the food offered him.

In her play she shows a wide range of imagination and a certain cleverness as well.

VIII. *Nature-Observation, etc.* The notes below may be put under this head. Those concerning the rainbow are, perhaps, of most interest.

1. *Rain.* She is very fond of watching the rain and putting her hands out of the window to feel it and "catch" it. Her favorite expression is "to tats tome rain to take home to my mama." She runs to her mother with her bare arms and hands all covered with rain-drops and "gives" her them. She says that the rain "tomes out the ty" and "does into ze dround" (June 5, 1904). In response to the repeated question "What does the rain do?" she said: "It does into ze dround, tomes out aden, makes it all wet out here, and never tomes out aden."

2. *Clouds.* On June 5, 1904, in answer to the question, "what do the clouds do?" she said "Dey dust duggle in the ty (sky) all the time." The word *duggle* is of her own invention and its meaning is rather indefinite. She quite early spoke of clouds as smoke.

3. *Rainbow.* On June 5, 1904, she said while watching a rainbow that it "moved." When asked how, she replied "like people walking," and a little while after, "the rainbow is walking this way," illustrating the motion by walking herself. When asked again, a few minutes later, how the rainbow "moved," she said "goes round like a wheel," and added "now it's tipping over." She has seen a number of rainbows and always said that they "moved." She has said several times, with no great emphasis, however, "I'm atraid of rainbow." This is a pretended rather than a real "fear." After saying that "it's a big round rainbow," she asked: "Where's rest of rainbow, mama?" As it disappeared, she exclaimed: "It's most gone. It's covered with up the sky."

4. *Sun.* On the evening of June 5, 1904, to "What does the sun do?" she answered, "Don't you know?" Then, in response to the question, "What is the sun doing now?" she said, "It's *twigglin'* in the ty," and then "it twiggles in the ty." Then, evidently as an afterthought, "twinkles, I mean." She knows the sun is "round" (expressed by gesture) and "red." When asked if she knew anything more about the sun, she repeated, rhythmically

**I taw the tun all bright one day, I taw the
tan all bright one day.**

It is thus clear she also attaches the idea of brightness to the sun.

5. *Thunder and lightning.* She does not appear to be at all afraid of thunder and lightning in the day time, and will stand by the window with her father or mother and watch the storm with much interest and talk about it readily enough. On one occasion, in May, 1904, she was awake in the dark during a thunder storm, and seemed frightened at each flash of lightning, crying to be brought where the light was. Otherwise she had not shown distinct fear in the matter. Apparently it was the lightning and not the thunder that affected her. On June 9, 1904, she said, with no accent of fear: "I'm afraid of the tunder 'torm."

Some other items of this class will be found under the rubric: Definitions.

IX. *Obiter dicta.* Some of her "sayings," are as follows:

1. "Zis is a tineture (sinecure)!" Said of something she was doing (March 15, 1904). Evidently caught up from conversation of her elders, like many of the others.
2. "O dear, I wis' the dood old tummer-time would tome!"
3. "I'll bet two tents zat's tather!"
4. "Zis intn't (isn't) a tow (cow), it's an alecdote." She calls a nanny goat an "anecdote" or "alecdote."
5. "My dranpa's dot pants like zose, lovely ones!"
6. "Zat's a charming picture!"
7. "Tan't we have a pickinick, mama?" (March 16, 1904).
8. "Playing with tather on the bed, having a lovely time," (March 7, 1904).
9. "What tan I do with a tather like zou?" ("April 16, 1904).
10. "I hav'n't dot no 'tories. Dey is all done (gone) out of my mouth. By-au'-by I will buy tome tish-tories" (April 18, 1904).
11. "Toot (shoot) the rain! (May 19, 1904. looking out of the window)."
12. "Who will take tare of me?" (May 26, 1904,—when alone by herself. Also several times when she heard her father or her mother speak of going away)."
13. "I tan't do that, 'tause I'm too worky," (May 28, 1904).
14. "Zere's my hubsand (Feb. 20, 1904). Said while looking at a passer-by out of the window.
15. "I'm doiu' to tee Doctor ----- . My children are tick." (June 8, 1904.)
16. "What tall I do nex' tummer?" (June 15, 1904).
17. "Do you like New Japan?" (June 16, 1904). Suggested by the "Old Japan" of a nursery rhyme, with which she is familiar.
18. "I'm doin' out horsing now" (May 20, 1904).

Concerning No. 14, it may be added, that about the same time she was heard talking to herself about "when I wuz married."

X. *Poetry and Song.* She has always been fond of lulla bies, "Mother Goose" rhymes, limericks and spontaneous effusions of her father. The "singing" by him of "The Assyrian came down," etc., or "Lum-tee-tum-tum was a Chinaman,"—the last original with her father,—is still a powerful soporific.

On December 24, 1903, was recorded her "first poem," as follows:

**Máini, móni
Mákaróni.**

On March 11, 1904, while reading out of a book, she spoke thus, as noted by her mother. **Bab chip mam, doxny muxny, won't zou be mine?**

Tokny, okny, I will let zou out. Jumny juminy.

Tosy nipsky umny, quack tay (says) a duck. Tackny, dackny. Ama doni, opkny, buckny. Tobny buckny, omi dosi, hama dosi, won't zou be mine?

I will tasy chumpsy tápeny

Mockny docksy, wocksy,

Won't zou be mine?

I will whack zou

Wiz a pine.

Whocksy, won't zou be didesy?

I want-a be didesy.

Dickuy buckny, I will whack zou wiz a bocksny.

Does zou want-to wear didies?

There wuz an old person of doyden,

Who wanted to boydeu.

In this compound of prose and verse can easily be recognized her own inventions mingled with recollections and imitations of many things sung or said to her.

Some time afterward the following fragment (repeated several times) was rescued from her chatter:

**Mússy, mússy,
Chúcksy.**

On March 31, 1904, she exclaimed: **Buttertup tays bàggō an dàggō.**

On the evening of April 19, 1904, just before going to bed, she said:

**There wuz a little máddibō, Who
lived on a táddibō.**

On the morning of April 22, 1904, just after waking up, she had quite a "linguistic interval," from which her parents obtained the following:

1. **Asmela, ásmela,
Tánpūs.**
2. **Adje púnda, Aisa
múnda, Hápal to
múnda,
Horsie, Where's e' (the) pála?
Háspanilábal,
Whísperi.
Bolúbadissa,
Little bit o' money.
Dolly and Tally and Tally went out to walk,
Hásmidála.**

3. Mouses,
Gooses.
4. Little ducks, And
many mucks.

Here ought to be recorded also her rhythmic utterance (June 5, 1904):

**I taw the tun all bright one day! I taw
the sun all bright one day!**

This she "sang" to a sort of tune, as she also does some phrases and sentences, when "playing" on her toy piano.

On the evening of June 17, 1904, while telling a friend about going to Bayville, Me., in the summer, she "sang" repeatedly, with great expression in the way of gestures and playing her "pe-pano."

On the big river boat! On the big
river boat! *ad lib.* You have to ride
on the river boat A long, long time
Till you come to the bridge!

This was delivered in a sort of "chant."

XI. *Righthandedness.* She is distinctly righthanded, using implements, knives, scissors, pencils and like objects as do ordinary adults with the right hand. Her spoon and her fork sometimes with her left hand,—the latter perhaps by imitation. When she "sews," she puts the needle in with her right hand, and then changing the cloth from left hand to right, pulls the needle through with her left. On May 18, 1904, when trying to unbutton her shoes, she used first one hand then the other. In trying to unbutton coats, dresses, etc., she uses either hand sometimes. She "writes" with her right hand only. On May 19, 1904, her mother, at the black-board, wrote a little with her left hand. R., who wanted to write, picked up a piece of chalk and began to "write" with her left hand, but, after making a few marks, she changed to the right, with which she wrote for a long time taking great delight in rubbing out the marks she had made and making more of a similar sort. Her righthandedness began early. On Aug. 23, 1901, her father noted that, as she lay on her back in bed, with one hand across her breast, she stretched the other up alongside her head. This she did with both hands, but oftener with the right. On the afternoon of October 12, 1901 (when she was a little over two months old), her father watched the movements of her hands as she lay on her back in her carriage. Of 58 consecutive movements of the hands 38 were of both hands together, 5 of the right only, 15 of the left only. Of 58 movements of the hands, when both hands were at rest, 29 were right and 29 left. Of 10 movements of the hands while she was asleep 2

were left, 8 right. At present (May 1904) "right" and "left" seem to be just words to her, of which she is quite fond, using them of other things than hands and feet, ears and eyes. She also employs "right" "left," indiscriminately, of "near" and "far" objects—*e.g.*, "Dive me the right block." Likewise with the sense of "this" and "that." On May 17, *e. g.*, she asked her father if his lower lip was his "left lip." She is utterly unable to accurately distinguish her rights and lefts (side, hand, foot, ear, eye).

In climbing the stairs (May 16) she put the left foot forward.

On October 13, 1901, her mother recorded the following observation: This evening when Baby was being got ready for bed, she was laid in her cot on her face (she had only her shirt on). She lifted her head and shoulders clear of the bed several times, moved her legs in all directions, bending her back into a bow. At last, she succeeded in turning upon her *right* side, and then on to her back.

The next evening the experiment was repeated. Baby again turned on her back by her *right* side. This time she also progressed backwards several inches. She succeeded in drawing up her legs so that she rested on her knees, elbows and chest, almost in the position for creeping.

XII. *Stories.* On December 27, 1903, she said: "Alexander wuz in the toa (store) dettin doose (goose) to (for) mother's little tild (child)." This seems to be R.'s first attempt at storytelling; it occurred during the excitement of Christmas-tide.

On March 4, 1904, R. began spontaneously to tell a story (No. 1 of those below) to her mother, who recorded it. After she had done, her mother asked her to tell another story and she continued until the seven were told, which are here given as written down.

1. Once upon a time there wuz a efful (elephant). A dreat big efful and a little efful. The little efful was climbing on the big efful's tummy (stomach). And they began to ting, Dooley-ooley. And they bedan to drow (grow) a *long-long* trunk out in tront (front).

2. Once upon a time there wuz a titty out in the back zhard. There wuz two titties, a big titty an a little titty. Aud the little titty wuz climbing on the ozzer one's head. And they bedan to sing, Doy-oy-oy.

5. Once upon a time there was a black tat (cat) from Bayville. He jumped around all the trees. Dess (guess) he broken a tree.

4. Once upon a time there wuz anuzzer black tat. He lived down to Bayville. I dess he didn't broken a tree.

5. Once upon a time there wuz a black tiger. And he bedan to try cry). And he climbed up in a tree and taid, wasn't that a dood tiger? And then he ran home to find (find) his mama and his tather (father), and Helen. And he tat in a chair, and Helen taid, Who is zat?

6. Once upon a time there was a *leopard!* Aud a piger. [Here her mother asked, What is a piger?] A piger is a dog. And they bedan to find their mother in their own home and their tather.

7. Once upon a time there wuz tcheep (sheep) wight (right) in the middle. And anuzzer tcheep. And they bedan to tick (kick) up their teet an tay fiddlee-dee. There wuz anuzzer black tcheep tat up in a tree an tay fiddlee-dee.

On March 15, 1904, Ruth told some more stories, when asked by her father to "tell a story:"

8. There wuz a little dirl wuz digging in the tow (snow). And then she tell (fell) down and she bedan to try. And she dot up and she wan home to her mama and she telled her mama, I broke my leg.

9. There was a little birdie up in a tree. And he bedan to det down, an he dan (began) to look round, and he dan to det up adain.

10. There wuz a little bidzii.—O that is a bad tory. [Then, looking at a book she said, Here's a lovely, awful tory.]

11. There wuz a little Wus (Ruth) who tell wight down in the mud, I mean in the tow (snow).

And her tather picked her up, and her tather drowned her.

12. There wuz a little diddy.—I don't know about the west (rest) of it.

13. There wuz a little rickiness. [When her father said, What is a rickiness, Ruth replied, "a little duck with its mouth open]. And it wuz doin this way with its tingers" [making motions with her fingers].

On March 31, 1904, she told another story:

14. There wuz a little dirl who jumped up and down. Who detted (got) in her pony tart. And her mama took her out. And her mama buyed her a brura (bureau).

On April 30, 1904, the following stories were taken down by her mother.

15. I taw a little dirl, wiz a brown dress on. Her name was Libbus (Elizabeth). She had a dolly wiz a pink dress on.

16. I taw anoizzer little dirl. She was Helen. She had two tathers and two mothers. She wuz tsurely a little dirl, she tould (could) walk. There was anoizzer little baby dirl who was Helen's little bruzzer.

17. I, taw anoizzer little dirl. Her name wuz Baby-Baby-Baby Bunting. She had two tathers and two mamas, tive (five) tix (six), whole lot a (of) mamas.

18. I taw a little auntie dirl. She had a baby, too.

19. I taw a little onkle (uncle) dirl. And Onkle tooked her up in his arms.

XIII. *Spontaneous Formation of Words.* A spontaneous outburst of the word-forming instinct occurred on the evening of March 19, 1904. Ruth came into the room where her father was sitting at his table writing and asked for a piece of paper (a waste fragment with scribbling on) which she happened to see. On receiving it she ran into the kitchen and then into the bathroom, where she hid it behind the door on top of the lid of a tall clothes-basket. When she came back she asked her father for "a di aika," meaning a similar piece of paper, which she took and hid in like manner. Without any suggestion she continued the process until 20 pieces of paper had been obtained, named and hidden. Then she began to bring

them back, one at a time, naming them again as she gave them to her father. When asking for them first her formula was "I want a -----," and, when returning them, "This is a -----." She stopped returning them at No. 16, having become somewhat tired with her exertion in running so fast and so many times from the front room to the bath room and back, and being interested in the presence of a friend who had just come in. The names she gave and the order in which they were given are as follows:

When asked for.	When returned.
1. Dīaīka	Plépla
2. Dīr'ka	Pāidjatnā'ka
3. Dāmā'sa	Dādā'tā
4. Taigā'kā.	Bābā'pā
5. Taiā'sā	Didítā
6. Akā	Dāgā'kā
7. Issā	Didā'kā
8. Aissā	Didíka
9. Trō ō'tsa	Bābā'ka
10. Naika	Didíssa
11. Tree with roses on it	Bā'bibū
12. Taā'ta	Bē'bibū
13. Pamā'pa	Dāgibū'
14. Taā'sa	Dā'dzibī
15. Pókis	Bādzibū'ts
16. Taā'ssa	Dadā'tūn
17. Taék	
18. Tízissa	
19. Piúksa	
20. Jishsha	

Except No. 11 of Col. 1 and Nos. 11 and 12 of Col. 2 (the first of these is a phrase often used by Ruth; the second and third are evidently identical with *baby boo* or *babby boo*, one of the caressive names applied to her by her parents), these words appear to have no marked relationship with the words of the English (or any other) language as used by the child or her parents.

On March 28, 1904, her father tried to get her into the same inventive mood, but she became tired and gave up after three trips. The names given when taking the bits of paper, were:

1. Dū'sinibī'zima. 2. Dedzūdā'bidī'zā. 3. Paiāidi. When returning them: 1. Agígi (and *Abidi*). 2. Abigúgígō'gup. 3. Gū'gibú.

On April 24, 1904, she named several of her play and story "bears" thus:

1. Halibísded. 2. Apis minóvna. 3. Chabásinua. 4. Efful (elephant). 5. Chabáda.

When she said "efful," she held up a piece of string and 4

said that was his trunk. It is impossible to say whether she really meant to call one of her play-bears "efful" or not,—this may have been one of the "lightning changes" she so often makes.

On May 19, 1904, she named seven of her "effuls" (at the head of the bedstead) as follows:

1. Ekkunt. 2. Tomprint. 3. Tanbrink. 4. Grinfrintee. 5. Ham-pintee. 6. Pambrintee. 7. Homincómprins.

On May 20, 1904, she named a dozen envelopes, which her mother had been addressing, as follows:

1. Binni nith lid'n dikl' it. 2. Damin dumerlin turn lin tee. 3. Mamlin emlin ginin gonon to bamli to mamlin. 4. Lason tesum em bosin honi flawnis. 5. Bamlin gason a mamem a mis mami bamlin gasin bamli tee. 6. Mamlin tee. 7. Tromblings tamblings. 8. Kami zamius. 9. Pambliu bamblin tee an drap. 10. Blamlin tinklin ranlin hampusin em blos tail talin goth. 11. Hamlin to wan bloxin trumblig troth. 12. Bail en lawsin bamlin toolin.

At her own request, she was allowed to "name" them again, taking them from the pile in reverse order:

12. An blesin lisdin pus in bamlin gos a. 11. Pussy-cat (apparently from pus in No. 12). 10. Trowni osso man pa pa pa. 9. A bam-ling bamlin gopli mamin. 8. Hamlin ming cabin. 7. Gee mingi win. 6. Hamgot to mingli hamli simla. 5. Bal borden hablin teekin. 4. No name. 3. Pamla mamla bamlin babbi bee. 2. Bonnin kee ba bee by ya. 1. Dug la.

On May 30, 1904, she named eight pieces of paper as follows: 1.

Amling lisfees bis. 2. Badúda tsittafátta. 3. Didáda didada tútta. 4. Heswihégbli. 5. Tétutátta. 6. Besli hakli goosin. 7.

Becksa hesbi doosin dosin. 8. Pastu geslin dawkin.

XIV. *Spontaneous Language.* Related to the phenomena of the previous section, as some of the "words" clearly indicate, is her non-English "language," of which, fortunately, it has been possible to record a number of somewhat lengthy passages of continuous speech. Early in the spring of 1904 she was using a sort of "language" of her own, particularly in answer to questions to which she could formulate no reply in English. She also employed it in talking to herself, to her dolls, and "at" her parents. This "language," her father christened "Chinese," and she adopted the name. Sometimes (as *e. g.*, in May, 1904) she would say: "Now I'm doin' to talk Chinese," "Tather, I want to talk Chinese," etc. By combined tact and patience examples of her "Chinese" at its most flourishing period were obtained.

1. On May 9, 1904, the following was noted:

Lafrinkin pimnpringósi papinkiswéesi beri cor colin. Byindinggam-bin rimpinrig con tim pinbétrin ucosi téten béntin. Anmi conti can-trik romplin too las minkin pomplin tamplin. Rankin tonkin. Bas-frin durdrin. Okin krofree effen tee.

2. On May 20, 1904, she "read" and "talked" out of a

book. From her flow of speech the following were rescued. Gwalin do than. Ye yaw maniu hawbay. Beli basag hamlin telin hamlin wasin lazing am dawsna raizlin amblásan. Hamlin manin. Hamlin tawsin hanglin bowin to pramlin prackin blallin bomlin her-lin baltin an emlin toontin toontin toonténdin. Am amlin amis an do a maslin am blisin amblin to a wuslin a amlin guslin. Bamblin cawsin pamling gisan.

3. On May 25, 1904, she said to her father "I want to talk Chinese," and, pretending to "read" from Fiske's "History of the United States" for schools, delivered herself of a long talk, of which he was able to record the following:

Romlin maswa wasma mamin pamblin doosin preerlam rosin basin tooli. O madrin noofri tomátlin tindlins. O bafres omlin toofres disin dalrin dalrin toosin. Memli cawsun tosin. Babri batlin toosin toosin pelbrin tamidawsin. Bambin toosin hembin toosin toonding goosin. Amiántin tatrín balin toodrin goodrin avan jaisli. Pamlin deedee tree peerin deezin chai wbosin jeesin bopres in tees. Pawsrain cawsin mbrasin wosin. Tambli shamplus. Desden doling dadza dadza. Bafrom bamlin toosin doosin hoosin dawsin. Dewsin bamin primlin toos. Waslin toomin pemlin tomlin tusin.

On May 28, the following was recorded out of a long talk: Efta chase hordis teesin. Cbofjis cheefi jasin an oos an jeis an toosin an dosin gaisin. Dee etsat get an doosin haprin doosin teesin. An deesin dosan drawsin ese om drawsin.

4. On May 29, 1904, the following was recorded:

Ndoosin ges an trostin toos. An reeslin timlin duba an dreesin dressin tootsin toosin. Zeáthris infran dosin doodry. Abbeshéetsis abbeechichud borslin trefflin betti torsin menta frertin. Beelsrin ges-nin tootsin besin hawsin. A balgin potrésin an droosin beertsin taum an hedín doodin doosin.

5. On May 31, 1904, she spoke the following:

Bissi dochlin doosin bisin too an doosin doo. Whoot doo an doosin beglin an bet an bil. Doos a dulan baytin. Peeplin histrin doos an doosin doo. Tingsbis doos an doos an doolin doo. Ik hespis doos an hecklin doos. Bayspin gayspin ading goosin. Hecklin oos o rogra hecklin dacklin troosan goosin beesin gō an doos. Paypee sweesbin keespi doos. Hay deebnin ooly beesnin deepin haysin goosin hecklin. Bispris says biglin doosbee doosin doos an dumlin. Gée gee ga! Eeswin deelin deesin rossin hecklin. Geelaf geesin doot a prilin been chleepin heesin hacklin doon hacklin. Hetéesin doosin doolin doobin.

6. Soon after waking on the morning of June 2, 1904, she spoke the following "Chinese," in response from a request of her father:

Déedadávda hecklin toon ebbin treslin gacklin doosin hee. Besbi donin des. E. daisin doonin tecklin.....vo ves zeesin. . . . Amis tecklin doosin dis haslin keeslin. Deglin disin arasin asin wboosin hecklin dool. Vúvusín hesin doo-ooo. Dees das tada keesin dee ay dasin gaglins. Yow kastlas see sín aveesin tootlin doolin deelin da. Dedada dadáda áhaháha. Hesazn gwasin gwedes an despin dcsin hudza bee teesin du an dacklin dee. Abása do an denu helin doosin hee an doo. Hadin doo an deesin ges an gledin nusa glesin beegsin doin a turlin dee. Bedi doosin daglin hasin doosin dagin bisin dee an prenniu. Takkin veesis budro dasin doosin heglin dasin hees in hee

do doosin. Bée-ee-réenin abetin seesin heesin beglin doolin heglin heesin. Abélin heelin doosin an beedin doosin deesin too ye deedin doosin me. Masin doosin háy-háy-háy-háy-háy-háy-háy-háy-háy! Tee-sin a beesin deglin do an daglin doosin dee. Deedaydee besbi sagrom hebéedee daisy daydee babása geesin do an hasin do an dee. Deechin drolin deem beglin danglin dee heglin doolin daglin heglin blasin. Abráysin gedéedi choosin teen an drolin hoolin hesdin raisgin dailgin blaisin bason heglin deglin droosin koosain doo. Bisin doolin doo.

7. About half-past three the same day she came up to her father and said that she wanted to talk "Chinese," whereupon the following was taken down by him:

Beesin doosin laisin deesin doo. Bedsin teesin doosin dinglin danglin. Thesin doo an wusin deesin dubin. Angäckla cracknin wesin heesin daglin laslin whoosin hecklin woo, Gágagága gágagága gága-

gága! Abbeesin doosin teesin heglin doosin doolin hesin doo an dee-Tin doosin doo an blacklin kaysin peesin bindef daysin dee. Beeson chisya chisya vuvisda dista. Bixin hatda vingla daglins pecklins maniba. Beela taysin doosin deesin dee doolin deezy. Deesin doo an deesin tee. Gaysin doosin dizin deglins. Adeedzin dee an dillin dee. Baysin wigga. Babba a daysin doo. Deezin deezin doo. Whee-zin whoozin wheezin. Deezin doolin dee an hazin heesin heetus deezin beezin dee an dadin deesin doozin tee. Deesin doozin disin dee. Hadni doosin dagnin desin doo. Deesin doglin yeddin gessin deesin deesin haglin deel. Daysin beesin heezin daysin. Geezin deesin bay-sin doolin. Doosin dosin deesin dillin dee. Peesin dailin doosin heesin doo an daglin. Habáyan doo an dillins. Besin doo an deelin an daglin hesin hee dib beesin deesin dailin doosin too. Besdi avadáda lee. Vis avávlín dee. Deesin deesin daglin doolin heesin deelin dating dee. Dilly dee an dilly hemplin. Besin deedin heelin baylin doosin teesin dee. Deesin deesin deezin daylin dee. Teesin hyasin heesin ageesin deesin dee. Haytemil hedelin keesin diglin deelin deesin dee. Peesin haylin deesin daylin heesin. Eesin haylin peesin deelin dailin dee. Hedlelin deesin deelin peesin dee. Teesin daylin days heesin dee. Beddin deesin dee.

8. On June 6, 1904, she spoke the following:

Choolin tootoo leelin doo an heesdoo doosdu heesdoo doolin tee. Beestoo toolin doolin doo. Pubbe ta doosdin doo. Doosto doolin doo dee. Paystoo doolin dō. Vaysdoo doo doolin deelin. Hoosdoo doolin doo. A toolin doolin doosin. Toos doo doolin do toosdoo doolin doosin. Coosdoo doolin dee. Toosdoo doo aylin heesdoo doolin haysdoo heesdo doolin doo. Toosdo deelin doo. Hadóosdoo teestoo deelin. Teestoo haglin doo. Doosdoo too doo dōo doo daylin. Toosdoo doolin deestoo doo.

9. On the morning of June 10, 1904, soon after waking up, she spoke the following:

Dodo geesti goggin tow (tau). . . . Gonggin gonggin taygan. . . . Gogi glesti tsoggin dow (dau), Geegin gonggins neestoo wuggins weeskins wiggins seeskins. Higaygin baykin. Toogin goostoo gooin whoostoo gooin. Teega wheestoo geegin keekoo keelin doogin doo. Wháygeeáysin gaysdoo heesin. Teetoo gaystoo weegiu do (dō). O ay iktallin waysin. O woogin hankin doolin dookin dee mit ashlayn day. Fay oo waystoo yay.

10. On June 16, 1904, the following was recorded:

Balin kyap an balin an teecock an balcock. Gwaygin deegin yabin

galin go. Gabing gathring galin. Coóka coóka coóka! Baby baby djevées a baby!

This "Chinese" has an extensive vocabulary, as may be seen from the following list of "words" occurring in the examples given in this article alone:

A, abása, ábbeechichud, ábbeshéetsis, abélin, abétin, abráysin, ading, ahàha, am, amblàzin, amblin, amis, amlantan, amlin, an, anmi, arásin, ashláyin, asin, avan, avéésin, ay, aylin. Babása, babri, baby, bafres, bafrom, balcock, balgin, balin, baltin, bambin, bamblin, basag, bas-frin, basin, batlin, baykin, bayspin, baytin, bedi, bee, beedin, bee-ee-reenin, beegsin, beelsnin, beesin, beesnin, beestoo, beglin, beli, beri, besbee, betti, biglin, bil, bisin, bispris, bissi, blaisin, blallin, blasin, blisin, bomlin, booslin, bopres, bowin, budro, byìndingámbin. Cant-rik, cawsin, cawsun, chai, chase, cbeefi, chleepin, chofjis, choolin, colin, con, conti, cooka, cor. Da, dacklin, dadada, dadza, dagin, dag-lin, dailgin, daisin, daisy, dalrin, danglin, das, dasin, dawsna, daydee, daylin, dedada, dee, deebnin deechin, deedaddvda, deeddydee, deedee, deedin, deegin, deelin, deeni, deepin, dees, deesin, deestoo, deezin, deglin, denu, des, desden, despin, desin, dis, disin, djevées, do, dochlin, dodo, doin, doling, donin, doo, doodin, doodry, doogin, dookin, dool, doolin, doonin, doo-oo-o, doos, doosdin, doosdoo, dooshee, doosin, doostoo, doot, dootin, dosan, dosin, dotban, dow (dau), drawsin, dreesin, dressin, drolin, droosin, du, duba, dulan, dumlin, durdrin. E, ebbin, ees, effen, efa, emlin, etsat. Fay, frertin. Gabing, gacklin, gaglins, gaisin, gaisli, gathring, gaysdoo, gayspin, gaystoo, gedéedi-gee, geegin, geelaf, gesin, geesti, ges, gesnin, get, gisan, gledin, gles-in, glesti, gō, goggin, gogi, gonggin, goodrin, gfooni, goosin, goosti, guslin, gwalin, gwasin, gwaygin, gwedes. Hacklin, hadin, badóosdoo, haglin, bamlin, banglin, hankin, bapin, basin, haslin, hawbay, haw-sin, bay, hay-háy-hay, baysdoo, baysin, bebledee, hechlin, becklin, hedin, hee, heelin, heen, heertsin, heesdoo, beesin, heestoo, heglin, helin, hembin, berlin, hesam, hesdin, hesin, hespis, heteesin, higāy-gin, histrin, hoosdoo, hoolin, hoosin, hordis, hudza. Ik, iktallin in-infran. Jasin, jeesin, jeis. Kastlas, keeko, keelin, keesin, keeslin, keespi, koosain, krofree, kyap. Lafrinkin, las, lazing, leelin. Mad-rin, manin, masin, maslin, masua, mbrasin, mee, memli, menta, min-kin, mit. Ndoosin, noofri, nusa. O, okin, om, otnin, oo, ooly, oos, Pamblin, pamlin, pawling, papinkisweese, pawsrain, paypee, paystoo. peeplin, peerin, pelbrin, p'impringósi, pinbéntin, pomplin, potresin, prilin, prackin, pramlin, preerlam, prennin, pubbe. Raisgin, raizlin, rankin, reeslin, rimpinting, rogra, romlin, romplin, rosen, rossen. Sagrom, says, seesin, seeskins, shamplus, sweesbin. Ta, tada, takin, tampli, támidáwsin, tamplin, tatrín, taum, tawsin, taygan, tecklin, tee, teecock, teego, teen, tees, teesin, teestoo, teetoo, telin, tétenbéntin, tim, timlin, tindlins, tingsbee, to, tomátlin, tonkin, too, toodrin, toofres, toogin, tooli, toon, toonding, toonténdin, toontin, toosdoo, toos, toosin, tootlin, tootoo, tootsin, tosin, tow, tozin, tree, trefflin, treslin, troosan, trostin, tsoggin, turlin. Ucosi. Vaysdoo, veesis, ves, vo, vuvúsin. Wasin, wasma, waysin, waystoo, weeskins, wheestoo, whoosin, whoos-too, whoot, whosin, woggins, woogin, wosin, wuggins, wuslin. Yabin, yaw, yay, ye, yow. Zeáthris, zeesin.

In this list (which does not include many words in No. 7) there are some 430 "words," the extensive repetition not being a bar, evidently, to the appearance of new ones. Concerning this "language" it may be said:

1. It has, in many places, a "primitive" aspect.

2. It is spoken fluently, with accentuation, word-separation, etc.
3. Monosyllables are rare, rarer even than polysyllables.
4. The characteristic "word" is a dissyllable accented on the first syllable.
5. The great majority of the words have consonantal initials (d, t, b, h, g, leading, in this order).
6. Certain letters, which she does not yet pronounce as initials (*f, s, k*) appear a few times.
7. In a number of dissyllabic words tri-consonantal groups occur: Basfrin, beelsnin, bispris, cantrik, durdrin, heertsin, infran, kastlas, shamplus, tambli, tindlins.
8. Some words are of a rather curious nature: Abbeeshéet-sis byindingámbin, déedadávda, iktallin, kastlas, lafrinkin, pimpringosi, támidáwsin, wuvu'sin, zeáthris.
9. There is a marked fondness for a, i, ee, oo, in the body and last syllable of words.
10. A sort of suffix (- *in* and varieties) prevails to a large extent.
11. Certain words are used repeatedly: Daglin, dasin, doo-lin, etc.

In general this "language," presents a sort of matrix, from which an inflected language could, perhaps, with no great difficulty be shaped. Its exact relation to her own English speech cannot be absolutely determined, but it is safe to say that few of the characteristic "words" of her "Chinese" seem to be derived from or connected with her usual speech-forms. Her English vocabulary (complete count not available) might reach 3,000 words, and was certainly over 2,000 in the middle of her third year.

XV. . *Talk*. It has been possible to record some of her "talk" and running conversation on several occasions:

1. On the morning of October 8, 1903, her "talk" before and during breakfast was recorded by her father as follows:

Wut (Ruth) did dive mama nice tmack (kiss). Don (don't) dwess Wut, mama. Wut dou wan (want) dat tow-book ("cow-book"). No, at all. Wut did tay mumu (music). Wha' papa, mama? Wut want eful (elephant)—book. Wut did do a wee (miuxit). Mama don dwess Wut. Le' (leave) Wut's nightie on. Wut waut dat book up the'a, mama. Mama, put Wut on Wut's high tsair. Whe' Wut's bekas (breakfast), mania? Open zat milk bottle over he'a, mama. Mama, Wut tee (see) in the'a. Mama, Wut take a (the) tover off zat one. Let Wut tee in a picka (pitcher), ne'a (there). Bwing a picka over he'a. Wut won't wead zis book, 't all, no! Mama, take Wut up! Wut want tome of does 'tatoes, mama. Tatheril hap-a (have to) take an um-blella (looking out of the window). Wut put tome of does eggs in ne'a, (there) telf, mama. There tather's egg. Wut did put tome does eggs in ne'a, mama. Wut put tome eggun in ne'a, mama. Wut put tome eggun on tumpin else, mama. Wut tee wat's in nat dis'. Wut take dis to tather. Wuth dive Mittens (the cat) tome of zat. Wut put dat

toup (soup) in ne'a, mama. Tome out of zat way (to the cat). Mama, let Wut tee in ne Delly (jelly), delly, delly. Wut want to trow zat take away out there. Zat tather's milk. Tather, take Wut up. Wut tee tather's eggs. Nothing in ne'a. Bone in ne'a. Wut tee tome o' these eggs. Wut tee tome o' Wut's eggs. Tather, tome to bekas. Tather, take Wuts han'. Wut tarry tome pape's. Wut want bed (bread) in Wut's egg. Wut dive tome of that bed to mama.

The continuation of this "talk" was recorded by her mother, after her father had gone:

Mama want-a put tome-a dat bed in mama's egg, whole lot-a dat bed. What titty dooning (doing) under 'tove, mama? Wut have tome o' dat bed, mama. Tather hap-a (will have to) take umblella, mama (on seeing the rain). Wut want-a bling dites (dishes), mama. Mama hap-a wats (wash) dose dites. Wut want-a tee mama make Wut's dwess and Wut's ap'on, mama. Mama don-a (going to) make Wut's dwess now. Wut want a dwink-a (drink of) wata, mama. Mama, let Wut brut (brush) dose trumbs op-a (off the) table, mama. Wut did tind a tup in mama's woom. When Wut pick up these buttons, nen (then) mama tit down ne'a. That tring is all tangled up, mama. Wut idunt (isu't) chleepy, mamma. He's-a (heres a) tapen-pin (safety-pin), mama. Let Wut take Wut's Mawylam chleep, mama. Wut buil' in pools (spools), mama. M'hap-a (mama will have to) buil' 'ose pools, mama. Mimi-mama-motha. Dat little pool tan (stand) up there. Let Wut put 'ose pins in-a (in the) bakun (basket), mama. M'(mama) put turn py-else on ne'a, mama. When ho'n blow, nen do-ta (go to) dinna. Wut want dat book, dat Indin book, mama. Wut did lwead (read) dat book, mama. Wut want an odder book, mama. Wut did tee dose pickers (pictures) in he'a, mama. Wave tather's tlag (flag). Wut tawy tome-a dose chlings. Where dat tat (cat), mama? Let Wut tome out he'a, mama. Tut (shut) dis door, mama. M'dott-a (Mama got to) wite den (again), mama. Dit-a (this is the) tover ob dis box. Dat box blongs on he'a. Whe'a's Wut's botty-tap (bossy-calf) and mama-tow? What mama don-ta do? Mama hap-a (have to) hab 'at (that) patton (pattern). Dat's mama's to-a-tine (sewing-machine). Dolly's ha'-is toming op.

2. On the morning of March 9, 1904, her mother recorded consecutively some of Ruth's "talk."

10.00—10.05. Macaroni! I want to bweak macaroni. Put it on my table. I'm bweaking macaroni, mama. Who is zat, mama? Is it the pos-man, mama? What did the pos-man bring? I've dot a pos-man. A tine (fine) big pos-man. What are you witing, mama? Are these papatoes (potatoes) tor my dollies' tea-party? I hu(r)t my hand wiz zese macaronis. Dess (guess) zat's enuff. I'm tookin (cooking). Think this will boil up, mama? Tan't I took (cook) all zis? I thlink (think) zis will be enupf.

10.10—10.13. Tee (see) those are little babies in my toffee-trainer (coffee-strainer). I'm tookin (cooking) little babies. No, I wount n't (would n't) like to be tooked (cooked). Back-door bell wang, mama. I'll tend to it. Are zose new banmanas (bananas), mama? I'm tookin. Where you 'spose my tettle (kettle) is? [Interruption].

10.15—10.20. I have dot a little titsier (sister), and Helen and Boyn-ton and Maisie. We are playing and wunning. Now we are tixin (fixing) our dinner. What are zose mama? Are they tossinge (sausage)? Yes, they are tossinges. Are you 'preadin they all out in a wow (row)? Will they try (fry)? O, you are donda (going to) put 'em in a oven. I've dot my Maisie here, Mama. We are donda watsh (wash) dis'es. To-tray, to-tray, to-tray! [Sings]. Now we dotta (got to) watsh dis'es

mama. We dot suts (such) a lot-a wu(r)k to do, to do, do, do. I dot-a took (cook) my macroni on a 'tove.

3. Following is a brief "talk" to her father on December 2, 1903:

"Won't dat be betta tather? Wut want tamp put on (Ruth wants a stamp to put on this letter). Mama's gone down town, det tumtin nice. Now dat's all right! Dat's a map [looking into a book]. Wut want to tay 'tarewell, mama.' Dat's a nice pillow."

4. Conversation on December 16, 1903, sitting on her father's lap, looking at a "Guide to Long Island," while he was writing at his table.

Zat's where we wuz are [on finding place in book she had lost]. Dit A. F. Tambel (said of a picture that looked like her father). Ta (father) wite 'about dis woad and wite 'about zat woad. Tather wite some mo'a (more) pickas (pictures). Tather wite 'bout all zese. Ta (father) wite zis and zat and zat and zis. What zat plate (place)? Whole lot o' boats zere. Ta (father) don (don't) wite zat aden (again). Map in hea (here)? What dat plathe (place)? Dose are wock. Dese wocks to do rune (in the) water! Ta (father) don wite any moa (more). Dranpa wight zea (there)! Tumbody else. Ma (mama) wash Wut's tace when mama tome back.

Then taking up Hiller and Furness's "Notes of a Trip to the Veddahs of Ceylon," she continued:

Ebel (elephant) an a tow (refers to picture opposite p. 8). Whole lot o' boats and one boat aden (again) (picture opposite p. 8). Indina mans (picture of Veddahs opposite page 3). Island (picture, opposite page 12, of terraced water-fields of rice). Looking at zey knees (picture of dancers, opposite p. 40). What do (those) tunny man doin (picture of Vedda youths with bows). Any moa (more) in hea? Teed (saw) dese. Tader isn't hungry. No.

5. On April 30, 1904, her mother reported the following remarks made by R. while washing dishes for her mama:

Tan I was' zese dis'es, mama? Let me tan (stand) on zis box. Will you please det a (the) drainer, mama dear. Zis water isn't too hot. I tan't bu(r)n me. I am happy to was' zyour dis'es. I like to was' zyour dis'es. I am wery happy now. I'm was'ing zyour new dis'es very taffly (carefully). I thlink zyour new dis'es are wery pretty. They have dot hwflowers on 'em. Are zese roses on zis dis', mama? Did you track (crack) zis dis? 0 look, mama dear. It broke. Isn't zat *too* bad! Well, never mind. Trow it away. I'm tarrying (carrying) all the dis'es off-a (the) table. Sall (shall) I brus' the table now, mama? I want-a (want to) wipe zis tup. Will zou please dive me a towel, mama dear? Zis don't b'long on-a (the) table. I'm do'nta (going to) make a big pile of zese dises. Don't zou was' em. I'll do it all. I want-a wipe *all* of 'em. Now, make me a little take (cake), white I'm was'in 'tm and wipin 'em. It isn't ha(r)d wo(r)k. Will zou please put zis in the chloset? I tan't reach. You wipe the west of a (the) dis'es. You wipe the big dis's, mama, dear.

This "talk" shows the flow of her thought and the ease and rapidity with which she can change from one topic to another. It also indicates the number of different words employed by her in a given amount of speech.

XVI. *Time*. Although she now (April, 1904) uses "to-day,"

"yesterday," "to-morrow," "to-night," "this afternoon," "this morning," "in the morning," "last week," "this week," "next week," "this month," "last month," "next month," "this summer," "next summer," "last summer," etc., it is doubtful if she really has much of an idea of the signification of but a few of these terms. Probably "to-day," "to-morrow," "yesterday," and perhaps "this morning," "this afternoon," and "in the morning" (in the sense of "in the morning when I wake up"), exhaust her time-terms of this sort. Other time-expressions used by her now (April, 1904) are: Now, then, by-and-by, soon, some time, "after I put dolly" to sleep, "before I do out," afterwards, etc. On May 18, 1904, she used the expression "when tummer-day tome" (she has employed it several times before) in the sense "when the summer is here,"—"tummer-day" is a coinage of her own. In the latter part of May she began to use commonly the phrase "once-a-while," in the sense of "once-on-a-time" or "once," *e. g.*, "I taw a blue bird once-a-while" (June 9, 1904). "I had a drink once-a-while." For the future she now uses often "pretty toon," "tome day." Another expression in common use by her is "when I det a big dirl." Also "when I'm drown up," and "when mama is little." She now (June 9, 1904) seems to know Sunday as the day when her father goes to church, and on Saturday (June 11), when her father was changing his clothes she said: "Is tather doin' to turts?" but of its succession in the days of the weeks, she is ignorant.