THE VOCABULARIES OF THREE CHILDREN IN ONE FAMILY AT TWO AND THREE YEARS OF AGE.

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The following vocabularies of the three oldest children of Professor W. M. West, professor of History in the University of Minnesota, and the late Mrs. West, were taken as the children were successively two years old in Oct., 1884, July, 1886, and April, 1888. The oldest child was again taken at three years of age. The work was chiefly done by Mrs. West (who had been a High School teacher), who began about a month before each of these birthdays to note down, as far as time and opportunity permitted, all the different words she heard the child use. She then made an alphabetical list of all the words so as to check off reduplications. Proper nouns were not recorded, nor were declensions or inflections unless they were from different stems. As Mrs. West was almost constantly with the child she probably heard most of its vocabulary for the month preceding its second birthday; but both the parents believed that it was impossible with this method to get down all the different words used.¹

The work was done without the knowledge of the few summaries of children's vocabularies published at that time, and was undertaken for the purpose of testing the suspectedly small figures which philological rumor ascribed to children's words. Having by this family study satisfied themselves that their suspicions were justified and that such guesses had largely underestimated the verbal outfit of children, Professor and Mrs. West made no further use of their valuable material. During the years of the preservation of these vocabularies in

¹ Professor West himself adds the following comment. "Mrs. West was almost constantly with the child, but both parents realized that it was impossible with so imperfect a method to get down all the words used. An approximate result was all that was aimed at; and, as will be seen below, no word or form was recorded, if, upon any principle of criticism, it could be left out. For the third year vocabulary in particular Mrs. West was aware that the list was very incomplete, and that with more time for observation and more leisure for recording results, a much larger number of words would have been secured. This list was never regarded by either parent as a satisfactory representation of the child's three-year vocabulary."

the family archives several of the first pages, containing all words beginning with a, b, and c, of Ruth's two-year list have unfortunately been lost. So it must be remembered that in each of the following parts of speech Ruth's two-year old vocabulary does not begin until the letter d. This loss is compensated for in the table by the fortunate fact that her total number of words had been preserved and by the comparisons being made in percentages.

The compilers have classified the vocabularies under the parts of speech and combined them in the following manner. The following list of words, exclusive of those in italics, is the recorded vocabulary of the oldest child, Ruth, at three years. All words followed by "Rh," are those which Ruth also used previously at two years. The few in italics and followed by "*Rh*," are words used by Ruth at two years but not at three years. All words, whether in Roman or Italic type, which are followed by a Roman "R," are those used by the second child Rodney (boy). His vocabulary is completed by the few words in italics and followed immediately by an Italic "*R*," which are words used by him and not by Ruth. Similarly all words followed by a Roman "M" are those used by the third child, Margaret, at two years; while words used by her alone, and not by Ruth or Rodney, are in italics and followed immediately by an Italic "*M*." Thus "doll, Rh. R. M." means that doll was used by Ruth at three and two years, by Rodney and Margaret at two years; "*duck. Rh. M.*" means that duck was used by Ruth at two years, but not at three years, and was also used by Margaret; "*harness R. M.*" was first used by Rodney, also by Margaret afterwards, but not previously by Ruth; "*hail M.*" was used only by Margaret.

NOUNS.

acorn.	backbone.	beauty.
afghan. M.	bag.	bed. M.
afternoon. M.	<i>bank. M.</i>	bedroom.
album.	ball. R. M.	bee. M.
alley.	banana. R. M.	beef.
animal.	banks.	<i>bell. M.</i>
ankle.	barn. R.	berry. R.
apple. R. M.	barrel. M.	bib. R. M.
apple sauce.	basin.	Bible.
apron M.	basket. M.	bicycle.
arm. M.	bath. R. M.	bird. M.
aunt.	bay window.	birthday. M.
	<i>bead. R.</i>	biscuit.
baby. R. M.	beans.	bit.
back. M.	<i>bear. M.</i>	bittersweet.

blackberry.	cane.	colt.
blinds.	cap. M.	cocoanut.
block. R. M.	cape.	coffee. M.
<i>blanket. M.</i>	camel.	coffee-pot.
blueberry.	car.	cookie. R. M.
bluebird.	<i>cars. M.</i>	cook-book.
boufire. M.	card. M.	corner.
board.	carpet. M.	<i>corn. R. M.</i>
boat.	carriage. R.	cork.
bone. M.	cat. R. M.	course.
bonnet. M.	cat-tails.	court-house.
<i>book. R. M.</i>	<i>ceiling. M.</i>	cousin.
<i>bookcase. M.</i>	celery.	comforter.
bouquet.	cellar. R.	company.
border.	cent.	cow. R. M.
boy. R. M.	circus.	cracker.
bowl. M.	cistern.	cradle. M.
bow. M.	chain.	cranberry.
bottle. M.	<i>chatterbox. M.</i>	<i>cranberries. M.</i>
<i>box. R.</i>	chair. R. M.	cream M.
bread. R. M.	chalk.	crib. M.
breakfast. M.	checkers.	crochet-needle.
broth. R.	cheek. M.	croquet.
brother. M.	chess.	crumb. M.
brother-in-law.	cherry.	crumb-cloth. M.
broom. M.	chicken. M.	crust. M.
bubble.	<i>children. M.</i>	curls.
buds.	child.	curtain. M.
bureau.	chip.	cushion.
buggy.	chocolate.	cup. R.
<i>bushel. M.</i>	chin. M.	
bush.	Christmas.	daisy.
butter. R. M.	church.	damper.
butter-cup.	class.	dandelion.
butter-nut.	cloak. M.	darling. Rh. M.
button. R. M.	clock. R. M.	day. Rh.
button-hole. M.	closet.	daughter. Rh.
butter-plate. M.	cloth. M.	death.
button-hook.	clothes. M.	deer.
	clothes-pin.	depot. Rh.
cage.	clothes-line.	desk. Rh. M.
can.	cloud.	dessert.
cake. R. M.	clover.	dew.
calf.	coal. M.	<i>diaper. Rh. M.</i>
caller.	coat.	dictionary. Rh.
camp.	collar. M.	<i>dice. Rh.</i>
candy. M.	color.	dimple.

dining-room. Rh.	fence. M.	<i>greatgrandma. Rh.</i>
dinner. Rh. M.	fern.	grandma. Rh.
dirt. Rh. M.	fiddle.	grandpa. Rh.
dish. M.	finger. Rh. M.	grape. Rh.
<i>dishes. Rh.</i>	finger-nail. Rh.	<i>grapes. M.</i>
dish-pan.	fire. Rh. M.	gravy. Rh.
ditch.	fish. Rh. M.	griddlecake. Rh.
doctor.	flag.	grocer.
dog. Rh. M.	fleece.	grocery.
doll. Rh. R. M.	floor. Rh. M.	grass. Rh. R. M.
dollar. Rh.	flower. Rh.	ground. Rh.
domino. Rh. M.	flower-bed.	guitar.
donkey.	<i>flowers. M.</i>	<i>gum. M.</i>
door. R. M.	flour.	
<i>doors. Rh.</i>	fly. Rh. M.	<i>hail. M.</i>
door-knob.	folks. Rh.	hairpin. Rh.
dough.	food.	hair. Rh. R. M.
dove.	foot. Rh. M.	half.
drawer. Rh. M.	forehead. M.	hammer.
drawers. Rh. M.	fork. Rh.	hammock. R.
dress. Rh. M.	frame.	handkerchief. Rh. M.
dressmaker.	friend.	hand. Rh. R. M.
drink. Rh. R. M.	frog. Rh.	handful.
<i>duck. Rh. M.</i>	front.	handle. M.
dust. M.	frosting.	<i>harness. R. M.</i>
<i>dustpan. Rh.</i>	fruit.	harp.
dye.	fruit-knife.	hash. M.
	fuchsia.	Latchet.
ear. Rh. R. M.	fun. Rh. M.	hat. Rh. R.
east.	fur.	hay. R. M.
egg. Rh.		headache.
<i>eggs. M.</i>	garden.	<i>head. Rh. M.</i>
elbow.	<i>garter. Rh. R. M.</i>	heaven.
elephant.	garters.	heel.
embroidery.	gate. M.	hen. M.
end.	gentleman.	hiccough. Rh. M.
envelope.	geography. Rh.	hill. R. M.
evening.	geranium.	high chair. Rh. M.
eye. Rh. R. M.	gingham.	hoe.
eyelid.	girl. Rh. R. M.	holder.
	glass. Rh. M.	hole. M.
<i>face. Rh. M.</i>	glasses. Rh. M.	home. R.
<i>faces. M.</i>	glove.	honey.
fan. Rh.	<i>gloves. Rh.</i>	hour.
father. Rh. M.	gold.	house. Rh. M.
<i>feather. M.</i>	goose. Rh. M.	hood. M.
fellow. Rh. M.	gooseberry.	hook.

horse. Rh. M.	lion.	<i>mud. Rh.</i>
hops.	<i>lips. Rh. M.</i>	mud-puddle.
husband.	locket.	<i>muffin. M.</i>
	loaf.	mug.
ice. R.	log.	music.
<i>iceman. R.</i>	looking-glass.	mosquito. Rh.
ink. Rh.	lot.	mutton.
institution.	<i>lots. Rh. M.</i>	
iron. Rh.	lounge. Rh. M.	nail.
	lunch.	nap. Rh.
jackstraws.		napkin. Rh. M.
jackstones.	<i>macaroni. M.</i>	napkin-ring. M.
jar.	machine.	<i>name. Rh.</i>
jelly. Rh. M.	mamma. R. M.	neck. Rh. M.
joke.	man. Rh. R. M.	necktie. Rh. M.
jug. M.	ma'm.	needle. M.
	marble.	negro.
key. Rh.	marmalade.	neighbor.
keyhole.	mat.	newspaper.
kindergarten.	match. Rh.	nest. M.
kitchen. Rh. M.	<i>matter. M.</i>	niece. Rh.
kitten.	<i>meal. M.</i>	night. Rh. M.
kitty. Rh. R. M.	meat. Rh. R. M.	nightdress.
knee. Rh. R.	medicine. Rh. M.	nightcap.
<i>knees. M.</i>	melon.	<i>nightgown. Rh. M.</i>
knife. Rh. M.	meeting.	noise. Rh. M.
knot.	mill. Rh.	<i>noon. M.</i>
	milk. Rh. R. M.	nose. Rh. R. M.
lace. Rh.	milkman.	nuisance. M.
lady. Rh. R. M.	minute. Rh. M.	nut.
lake.	mischief.	
lamb.	Miss. Rh. M.	oak.
lamp. Rh.	mitten. Rh.	oatmeal. Rh.
<i>lap. Rh. M.</i>	<i>mittens. M.</i>	o'clock.
leaf.	moccasins.	office.
leaves.	morning. Rh.	oil.
<i>legs. M.</i>	mother. Rh.	oil can.
leg. Rh.	money. Rh. M.	omelet.
<i>leggings. M.</i>	moon. Rh.	<i>orange. Rh. M.</i>
lemon. Rh. M.	mop.	<i>organ. M.</i>
lemonade. Rh.	mouse. Rh. M.	ornament.
lesson.	mouth. Rh. M.	oven. M.
letter. Rh. M.	mouth-organ.	overcoat.
letters.	mouthful.	overshoe.
lily.	mountain.	<i>overshoes. M.</i>
light. Rh. M.	Mr.	oyster.
lightening.	Mrs. Rh.	

pain. Rh. M.	pipe.	road.
pan. Rh.	pitcher. Rh. M.	robin.
papa. Rh. R. M.	place. M.	rocking-chair. Rh.
pail. R. M.	plaything.	M.
page. Rh.	<i>plaster. M.</i>	roast.
pansy.	plate. Rh. M.	roller-skate.
pantry.	plumb. Rh.	rogue. M.
paper. Rh. M.	pocket. Rh. M.	room. M.
paper-rag.	pocket-book.	<i>roof. M.</i>
paper-knife.	poem.	rooster M.
parasol. R.	polish-boots.	rose.
parlor. Rh. M.	pond-lily.	row.
path.	post-office.	rubber. Rh. R.
part.	poppy.	rubbers. M.
<i>party. Rh. M.</i>	potato. Rh. R. M.	rug. M.
<i>pasture. R.</i>	poker. M.	salt. Rh. R.
pattern.	porch.	sand. Rh.
pea. R.	present. Rh.	satchel. Rh.
peas.	pudding. Rh. M.	satin.
peach. Rh.	pumpkin.	saucer. Rh. M.
peanut.	pump. Rh.	sacque. Rh.
peapod.	puppy. Rh.	scarf. M.
pen.	purpose.	scholar.
pen-knife.		school. Rh.
pencil. Rh. M.	question.	schoolhouse. Rh.
penny. M.	quilt.	scissors. Rh. M.
pear. Rh.		seat.
people. Rh.	rabbit. Rh. M.	seed.
pepper. R.	rag-bag.	self. Rh.
peppermint.	rag.	shade.
person.	rake.	shadow. M.
petticoat. Rh.	railing.	shawl. Rh. R. M.
photograph.	railroad.	sheep. Rh. M.
picture.	rain. Rh. M.	sheet.
piano. Rh.	rainbow. M.	shell.
picnic.	rattle. Rh.	shelf.
piazza. M.	raspberry.	shears.
pie. Rh. M.	rat. Rh. M.	ship. Rh.
<i>picture. M.</i>	reason.	shirt. Rh. M.
<i>pictures. Rh.</i>	register. M.	<i>shoe. Rh. R. M.</i>
piece. Rh. M.	rest. Rh.	shoes.
<i>pigs. Rh.</i>	rheumatism.	shop.
pig. R. M.	ribbon. Rh. M.	side. Rh. M.
pillow. Rh. M.	rice. Rh. M.	sidewalk.
pin. Rh. M.	ride. Rh. R. M.	sieve.
pincushion.	ring. Rh. M.	silk.
<i>pills. M.</i>	river. M.	sir.

<i>sister.</i> Rh. M.	strap.	top.
sled. Rh. M.	sugar. Rh. R. M.	toy.
sleep. Rh.	sugar-bowl.	towel. Rh. M.
<i>sleeve.</i> Rh. M.	<i>summer.</i> Rh.	town. M.
<i>slipper.</i> M.	sunday-school. Rh.	<i>tree.</i> Rh. M.
slippers. Rh.	<i>summer-house.</i> M.	trees.
shower.	sun. Rh. M.	trouble.
skin.	<i>sunset.</i> M.	trousers.
skirt. Rh. M.	supper. Rh. M.	trumpet.
<i>skies.</i> M.	suit.	<i>trunk.</i> Rh.
sky. Rh. M.	swan.	trunks.
smoke. Rh.	swing. R.	<i>tub.</i> Rh. M.
snow. Rh. M.	syrup. Rh. M.	tulip.
snowball. M.		tumbler.
soap. Rh. M.	table. Rh. M.	turnover.
sofa.	table-cloth. Rh. M.	umbrella.
sofa-pillow.	tack. Rh. M.	uncle. Rh.
son.	tail. Rh.	use.
song.	teacher.	
soup. M.	tea. Rh. M.	veil.
<i>sound.</i> Rh.	teapot. M.	velvet.
spool. Rh. M.	<i>teaspoon.</i> Rh.	vest. Rh.
spot. M.	<i>tea-kettle.</i> M.	vine.
spoon. Rh. M.	tears. Rh.	violet.
spoonful.	<i>tear.</i> M.	visitor.
spoon-holder.	teeth. Rh. M.	volume. .
spread.	tent.	
squash.	thanks.	wagon.
squirrel.	Thanksgiving.	waist. Rh.
stairs. Rh. R. M.	thimble. Rh. M.	wall. M.
stick.	thing. M.	wash-rag. M.
steak.	<i>things.</i> Rh.	wash-woman.
steps. M.	thistle.	washbowl. M.
steeple.	thread. Rh. M.	washboard.
stool.	throat. M.	watch. Rh.
<i>stocking.</i> Rh. M.	thunder.	wash-stand.
stockings. R.	thumb. Rh. M.	water. Rh. R. M.
store.	tiger.	way. M.
story. Rh. M.	time. Rh. M.	<i>ways.</i> Rh.
stomach. M.	ticket.	watermelon. Rh.
stone. Rh.	<i>toes.</i> Rh.	water-works.
storm.	toad. R.	week.
stove. Rh. M.	toast. Rh. M.	west.
straw.	tomato.	whole.
strawberry.	tongue. Rh. M.	wheel. M.
street.	toothbrush.	whip. Rh. M.
string. Rh. M.	toothpick. Rh. M.	

whiskers. Rh.	believe.	do. Rh. M.
whistle. Rh. M.	<i>bet. M.</i>	<i>don't. Rh. R.</i>
whooping-cough.	<i>bit. M.</i>	draw.
Rh.	bite. M.	drive.
wife.	<i>bleed. M.</i>	<i>drop. Rh. M.</i>
<i>wind. Rh. M.</i>	blow.	drown.
window. Rh. M.	borrow.	
wing.	bother.	eat. Rh. M.
<i>wings. M.</i>	braid.	embroider.
wire.	<i>break. M.</i>	enjoy.
woman.	bring.	excuse. M.
woodpile.	brush. M.	explain.
wood. Rh. M.	build. M.	
woodbine.	bump. M.	fall. Rh. R. M.
woodbox. Rh.	burn. M.	fasten.
word. M.	buy. M.	feed. Rh. M.
work. Rh. M.	buzz.	feel.
<i>world. M.</i>		fight.
woods.	calls.	fill.
woodpecker.	call. M.	find. Rh. M.
wool.	can. M.	fit.
workman.	care. M.	fix. Rh.
<i>wrapper. Rh. M.</i>	carry. M.	fly.
wreath.	catch.	fold.
wren.	change. M.	follow.
wrist.	chew. M.	fool.
	choke.	forget.
yard.	choose.	<i>freeze. M.</i>
yarn. Rh.	clap.	frighten.
year.	comb. M.	fuss.
yolk.	come. R. M.	
	cook. M.	get. Rh. M.
zinc.	cool. M.	give. Rh. M.
	cough. M.	go. Rh. R. M.
VERBS.	count. M.	<i>got. Rh.</i>
	could.	groan.
ache. M.	cover. M.	grow.
act.	crack.	grunt.
am. M.	crawl.	guess. Rh. M.
answer.	creep.	
are. M.	crochet.	hang.
ask. M.	cry. M.	have. M.
	curl.	hear. Rh. M.
bake.	cut. M.	help. Rh. M.
bark.		hide.
been.	dance. Rh.	hit. Rh. M.
begin.	die.	<i>hitch. R.</i>

hold. M.	must. Rh. M.	shave.
hop.		sharpen.
hug. Rh.	need. M.	shove.
hurry.		shut. Rh. R. M.
hurt. Rh. M.	paint. M.	<i>shine. Rh.</i>
hush.	pat. Rh. M.	show. Rh. M.
	pet. Rh.	sift.
is. Rh. M.	pick. Rh. M.	sing. Rh. M.
	pile.	sink.
jump. Rh.	pinch. Rh.	sit. Rh. R. M.
	<i>play. Rh. M.</i>	slam. Rh.
keep.	poke. M.	<i>slap. Rh.</i>
<i>kick. M.</i>	pound. Rh.	skate.
kiss. Rh. R. M.	<i>pour. Rh. R.</i>	slide. M.
<i>kneel. M.</i>	prick. Rh.	<i>slip. M.</i>
knit.	pull. Rh. M.	smell. Rh. M.
knock. M.	push. Rh. M.	smile.
know. Rh. R. M.	put. Rh. M.	sneeze. Rh. M.
		speak. M.
laugh. Rh. M.	quack. Rh.	soil.
lead. M.		squeak.
leave.	raise.	squeal.
learn. M.	reach. Rh.	spank. Rh. M.
left.	read. Rh. M.	<i>spill. Rh. M.</i>
let. Rh. M.	remember. M.	split. Rh.
lie. Rh. M.	rise.	<i>spatter. Rh.</i>
like. Rh. M.	roar.	stand. Rh. R. M.
lighten.	rock. Rh. R. M.	stay. Rh. M.
live.	roll. Rh. M.	steal.
listen.	rub. Rh. R. M.	step. Rh.
lock.	run. M.	stir. M.
look. Rh. M.		sting. M.
lose. M.	scare.	<i>stop. Rh. M.</i>
love. Rh. M.	say. Rh. M.	<i>stretch. Rh.</i>
	scold.	study.
make. Rh. M.	scrape.	<i>suppose. M.</i>
mark.	scratch. Rh. M.	swell.
mash.	send.	sweep. Rh. M.
may.	scrub. Rh.	swallow.
<i>mean. M.</i>	<i>seem. Rh.</i>	
meet. Rh.	<i>see. Rh. R. M.</i>	take. Rh. M.
mend. M.	set. M.	talk. Rh. M.
mew. Rh.	sell.	taste. M.
might.	sew. Rh. M.	teach. M.
mix.	shall. Rh. M.	<i>tease. M.</i>
mind. M.	should.	tear. Rh. M.
move. Rh. M.	shake. M.	tell. M.

<i>thank.</i> <i>M.</i>	ADJECTIVES.	dusty. <i>M.</i>
think. <i>Rh. M.</i>		early.
tie. <i>R. M.</i>		easy.
tick.	able.	else. <i>Rh. M.</i>
tickle. <i>Rh. M.</i>	afraid. <i>M.</i>	empty.
throw. <i>Rh. R. M.</i>	alike.	<i>either. M.</i>
<i>tip. Rh.</i>	all. <i>R. M.</i>	enough. <i>Rh. M.</i>
<i>touch. M</i>	alone.	every. <i>M.</i>
treat.	another. <i>M.</i>	
trot. <i>Rh.</i>	any. <i>M.</i>	fat. <i>Rh. M.</i>
try. <i>Rh.</i>	asleep. <i>M.</i>	few.
tumble. <i>M.</i>	ashamed.	first.
turn. <i>Rh.</i>	astonished.	first-rate.
tweet.	awake. <i>M.</i>	five.
		four.
visit.	bad. <i>R. M.</i>	<i>frightened. M.</i>
	barefoot.	full.
unbutton.	beautiful.	funny. <i>Rh. M.</i>
understand. <i>M.</i>	<i>better. M.</i>	fussy.
undress. <i>Rh.</i>	<i>best. M.</i>	German.
unlock.	big. <i>R.</i>	glad. <i>M.</i>
use.	bitter.	<i>going. Rh.</i>
	black. <i>R.</i>	good. <i>Rh. R. M.</i>
wait. <i>Rh. R. M.</i>	blue. <i>R.</i>	<i>gone. Rh.</i>
walk. <i>Rh. M.</i>	blind.	gray.
wake. <i>Rh.</i>	both. <i>M.</i>	great.
want. <i>Rh. M.</i>	<i>broken. M.</i>	green.
was.	brown.	
wash. <i>Rh. M.</i>		<i>hard. Rh. M.</i>
wear.	careful. <i>M.</i>	heavy. <i>Rh.</i>
welcome.	cheap.	hot. <i>Rh. R. M.</i>
went. <i>Rh. M.</i>	clean. <i>M.</i>	hungry. <i>Rh.</i>
whisper.	cloudy.	industrious.
will. <i>Rh.</i>	cold. <i>M.</i>	kind.
wind. <i>Rh. M.</i>	colored.	
wink.	comfortable.	lame.
<i>wipe. Rh. M.</i>	cross. <i>M.</i>	<i>last. M.</i>
wish. <i>Rh. M.</i>	cunning. <i>M.</i>	lazy.
wonder. <i>Rh.</i>	cute. <i>M.</i>	late.
<i>won't. Rh.</i>	dark. <i>Rh. R. M.</i>	<i>like. M.</i>
would.	deaf.	little. <i>Rh. M.</i>
write. <i>Rh. M.</i>	<i>deaf and dumb. M.</i>	lonesome.
	dear. <i>Rh. M.</i>	long. <i>M.</i>
yawn. <i>Rh.</i>	dirty. <i>Rh. M.</i>	low.
	<i>done. Rh.</i>	lovely.
	dry. <i>Rh. M.</i>	loud.
	dumb.	

mad.	sleepy. Rh. M.	awful. M.
many. M.	<i>slippery. M.</i>	badly.
mistaken.	some. Rh. M.	<i>back. R.</i>
much. Rh. M.	sore. Rh. M.	certainly.
muddy.	sorry. Rh. M.	down. Rh. R. M.
more. R. M.	sour. Rh.	ever.
most.	soft. Rh. M.	everywhere.
	sticky. Rh.	far. M.
	sweet. Rh. M.	fast.
narrow.	strong.	forth. Rh.
naughty. Rh. R. M.	straight.	<i>hardly. M.</i>
near.	still. Rh. M.	here. Rh. M.
new. Rh.	stupid.	high. Rh. M.
next. Rh.	smart. Rh.	how. Rh. M.
neat. Rh.	smooth.	just. M.
nice. Rh. M.	<i>snowy. M.</i>	maybe. M.
noisy.	sure. M.	never. M.
Norwegian.	<i>surprised. M.</i>	nicely.
		no. Rh. R. M.
old. Rh.	thirsty.	not. Rh. M.
one. Rh. R. M.	thick.	now. Rh. R. M.
open. Rh. R. M.	tin.	off. Rh. R. M.
other. Rh. M.	tidy.	<i>once. M.</i>
overhead.	two. Rh. R. M.	<i>only. M.</i>
own. Rh. M.	tight. M.	over. Rh. M.
	tired. Rh. M.	out. Rh. M.
past.	three. R. M.	outside.
poor. Rh. M.		partly.
<i>precious. M.</i>	warm. M.	perhaps. Rh. M.
pretty. Rh. M.	wet. Rh. R. M.	quick. Rh.
purple.	well. Rh. M.	quite. Rh.
	white. Rh.	<i>really. M.</i>
quiet. Rh.	whole.	slow. Rh.
	wide.	so. Rh. M.
rather.	wise.	sometime.
ready. Rh.	woolen.	<i>sometimes. M.</i>
<i>real. M.</i>	<i>wrong. Rh.</i>	somewhere. M.
<i>red. R.</i>	yellow. Rh.	softly.
right. Rh. M.		soon. Rh. M.
ripe.		surely.
rotten.		then.
<i>round. R.</i>	ADVERBS.	there. Rh. M.
	almost.	too. Rh. M.
sharp.	along.	to-day. Rh. M.
short.	again. M.	to-night.
sick. Rh. M.	anywhere. M.	<i>together. Rh.</i>
silver.	<i>anyway. M.</i>	<i>to-morrow. M.</i>
	away. R. M.	

undoubtedly.	they. M.	through. Rh. M.
up. Rh. R. M.	this. Rh. M.	under. Rh. M.
very. Rh. M.	that. Rh. M.	with. Rh. M.
when. Rh. M.	these. M.	
where. M.	those. Rh. M.	INTERJECTIONS.
why.	them. M.	goodbye. Rh.
yesterday. Rh.	<i>themselves.</i> M.	goodnight. Rh.
yes. Rh. R. M.	who. Rh.	goodmorning.
yet. Rh. M.	us.	holloa. Rh. M.
	what. Rh. M.	hurrah. Rh.
PRONOUNS.	which.	oh. Rh.
anybody. M.	we. M.	peek-a-boo. Rh.
anything. M.	you. Rh. M.	please. Rh. R. M.
everybody.	<i>yourself.</i> M.	thank you. Rh.
everything.		whoa.
he. M.	PREPOSITIONS.	
his. M.	<i>about.</i> M.	CONJUNCTIONS.
him. M.	after. M.	and. R. M.
her. M.	around. M.	as.
herself. M.	at.	because. M.
himself. M.	before. M.	before.
I. Rh. M.	behind.	if. M.
it. Rh. M.	beside. M.	<i>or.</i> M.
me. Rh. M.	by.	<i>though.</i> M.
my. Rh. M.	for. Rh. M.	until.
myself. M.	from.	while. Rh. M.
our.	in. Rh. R. M.	
she. M.	inside.	ARTICLES.
somebody. Rh. M.	of. Rh. M.	a. M.
someone.	on. Rh. R. M.	the.
something. Rh. M.	to. Rh. M.	
their.		

The following table gives a statistical summary and percentage comparisons of each of the four vocabularies of the words used by each child exclusively, of the words used by Ruth and Margaret in common, and of words used by Ruth at two years but not at three years.

The first interest in the table is the larger number of words in the two year old vocabularies of the two girls, 614 for Ruth and 578 for Margaret, than has usually been credited to children and the near approximation of these results to our own experience and study.¹

¹As published in our study on "The Vocabularies of Three Children of one Family to two and a half years of age," in *Psychological Studies* by Harlow Gale, July 1900, pp. 70-118, also printed separately. See also the letter of Millicent Shinn on Vocabularies in the *Child-Study Monthly* and *Journal of Adolescence*, April 1901, pp. 398-401.

	Ruth, 3 yrs.	Ruth, 2 yrs. from d.	Rod- ney, 2 yrs.	Marg. 2 yrs.	Ruth, at 2, not 3.	Ruth, at 2, and not Marg.	Rod. alone.	Marg. and not Ruth at 2.	Ruth, 2, and Marg. from d.	Marg. Vocab. from d.
Nouns	675 57.4%	232 53.2%	69 60%	293 50.7%	35	88	6	79	134	221
Verbs	238 20.2%	99 22.7%	17 14.8%	129 22.3%	16	32	1	32	68	100
Adjectives	141 11.9%	49 11.2%	17 14.8%	69 11.9%	4	17	1	18	34	52
Adverbs	53 4.5%	27 6.2%	8 6.9%	38 6.6%	1	6		12	21	33
Interjections	10 0.8%	8 1.8%	1 0.9%	2 0.3%		6			2	2
Pronouns	33 2.8%	12 2.7%		27 4.6%		1		14	11	25
Prepositions	17 1.4%	8 1.8%	2 1.7%	13 2.2%					8	8
Conjunctions	7 0.6%	1 0.2%	1 0.9%	6 1%				3	1	4
Articles	2 0.1%			1 0.1%						
Total	1176	436 614 Total	115	578	56 12.8%	150 34.4%	8 7%	158 35.5%	279 64% of Rh. 62.7% of M.	445

With the additions of proper nouns and of *all* inflections and declensions (not merely those from different stems, as was Professor and Mrs. West's rule), together with the increment which would probably have been found by the additional method of taking down all the words spoken during a day, the totals would have been brought up to very near our estimate of 700 words as a typical vocabulary of a two year old child.¹ (See our p. 101). The total of the boy, Rodney, the second child, of 115 words is evidently unusually low, being less than for any other reported boy except Preyer's.

¹Judging from the proportion of proper nouns and plurals (the possessives and verb inflections from the same stem form no appreciable amount) in the two year old vocabularies of our second and third children,—respectively 17% and 12%,—an increase of 15% would make a probable addition of 92 words to Ruth's and 87 words to Margaret's two year old vocabularies. Professor West, however, is inclined to believe that with their very large circle of relations and friends his children's proper nouns would have been much larger than this estimate.

The nearly doubling of Ruth's vocabulary during the third year, 614 to 1,176, instead of during the first half of the third year, as we found, is somewhat and perhaps fully accounted for by the probably increasing proportion of words which were missed by their recording method as the vocabulary so greatly increased. (See Professor West's note on p. 422.)

The proportion of the vocabularies among the parts of speech add in general further evidence for Tracy's well-known table (see *Psychology of Childhood*, 5th Ed., p. 145), except that the nouns all run lower than his 60%, which deflection is balanced by a higher proportion of verbs and adjectives.

The very large proportion of words used by each of the girls exclusively, over one-third of their entire vocabularies, (the boy's vocabulary is too small to be considered in this regard), is most interesting. For, as both girls grew up in practically the same environment and were not very dissimilar in temperament and mental equipment, this is similar to the surprising result we found in our own two younger children and in the two older girls of Dr. E. S. Holden (see our pp. 110-112). Such a fact adds more evidence, it seems to us, to our inference as to the ease by which words are acquired through the pleasure-pain element of the word-sound forming the motor-speech association largely unconsciously. (pp. 114-116.)