

The Acquisition of Morphology

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Over-regularization

- By their late twos:
- My teacher holded the baby rabbits and we patted them
- I finded Renee
- Hey, Horton hearded a Who

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Over-regularization

- Once upon a time a alligator was eating a dinosaur and the dinosaur was eating the alligator and the dinosaur was eaten by the alligator and the alligator goed kerplunk.
- I love cut-upped egg

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The Sequence of Development

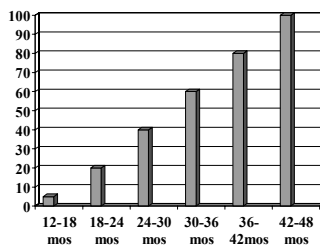
What you might expect:

Child starts by making lots of mistakes in morphology (and everything else) and gradually gets better.

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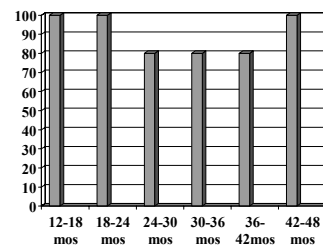
Percentage of inflected irregular verbs used with correct forms



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Percentage of inflected irregular verbs used with correct forms



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The problem

- What is the difference between children and adults?
- How do children eventually get it right?

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Do they change in order to communicate more effectively?

- No. The meaning of e.g. “holded” is completely clear.
- In fact over-regularized verbs like “cutted” can be clearer in meaning than the correct “cut”
I cut the grass on Wednesday (past, habitual, future)
I cutted the grass on Wednesday (past only)

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Do Adults Avoid “holded” because they have never heard it?

- No.
- Adults can do tests where they have to add –ed onto nonsense stems, just like children can.
- Adults can add new stems to their vocabulary and give them regular past forms:
As in **diss-ed, mosh-ed**

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Adults avoid “holded” because they have heard “held”

Hypothesis:

The existence of the irregular form BLOCKS the formation of the regular form.

- “held” so not “holded”
- “geese” so not “gooses”
- “better” so not “gooder”

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So how do children come to obey the principle of Blocking?

It is impossible for them to learn it.

The reason is that to learn it they would have to find out that “**holded**” is ungrammatical.

But they don’t know this

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How do they know that “holded” is ungrammatical?

Adults don’t tell them

Adults don’t correct them when they make mistakes

And children don’t usually avoid saying things that they haven’t heard (e.g. in the Wugs test).

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Adult – Child Dialogue

Child: Mamma isn't a boy, he a girl.

Mother: That's right.

Child: And Walt Disney comes on Tuesday.

Mother: No, he does not

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Suppose Children Already Know the Blocking Principle

Then what they need in order to replace "holded" with "held" is exposure to "held". I.e. once they have acquired "held", they will automatically know that "holded" cannot be correct.

But why wouldn't once be enough?

Because we know from studies in Psychology that memory does not work this way.

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Memory

- Memorization does not take place after a single encounter
- Instead, repeated encounters are necessary
- The more encounters someone has the greater the probability of their memorizing the input stimulus

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Failure of Retrieval

So children have not fully memorized the irregular form "held".

Therefore they will sometimes not get the effect of Blocking, because they don't retrieve the irregular form.

In that situation they will produce the regular form instead.

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The Cure for Over-regularization

Is living longer

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Innateness

This explanation depends on children acting in accord with the Blocking Principle

But they cannot learn it

Conclusion: it's part of their innate language equipment. They are just built this way.

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Supporting Evidence

- Rate of errors
- Mean rate of errors 4.2%
- Continued at same rate ages 2-5
- More errors on verbs used less often by parents (e.g. brought versus froze)

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Supporting Evidence

Onset of over-regularization coincides with beginning of full marking for regulars.

E.g. Yesterday he walked
Yesterday he walk

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Supporting Evidence

Talking to children:

Parent: Where's Mommy?

Child: Mommy goed to the store?

Parent: Mommy goed to the store?

Child: NO! I say it that way, not you.

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Supporting Evidence

- Talking to children:

Child: You readed some of it too She readed all the rest.

Parent: Oh, that's right, yeah. I readed the beginning of it.

Child: Readed? Read! Will you stop that, Papa?

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Most frequent verbs in English (39,175/million – 1,486/million)

1. be	6. go
2. have	7. take
3. do	8. come
4. say	9. see
5. make	10. get

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Most frequent verbs in English (39,175/million – 1,486/million)

1. be	was	6. go	went
2. have	had	7. take	took
3. do	did	8. come	came
4. say	said	9. see	saw
5. make	made	10. get	got

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10 of the 1,000 least frequent verbs in English (1/million)

1. abate	6. abrogate
2. abbreviate	7. acclimatize
3. abhor	8. acculturate
4. ablate	9. admix
5. abridge	10. adsorb

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Summary

From about 2 to about 5 children make many over-regularization errors

These are best explained if:

- Children have learned the rules governing regular forms
- They know about the Blocking Principle, but sometimes (about 4% of the time) they fail to retrieve the irregular, and construct the regular instead

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Conclusion

Children know the Blocking Principle, although they cannot have learned it.

So they must “know” some things about the way language works, before they begin the learning process. Evidence for “nature” over “nurture” as the source of much language acquisition.

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