





# Language Barriers for Open Source Contributors



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Eghan\*



Bram  
Adams\*

\*Polytechnique Montréal, Canada

\*\* Tencent, China



isaferreira\_57



/isabellaferreira









NI HAO  
你好



MARHABA  
مرحبا



HELLO



HOLA

**Non-native English speakers might not be confident enough about their English skills in a technical environment**

# Non-native English speakers might not be confident enough about their English skills in a technical environment

7  
↓

How to make a face extend until end of line even if there are no enough chars written on it?

PD: I'm not a native english speaker, so please forgive any lack of clarity. I'll gladly receive feedback about them and re-write or correct the question.

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↓ I would use some help regarding Control and Meta keys

First of all sorry for my english I am not a native speaker and I am not sure about vocabulary regarding typing.

# Slangs and different native languages may cause misunderstanding...



## OMFG - straight is.... straight up bad!

I could **not** get to MELPA or ELPA behind the corporate firewall, but I had access to git... I came across] [straight](#) and in under 5 minutes i have elpy installed even though before I was getting bit in the ass by unstated deps the author failed to provide or mention in his README.

This is a kick-ass package manager for real.

24 Comments Share Save Hide Report

53% Upvoted

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SIGN UP

SORT BY BEST



I'm not a native English speaker but from from the title it sounds to me like you are saying that straight.el is not a good package manager, although from reading your post I think you are actually giving praise to straight.el. But maybe I'm unfamiliar with some slang.

EDIT: never mind, I guess there is such a slang expression. At least I learned something new today.



I am a native english speaker, I thought the same. But I am British.....

[Continue this thread →](#)



I've definitely heard "bad" mean "good". A silly example that comes to mind is the song "She's a Bad Mama Jama". I'd say it's a thing that's gone out of style a long time ago, but "badass" has exactly the same usage and is more current sounding :P

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I'm pretty sure it's sarcasm. He doesn't like it.

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# Slangs and different native languages may cause misunderstanding...

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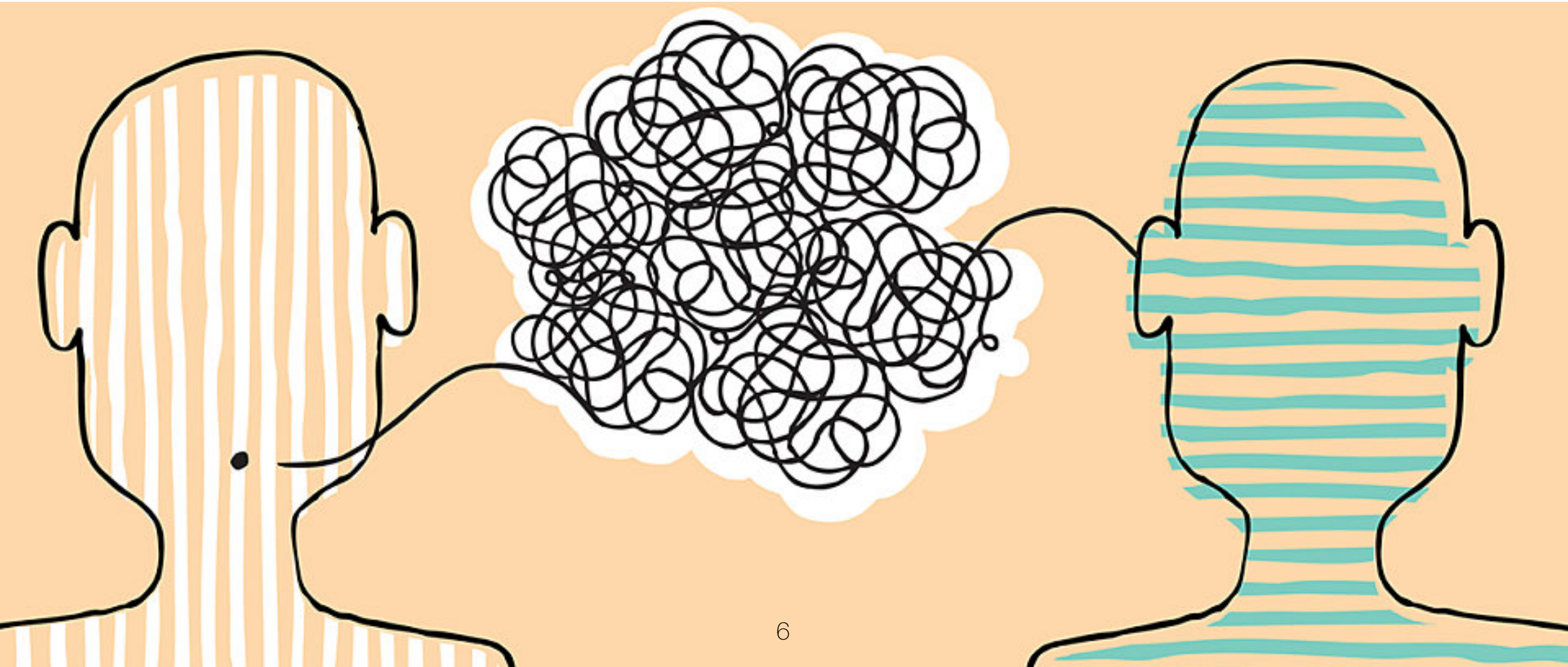


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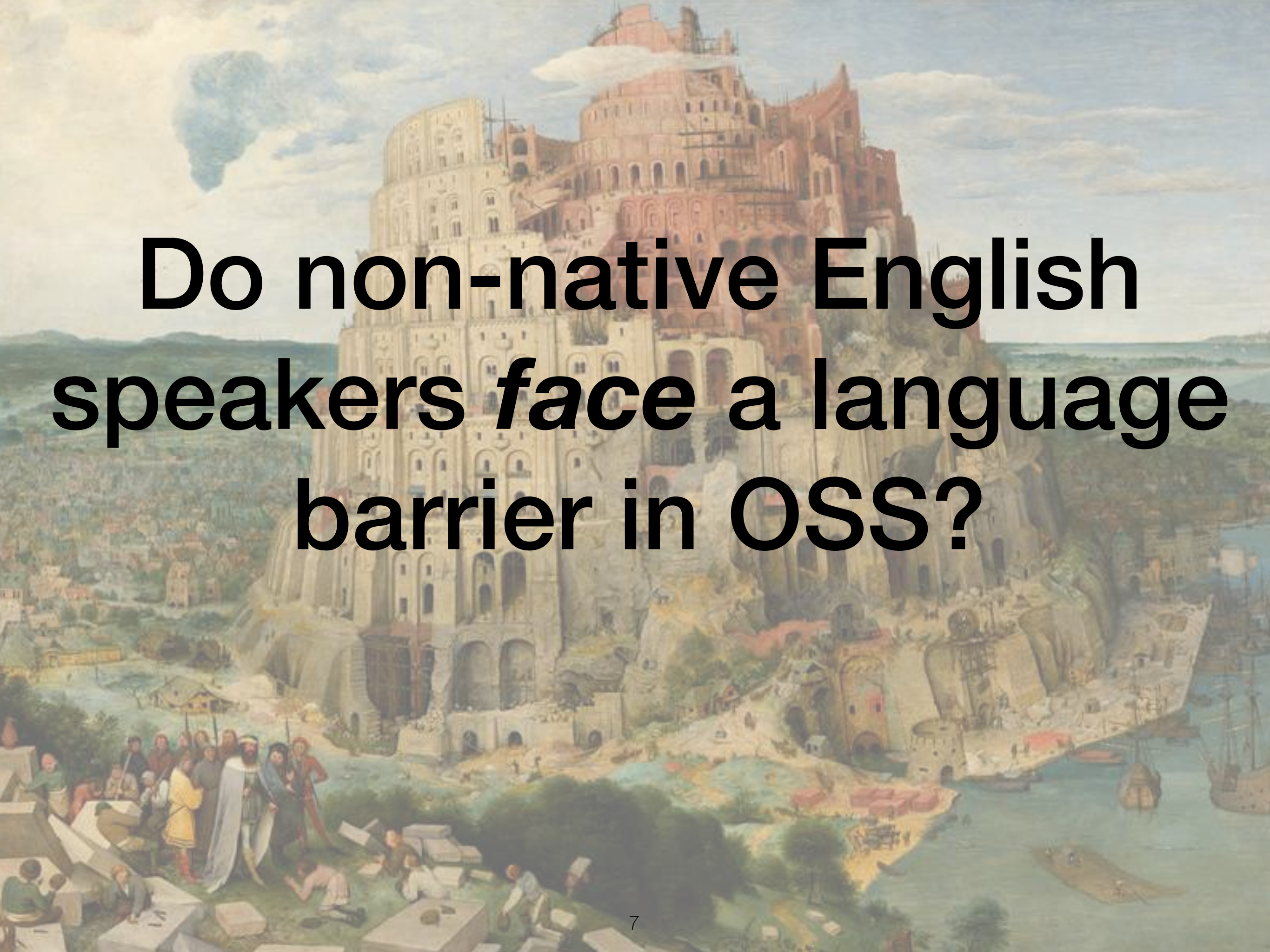
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A **language barrier** is when developers **do not contribute** or **have difficulties** contributing to OSS due to **challenges in communication** experienced by project members speaking **different languages**





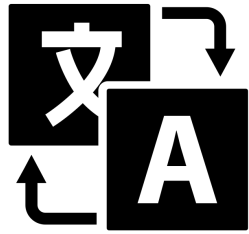
The background of the slide is a detailed painting of the Tower of Babel. The tower is a massive, multi-tiered structure with numerous arches, windows, and intricate architectural details, rising steeply from a city. The city below is densely packed with buildings and a river flows through it. In the foreground, a group of people in historical attire are gathered, some looking up at the tower. The sky is filled with soft, white clouds.

**Do non-native English  
speakers *face* a language  
barrier in OSS?**

Translation can be used as a *proxy* to  
identify someone's language

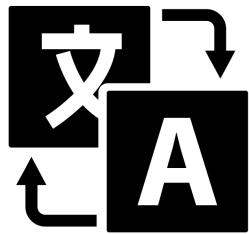


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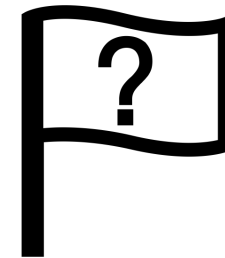


**Common** way to  
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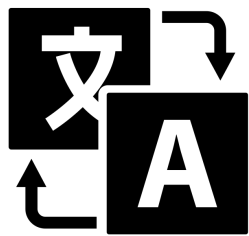
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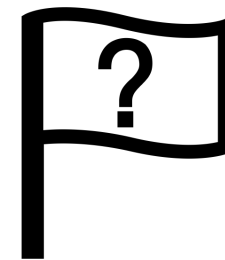
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14 translation projects

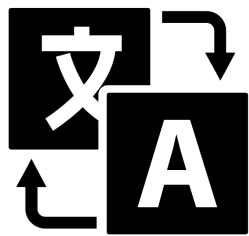


**openstack**<sup>®</sup>

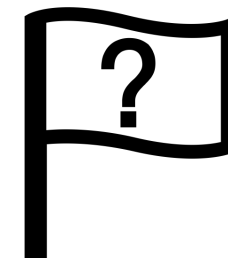
14 translation projects

2009-2019  
8

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14 translation projects

2009-2019



**openstack**®

14 translation projects



**549 translation contributors**



**122 languages**

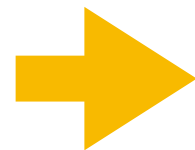


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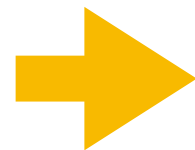


549 translation  
contributors

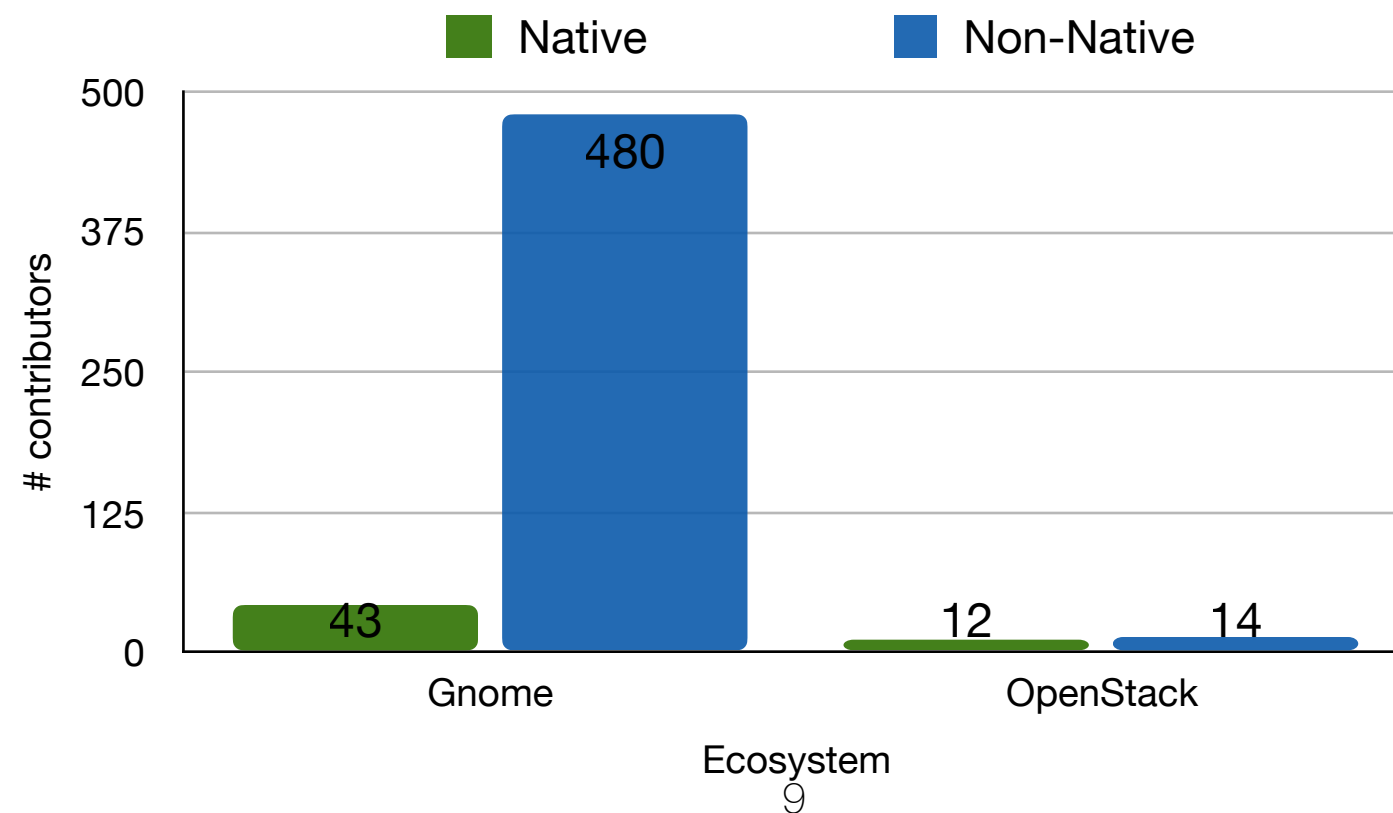




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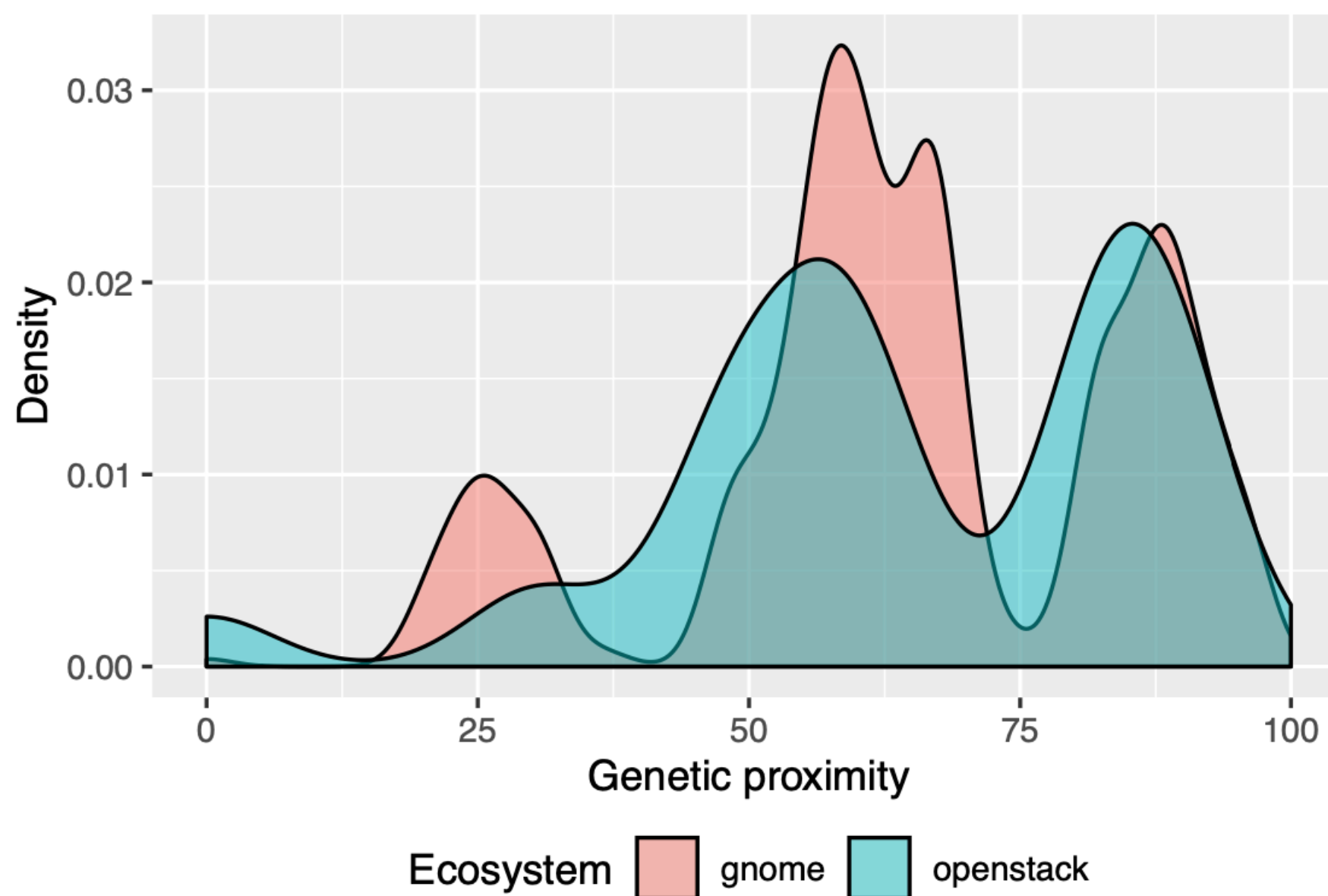
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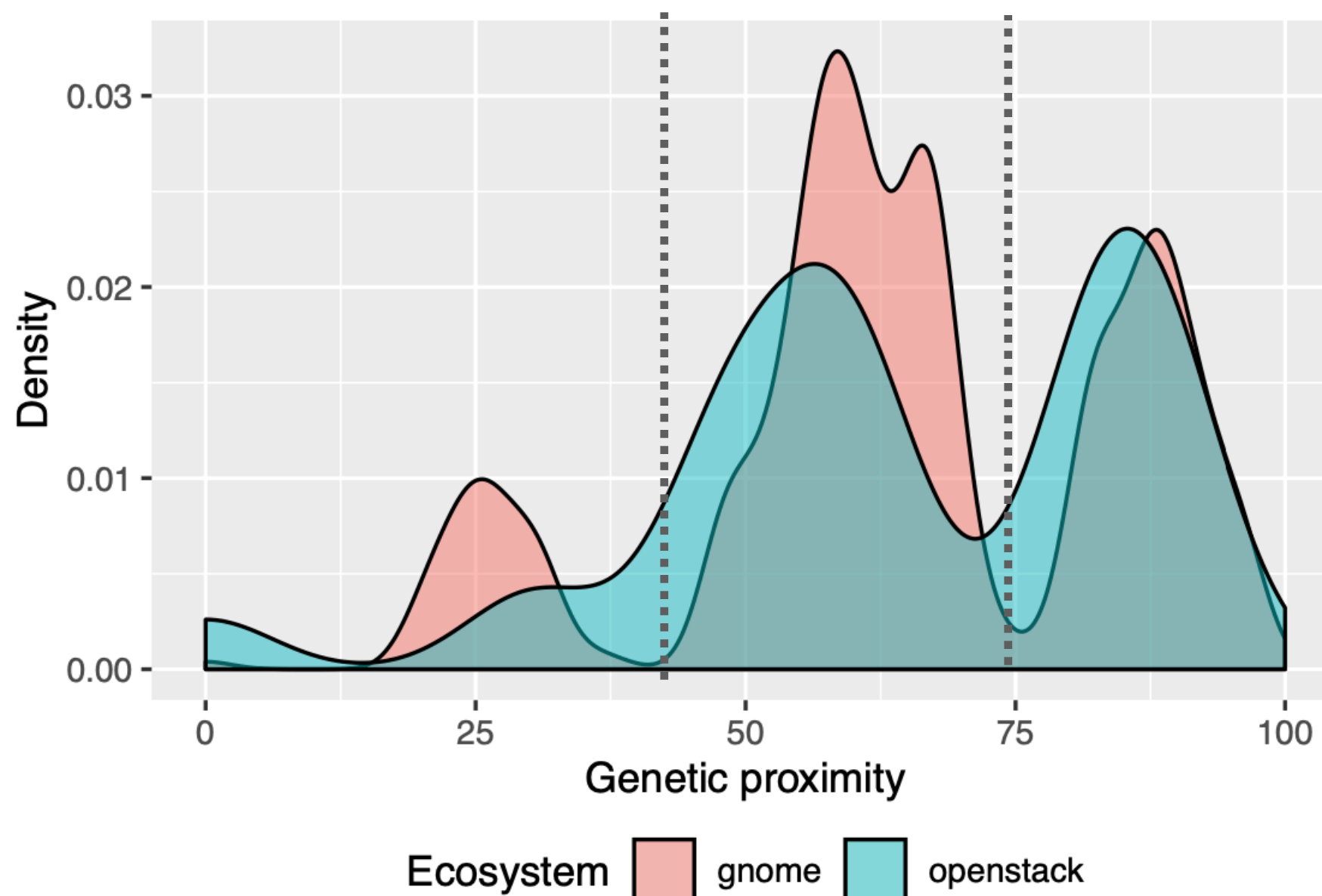
**Non-native English speakers are split into different categories based on how dissimilar is the language that they contribute the most to English**

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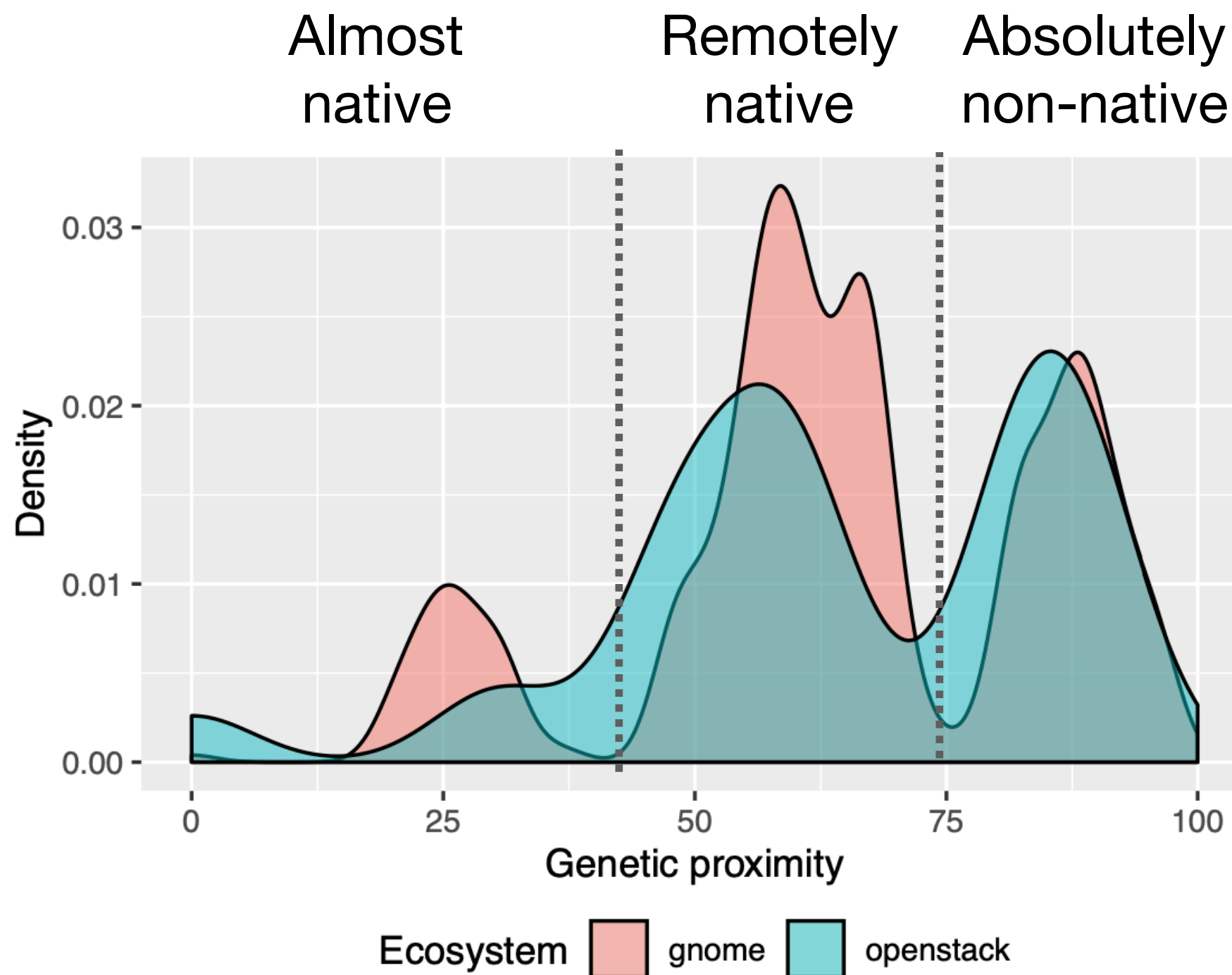




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# Do non-native English speakers *face* a language barrier in OSS?



**Progress from translation  
to software development**

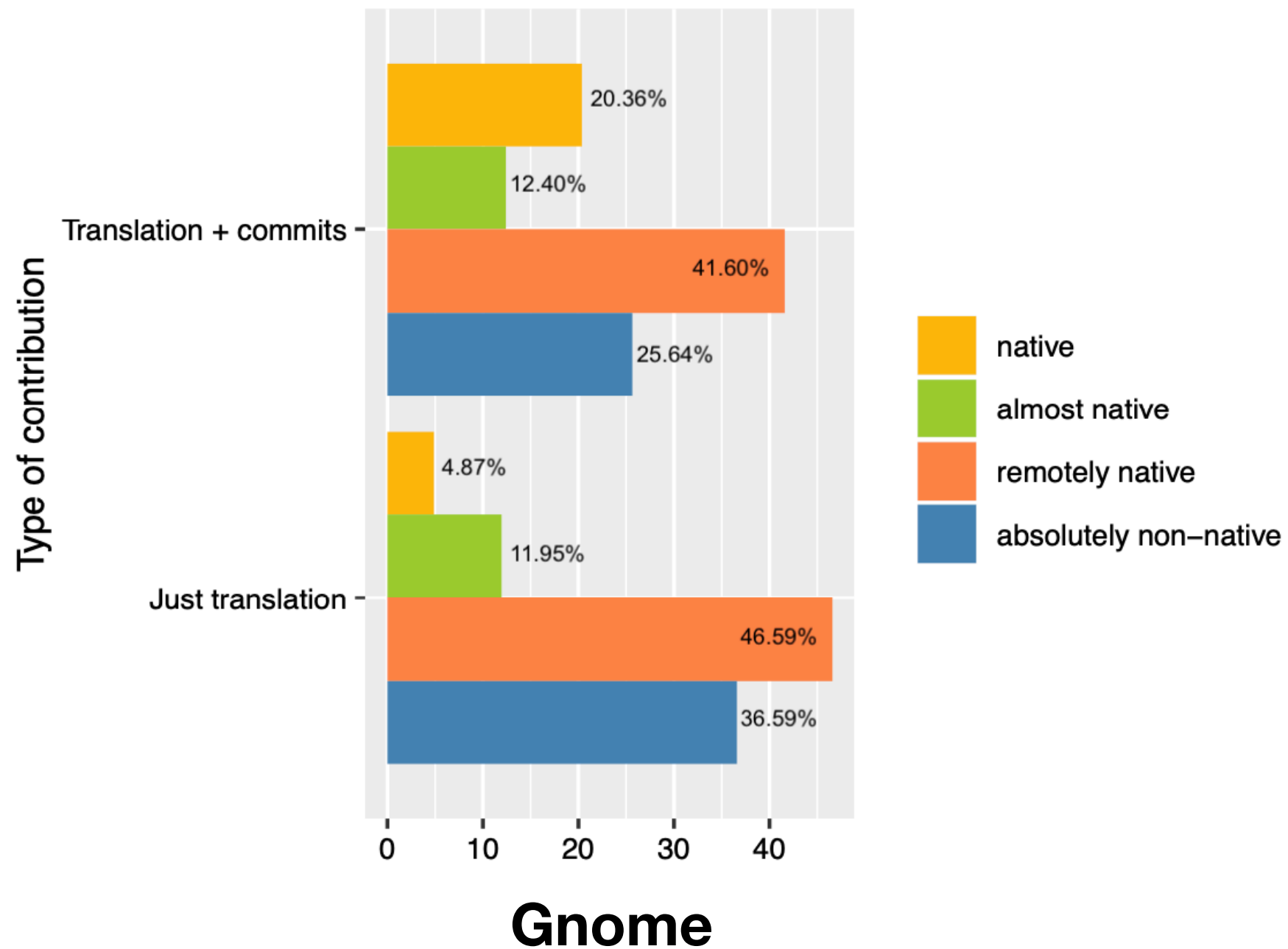


**Factors that could  
explain differences  
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contributors**



In Gnome, *remotely* and *absolutely non-native* speakers together make up to 83.18% to contributions to *just translation*.

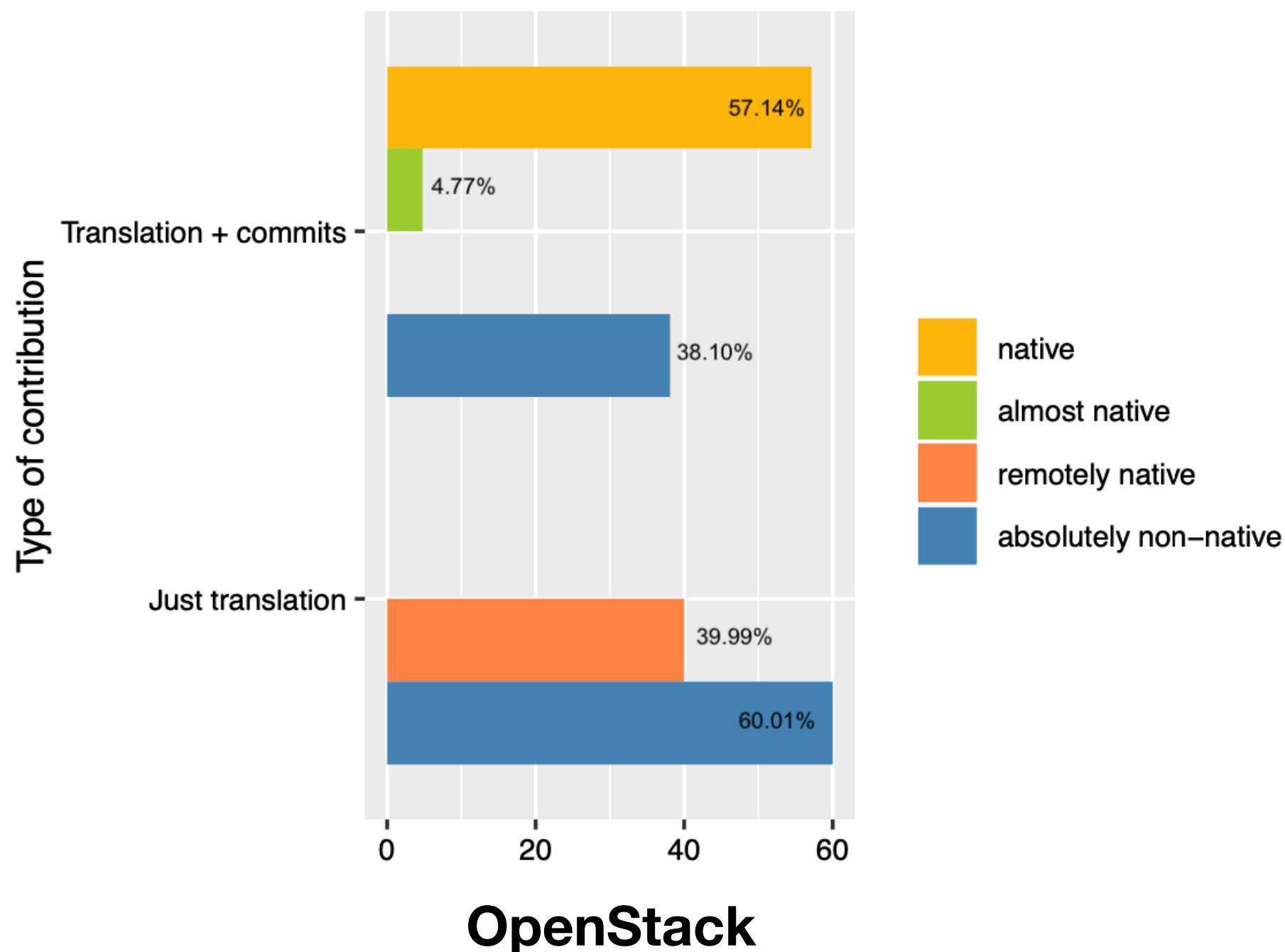
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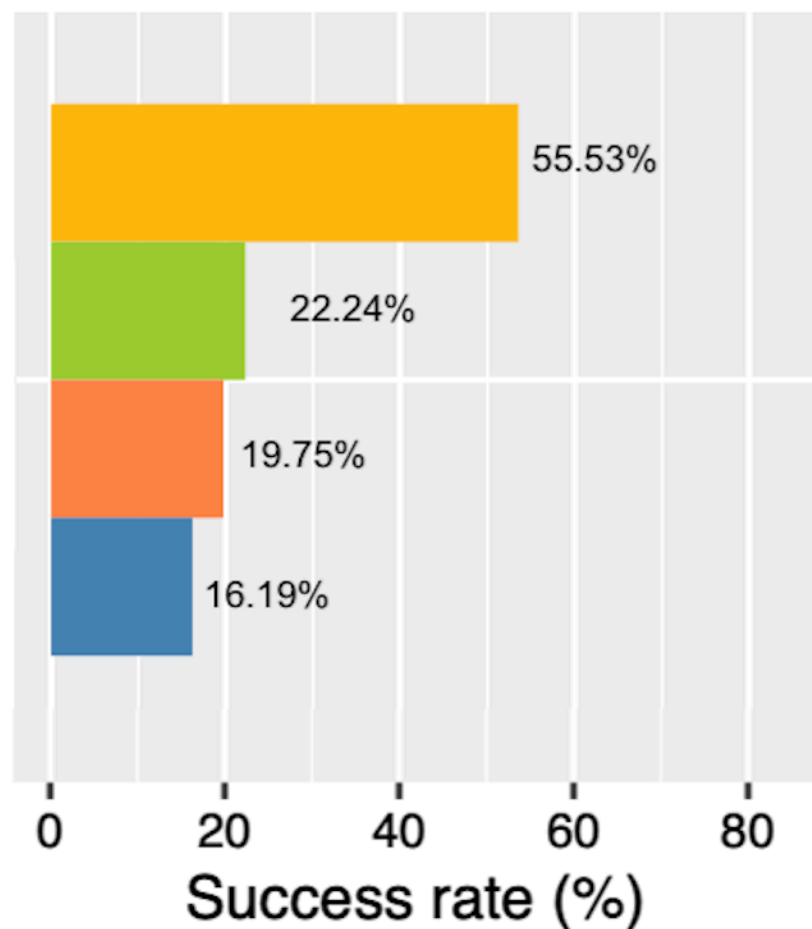


There are less non-native speakers progressing from translation to code in *Gnome*.

In *OpenStack*, there are proportionally less remotely native speakers progressing from translation to code.

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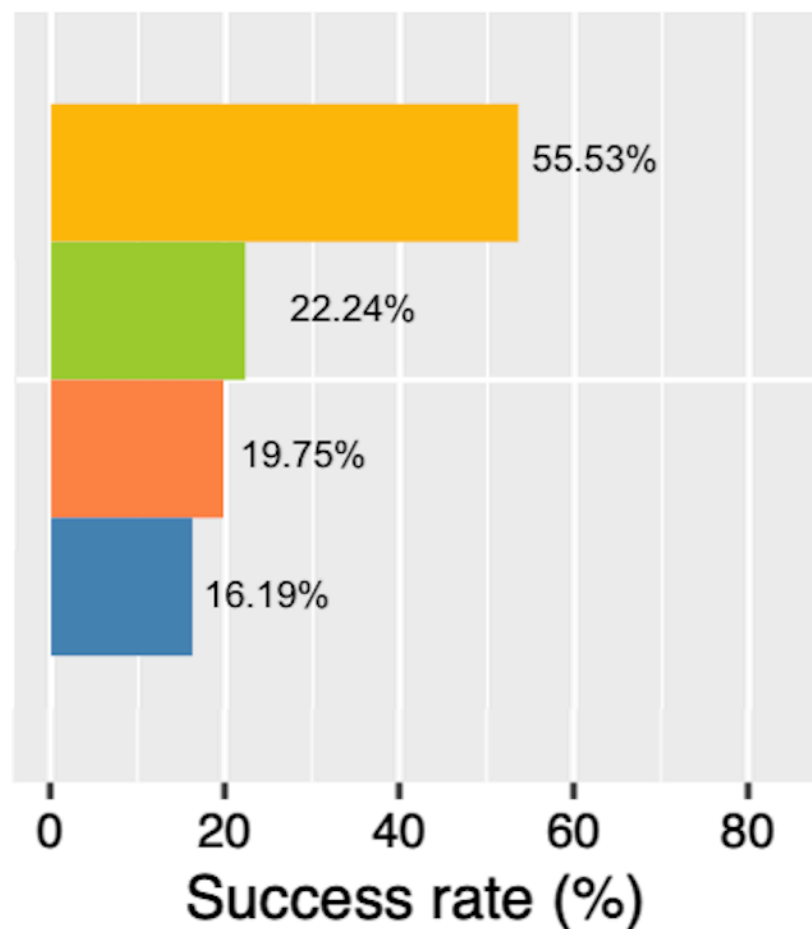


**Gnome**

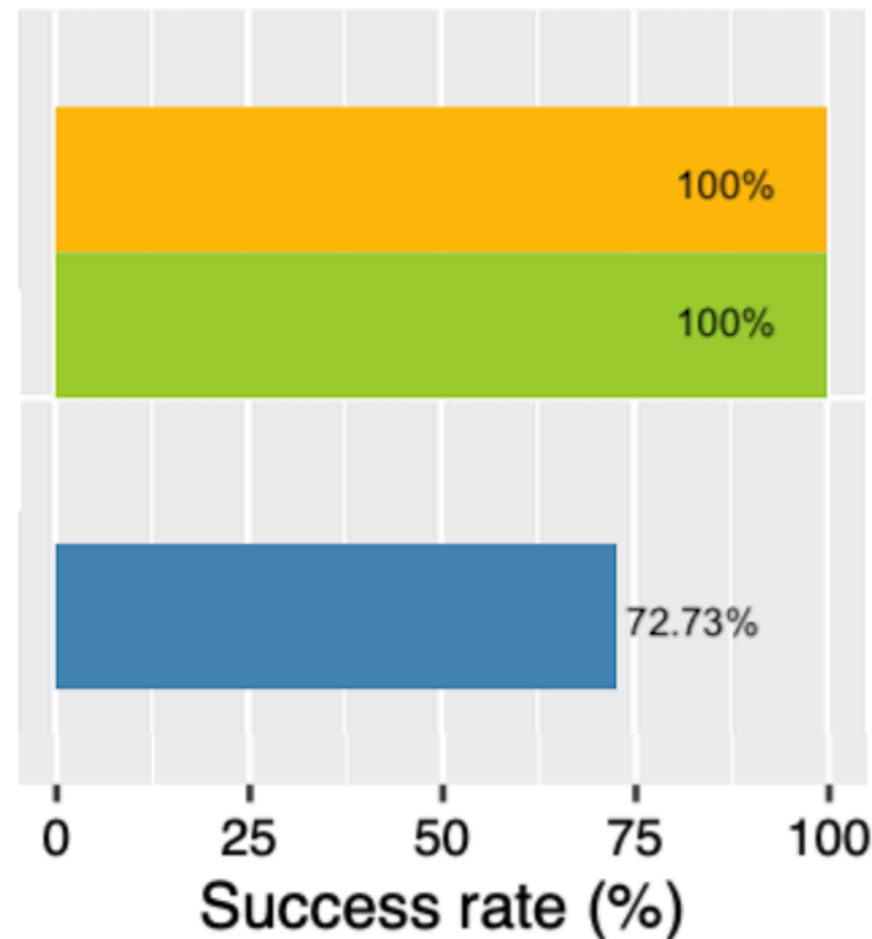


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**Gnome**



**OpenStack**

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**Progress from translation  
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It is easier for *native speakers* to  
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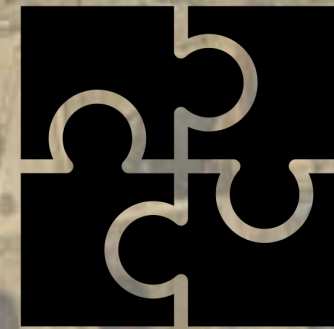


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**Factors** that could  
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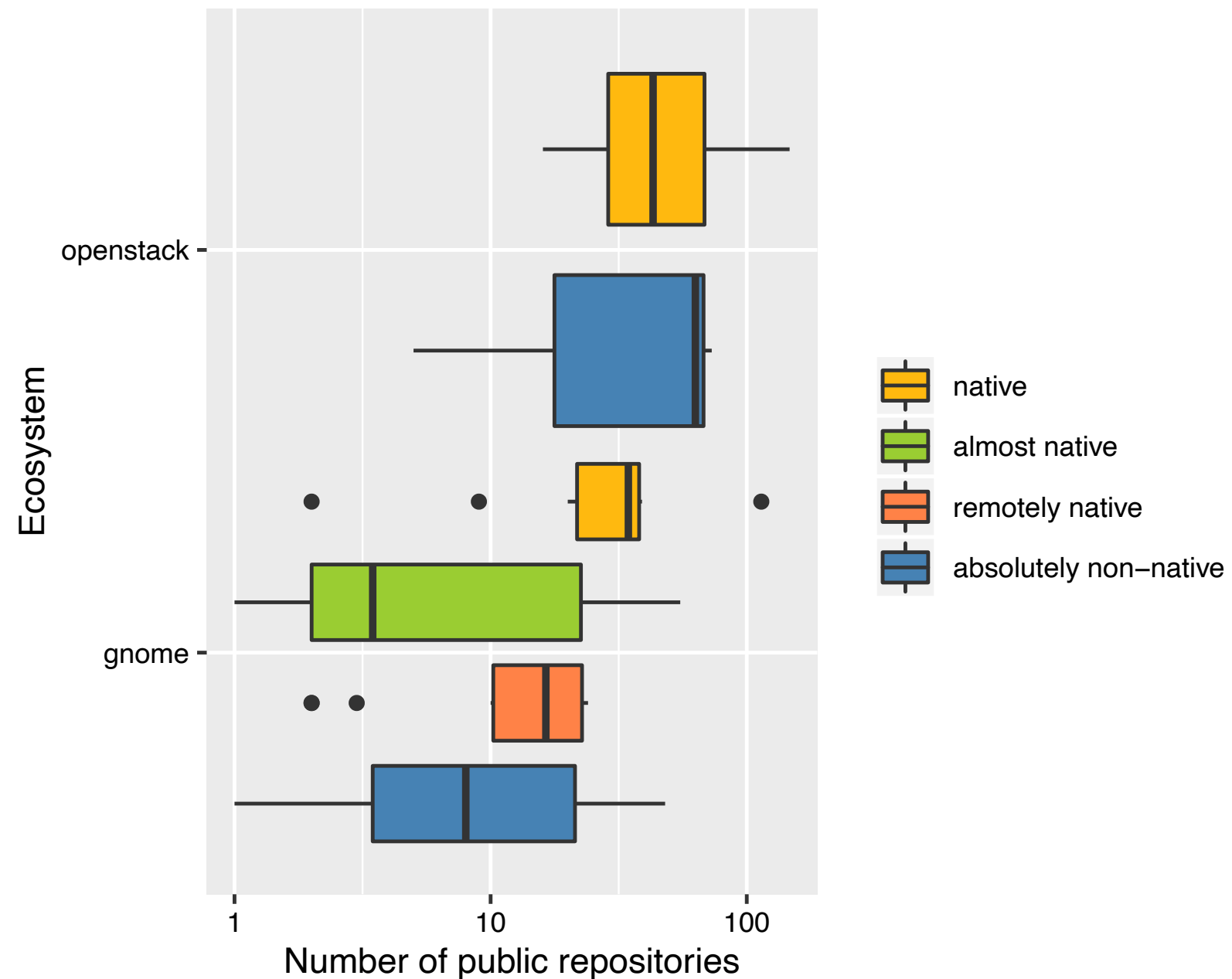
# Analysis of GitHub activity



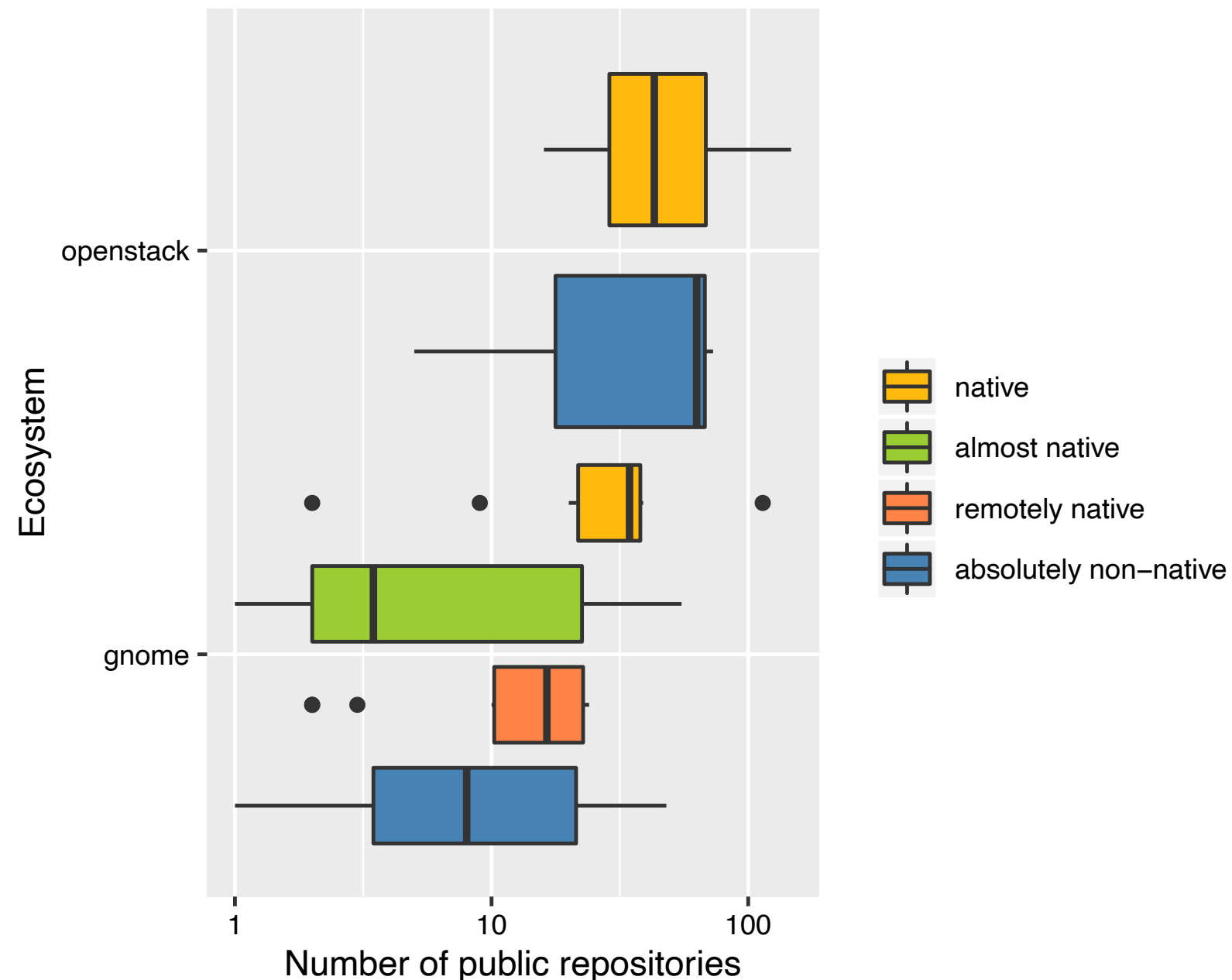
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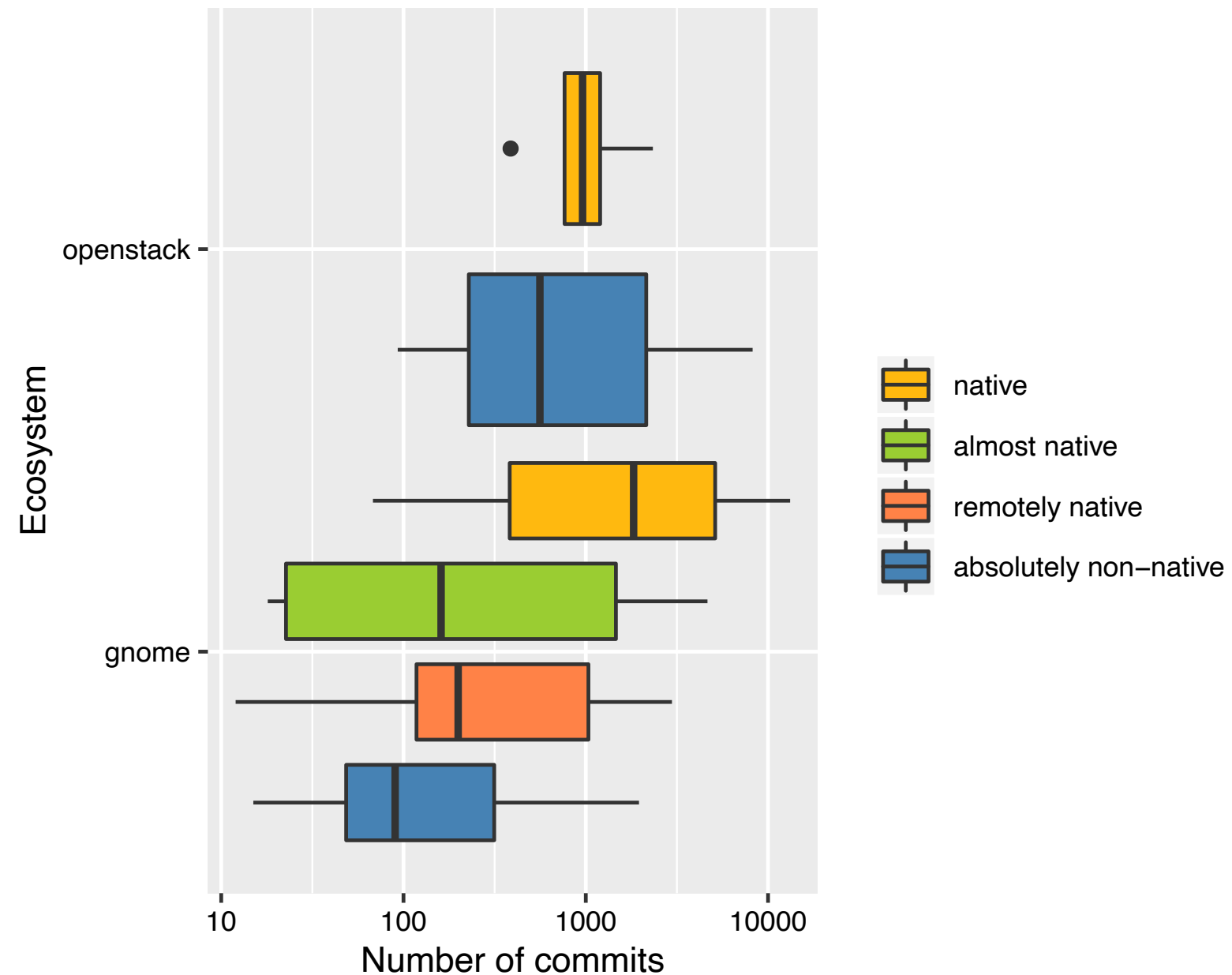
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**There is a statistical difference for *Gnome* data**

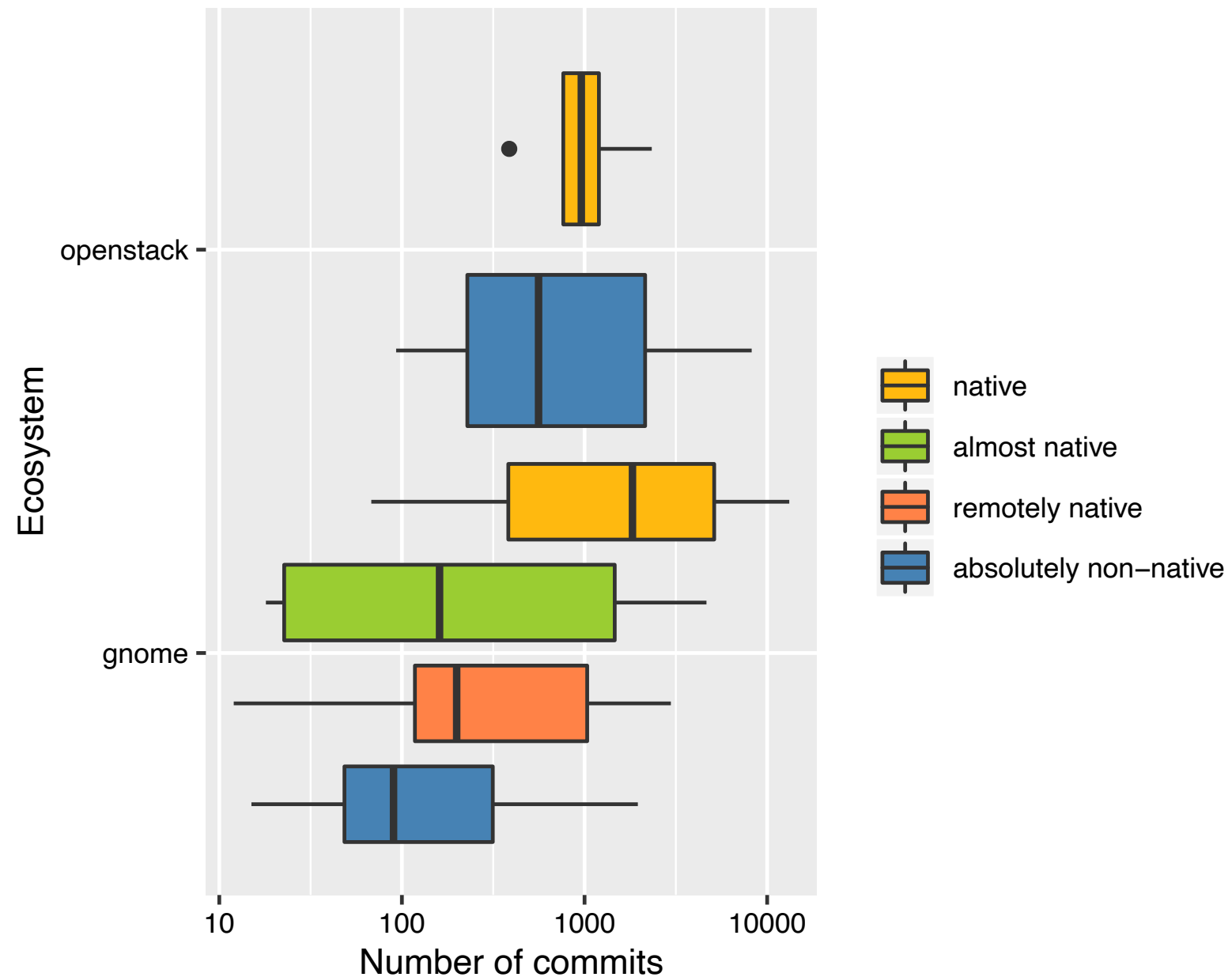
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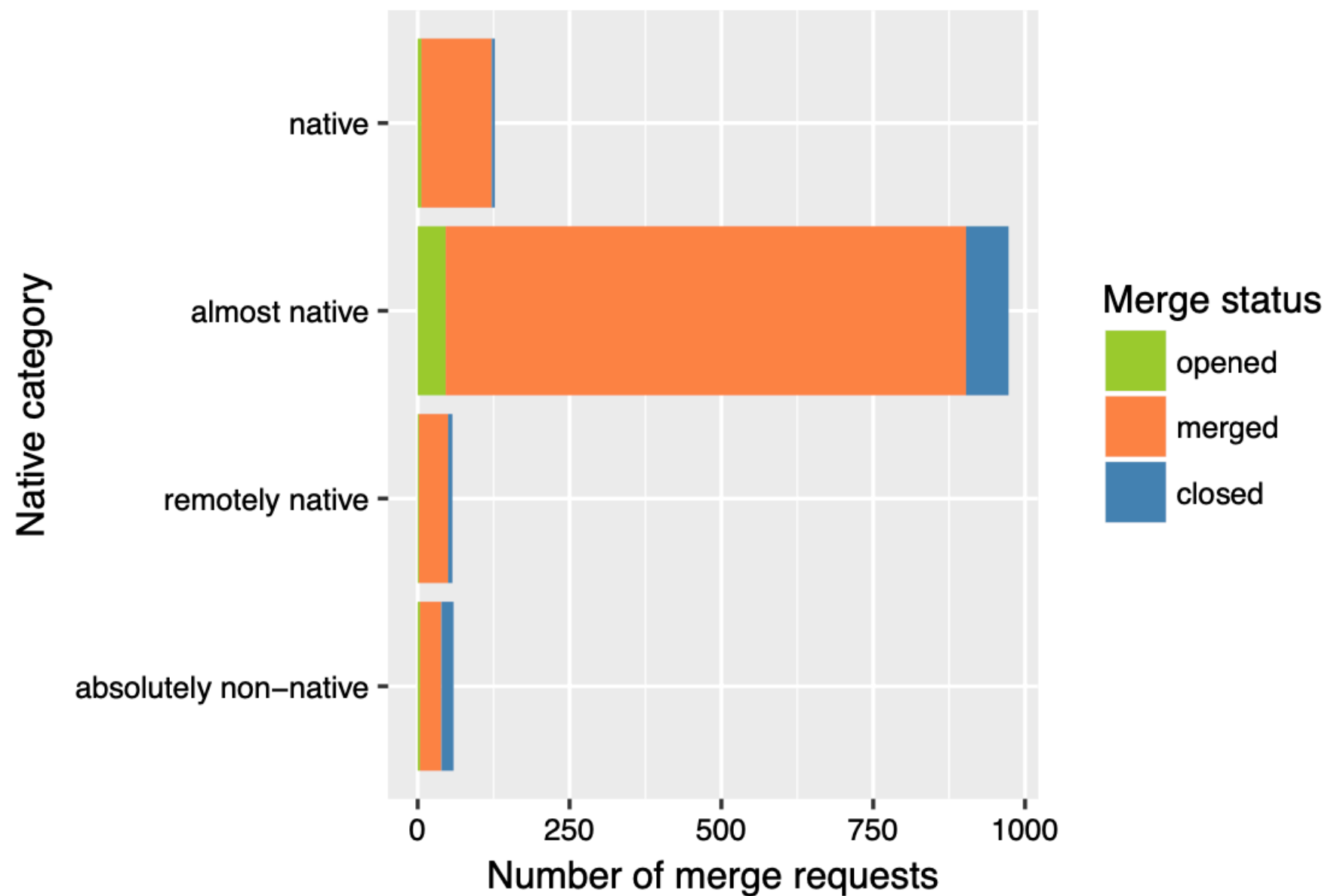
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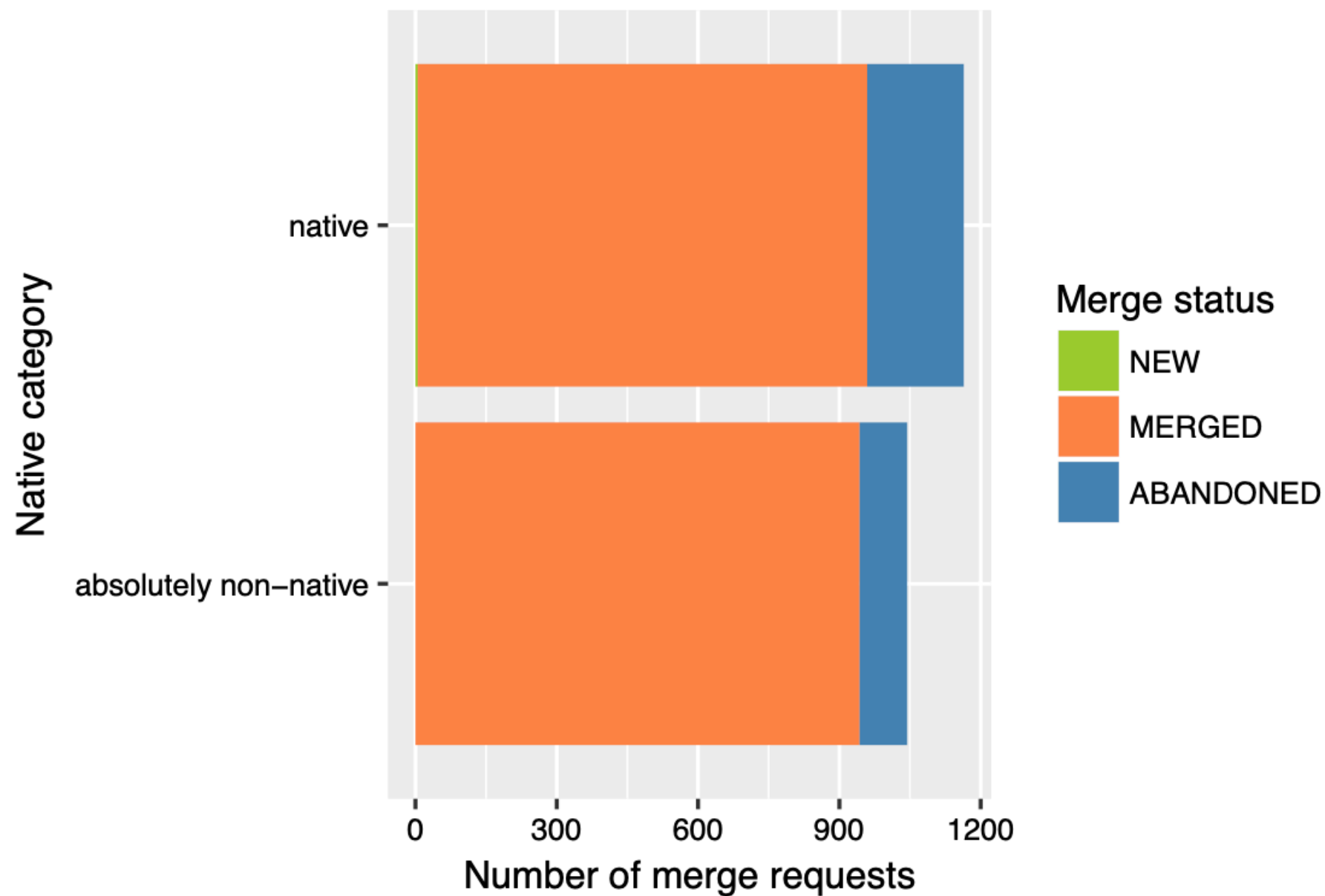
# Analysis of pull requests



# In *Gnome*, *almost native* speakers perform most of the pull requests

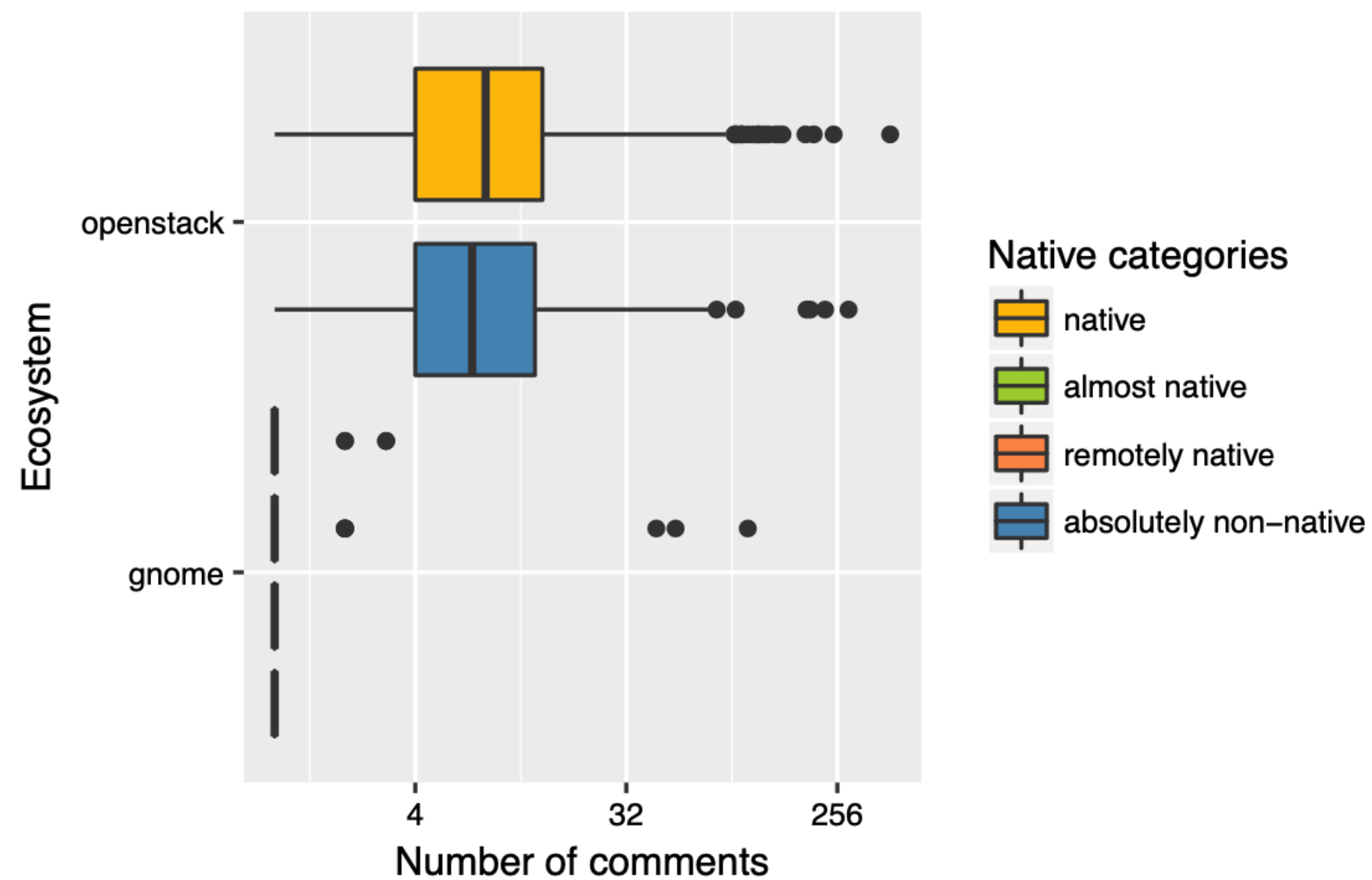


# In OpenStack, *native* speakers perform most of the pull requests

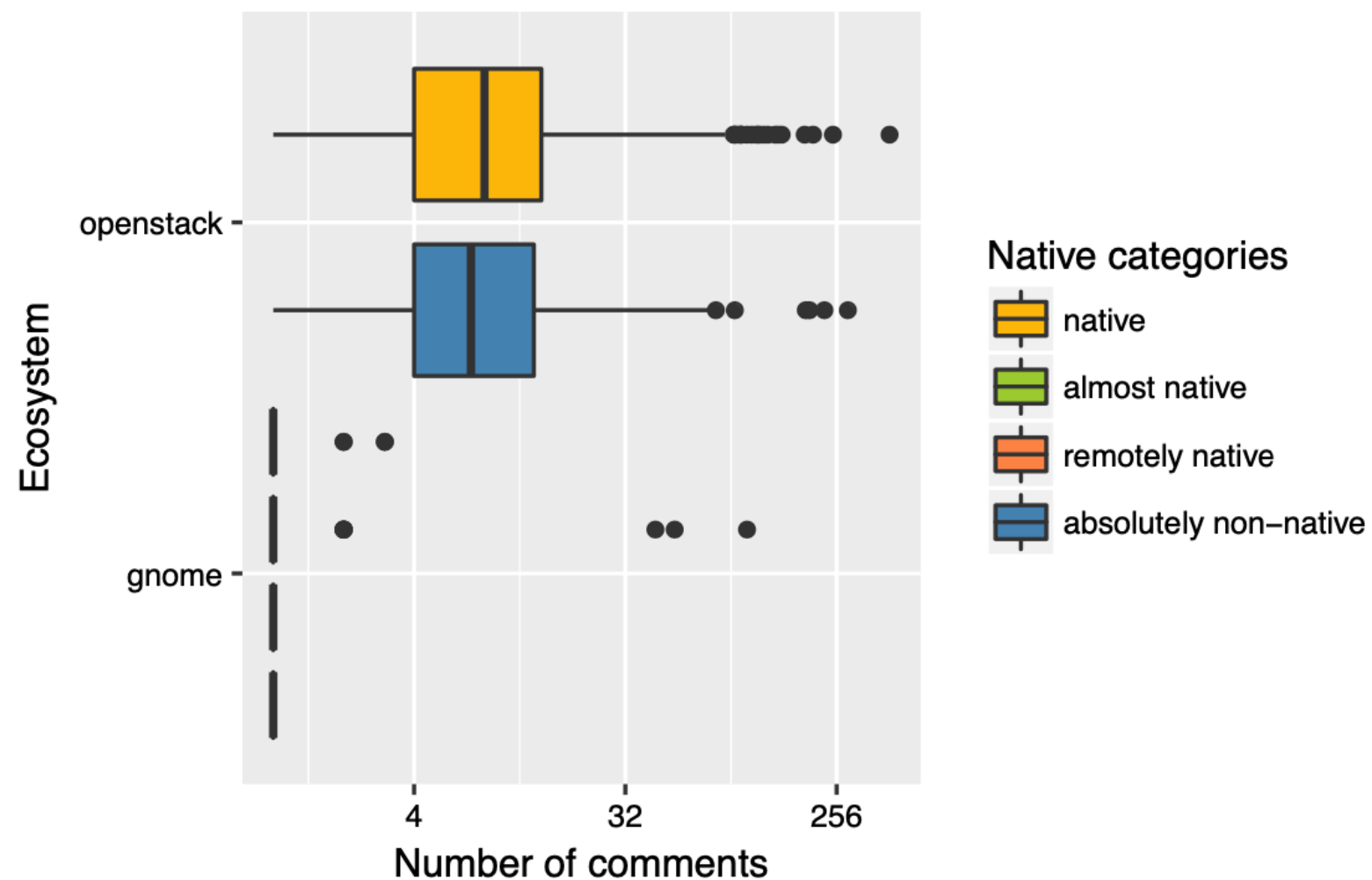




# Native English speakers have more comments in their pull requests

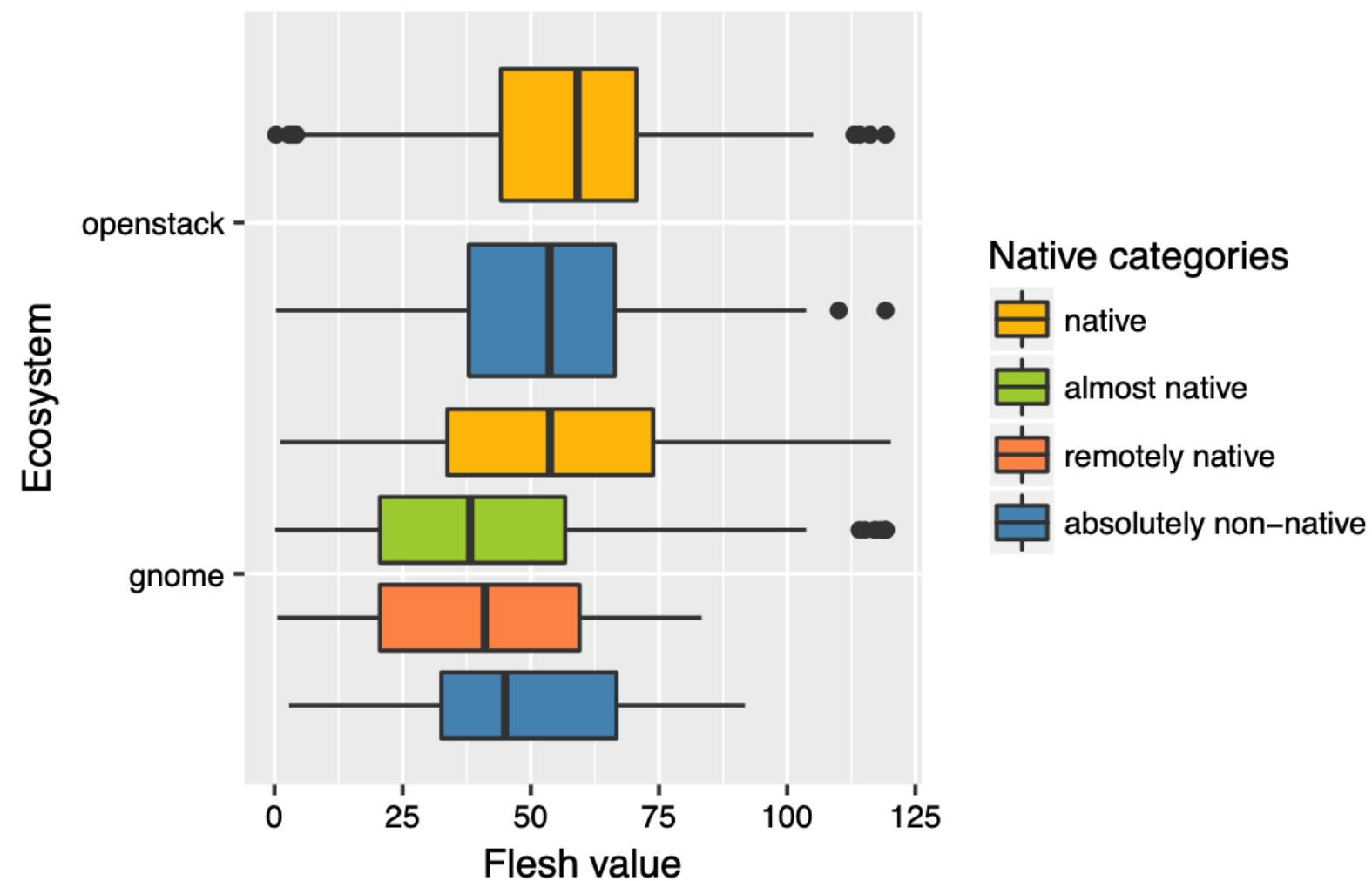


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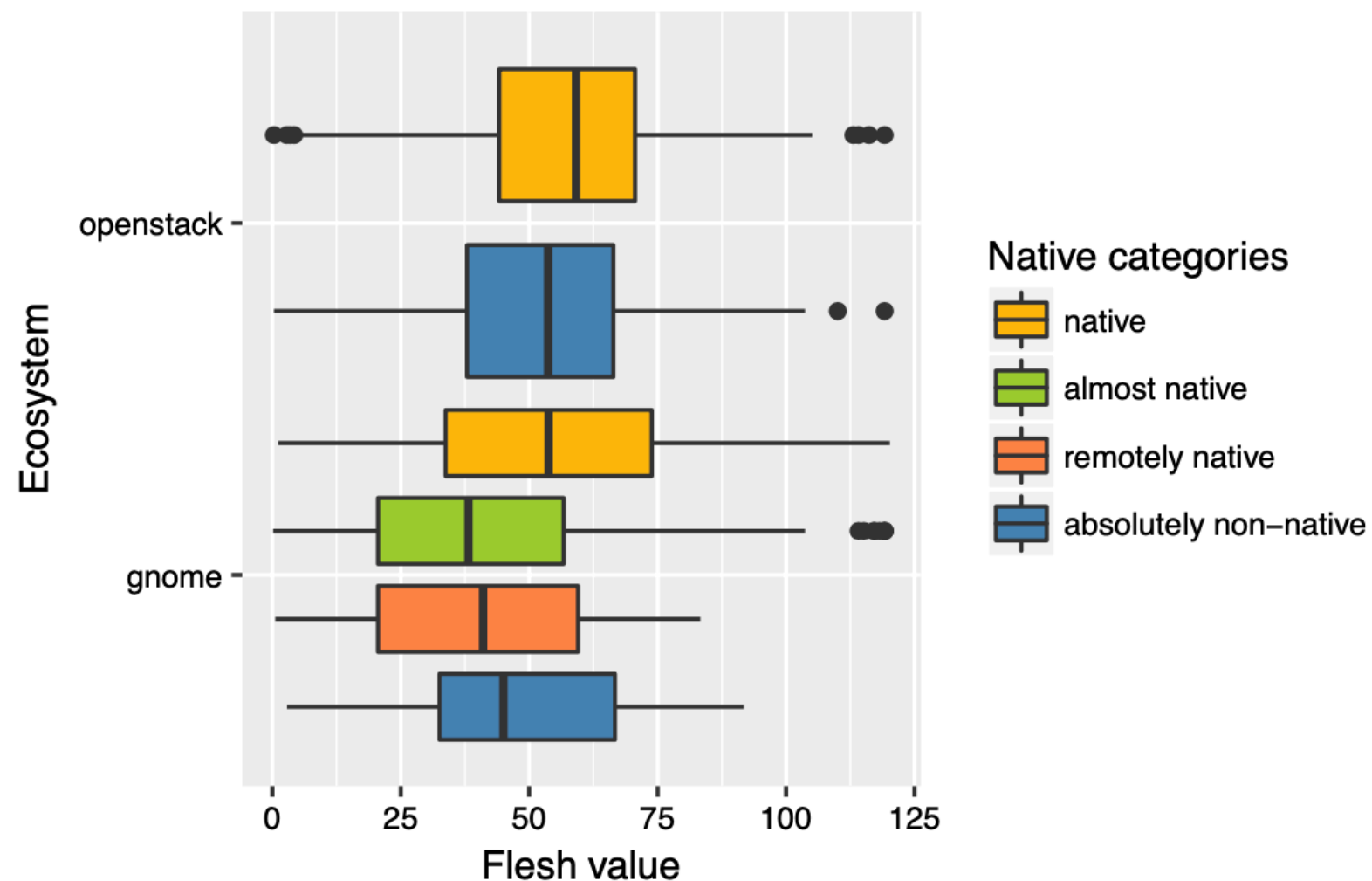
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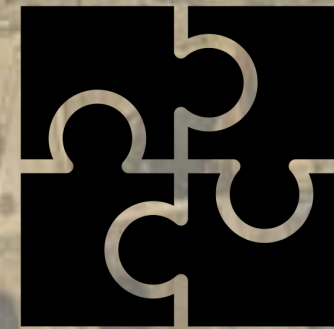
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**Progress from translation  
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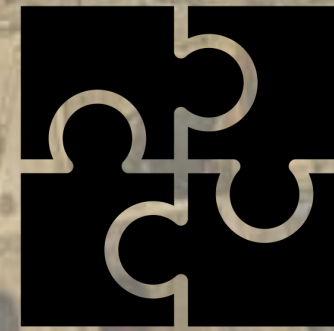


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**Factors that could  
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Native English speakers have more commits, more GH repositories, more comments in their PRs and easier to read commit messages.



# Practical Implications





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Researchers could build tools to help (core) OSS members to monitor the progress of developers' contributions.

**OpenStack tries to minimize the language barrier by making suggestions to both native and non-native English speakers**



# OpenStack tries to minimize the language barrier by making suggestions to both native and non-native English speakers

## Non-native English speakers



OpenStack projects communicate in English, and our documentation is written in US English. However, many documentation contributors have English as a second (or third, or fourth) language. This poses many challenges for non-native English speakers, but there are some things that native English-speakers can do to make it easier to include non-native speakers in our community. This chapter contains some suggestions for both native and non-native English speakers to help make our community more inclusive and welcoming for all people.

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### New contributors with English as a second language

Challenges related to language skills are easier to overcome than cultural ones. Cultural differences need to be respected, while English skills can always be improved.

In order to brush up on your English skills, be in contact with the language as much as you can. Do not think about your limitations. Just do your best and you will improve eventually.

Read as much as you can, because this will help you gather vocabulary. Communicating through chat and mailing lists daily helps, too. Some tools, such as real-time dictionaries and translators, are very useful with these platforms.

Talking to others or yourself helps you become comfortable speaking out more frequently. Having one-on-one conversations to express your ideas is easier than discussing in larger groups.

Speak and write your opinion, and ask your questions; this participation is always a good opportunity to exercise your English. Do not be afraid.

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## Working with non-native English speakers

For a native English speaker, it can sometimes be difficult to determine when a non-English speaker is having trouble communicating with you because of a language barrier, or because there are cultural challenges that are making it difficult. This can occur even between different English-speaking cultures. Cultural differences must be respected, while English skills can always be improved.

Here are some general guidelines for making your communications as clear as possible to a diverse audience:

- Speak slowly and use simple words and sentences.
- Do not ever make fun of non-native English speakers if you find something wrong about the English they use.
- Try to encourage newcomers to express their opinions and make them comfortable enough to do so.

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## Some specific cultural things to remember

Each culture has different norms when interacting with other people. This section describes some specific cultural differences that you might encounter, along with some practical advice for native English speakers to try and overcome these particular barriers.

Americans and Australians especially are often very direct, even terse, in the way they communicate, which can come across to other cultures quite rudely. Chinese and Brazilian Portuguese speakers like to list the facts first and give the request or action at the end, so you may need to read through emails very carefully to find out what you are being asked for. This structure is also good to remember when you are writing to people who communicate in this way, as it will be easier for them to understand your request





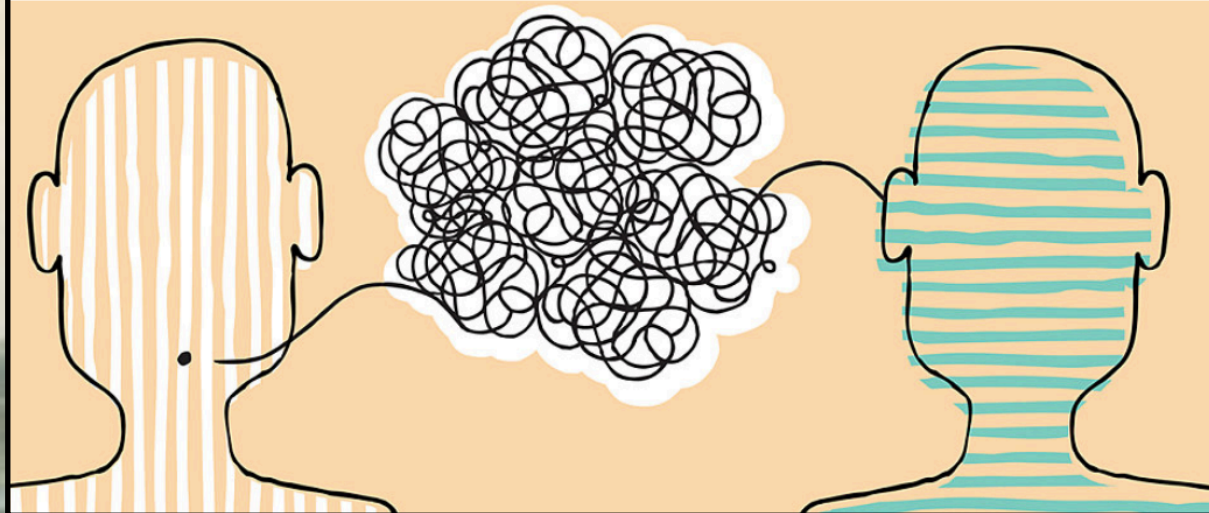
isaferreira\_57



/isabellaferreira

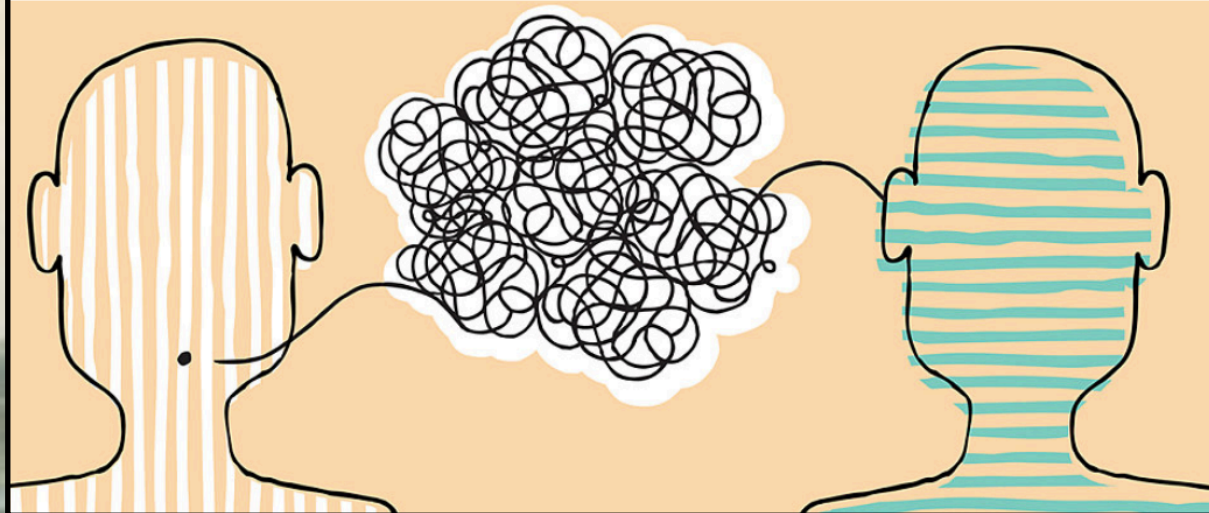


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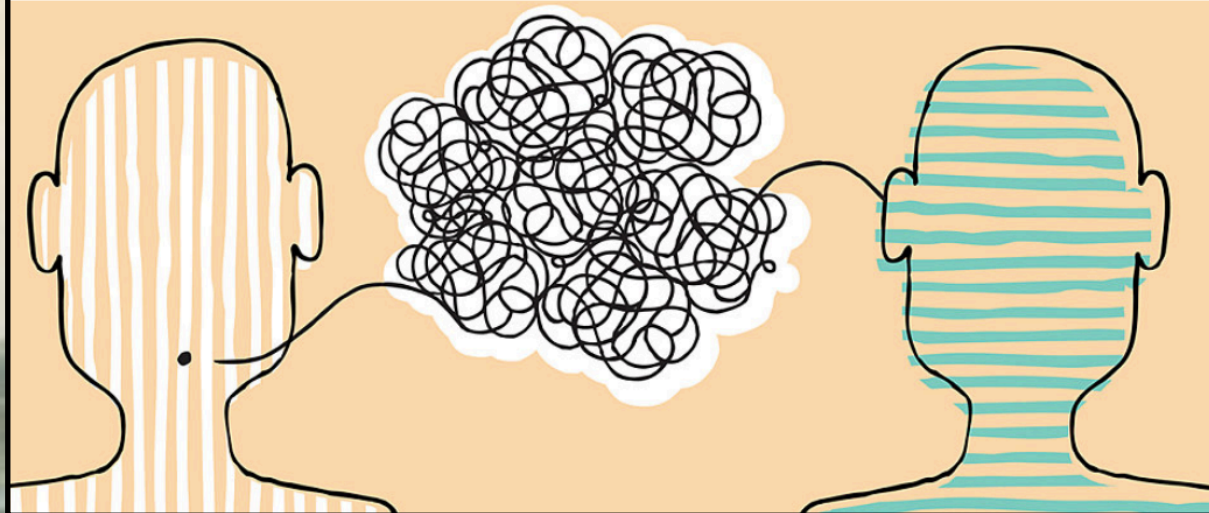
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**Progress** from **translation** to software **development**



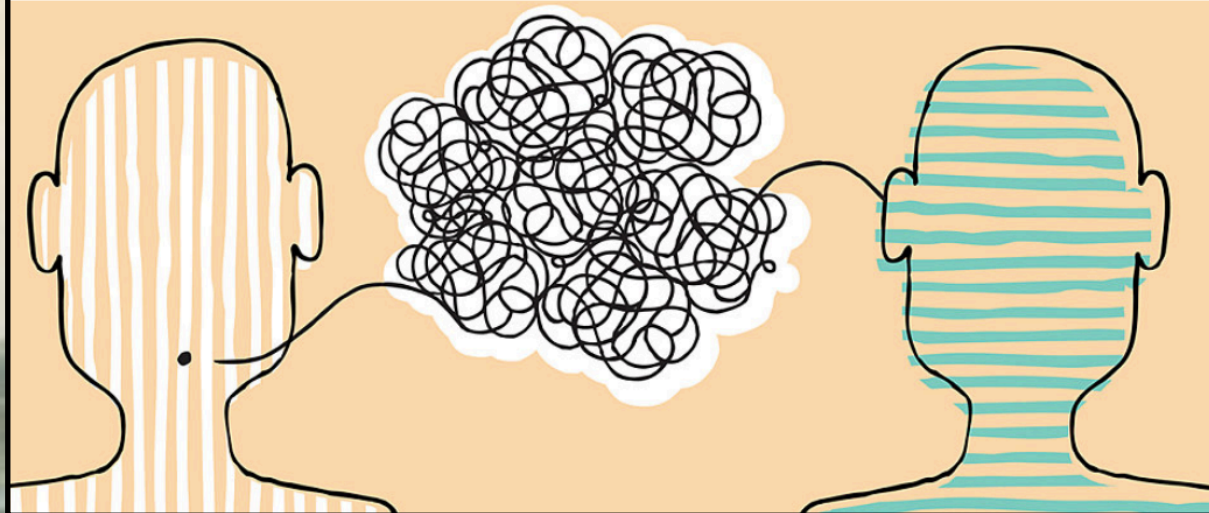
**Factors** that could explain **differences** between **(non-) native contributors**

There are **less non-native speakers** in **Gnome** and **remotely native speakers** in **OpenStack** progressing from **translation** to **code changes**.

**Native English speakers** have **more commits**, **more GH repositories**, **more comments** in their **PRs** and **easier to read commit messages**.



A **language barrier** is when developers **do not contribute** or **have difficulties** contributing to OSS due to **challenges in communication** experienced by project members speaking **different languages**



Do non-native English speakers *face* a language barrier in OSS?

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Practical Implications

Core (OSS) members should look into why contributors do not progress from translation to source code, since there is a large number of untapped potential.

Native English speakers and experienced developers should team up with non-native English speakers and inexperienced developers.

Non-native English speakers could use tools to check the correctness and clarity of their English messages. This could help them to attract more (timely) comments.

Researchers could build tools to help (core) OSS members to monitor the progress of developers' contributions.