

my little document

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Inventing some data

this is a *subheading*

Let's invent some data (using `set.seed` so that the result is reproducible):

```
set.seed(457299)
x=rnorm(50)
```

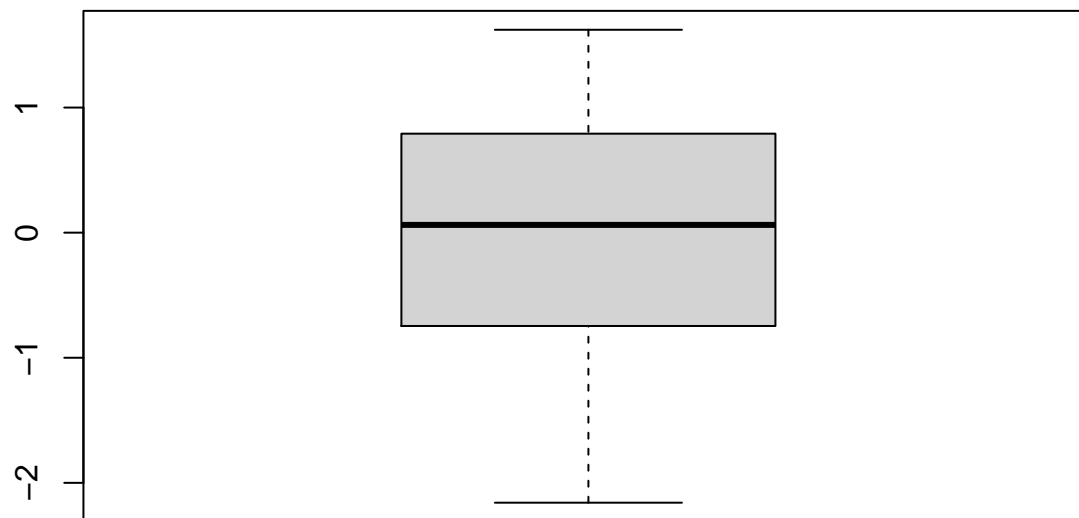
What kind of distribution does `x` actually have?

```
summary(x)
```

```
##      Min.   1st Qu.   Median     Mean   3rd Qu.     Max.
## -2.15848 -0.73446  0.06205  0.01743  0.77072  1.62187
```

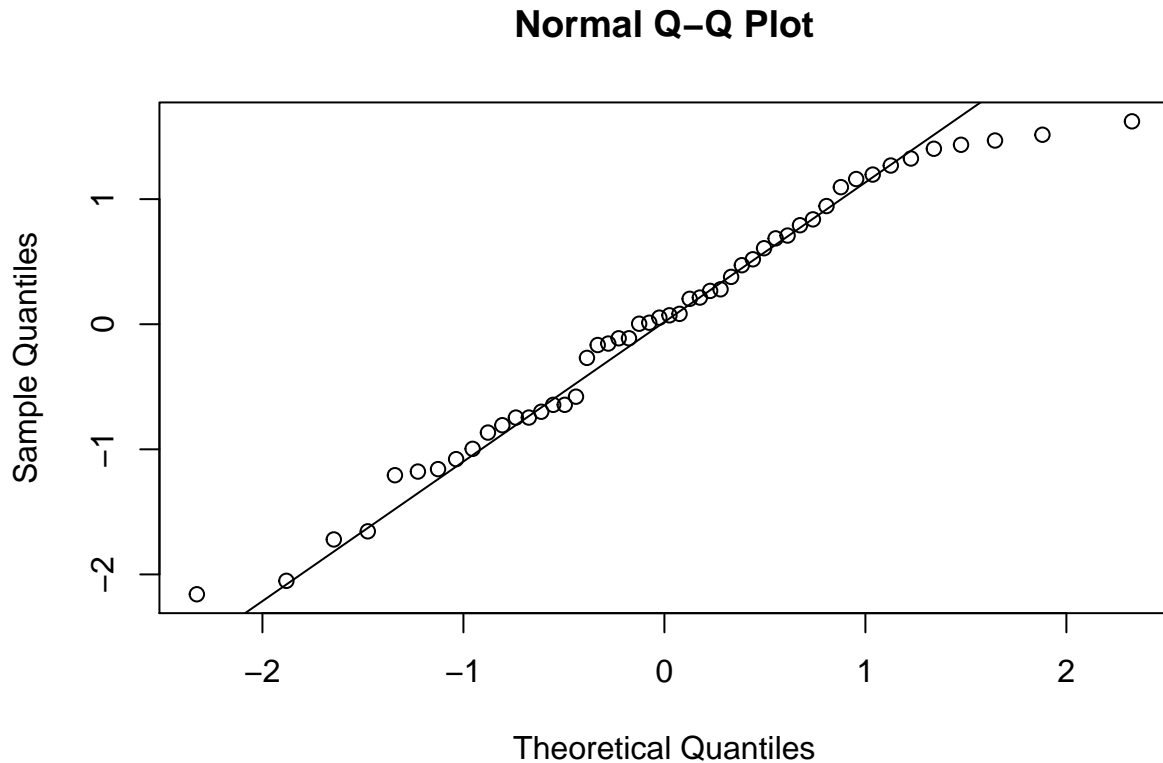
or a boxplot:

```
boxplot(x)
```



Since `x` actually came from a normal distribution, it should be at least approximately normal:

```
qqnorm(x)
qqline(x)
```



The upper tail of this distribution happens to be too short.

A random literature review

Jien, Gough, and Butler (2015) has nothing to do with this work. The original paper on the t distribution is Student (1908). Thunder is here: Huryn et al. (2015).

References

- Huryn, Steven, William Gough, Ken Butler, and Tanzina Mohsin. 2015. "An Evaluation of Thunderstorm Observations in Southern Ontario Using Automated Lightning Detection Data." *Journal of Applied Meteorology and Climatology*, no. 2015.
- Jien, Jerry Y., William A. Gough, and Ken Butler. 2015. "The Influence of El Niño–Southern Oscillation on Tropical Cyclone Activity in the Eastern North Pacific Basin." *Journal of Climate* 28 (6): 2459–74. <https://doi.org/10.1175/JCLI-D-14-00248.1>.
- Student. 1908. "The Probable Error of a Mean." *Biometrika*, 1–25.