

In `numpy`, index and dimension numbering starts with 0. So `axis 0` means the 1st dimension. Also in `numpy` a dimension can have length (size) 0. The simplest case is:

```
In [435]: x = np.zeros((0,), int)
In [436]: x
Out[436]: array([], dtype=int32)
In [437]: x[0]
...
IndexError: index 0 is out of bounds for axis 0 with size 0
```

I also get it if `x = np.zeros((0,5), int)`, a 2d array with 0 rows, and 5 columns.