

Qualitative Comparative Social Network Analysis with the `qcsna` package

The `qcsna` package is a tool that helps you to analyze a network through qualitative comparative analysis (QCA). The network structure as a whole is not to be explained, but rather the node level, more precisely nodal behavior, for example their interaction with other nodes through edge formation, or node attributes. Network structures in which the nodes of interest are integrated serve as explanatory variables, or — to use the QCA terminology — as conditions. If you would like to know, for example, which network-based conditions (like e.g., node-level indices or node connections) are necessary and/or sufficient for a specific outcome (e.g., node attributes), this package helps you to build a bridge between descriptive social network analysis and QCA.

Installation

You can install the development version of `qcsna` from GitHub with:

```
# install.packages("devtools")
devtools::install_github("haraldsick/qcsna")
```

Network data

The `qcsna` package works with data of type network Butts (2015)

Creating the QCA dataset

Specifying conditions

Finalizing the dataset to process it with QCA packages

References

- Butts, Carter T. 2008. “network: a Package for Managing Relational Data in R.” *Journal of Statistical Software* 24 (2). <https://www.jstatsoft.org/v24/i02/paper>.
- . 2015. *network: Classes for Relational Data*. The Statnet Project ([\url{http://www.statnet.org}](http://www.statnet.org)). <https://cran.r-project.org/package=network>.