PPI and MVPA

MVPA paper by Gilron and codes

<https://mail.google.com/mail/u/0/#inbox/16091e889a21ace2>

<http://www.sciencedirect.com/science/article/pii/S1053811916306401>

<https://github.com/roeegilron/MVPAtesting/>

 MVPA codes

<https://mail.google.com/mail/u/0/#inbox/16091a8954da7cbf>

Hi Tom,

Code-wise, the core of the SVM we use is this:

<https://www.csie.ntu.edu.tw/~cjlin/libsvm/>

There is a Matlab implementation and a Java version – depends on the platform you plan to use.

As for within/between subject classification – these are two different things that will depend on what you consider ‘signal’ at the group level and the purpose of your classification.

Between subject classification (leave-one-subject-out) implies that you are assuming a similar pattern of activation across subjects. It is good if you want to classify a subject (e.g. as belonging to one class or another in case you want to do diagnostics). This type of classification usually requires a large number of subjects to build your model. Since this is a directional test, at large N I would expect it to give you similar results to GLM at the single voxel level.

In within subject classification you relax the constraint of similar pattern across subjects and only ask about discriminability level between conditions and whether discriminability level is above chance across a group of subjects. Each subject can (in principle) have a completely different pattern of activation.

As you can realize, between subject classification may be good for diagnostics while within-subject classification more relevant for BCI.

Roy

**Russ suggests you start from this code**

I told him I am looking for codes for you and he replied:

"

I'm just not sure how useful it will be for them to look at messy analysis code written by postdocs or grad students :-)

here is one that I think is well done:

<https://github.com/WagnerLabPapers/Waskom_JNeurosci_2014>

Waskom is a serious software developer"

Good luck!

PPI stuff

<https://mail.google.com/mail/u/0/#inbox/1608ccfe8d6fe347>