

SPM12: F contrast

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Experiment:

Block design of left and right finger tapping

Design:

Left and Right blocks with temporal derivatives, plus regressors of motion estimates (6 degree-of-freedom) plus a constant

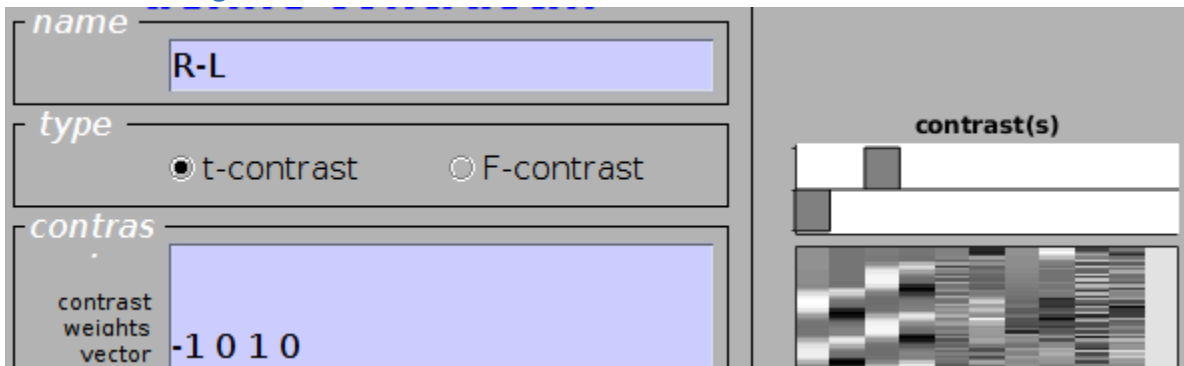
Define contrasts

1. t contrast: Left>Right



The interface shows the definition of a t-contrast. The **name** field contains "L>R". The **type** is set to "t-contrast". The **contrast weights vector** is "1 0 -1 0". To the right, a bar chart labeled "contrast(s)" shows two bars of equal height, and a corresponding contrast matrix is displayed below it.

2. t contrast: Right>Left



The interface shows the definition of a t-contrast. The **name** field contains "R-L". The **type** is set to "t-contrast". The **contrast weights vector** is "-1 0 1 0". To the right, a bar chart labeled "contrast(s)" shows two bars of equal height, and a corresponding contrast matrix is displayed below it.

3. F contrast: both Left>Right and Right>Left

name

type t-contrast F-contrast

contras
contrast weights matrix $\begin{bmatrix} 1 & 0 & -1 & 0 \\ -1 & 0 & 1 & 0 \end{bmatrix}$

contrast(s)



4. F contrast: Reducing columns of 2,4,5:end

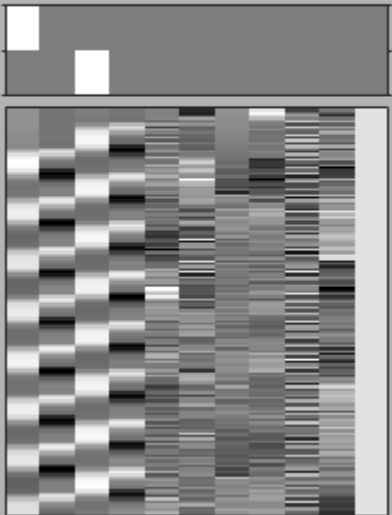
name

type t-contrast F-contrast

contras
contrast weights matrix

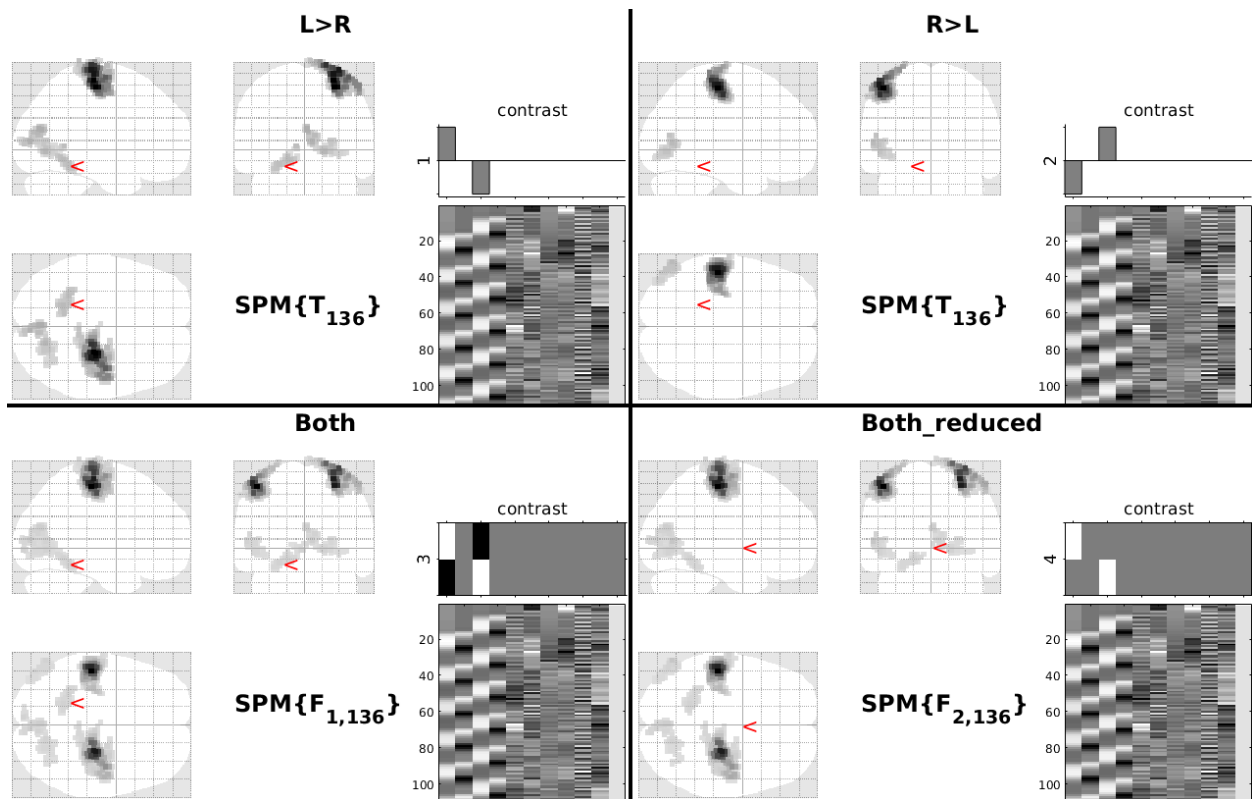
or
columns for reduced

contrast(s)



Design matrix

Results



Summary

- There are two ways of defining F contrasts
 - (1) Multiple contrasts
 - (2) Reducing the columns
- The 'multiple contrasts' is more flexible.