Author's response to reviews

Title: Mindboggle: Automated brain labeling with multiple atlases

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Response to reviewer comments
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I have made the Discretionary Revisions suggested by Mark Jenkinson. Below is a response Elizabeth Fisher's comments.

>General section:
>  The paper would be cleaner if it simply addresses the point that using multiple atlases improves Mindboggle's performance, and does not make comparisons between Mindboggle and linear labeling.

Thank you for your suggestion. I have rewritten the text to emphasize the former and deemphasize the latter point. I still feel that it is important to use linear registration as a control whenever studying nonlinear registration, and the results of the two are different enough that I believe that inclusion of linear labeling results is warranted.

>Major Compulsory Revisions:
  >1. Improve the description of Mindboggle in the Methods section.

I have rewritten the Methods section and I believe it should be a lot clearer.

  >2. Rewrite the Results and Discussion section because too much of the important information is contained only in the figure captions and not in the main text.

I have rewritten the Results and Discussion section to include all important information in the figure captions. I have also included references 89 through 92 on page 6 to briefly discuss multiclassifier combination rules.

>Minor Essential Revisions:
  >1. Re: surprising results in Figure 2.

I have responded to this concern in the main text:

"These disagreements are also more uniformly distributed, with two-label assignments extending even to the most anterior portions of the frontal poles. This is because linear registration leads to nonoverlap between the surfaces of the atlases and the subject, resulting in subject voxels that do not receive a label from every one of the atlases. Incomplete label assignments are treated as disagreements..."

...and have added the following to the Figure 2 caption:

"Linear labeling results include a broad distribution of multiple label assignments, extending even to the most anterior portions of the frontal poles; this is the case because linear registration leads to nonoverlap between atlases at their surfaces."

>2. Not able to view tex tables.
I do apologize. I will upload the pdf versions along with the revised manuscript.

>Discretionary Revisions: Re: addition of a few abnormal or older cases.

I appreciate your suggestion. It happens that I am working on a project to apply Mindboggle to elderly and pathologic brains. I have added the following to the Results and Discussion section:

"We can expect even greater deviations from brains that are very young, very old, or inflicted with a pathological condition, something we are presently investigating."