Response to Editorial Comments and Reviews

We are very grateful to the editor and reviewers for their comments and suggestions, and have incorporated all of the comments into the revision. Our responses are shown in italics.

Editor  
•Formatting: The numbering is not formatted correctly. At least one bold numbered heading is required, with all of the necessary steps listed as substeps of that heading (1.1, 1.2, etc.). If possible, please split the protocol into multiple sections, each with a bold heading.

*We have renumbered the protocol as suggested.*  
•Grammar:  
-Line 77 – “compensate important aspects” – missing “for”  
-Line 79 – “adaptation adjust sensitivity”  
-Line 98 – Please format the list of components in a grammatically correct way.  
-4, 4.1, Please use imperative tense or convert to a note.  
-Line 159 – “To varying the observer, then”

*We have corrected each of these errors.*  
•Visualization:  
  
•Additional detail is required:  
-6.2 – How is this done? This step cannot be filmed if additional stepwise detail on how to quantify is not provided.

*We expanded this section to describe the actual analyses and experiments more clearly, and have added a figure to illustrate them.*

-What program is used? This should appear in the materials table. If this is performed in MatLab, the code used should be provided.

*The simulations were done with Visual Basic. We added this to the materials table.*  
•Results:  
-At least one figure or table should be provided demonstrating the quantification mentioned in 6.2.

*We added figure 5 to show the example of applications for the adapted images.*

-Please make sure we are able to publish all painting images. Only one figure legend lists a reference.

*All paintings are open source and this is now noted for each figure.*  
•Discussion: Please be more specific about what steps in the protocol are critical – which actions need to be performed? Please also include citations when discussing alternative techniques in the significance section.

*We have expanded the paragraph to note the critical steps and decisions required for the simulations.*•If your figures and tables are original and not published previously, please ignore this comment. For figures and tables that have been published before, please include phrases such as “Re-print with permission from (reference#)” or “Modified from..” etc. And please send a copy of the re-print permission for JoVE’s record keeping purposes.

*The painting images are open source and credited. The other figures are my originals.*

•JoVE reference format requires that the DOIs are included, when available, for all references listed in the article. This is helpful for readers to locate the included references and obtain more information. Please note that often DOIs are not listed with PubMed abstracts and as such, may not be properly included when citing directly from PubMed. In these cases, please manually include DOIs in reference information.

*DOI’s have been added to all references where available.*                                              
•IMPORTANT: Please copy-edit the entire manuscript for any grammatical errors you may find. The text should be in American-English only. This editing should be performed by a native English speaker (or professional copyediting services) and is essential for clarity of the protocol and the manuscript. Please thoroughly review the language and grammar prior to resubmission. Your JoVE editor will not copy-edit your manuscript and any errors in your submitted revision may be present in the published version.

*Done*                                                          
•NOTE: Please include a line-by-line response letter to the editorial and reviewer comments along with the resubmission.

**Reviewers' comments:**  
**Reviewer #1:**  
*Manuscript Summary:*  
The manuscript describes a novel technique to visualize the effects of visual adaptation. The technique rests on a firm foundation of recently published work of the highest quality from first author's laboratory. I found nothing to criticize and much to commend here!  
  
*Major Concerns:*  
N/A  
  
*Minor Concerns:*  
N/A  
  
*Additional Comments to Authors:*  
N/A  
  
  
**Reviewer #2:**  
*Manuscript Summary:*  
The manuscript introduces a novel method to simulate human color adaptation with a simple model. The method may be particularly useful for studying the effects of very long-term visual adaptation that cannot be easily conducted in practice.  
  
*Major Concerns:*  
Although the work is important and the manuscript is generally well written, the authors are encouraged to introduce the model and algorithm in more detail.

*We have not expanded the details in keeping with the length limits required for the protocol*  
*Minor Concerns:*  
\*Are the title and abstract appropriate for this methods article?  
Response: Because the theoretical model and protocol focus on the color adaptation in the article, the author may consider changing the title "visualizing visual adaptation" into "visualizing color adaptation".

*While we use color as an example, the method is gerarally applicable to all aspects of visual adaptation. We added a sentence to the abstract to emphasize this.*

\*Are there any other potential applications for the method/protocol the authors could discuss?  
Response: The authors have discussed the significance of the method in 6 aspects.  
\*Are all the materials and equipment needed listed in the table? (Please note that any basic materials or equipment that a lab who might use this protocol would already have do not need to be listed, e.g., pipettes.)  
Response: Yes.  
\*Do you think the steps listed in the procedure would lead to the described outcome?  
Response: Yes.  
\*Are the steps listed in the procedure clearly explained?  
Response: To introduce the protocol more clearly, the authors are encouraged to embed the GUI pictures into the main text.

*We assume these GUIs are more appropriate to show as part of the protocol video.*

\*Are any important steps missing from the procedure?  
Response: No.  
\*Are appropriate controls suggested?  
Response: Yes.  
\*Are all the critical steps highlighted?  
Response: Yes.  
\*Is there any additional information that would be useful to include?  
Response: No.  
\*Are the anticipated results reasonable, and if so, are they useful to readers?  
Response: Yes.  
\*Are any important references missing and are the included references useful?  
Response: No. And the included references are useful.  
  
Other small mistakes:  
Line 126: According to Manuscripts Instructions for Authors for JOVE, italicize all Latin words and nomenclature.  
Line 251: Remove "~".

*Done*  
*Additional Comments to Authors:*  
N/A