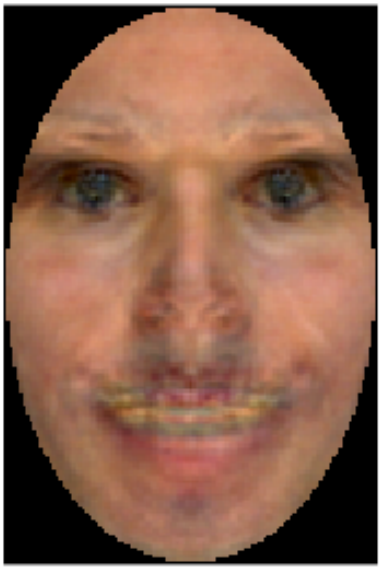
```
dirc='/Users/dannem/Dropbox/CompNeuroLab/PCA Faces/Unfamiliar Faces';
load('/Users/dannem/Dropbox/CompNeuroLab/PCA Faces/bck.mat')
output2D=readMultipleImages(dirc,'tif',ell_templ,'flip','on','format','double2D');

output4D=readMultipleImages(dirc,'tif',ell_templ,'flip','on','format','double4D');

output=output2D';
aver_output=mean(output,1);
output_corr=output-repmat(aver_output,size(output,1),1);
[coeff,score,latent,tsquared,explained,mu] =
 pca(double(output_corr),'Algorithm','svd','Economy','on');
ndims=size(score,2);
reconstructed = repmat(aver_output',1,240) +
 (score(:,1:ndims)*coeff(:,1:ndims)')';

images=rebuildIm(reconstructed,ell_templ);
imageTrue=rebuildIm(output2D(:,120),ell_templ);
% figure
% subplot(1,2,1)
% imshow(lab2rgb(images(:,:,:,120)));
% subplot(1,2,2)
% imshow(lab2rgb(imageTrue));

dirc='/Users/dannem/Dropbox/CompNeuroLab/PCA Faces/Familiar Famous
 Faces'
output2Df=readMultipleImages(dirc,'tif',ell_templ,'flip','on','format','double2D')
faceFam1=output2Df(:,1);
projFace=coeff'*(faceFam1-aver_output');

for i=1:10

% dirc='/Users/dannem/Dropbox/CompNeuroLab/PCA Faces/Familiar Famous
 Faces'
%
 output2Df=readMultipleImages(dirc,'tif',ell_templ,'flip','off','format','double2D
faceFam1=output2Df(:,i);
projFaceWgt_T=(faceFam1'-aver_output)*coeff;
projected = aver_output + projFaceWgt_T*coeff';
imagesProj=rebuildIm(projected',ell_templ);
imageTrue=rebuildIm(faceFam1,ell_templ);




% figure
% subplot(1,2,1)
% imshow(lab2rgb(imagesProj))
% subplot(1,2,2)
% imshow(lab2rgb(imageTrue))
figure
subplot(1,2,1)
imshow(uint8(imagesProj))
```

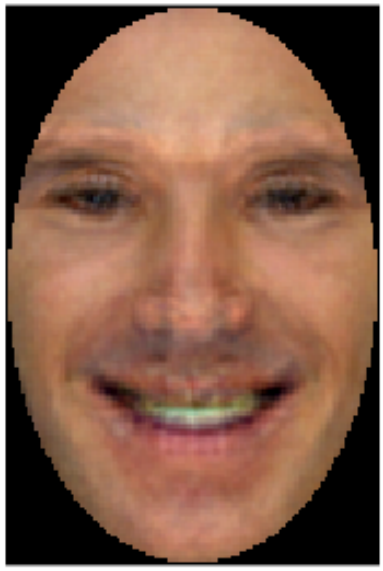
```
subplot(1,2,2)
imshow(uint8(imageTrue))
end
```

```
dirc =

/Users/dannem/Dropbox/CompNeuroLab/PCA Faces/Familiar Famous Faces
```



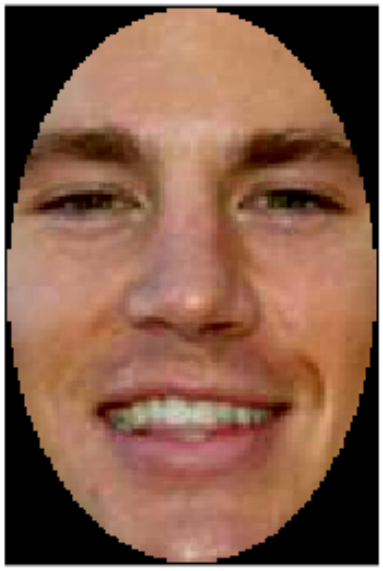


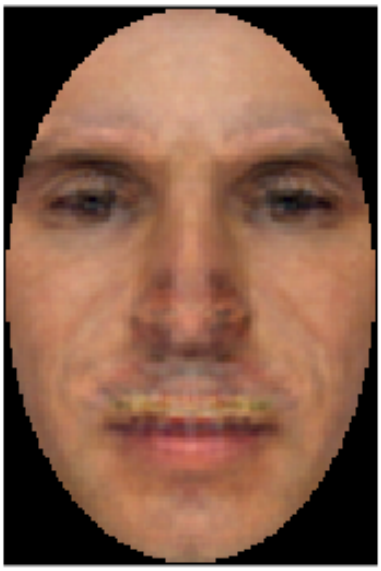










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