Learning Dictionary from Cartoon and Texture images

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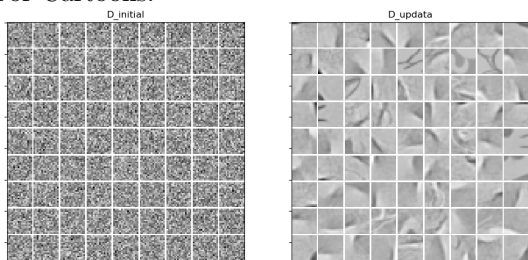
1 Image Preprocessing

First, resize all images to 128×128. Then partiton the images to a series of 16×16 block pictures. Finally, normalized all images.
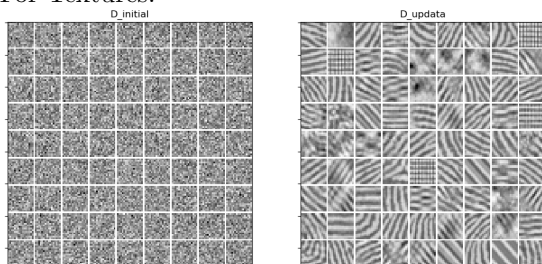
2 Learn two Dictionaries

We set dictionary number to 81, $\alpha = 0.1$, and do iteration 500 times.
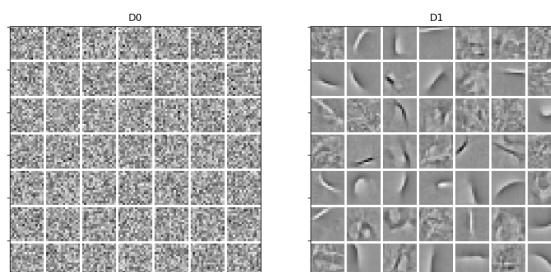
For Cartoons:
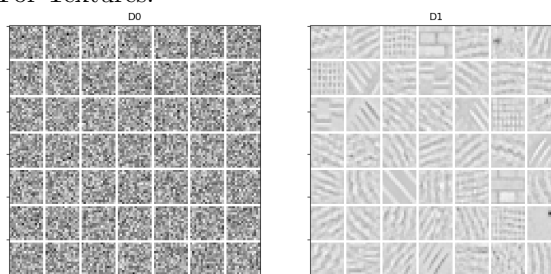

For Textures:

3 Learn two convolutional dictionaries

We set dictionary number to 49, $\alpha = 0.1$, and do iteration 200 times.
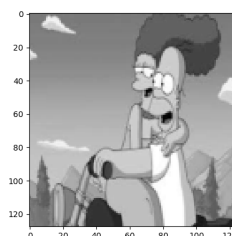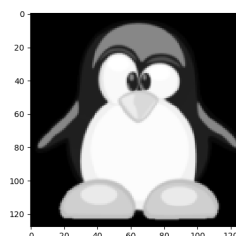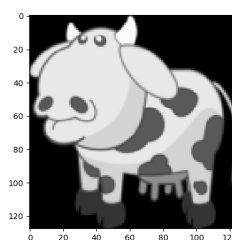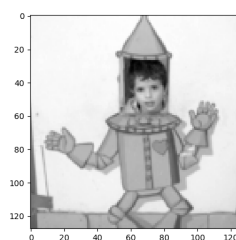
For Cartoons:

For Textures:

4 Sparse approximation for dictionary learning

Reconstruct the images(only show a few images)
For Cartoon:

For Textures: