Weakly Supervised Body Part Segmentation with Pose based Part Priors
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**Body Part Segmentation**
Given an image, predict the semantic segmentation mask for each body part.

**Fully-supervised Methods**
- High cost in generating body part annotations
- Abundant existing weak supervision (e.g., human pose)

**Contributions**
A weakly supervised approach for body part segmentation
- With extra data, obtain comparable performance to fully-supervised methods
- Generalizable to face parsing

**Iterative Refinement based on Part Priors**
- Part priors: Convert sparse pose into dense part priors
- Supervision: no loss on the uncertain areas shown in the white color
- Iterative refinement: iteratively fill in the uncertain areas

**Quantitative Results**

**Qualitative Results**

**The proposed framework can be extended to other keypoint supervised part segmentation tasks, such as face parsing.**
- We show the face “part prior” and the parsing results on the Helen and AFLW datasets.