Evaluating multi-class learning strategies in a hierarchical framework for object detection.

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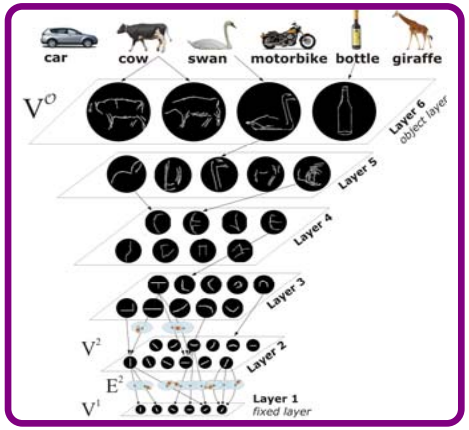
http://vicos.fri.uni-lj.si/

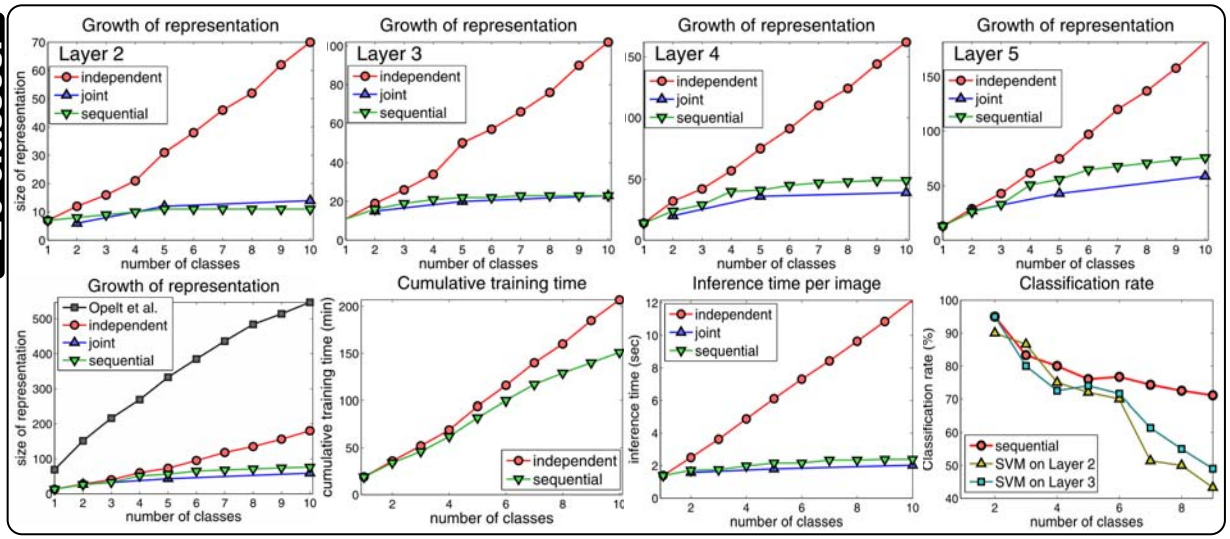
Summary

Objects are represented with a hierarchical compositional shape vocabulary which is learned from images. We evaluate 3 different strategies for learning a hierarchical multi-class object vocabulary for object detection: **independent**, **joint** and **sequential training**. We explore and compare their computational behavior (space and time) and detection performance as a function of the number of learned object classes on several recognition datasets.

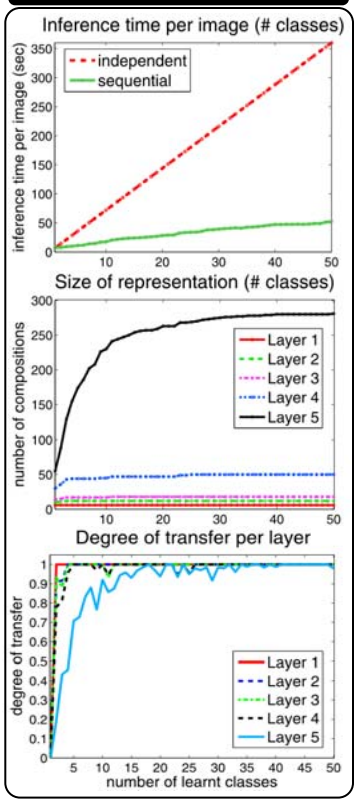


Results

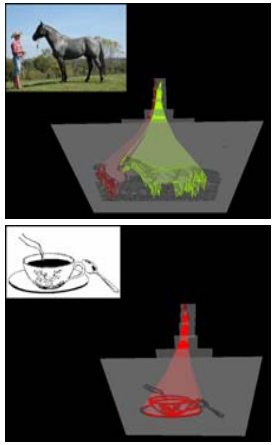
10 classes.



50 classes.

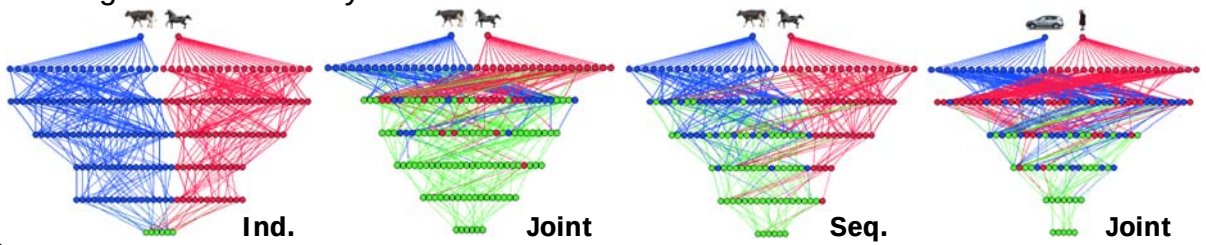


Detections



2 classes.

Sharing between visually similar and dissimilar classes.



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