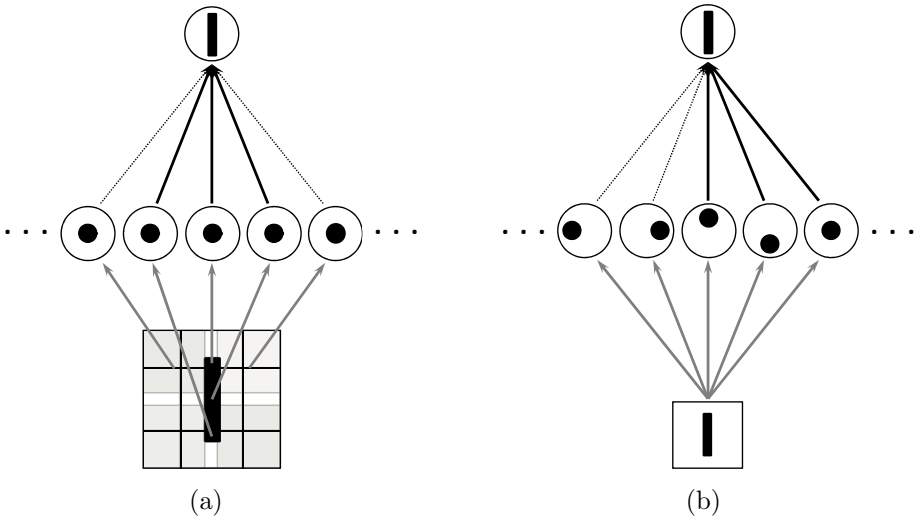

Figure 1: Two ways of learning features by combining lower level features. (a) The center surround features in the lower layer have the same location within the receptive field. The higher layer feature, a vertical bar, is learned by selectively superimposing with some degree of overlap (less than 100%) the lower layer features. The selected neurons have stronger connections to the higher layer neuron. Receptive field size increases as we ascend up the layers. (b) The center surround features in the lower layer have different locations within the receptive field. The higher layer feature is learned by selectively superimposing with 100% overlap the lower layer features. The selected neurons have stronger connections to the higher layer neuron. Receptive field size remains constant across layers.