## Dilation

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## Segmentation



## Receptive field

- How to increase receptive field?
- Large kernel size
- Striding



## Receptive field



## Receptive field and striding



## Dilation

- Add 0-padding between values in convolutional kernel


| $a$ | $b$ | $c$ |
| :--- | :--- | :--- |
| $d$ | $e$ | $f$ |
| $g$ | $h$ | $i$ |



| $a$ |  | $b$ |  | $c$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| $d$ |  | $e$ |  | $f$ |
|  |  |  |  |  |
| $g$ |  | $h$ |  | $i$ |

## Dilation vs striding



## Dilation vs striding



## The many names of dilation

- hole
- a trous

