

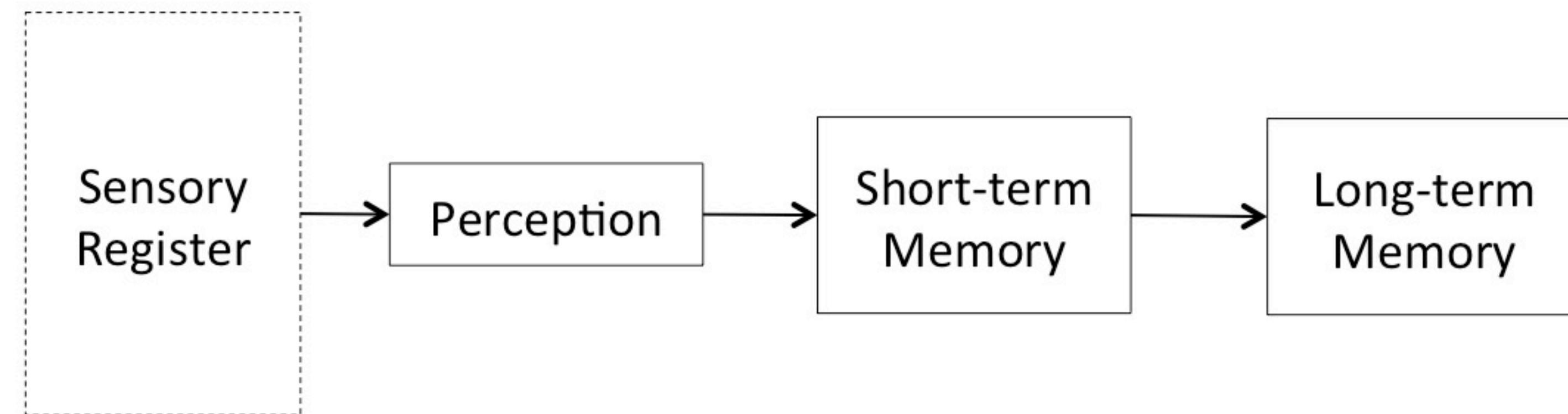
Short-term Memory

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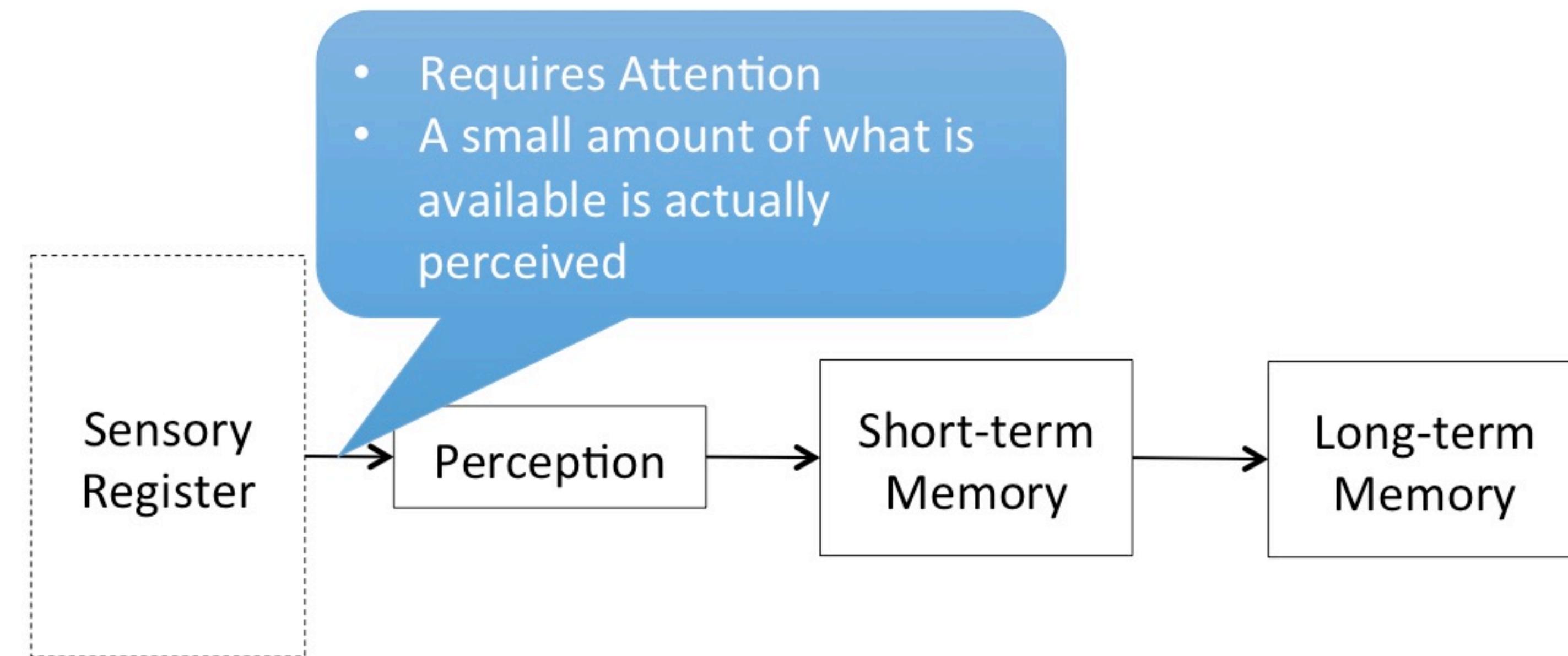


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From the senses to memory

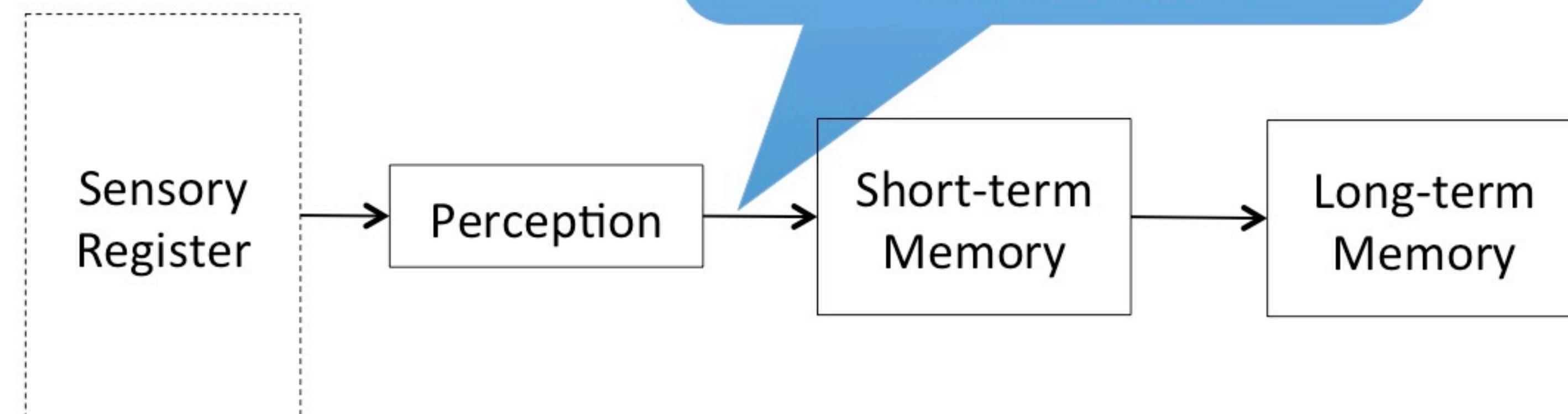


From the senses to memory

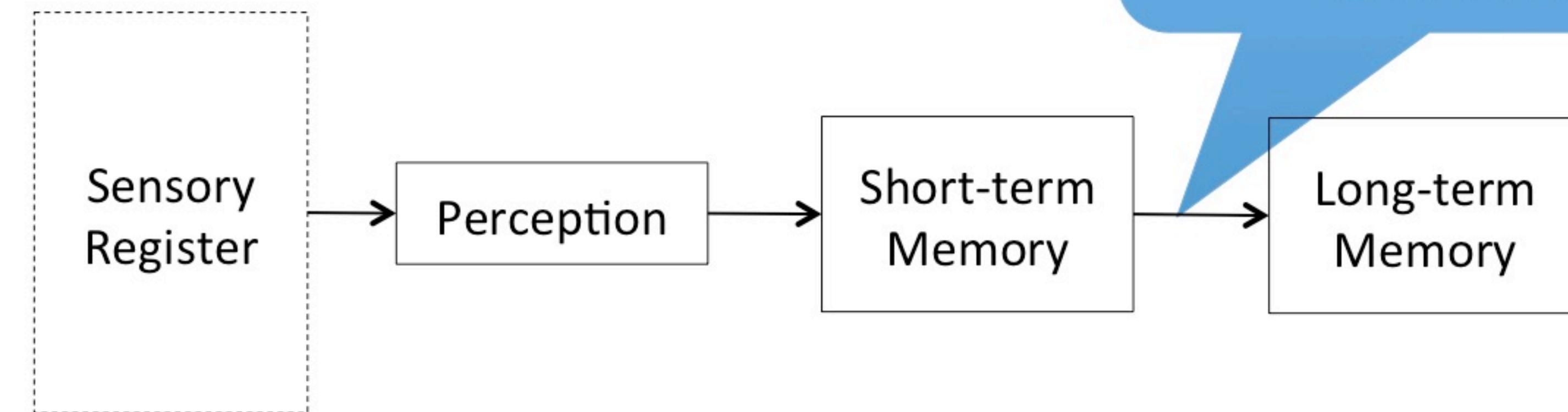


From the senses to memory

- Whatever is perceived is *available* for thought
- ... but only briefly
(a few seconds)

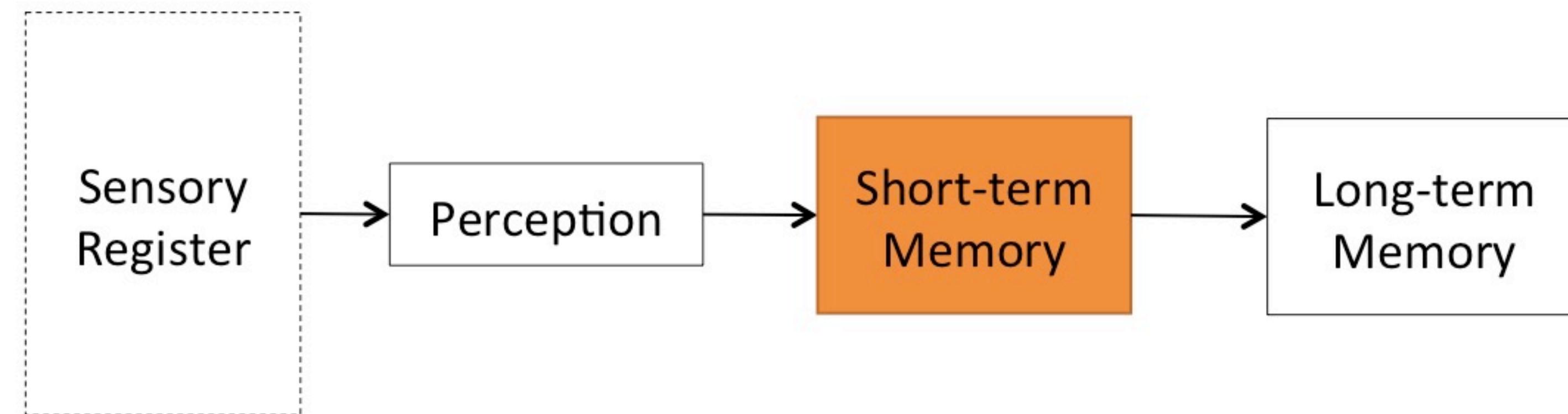


From the senses to memory



- A relatively small amount of information is “learned”
 - i.e., committed to long-term memory

From the senses to memory



Pay Attention to the Screen!

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How Many?



How Many?



Answer: 3

Pay Attention to the Screen!

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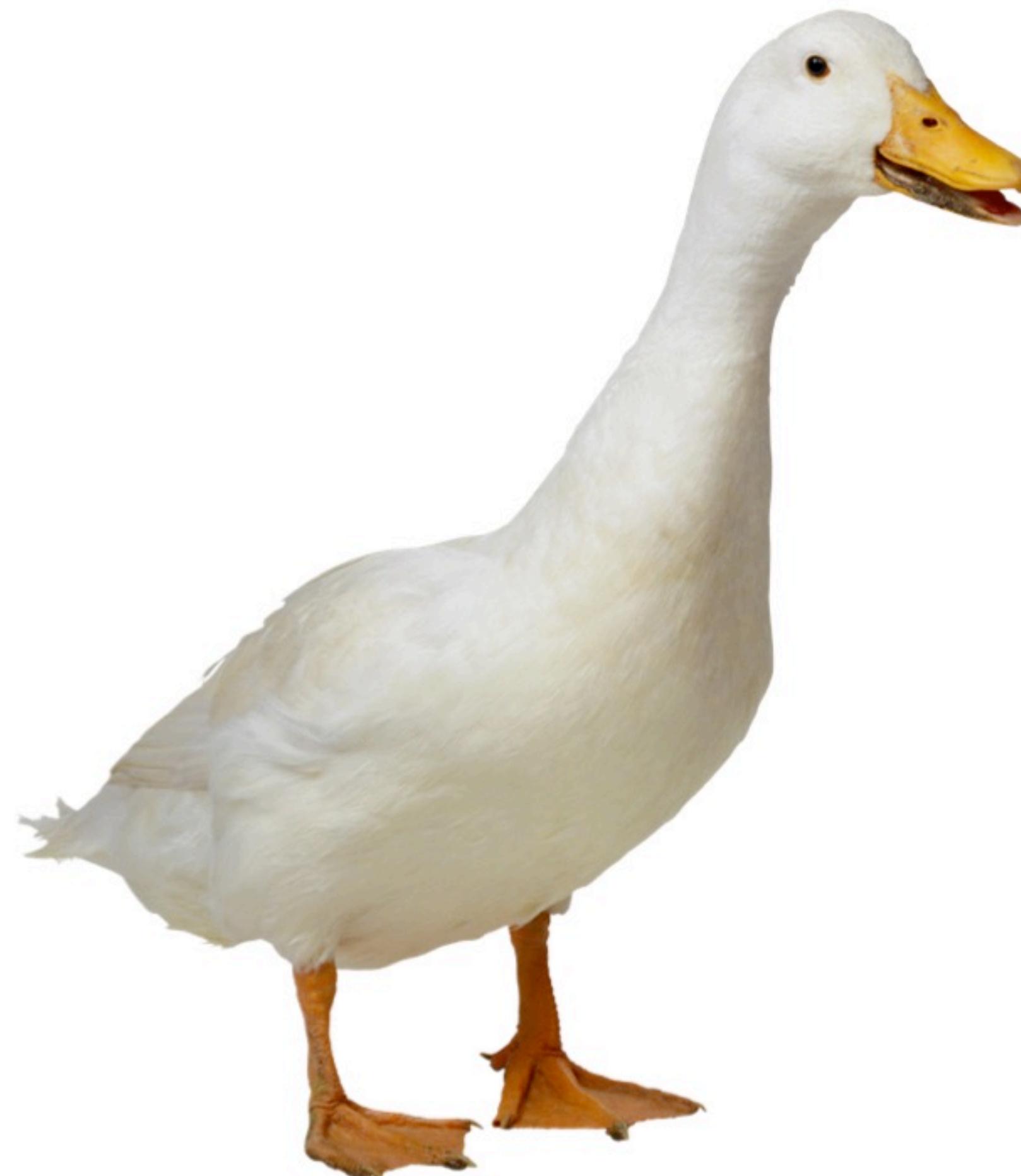
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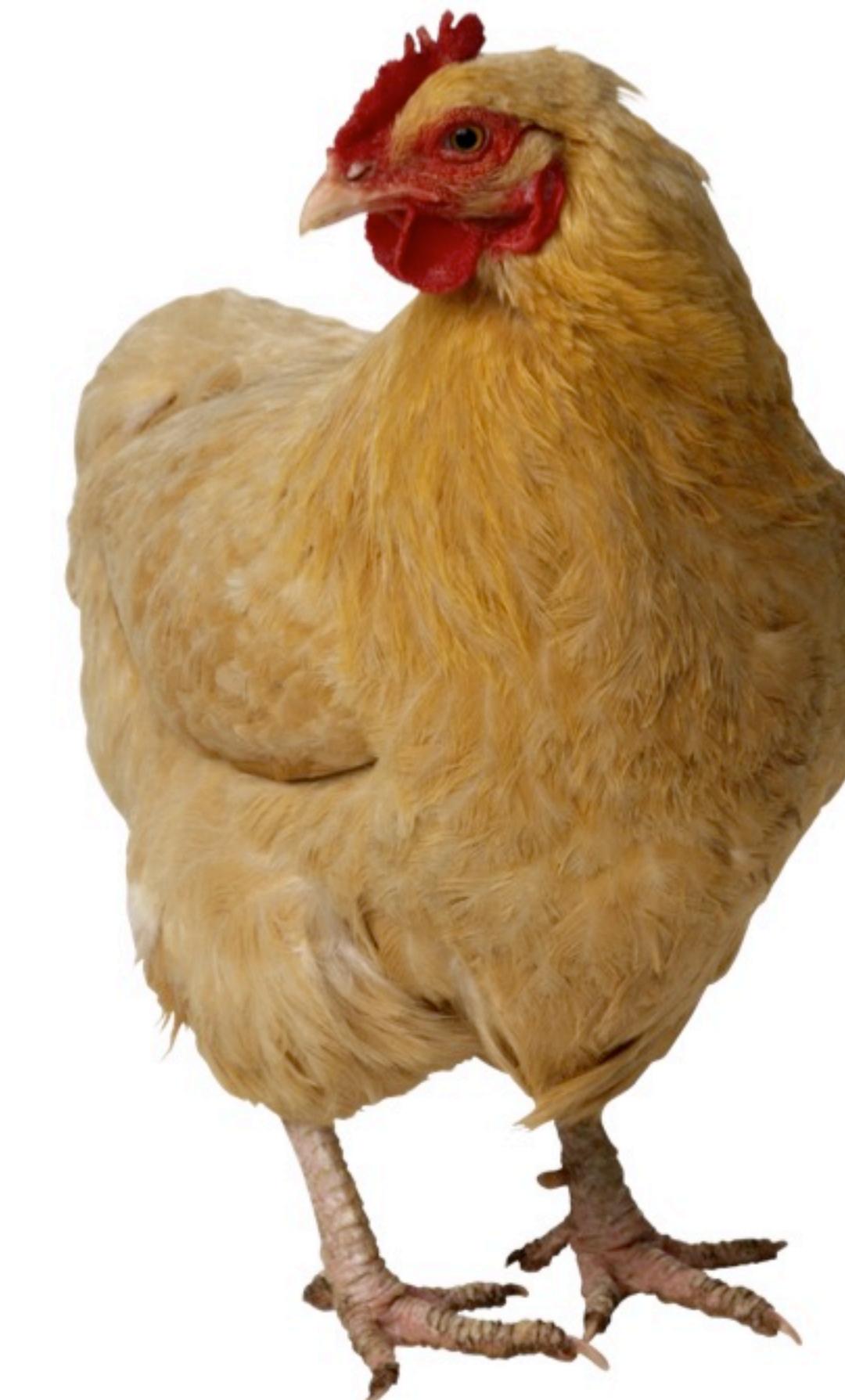
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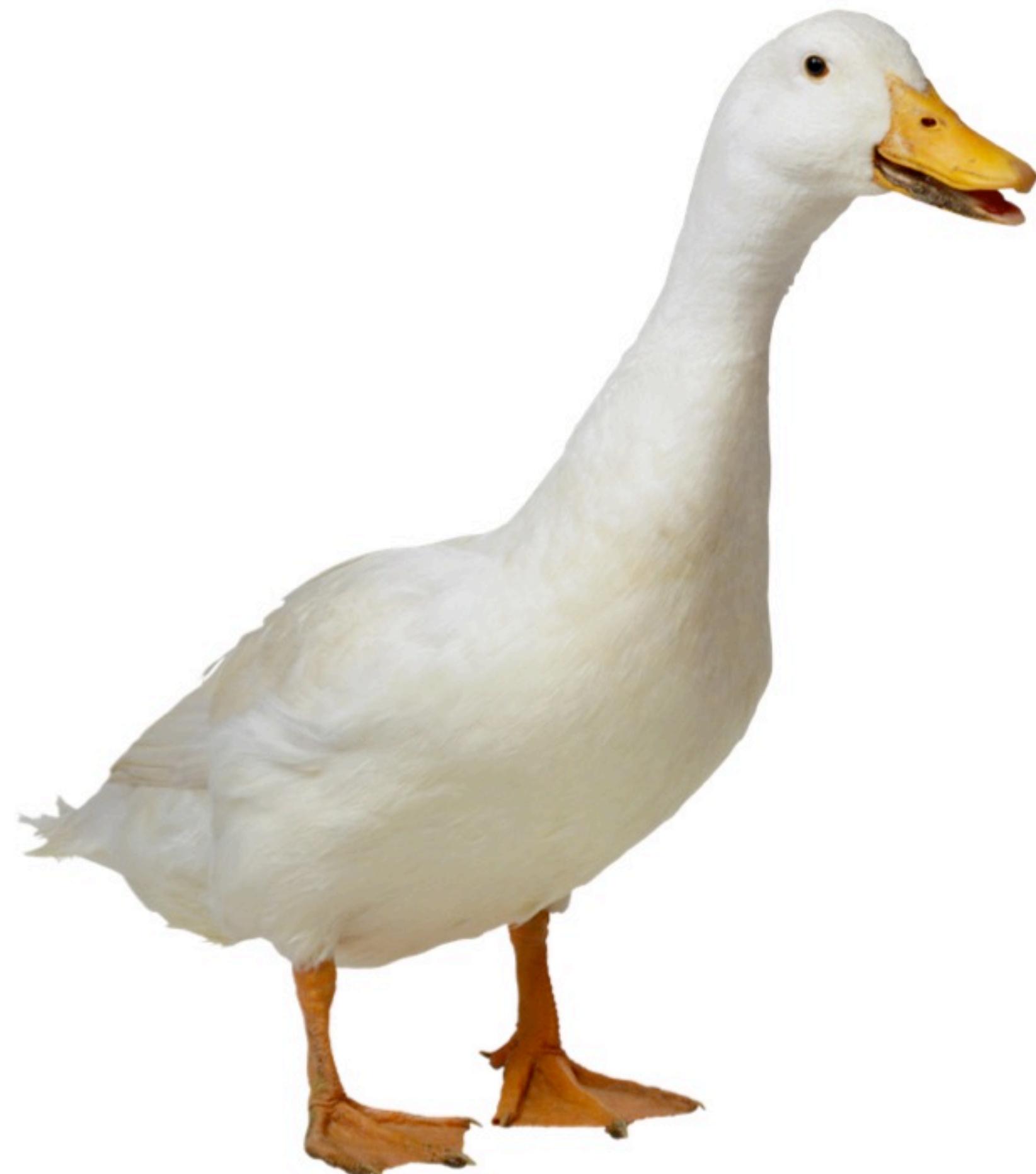
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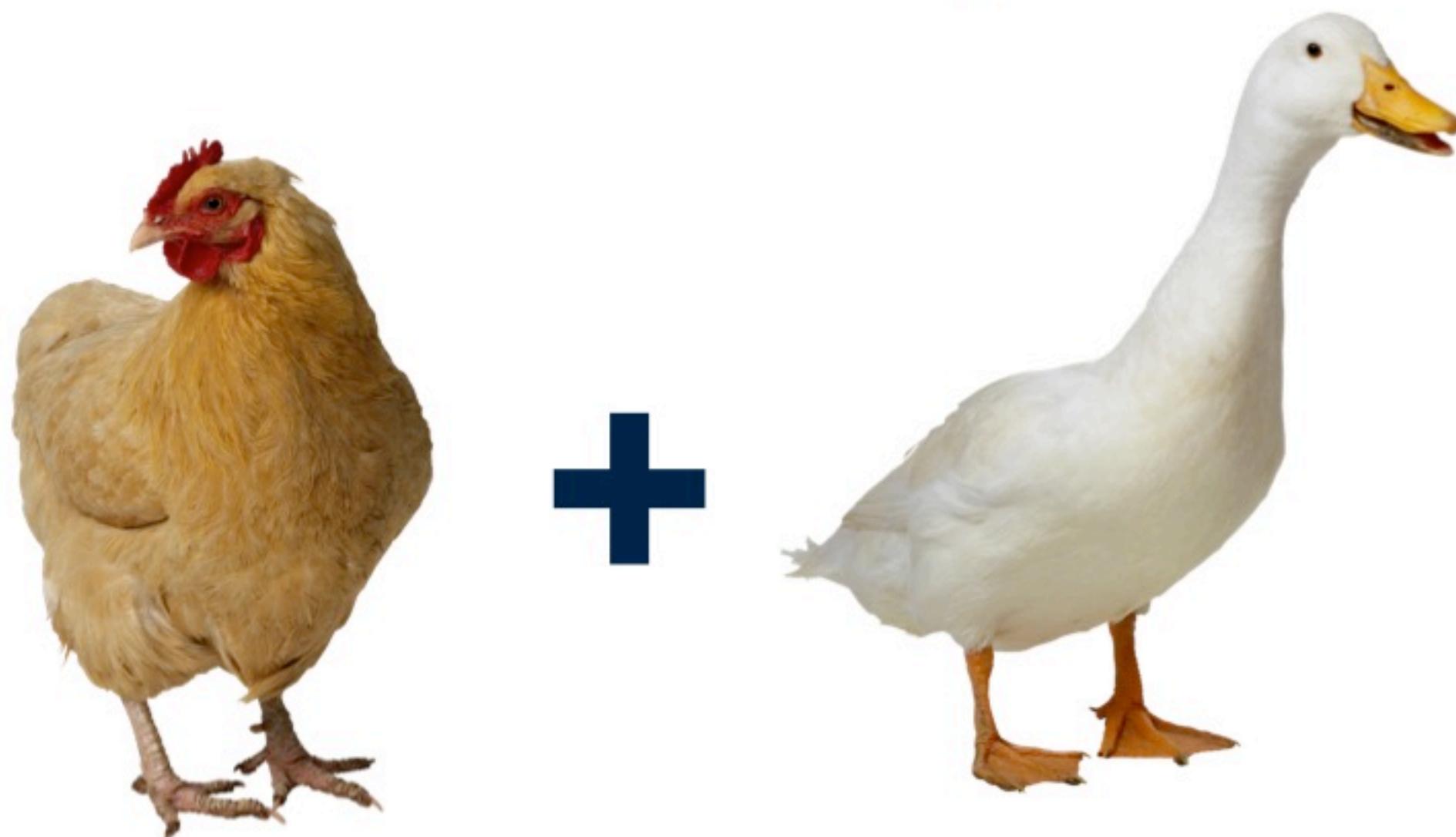
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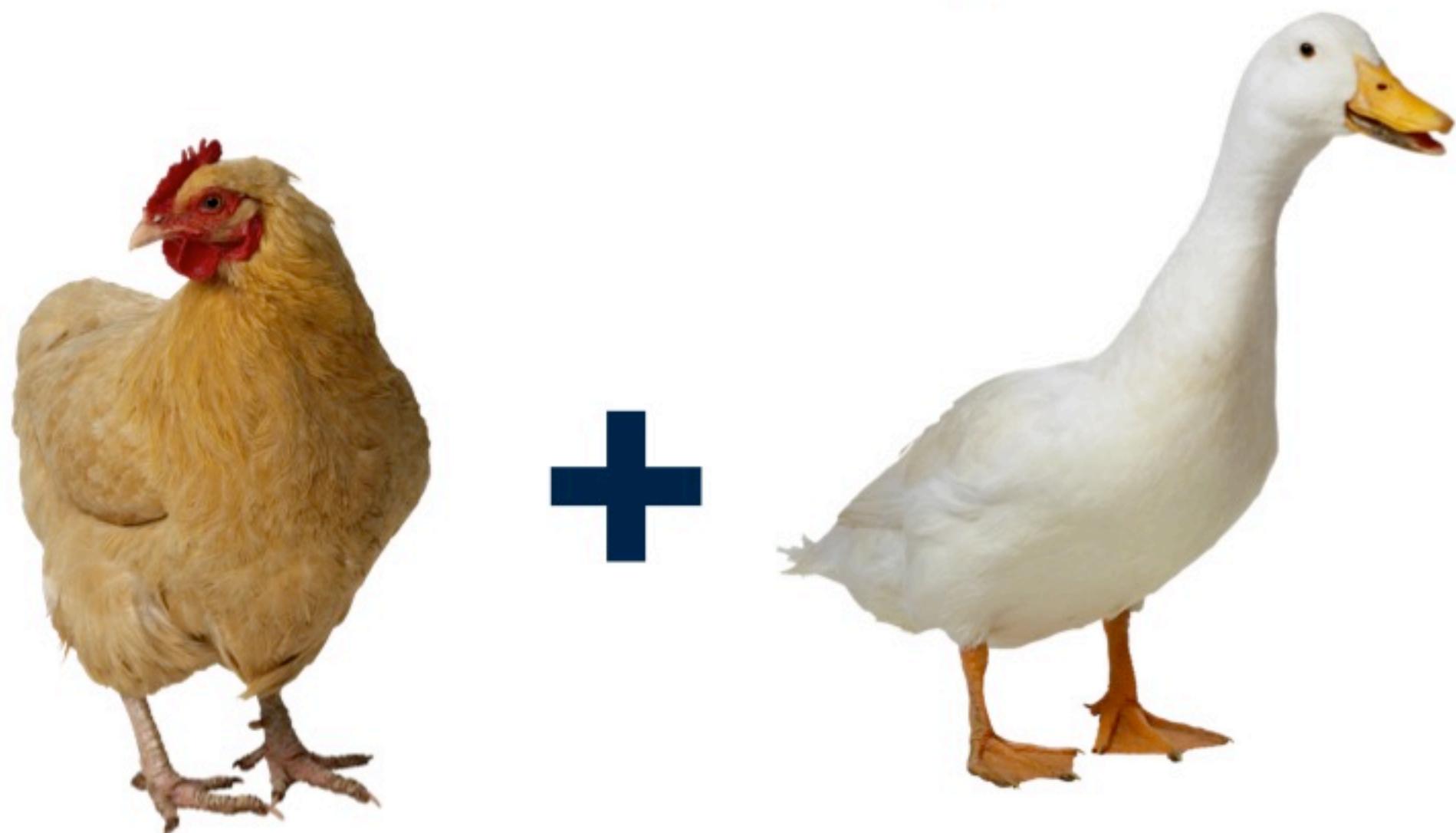
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How Many?



How Many?



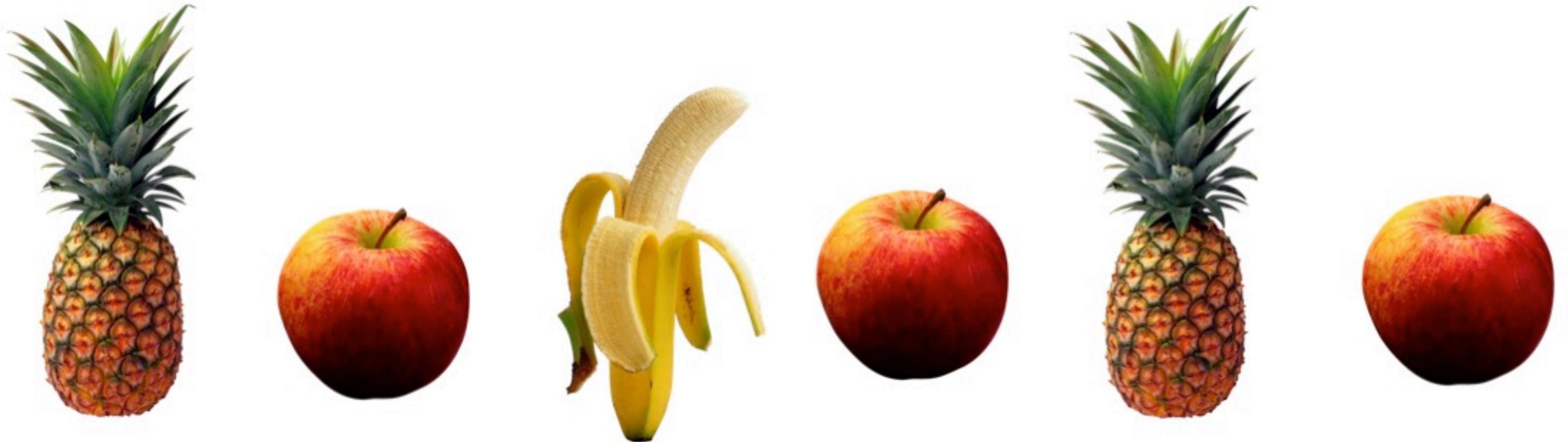
Answer: 6

Short-term Memory

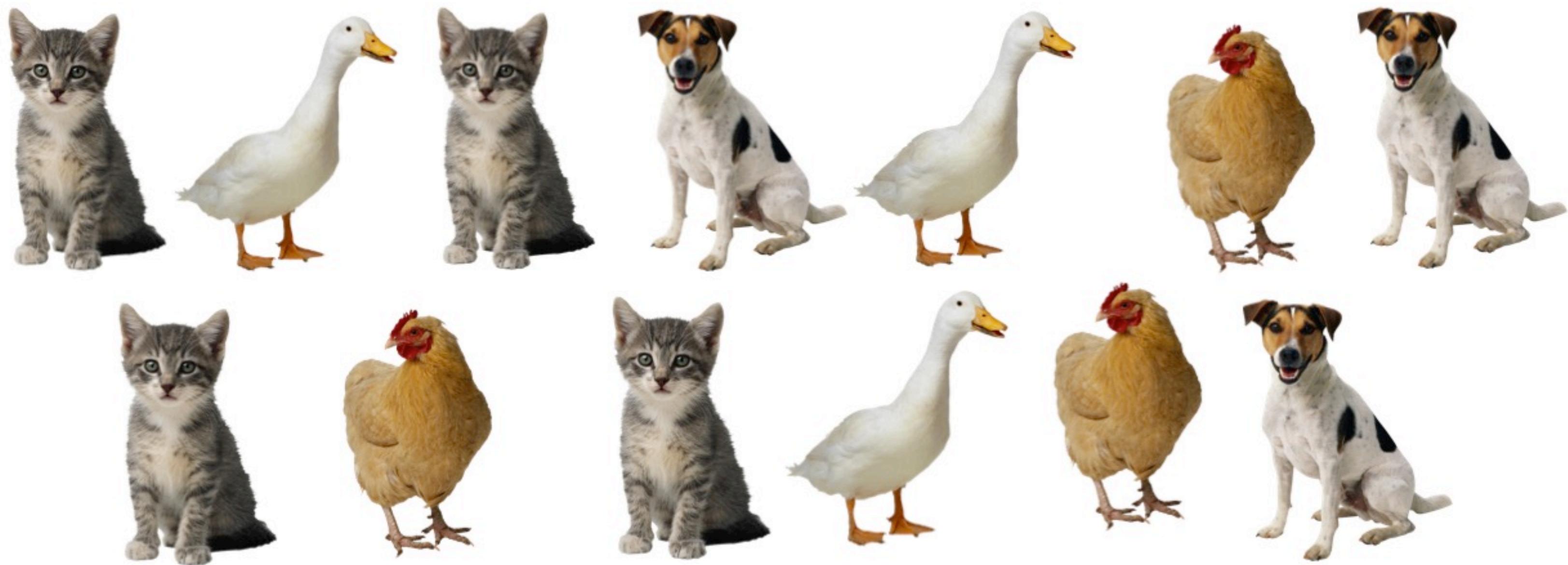
- **Limited capacity**
 - The “magic number” 7 ± 2 items (Miller’s Law, 1956)
 - Maybe more like 4 ± 1 (Cowan, 2001)
- **Information that is not *retained* is lost**
 - “Retained” means “committed to long term memory”
 - Also known as “learning”



6 items



6 items

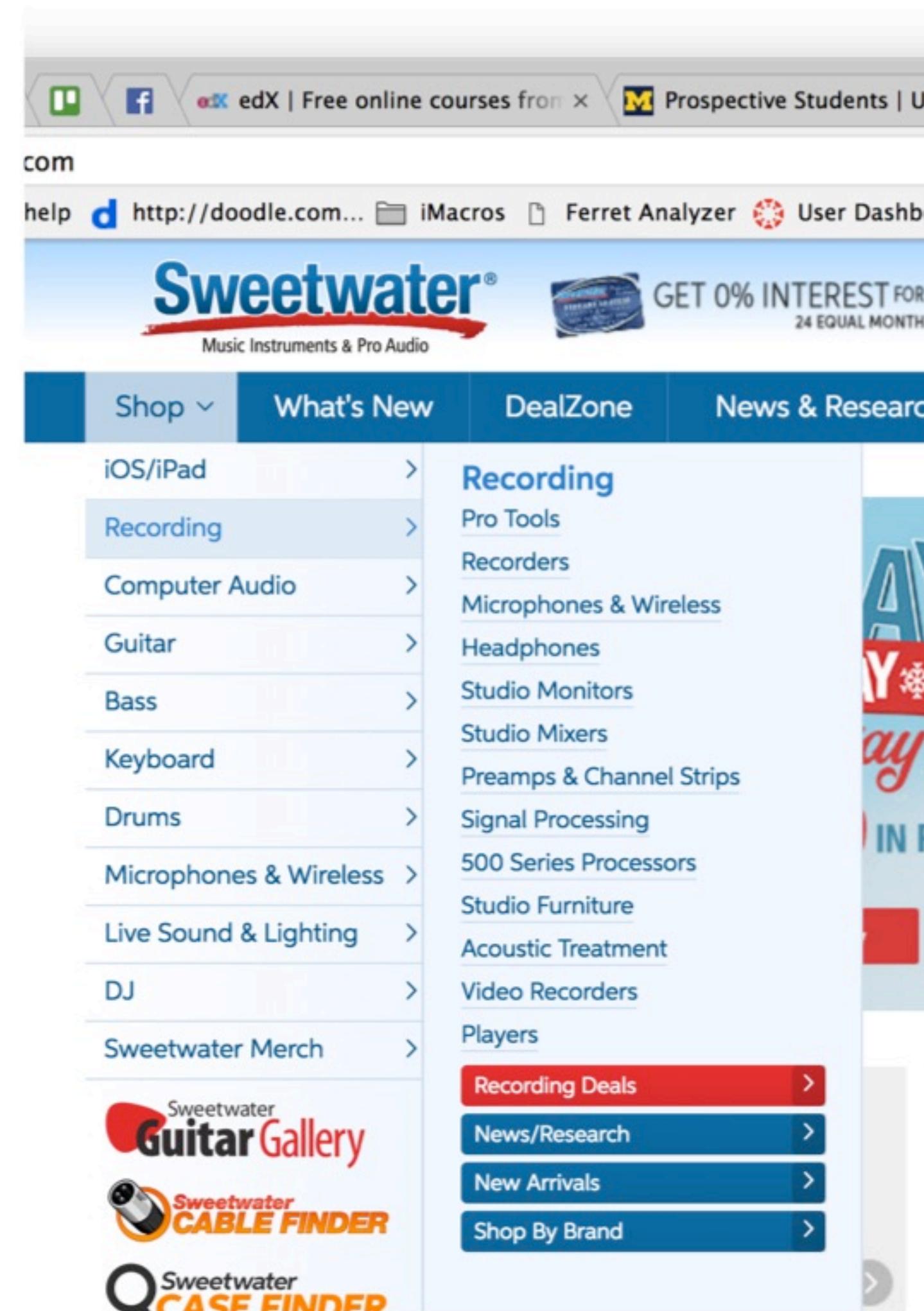


13 items

Principles

- **Keep lists of options short**
- **Give users tools for reducing options**
- **Don't expect users to remember stuff**

Keep Option Lists short



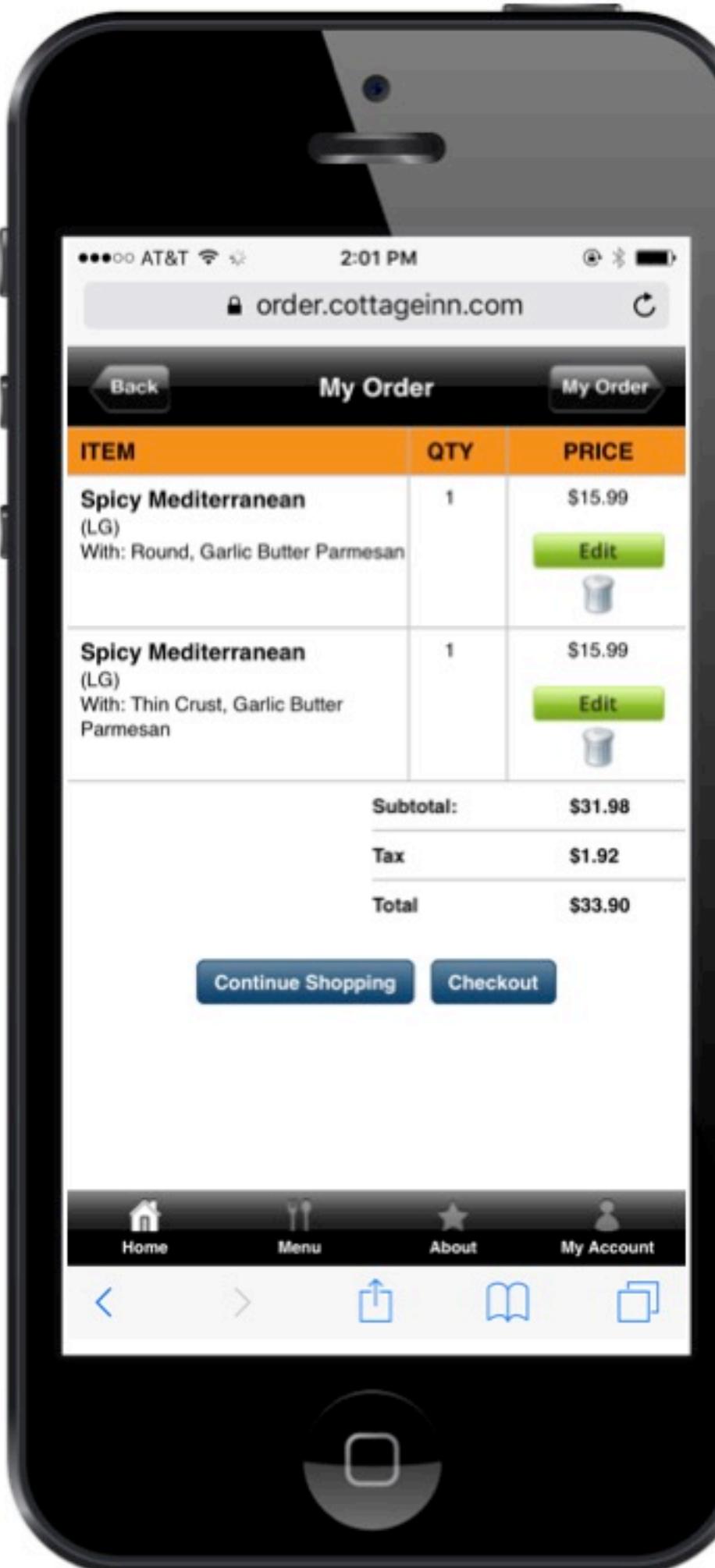
Give users tools for reducing options

The screenshot shows a web browser window displaying the AT&T website at <https://www.att.com/devices/comparephone.html?sku=sku8040326&sku=sku8100386&sku=sku8080246&sku=sku7520...>. The page title is "Compare Phones & Devices". The main content area displays four mobile devices for comparison: Apple iPhone 7 Plus - 128GB - Rose Gold, Samsung Galaxy S7 edge - Blue Coral, LG V20 - Silver, and Samsung Galaxy S6 - 32GB - Black Sapphire. Each device has a star rating and a "View Details" button. Below the devices is a "Pricing" section with a table showing prices for different contract terms. The table includes columns for "Your price" and "No annual contract*" across four categories. The "Processor Type" section below lists the processor details for each device.

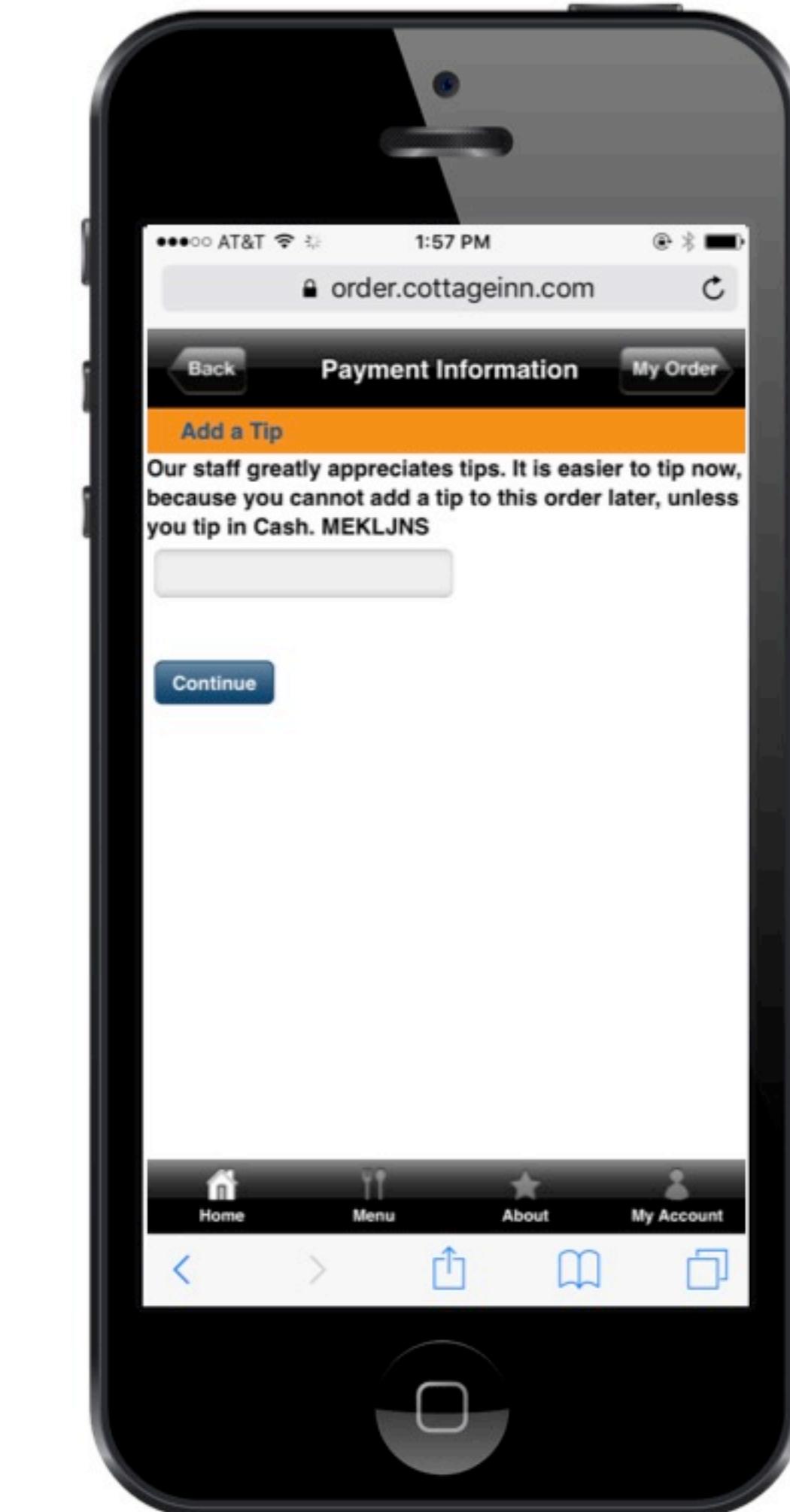
Pricing	Select your contract term	No annual contract*		
Your price	\$869.99	\$794.99	\$829.99	\$584.99
No annual contract*	\$869.99	\$794.99	\$829.99	\$584.99

Specifications					
In-use time (hours)	Up to 13 on 3G Up to 13 on LTE Up to 15 on Wi-Fi				
Processor Speed		Quad-core, 2 at 2.15GHz and 2 at 1.6GHz	Quad-core, 2 at 2.15GHz and 2 at 1.6GHz	Octa-core, 4 at 2.1GHz and 4 at 1.5GHz	
Processor Type	A10 Fusion chip with 64-bit architecture and embedded M10 motion coprocessor	Qualcomm® Snapdragon™ 820 (MSM8996)	Qualcomm® Snapdragon™ 820	Samsung Exynos® 7420 with Shannon 333 modem	

Don't expect users to remember stuff



Don't expect users to remember stuff



Don't expect users to remember stuff

