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Catching Germs

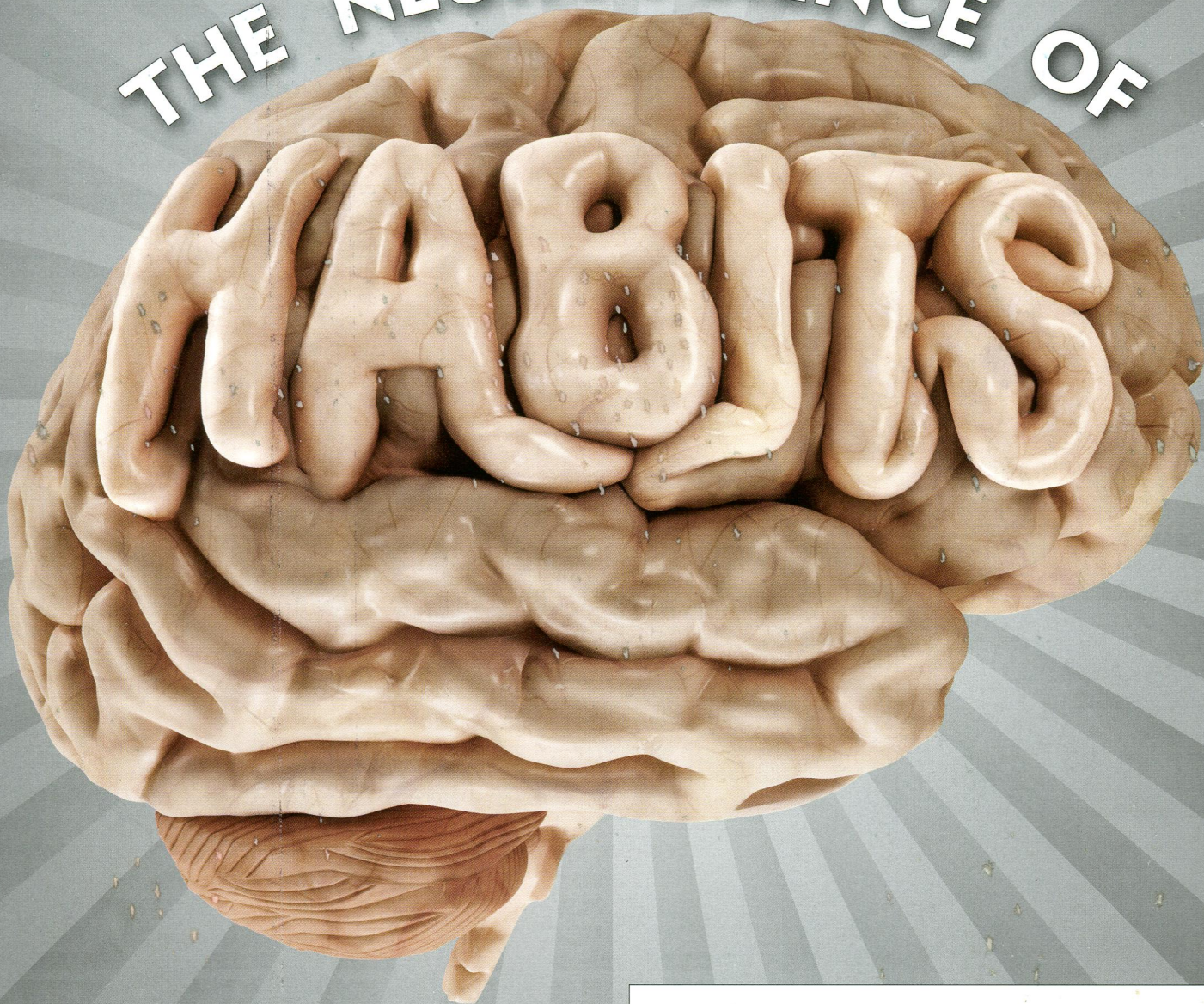
Cloud Seeding
to Make It Rain

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THE NEUROSCIENCE OF



How they form and why they are so hard to change

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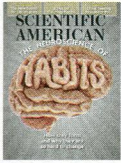
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Forming good habits and breaking bad ones can be difficult. Why? New experiments by neuroscientists are revealing for the first time how specific brain regions work to lock in or let go of habits. The insights could lead to simple tricks, novel behavioral therapies or drugs that could help make us more likely to eat our veggies and less likely to bite our nails. Illustration by FOREAL.

SCIENTIFIC AMERICAN

June 2014 Volume 310, Number 6



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BEHAVIORAL SCIENCE

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By deciphering the neural mechanisms that underlie our daily rituals, researchers are beginning to explain how we form habits and why breaking them can be such a struggle.

By Ann M. Graybiel and Kyle S. Smith

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Future missions to the Red Planet may carry tools of microbiology that can reveal whether life once existed on our closest neighbor.

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New devices can quickly identify virtually any bacterium, virus or fungus. By installing them in a network of hospitals, health authorities could soon be able to spot disease outbreaks earlier than ever before.

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Governments and farmers worldwide spend millions every year trying to control the weather. Recent data suggest that they might be on to something.

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What happens when everyone believes that no one has conscious control over his or her actions?

By Azim F. Shariff and Kathleen D. Vohs

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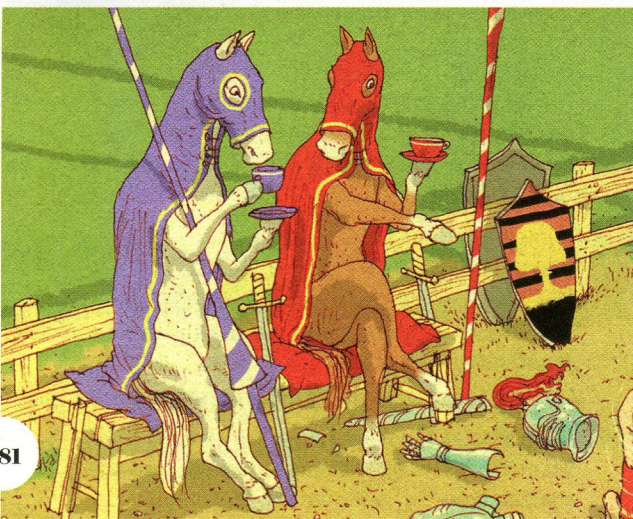
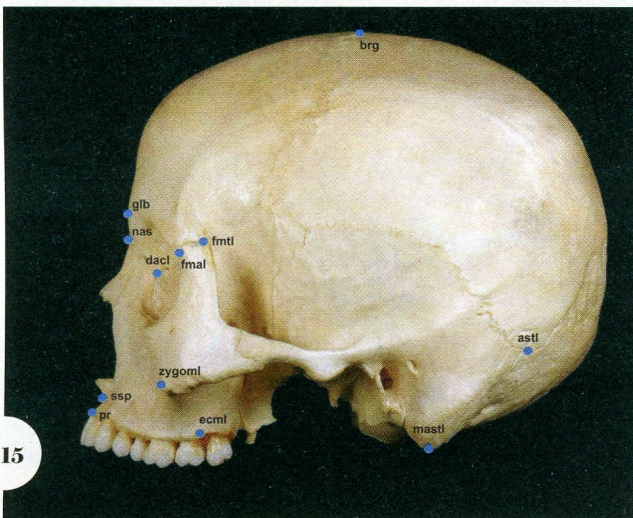
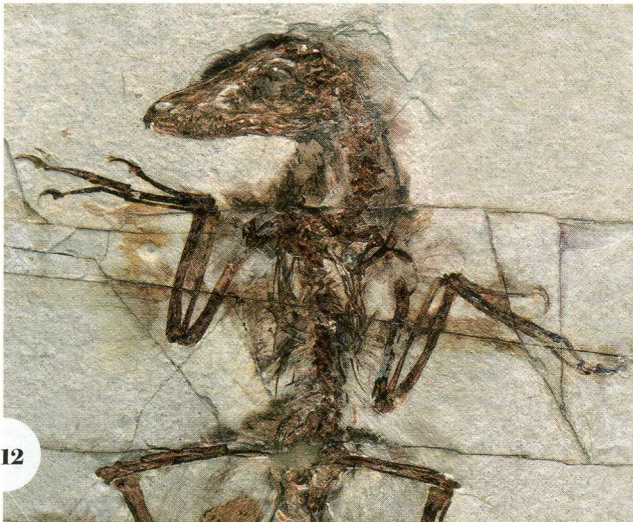
Immigrants go gradually up the wealth ladder. *By Mark Fischetti*

ON THE WEB

The Beginning of World War I

The 1914 assassination of Archduke Franz Ferdinand helped to trigger the First World War. To mark the 100th anniversary in June, SCIENTIFIC AMERICAN is collecting 1,200 contemporary articles on the topic to show how the war shaped political, cultural and technological futures around the world.

Go to www.ScientificAmerican.com/jun2014/wwi



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