

# Why We Need Each Other

by Barb Howe



Why did humans evolve to have such complex brains?

Alfred Russell Wallace, a 19th century British naturalist who came up with the idea of evolution about the same time Charles Darwin did, thought evolution held no answer to that question. Wallace was a scientist, but he was also a spiritualist and had wide ranging interests from phrenology to entomology. He believed in evolution, of course, but he didn't think it could explain human intelligence.

Early hominids lived in groups, like apes and humans still do today, but why did we evolve to be a species that invents technology (uses tools) and cooperates with other humans outside of our own kin networks? To Wallace, this was proof of divine intervention—intelligent design co-existing with the biological theory of evolution. Today, however, scientists have an answer to this riddle: the cognitive niche.

The concept of a “niche” comes from biology and refers to the way in which a species inhabits its environment. Biologists have often looked at habitats as being comprised of various species. The niche concept looks at how species live in their habitats. Not only how do they adapt to their environments, but how do they use their environments in order to survive?

About ten years ago, cognitive scientist (and public intellectual) Steven Pinker popularized the idea of the “cognitive niche.” Early humans used the environment around them in order to find food and survive, and our big brains helped us do this. We figured out how to overcome some of the defense/protective traits of other species that we wanted to eat. We could crack shells, remove spines, trap animals bigger than us, and eventually heat plants in order to change their chemical structures and make them edible. All this requires cooperation with other humans, and it turns out that interacting with others is quite complicated. It requires a lot of brain power to interpret intent and understand motivations. So, in order to coordinate our actions with theirs, we created a semiotic system: a series of symbolic sounds that could be arranged in various ways to signify something to another. These series of grunts and vocalizations were the beginnings of language.

In a sense, it was our very sociability that made us the higher thinking animals that we are today. Humans are social creatures who need to work in conjunction with one another in order to survive. It was our evolutionary advantage over other species.

But lest we get a big head about our big brains, let me tell you about the Dunning-Kruger effect.

The Dunning-Kruger effect is the illusion that people who know just a little about a subject, but are not experts at it routinely, overestimate their ability because they don't know enough about the subject to realize their mistakes. We are ignorant of our own ignorance. If you think about how vast the world is, the portion of it that we can directly perceive and know ourselves is just a fragment of the whole; the number of subject areas in which we are *not* experts is quite small, since the world is so large. In other words, most of us don't know what the heck we're talking about. (Remember that next time someone is man-splaining something to you!)

But of course it's not just men who do this. It's the paradox of humanity. We all know far less than we think we do. If you think about it, it makes sense: any one individual only has direct knowledge of a tiny sliver of reality. Most of what we know—or think

we know—we have to learn from other people in one way or another. We humans teach each other things all the time. Not just through taking classes and reading books, but through talking, listening and observing, and attending lectures or listening to podcasts. We transmit norms and values to our children by modeling good (or bad) behavior. We tell stories via movies, TV, novels, text messages, news reports, social media posts, radio, backyard gossip. And that's not to mention the unspoken stories, the things we learn because they are not talked about, not explicitly spoken; taboos are stories too. We're sharing knowledge, always learning, even when we aren't in school.

No wonder we think we know a lot more than we do.

Steven Sloman and Philp Fernbach have a book out called, “The Knowledge Illusion: Why We Never Think Alone.” It's all about how we rely on other people's brainpower, even in our everyday lives. We all think we know how a toilet works, for example, or what a bicycle looks like but we don't really. Can you write down, step-by-step, the exact process that happens when you push a handle to flush a toilet? Without looking at one, can you draw an accurate representation of a bicycle? Unless you are a plumber or a bicycle mechanic, the honest answer is probably no. And this is okay. It actually allows us to accomplish great things. By having some individuals specialize in some things and others in other things we can build pyramids and skyscrapers, supercomputers, and satellites. Sloman and Fernbach say humans are like bees: we work together as a group, doing specialized tasks, and that's how we accomplish things no single one of us could on our own. An evolutionary advantage, indeed.

It remains to be seen whether we will use our evolutionary advantage to tackle some of the huge, complex global problems facing us today, of which the coronavirus pandemic is only one, but even here we can see the impressive cooperation of humans. In less than a year, people working together researched and invented vaccines to fight a virus we didn't know existed a mere eighteen months ago. (While we didn't start hearing about it until early 2020, the virus was actually discovered in 2019, which is why the disease it causes is called COVID-19.)

Now we are in the midst of a massive coordinated effort to distribute it out to every single person on the planet as soon as possible. That is impressive. Humans invented machines that can be launched into space and access the farthest reaches of the known universe and send back pictures to us here on earth. That is impressive.

So yes, after a devastating year of wildfires and superstorms, murder hornets and an economic crisis brought on by a deadly virus, it does seem like the world is facing a daunting set of problems at the beginning of 2021, but look at what we evolved to be: a cooperative species that works together to do big things.

As we move into the second decade of the 21st century, there are no shortages of problems to be solved. We need to invent ways to remove carbon from the atmosphere efficiently and cheaply. We need more efficient batteries to store energy produced by the sun and wind. And we need to build back a more resilient economy adapted for the 21st century. We'll have to draw upon that evolutionary advantage in order to do all these things. As evolutionary science and history tells us, we really do need each other.

*Barb Howe is a Florida-based writer and a doctoral student at the University of South Florida, studying international affairs.*

## OUR TOWNS

### Hawthorne

**The American Legion Post 230**, located at 20370 SE Hawthorne Road (SR 20), Hawthorne, FL, will hold their Annual Chili Cook-Off on Saturday, January 23, 2021, from 11:00 a.m. to 2:00 p.m. Prices are \$5 bowls or \$5 for all samples; \$5 entry fee for non-members. Must contact Jude Laws at (502) 604-8176 by January 20, 2021, for registration.

### Melrose

**Historic Melrose, Inc.** (HMI) depends on volunteers at Heritage Park, St. John's Cemetery in Earleton, the Grist Mill at Banana, and the Homemaker's Club. Thanks to all who keep this great organization going.

Arrangements have been made with Whitton Roofing for a new, period-appropriate roof for the Daurer Center.

HMI wishes to thank all the volunteers who helped create the historic marker at Trinity Episcopal Church. Kathi Warren, Jean Giesel, and Jean Marshall authored the text and submitted the application. The Division of Historical Resources of the Florida Department of State reviewed and edited the marker text. When a date is determined, they will have an unveiling ceremony in 2021, to be announced.

The Farmer's Market folks rescued and repurposed a sign from Hawthorne, and it is a wonderful addition. Thanks to Bob Bird for managing the market, too. The Q. I. Roberts history and archaeology club is busy working on the historic marker for Banana, Florida. Stay tuned.

The following events will take place in January, 2021:

- Saturday, January 16—Banana mill site clean-up;
- Sunday, January 24—HMI annual membership meeting

To be determined for March, 2021—Spring historic field trip.

For more information, contact them by letter at: Historical Melrose Inc., P. O. Box 704, Melrose, FL 32666.

*We've missed sharing your local news and events, but with the advent of the COVID-19 vaccine, our New Year already looks brighter.*

*Have something to say about something we've written? Have something to tell us about?*

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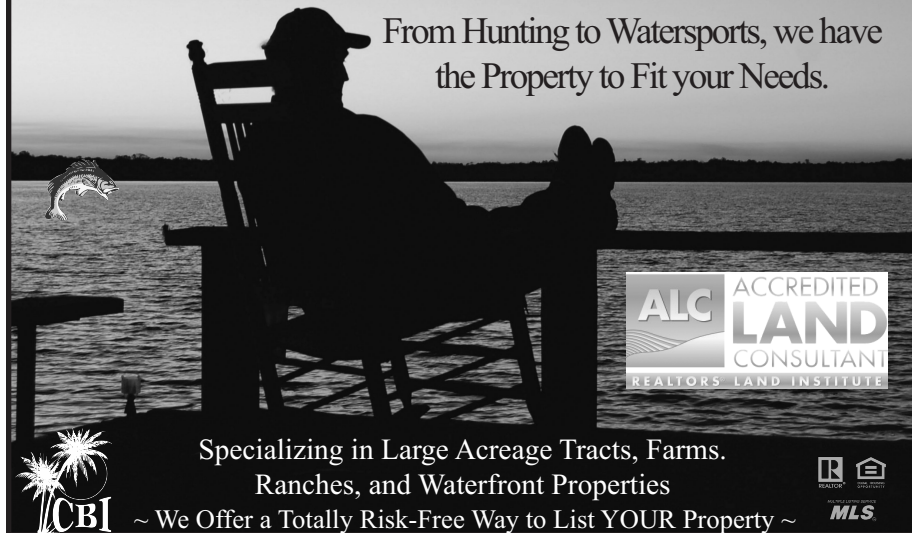
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