

Evolutionary Psychology: An Overview

Behavioural Business

Week 11

Reading

- ▶ Cosmides and Tooby, Evolutionary Psychology: A Primer

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 - ▶ <https://www.cep.ucsb.edu/primer.html>

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- ▶ Many animals are afraid of humans
- ▶ Why?
- ▶ Because humans are dangerous predators

No Humans? No Problem!



Figure: Ray Glasrud and penguins in Antarctica

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- ▶ Armed with these, we will turn to **costly signalling**

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- ▶ Where do they come from?

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- ▶ If the “blank slate” view is correct, then *every* hand-raised wolf / bear should be fully domesticated
- ▶ Not true: see e.g. https://usatoday30.usatoday.com/news/nation/2009-10-05-bear-kills-woman_N.htm

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- ▶ Faeces to flies are food; to us they are disease
- ▶ ⇒ Our reaction: Disgust!

Disgust

- ▶ Notice the wrinkled nose
- ▶ And narrowed eyes
- ▶ Both serve to **protect** you from contamination from particles
- ▶ Disgust is a universal expression across cultures!!
- ▶ Speaks to its biological function



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- ▶ Assume three types of individuals: A, B and C
- ▶ Type A likes the smell; type B doesn't mind; type C hates it

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 2. Natural selection: reproduction odds ↑ if mutation is adaptive (type C)

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 - ⇒ The answers to these two questions give us the **circuits** and **heuristics** that regulate our behaviours
- ▶ Some of these are innate; some are learned (culture)

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- ⇒ Natural selection is not magic!

Social Interactions

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- ▶ How do we know when to help or hurt others?
⇒ Selection pressure steers us towards traits that help us reliably identify situations where we should help / harm others

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- ▶ Which of these cards do you need to turn over to check?

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Wason selection task 2

- ▶ **New rule:** if a person is drinking beer, then that person must be over 18 years of age

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beer

Drinking
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- ▶ The ability to detect “cheating” is very useful to survive & reproduce!
- ▶ Natural selection process weeds out those who are not so good at it
- ▶ Result: those of us left have circuitry that picks up on social violations quite well

Reinforcement Learning

(Loading Video...)

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- ▶ Example:
- ▶ Can you teach a pigeon to dance?

Dancing Pigeon

(Loading Video...)

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- ▶ Things *natural selection* conditioned us to like!

Sucess-Biased Imitation

(Loading Video...)

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 - ⇒ Higher payoff individuals more likely to be imitated:
 1. Those who display clear signs of *domain-specific* success
 2. Spill-over: Those who display signs of success in other domains

Fijian Women (Henrich and Henrich 2010)

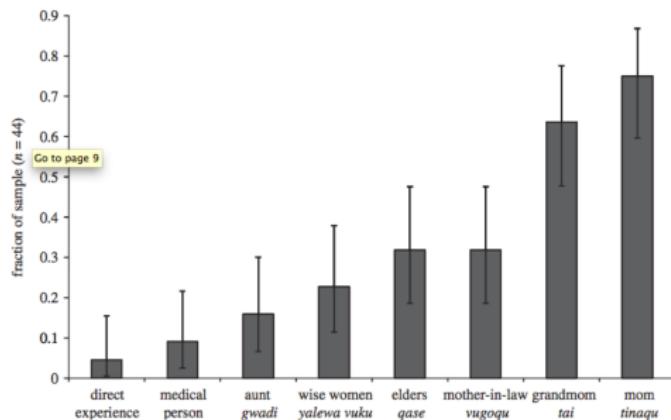
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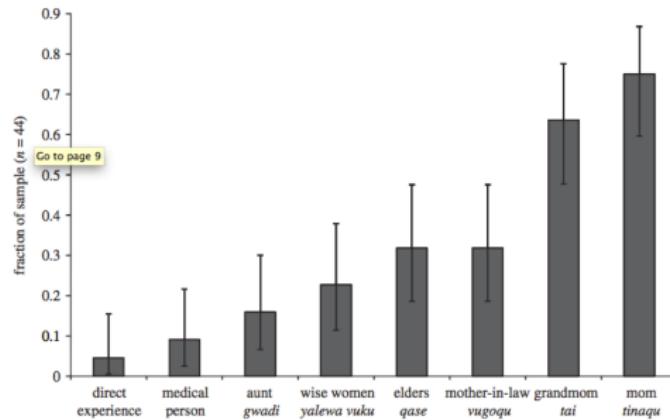
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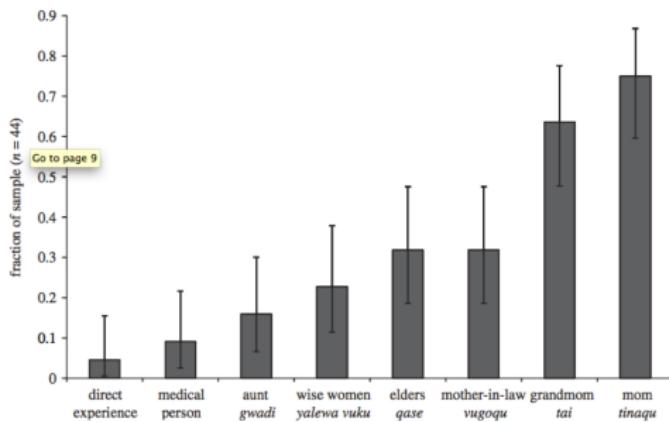
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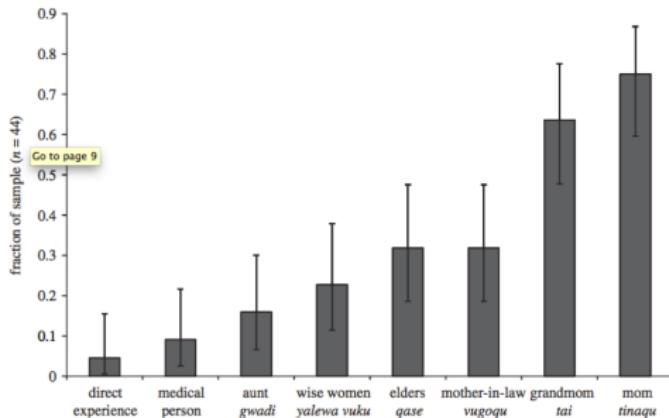
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- ▶ Justifications come ex-post, not ex-ante

Domain Specificity

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- ▶ Hence the importance of celebrity endorsements

Costly Signaling



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- ▶ Costly signals are used when the sender wants to **credibly** convey information

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- ▶ Large tails are terrible for flying, escaping for predators, etc

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- ▶ Wasting resources is a **credible, costly** signal

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(Loading Video...)

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- ▶ Not just in humans. Found in many other species.

(Loading Video...)

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- ▶ Let's apply a signalling approach

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- ▶ ... because they are reliable signals of resources!

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 - Beautiful is whatever is difficult to attain
- ▶ Because it is a **signal** of resources
- ▶ So is fashion-following, for the same reasons!

Optional Readings

- ▶ Ruvolo et al: Infants Time Their Smiles to Make Their Moms Smile
 - ▶ <https://doi.org/10.1371/journal.pone.0136492>