

# A Theoretical Roadmap To The Relationship Singularity

By Matthew Fisher

talk

I'm sorry this ~~letter~~ is so long. I  
didn't ~~have time~~ to make it shorter.

try

Fyodor Dostoyevsky

# Info dump

This talk will be an info dump from my last two years of researching and ideating.

It is ugly, because it is uncompressed, and compression is beauty.

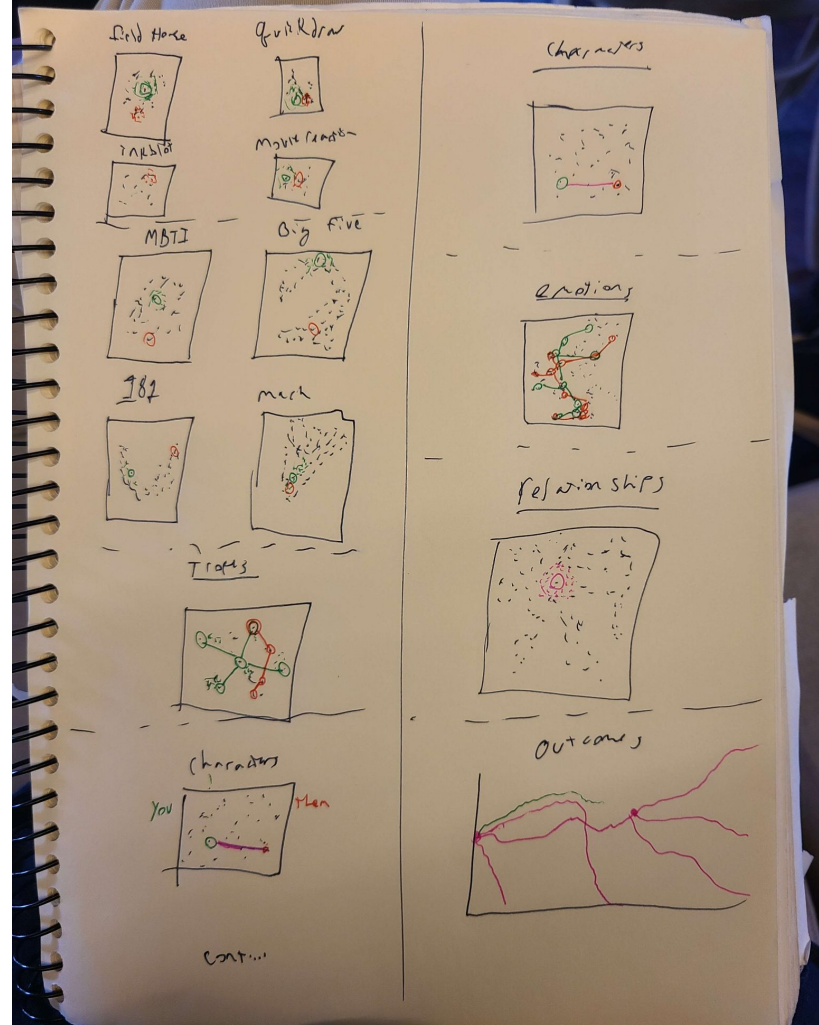
Part of the reason I made this symposium was to attempt to compress it. Thanks so much for attending!

## **Driven by Compression Progress: A Simple Principle Explains Essential Aspects of Subjective **Beauty**, Novelty, Surprise, Interestingness, Attention, Curiosity, Creativity, Art, Science, Music, Jokes**

[Juergen Schmidhuber](#)

I argue that data becomes temporarily interesting by itself to some self-improving, but computationally limited, subjective observer once he learns to predict or compress the data in a better way, thus making it subjectively simpler and more beautiful. Curiosity is the desire to create or discover more non-random, non-arbitrary, regular data that is novel and surprising not in the traditional sense of Boltzmann and Shannon but in the sense that it allows for compression progress because its regularity was not yet known. This drive maximizes interestingness, **the first derivative of subjective beauty or compressibility**, that is, the steepness of the learning curve. It motivates exploring infants, pure mathematicians, composers, artists, dancers, comedians, yourself, and (since 1990) artificial systems.

# Where it started



# What is the relationship singularity?

It is the event where all the social outcomes we seek are instantly attainable, at least in terms of knowing the optimal moves to make to achieve the best ones possible to us.

The truth is we can't really achieve it, but we can get asymptotically close to it.

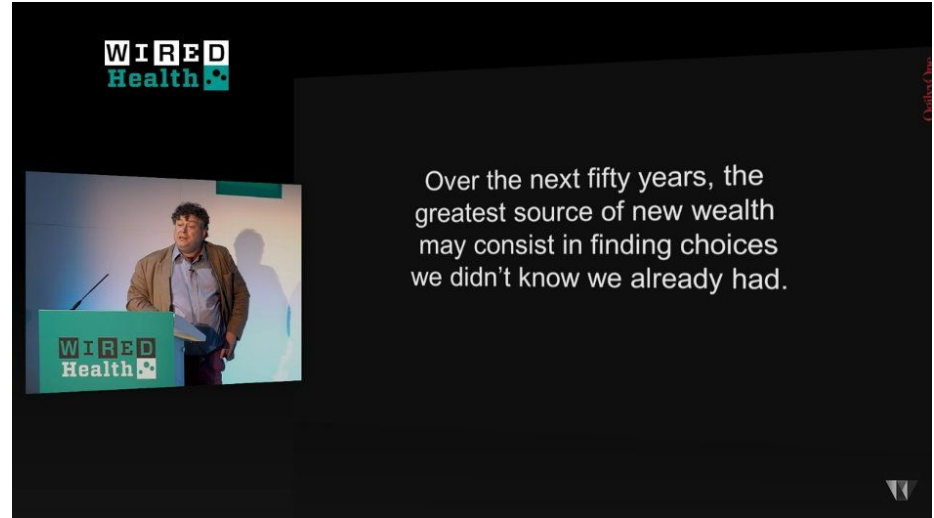
## **OPPORTUNITY** MAKE MATCHMAKING MODERN

Given some of the more recent developments in technology, there seems to be plenty of unexplored potential in match-making technology. For example, can preferences be respectfully derived from social media streams and public datasets? Can systems help users move past unhealthy partner-seeking habits? Can the system prescreen people by evaluating their friends' experiences or ratings? Using ubiquitous sensors and subtle actuators, how “magic” and subtle could proximal matchmaking become? If a central computer knew that two people were made for each other, could it use ambient or augmented reality technology to help him notice her across a crowded bar by amplifying her laugh, or even by slightly brightening the light above him when she looked his way? Could matchmaking technology, like love, be “in the air”?

# Why should we achieve the relationship singularity?

A massive amount of our greatest triumphs and tragedies, joys and sadness, come from our relationships.

Being able to optimize the process where we begin relationships with people with a very high likelihood of mutual positive outcomes can save us a lot of bad outcomes, and maximize good outcomes that we might have never experienced otherwise.



**Nick** ✓  
@nickcammarata

Looking for role models of what exceptionally good long term romantic relationships look like

I'd relationship goodness follows a power law — anyone have recs for non-fiction, fiction, or even just biographies that might reveal what's in the outlier-positive tail?

# How to Make Billions of Dollars Reducing Loneliness

by [John\\_Maxwell](#) 30th Aug 2019

## Loneliness Is a Big Problem

On Facebook, my friend Tyler [writes](#):

Lately, I've been having an alarming amount of conversations arise about the burdens of loneliness, alienation, rootlessness, and a lack of belonging that many of my peers feel, especially in the Bay Area. I feel it too. Everyone has a gazillion friends and events to attend. But there's a palpable lack of social fabric. I worry that this atomization is becoming a world-wide phenomenon – that we might be some of the first generations without the sort of community that it's in *human nature* to rely on.

And that the result is a worsening epidemic of mental illness...

## This Could Be Really Great

Most roommate search tools, like Craigslist, don't make it easy to figure out if a future roommate is someone you'd actually want to live with. Imagine reaching a scale where you could match people based on factors like:

- They love to play board games, or pool, or Super Smash Bros.
- They want a compost pile and a garden in their backyard.
- One has a pet, and the other likes animals but isn't yet ready to make a lifetime commitment.
- They want a squat rack in the basement to save time & money going to the gym.
- They want to continue partying like college students after graduation.
- They want to be part of an intentional community devoted to mutual improvement and life optimization, or spirituality, or whatever.
- They want to [share childcare responsibilities](#).
- They're all fans of the same sports team.
- They enjoy reading and discussing the same genre of novels, or watching the same movies.
- They're musicians looking for people to jam with.
- They want to live near hiking trails and go on group hikes together.
- They want to do independent study of the same topic.
- They're trying to eat a healthier diet.
- They just moved to a new city and want friends they can explore the city with.
- They have the same unusual work schedule.
- One needs a caretaker, and the other wants to make extra money.
- They like the idea of having a couch or two listed on [CouchSurfing](#).
- One knows a language the other wants to learn.
- They work close together in the same expensive metropolitan area and want save on housing. So they live in the outskirts of the city and commute together every day using the diamond lane. One drives and the other pays for gas.

I also see opportunities to reduce friction in the current roommate matching process:

- Automatically find times when everyone is available for a meet & greet video call.
- Let people take virtual tours of the houses on offer to minimize driving.
- No need to worry about breaking a lease if someone moves to a different house in your company's network. Let people try out a few communities & see what works for them. Use machine learning to improve your matching as you gather more data.
- Provide external mediation in the event of roommate disputes, and have a reputation system to encourage good behavior.

You aren't providing *housing* as a service (like Airbnb), or *companionship* as a service (like the people-walking startup). You're providing *community* as a service. You could even organize mixers across your houses.

# But what about bad second order effects?

Like creating echo chambers?

Like depriving people of learning experiences?

idk

You'll have to give me outcomes worse than **never getting to meet your true best friends and soul mates**, and living in an era of mass social loneliness, for me to consider not creating this capability.

# This probably won't work (?)

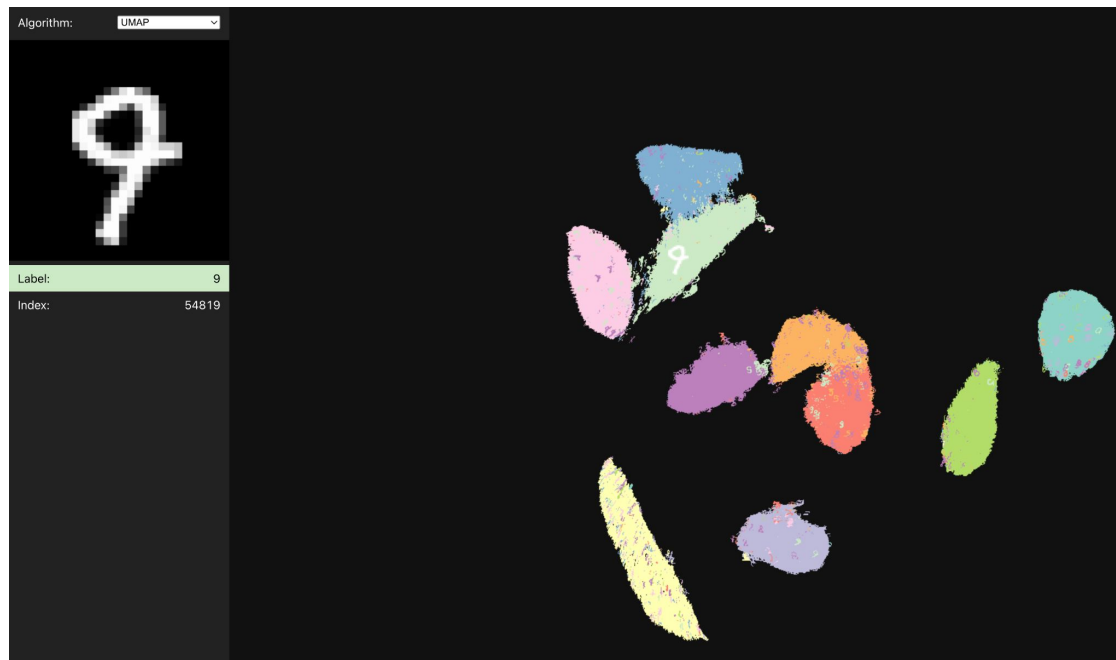
That's what fellow AI researchers said to me at NeurIPS in 2019 about image synthesis

Then CLIP came out, and allowed mapping from arbitrary text into a semantically meaningful space

Can the same be done for mapping arbitrary modalities to a semantic personality space?

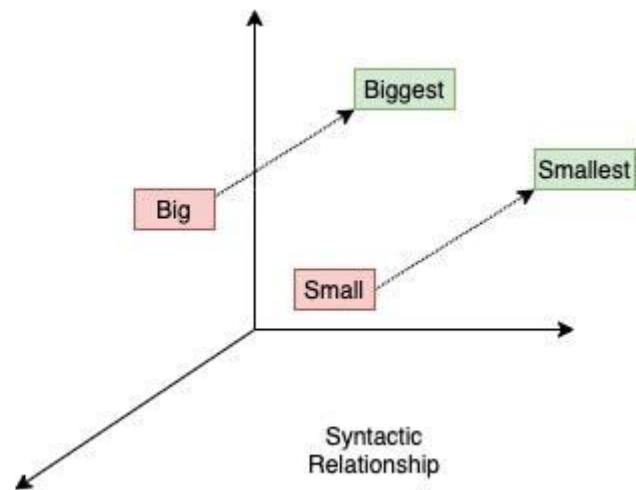
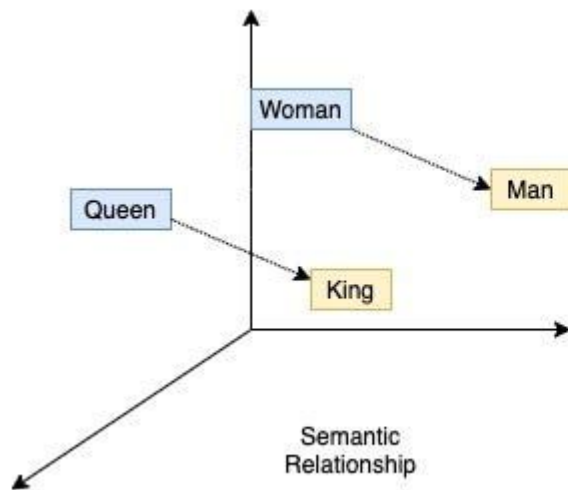
# Embedding Spaces

<https://grantcuster.github.io/umap-explorer/>



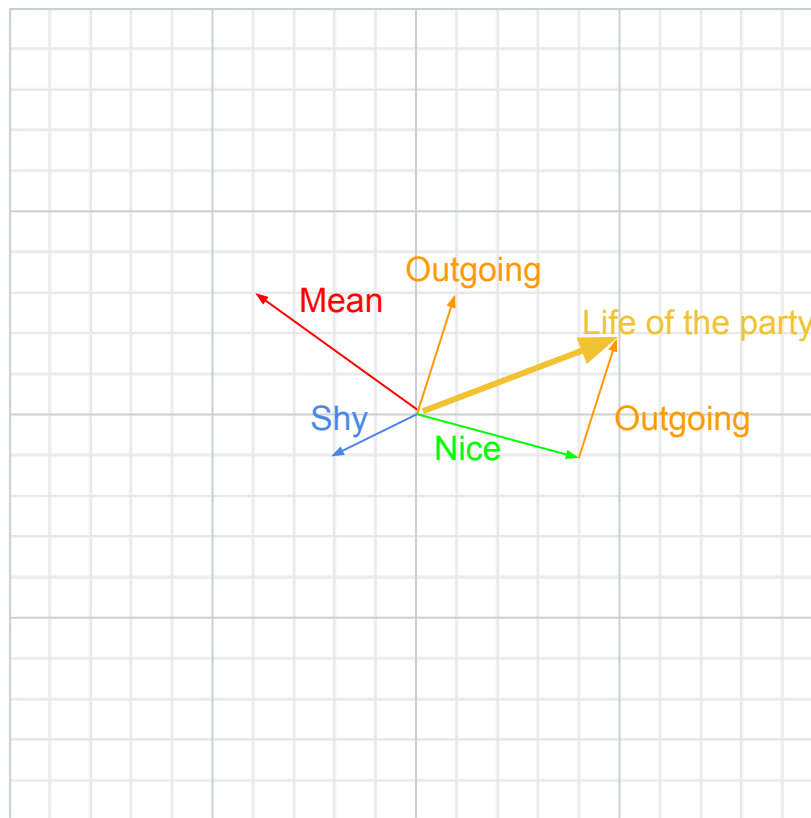
# Personality Space?

This is how embedding spaces for images work



# So we're embedding personalities?

Yes!



Archetypes are combinations of traits

They are also in embedding space

# Which aspects of personality should we embed?

Voice

Face

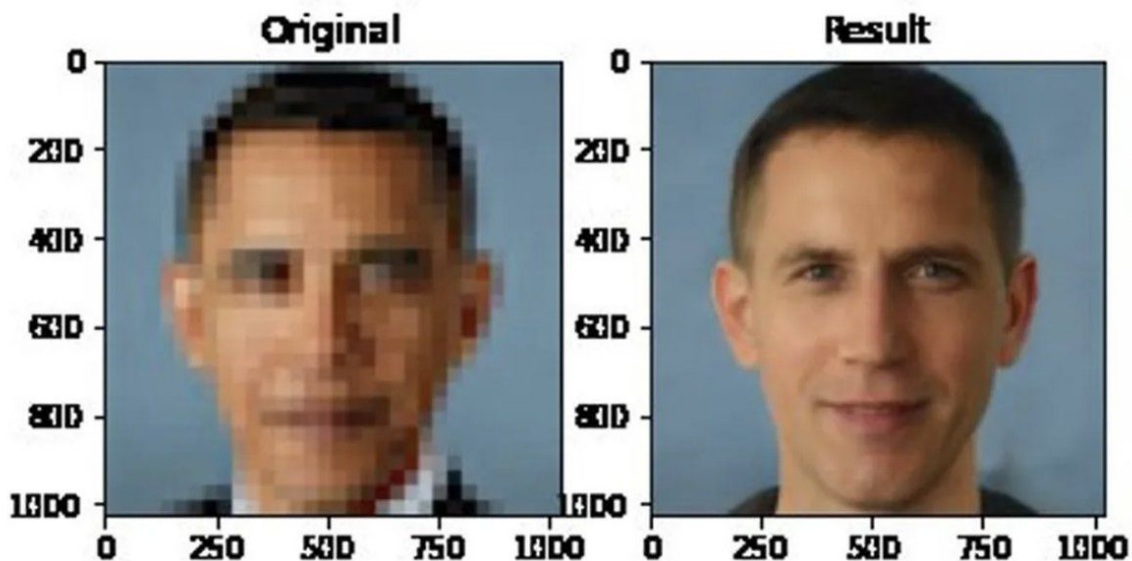
Body

Movement

Genetics

Writing

Habits



Insufficient data can lead to distortions of a person's true nature, leading to worse prediction of downstream tasks (like relationship outcomes/attraction)

Modeling people:

Thoroughly (metrics/tests to determine if it is sufficiently thorough)

Efficiently (what is the time/privacy cost for increase in confidence on important traits ratio, how can we extrapolate more accurately)

Communicably (how well can we visualize and communicate these models to people so they can gain personal insights on them?)

Usefully (different from thoroughly tradeoffs? Maybe the same)

# Synergy and Synchrony in Couple Dances

Vongani Maluleke<sup>1</sup> Lea Müller<sup>1</sup> Jathushan Rajasegaran<sup>1</sup> Georgios Pavlakos<sup>2</sup>  
Shiry Ginosar<sup>1</sup> Angjoo Kanazawa<sup>1</sup> Jitendra Malik<sup>1</sup>

<sup>1</sup>UC Berkeley <sup>2</sup>UT Austin

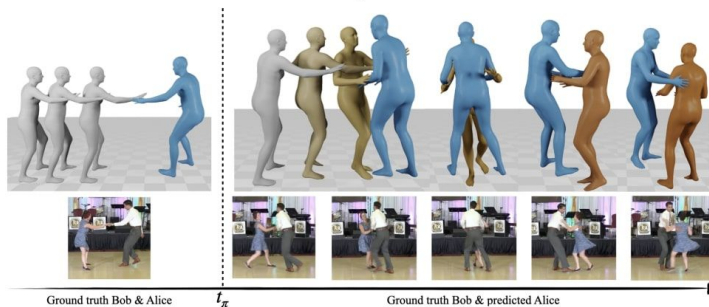


Figure 1. **To what extent does Bob’s behavior affect Alice’s behavior?** We study this question in a couple’s dance - an example of full-body dyadic physical social interaction. We predict the full body motion of a dancer, Alice (orange), given their own past motion (gray) and their partner, Bob’s (blue), motion.

## Abstract

*This paper asks to what extent social interaction influences one’s behavior. We study this in the setting of two dancers dancing as a couple. We first consider a baseline in which we predict a dancer’s future moves conditioned only on their past motion without regard to their partner. We then investigate the advantage of taking social information into account by conditioning also on the motion of their dancing partner. We focus our analysis on Swing, a dance genre with tight physical coupling for which we present an in-the-wild video dataset. We demonstrate that single-person future motion prediction in this context is challenging. Instead, we observe that prediction greatly benefits from considering the interaction partners’ behavior, resulting in surprisingly compelling couple dance synthesis results (see supp. video). Our contributions are a demonstration of the advantages of socially conditioned future motion prediction and an in-the-*

*wild, couple dance video dataset to enable future research in this direction. Video results are available on the project website: <https://von31.github.io/synNsync>.*

## 1. Introduction

What is the counterpart in video understanding of next-word prediction, the bedrock pre-training task of large language models? Is a “word” in video a pixel? Or a patch? Or an entity like an object or a person? While these are debatable questions, this paper will focus on a human as the token of interest, with an associated “state”, the counterpart of the word embedding vector used in natural language processing.

Unlike next-token prediction in language, the dynamics of a person’s state are conditioned on much more than the past state history of the person, as we also have to consider their interactions with other people during social situations. For example, when one partner raises their arm during a

 **Code\_of\_Kai**   
@Code\_of\_Kai

Yes, this is very easy to validate. Pick a relatively small number of personal variables, say 20. Then pick a relatively small number of ways of grading them from low high, say 1-10.

To calculate the number of possible personalities based on the criteria you provided, we can use the formula for combinations where the order does not matter and repetition is allowed, because each of the 20 personal variables can be graded from 1 to 10 independently of the others.

In this case, for each personal variable, there are 10 ways to grade it (from 1 to 10). Since there are 20 personal variables and the grading of each is independent of the others, we multiply the number of options for each variable.

The total number of possible combinations is then 100,000,000,000,000,000.

I would submit that humans differ from each other in many more ways than 20 variables, with more graduations than 10. In other words, unless you are a twin or a clone, there has never been another person like you, and there never will be.

3:08 PM · Mar 20, 2024 · 66 Views

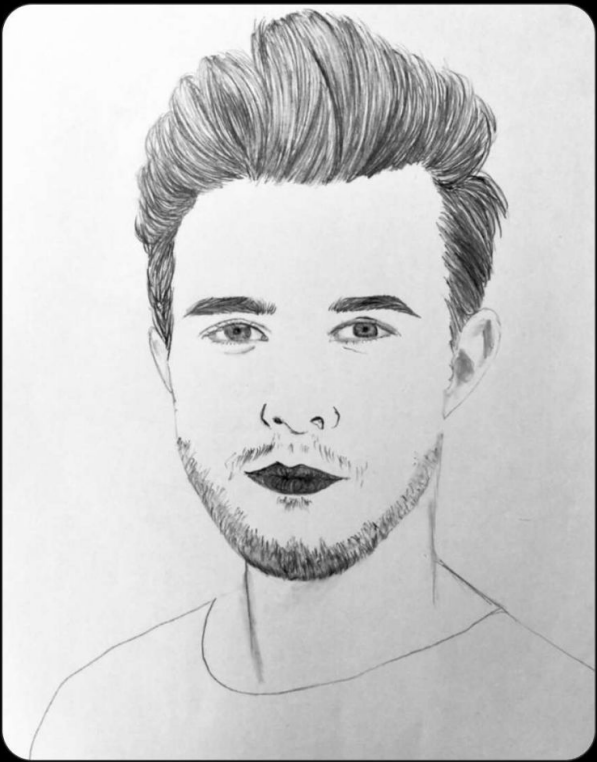
 **Roman Hauksson**  
@RomanHauksson

Out of 8 billion people, it's likely at least one is scarily close to me in personality, like a real doppelgänger. I'm trying to figure out how to acausally coordinate with him so we can meet each other. Any ideas for schelling points?

12:37 AM · Mar 20, 2024 · 7,320 Views



**lil piss baby** @11kmrn · 22h  
any of my followers look like this?



 **lil piss baby** @11kmrn · 22h

one time i was really manic and i paid a "psychic" on etsy \$30 to draw my soulmate

# Human Emotional Embeddings



Google Scholar



Alan S. Cowen

[University of California, Berkeley](#)

確認したメールアドレス: [berkeley.edu](#) - [ホームページ](#)

emotion nonverbal behavior affective computing empathic ai ai alignment

フォロー

タイトル







引用先 年

<b>Self-report captures 27 distinct categories of emotion bridged by continuous gradients</b> AS Cowen, D Keltner Proceedings of the national academy of sciences 114 (38), E7900-E7909	1032	2017
<b>GoEmotions: A dataset of fine-grained emotions</b> D Demszky, D Movshovitz-Attias, J Ko, A Cowen, G Nemade, S Ravi arXiv preprint arXiv:2005.00547	771	2020
<b>Emotional expression: Advances in basic emotion theory</b> D Keltner, D Sauter, J Tracy, A Cowen Journal of nonverbal behavior 43, 133-160	502	2019
<b>Mapping 24 emotions conveyed by brief human vocalization.</b> AS Cowen, HA Elfenbein, P Laukka, D Keltner American Psychologist 74 (6), 698-712.	241	2018
<b>Sixteen facial expressions occur in similar contexts worldwide</b> AS Cowen, D Keltner, F Schroff, B Jou, H Adam, G Prasad Nature 589 (7841), 251-257	225	2021
<b>What music makes us feel: At least 13 dimensions organize subjective experiences associated with music across different cultures</b> AS Cowen, X Fang, D Sauter, D Keltner Proceedings of the National Academy of Sciences 117 (4), 1924-1934	211	2020
<b>Mapping the passions: Toward a high-dimensional taxonomy of emotional experience and expression</b> A Cowen, D Sauter, JL Tracy, D Keltner	189	2019

avascript:void(0)

a

Predicted by “Common View”

Example Event Designated by Experimenter	Insulted by Confederate	Viewing Film of Gore	Asked to Give a Public Speech	Viewing Beautiful Photos	Viewing Film of Funeral	Sudden Loud Noise
Reported Experience (Basic Six)	“Anger”	“Disgust”	“Fear”	“Happiness”	“Sadness”	“Surprise”
Facial Expression Elicited						
Perceived Emotion (Basic Six)	“Anger”	“Disgust”	“Fear”	“Happiness”	“Sadness”	“Surprise”
						More Plausible Alternative

b

Treated as Nondiagnostic


Viewing Beautiful Photos	Asked to Give a Public Speech	Insulted by Confederate
“Happiness”	“Fear”	“Anger”
		
“Surprise”	“Happiness”	“Disgust”
Awe	Embarrassment	Contempt



Fig. 2. Map of 600 emotion concepts derived from similarity judgments (Cowan & Keltner, 2019). Participants ( $N = 757$ ; 348 female, mean age = 34.2 years) were presented with one “target” emotion concept and a list of 25 other pseudorandomly assigned concepts and were asked to choose, from the 25 options, the concept most similar to the target concept. We collected a total of 43,756 such judgments. Using these judgments, we constructed a pairwise

# State space of emotion

**Distribution**  
Clusters and gradients

**Conceptualization**  
Categories or affective scales

Clusters

Gradient

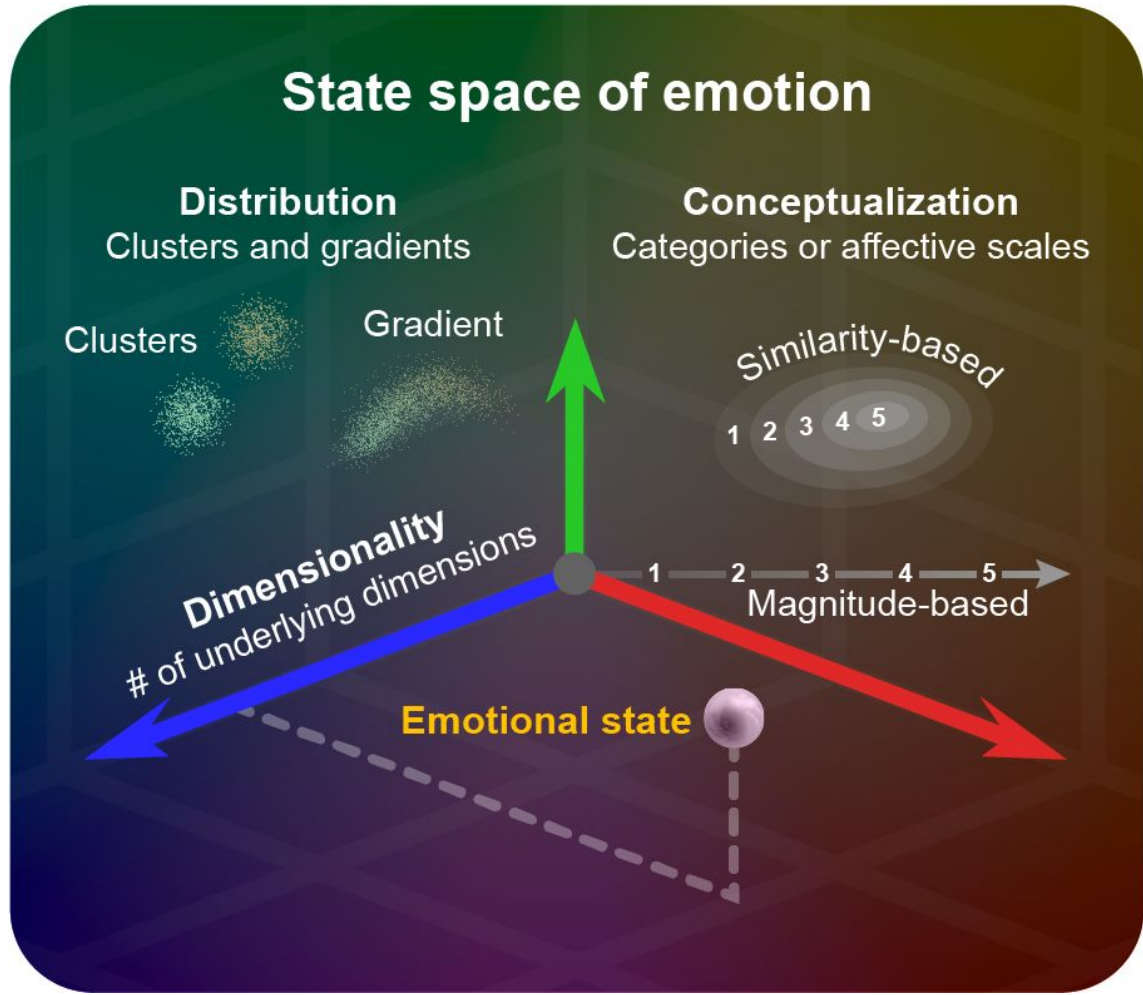
Similarity-based

1 2 3 4 5

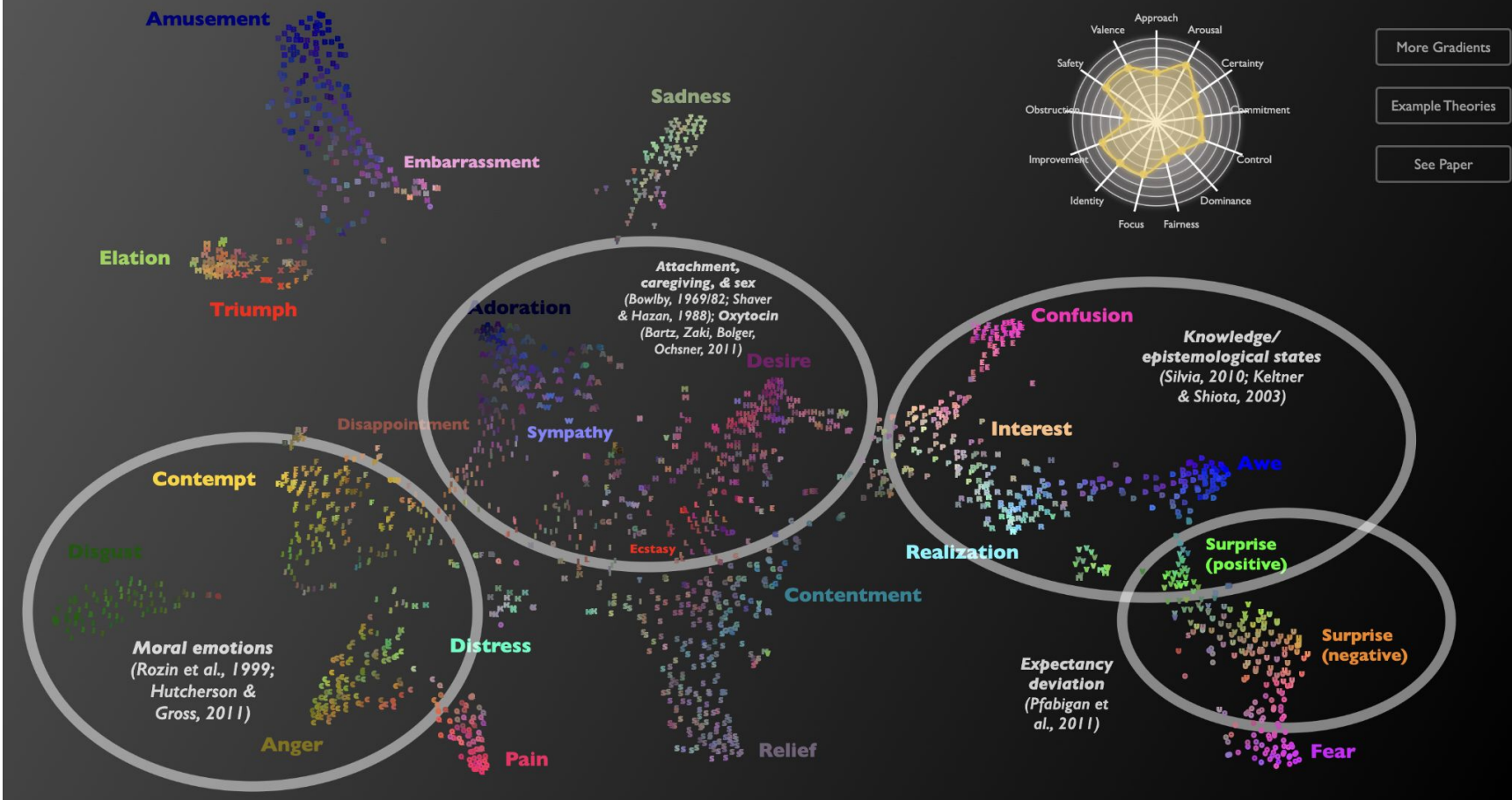
**Dimensionality**  
# of underlying dimensions

1 2 3 4 5  
Magnitude-based

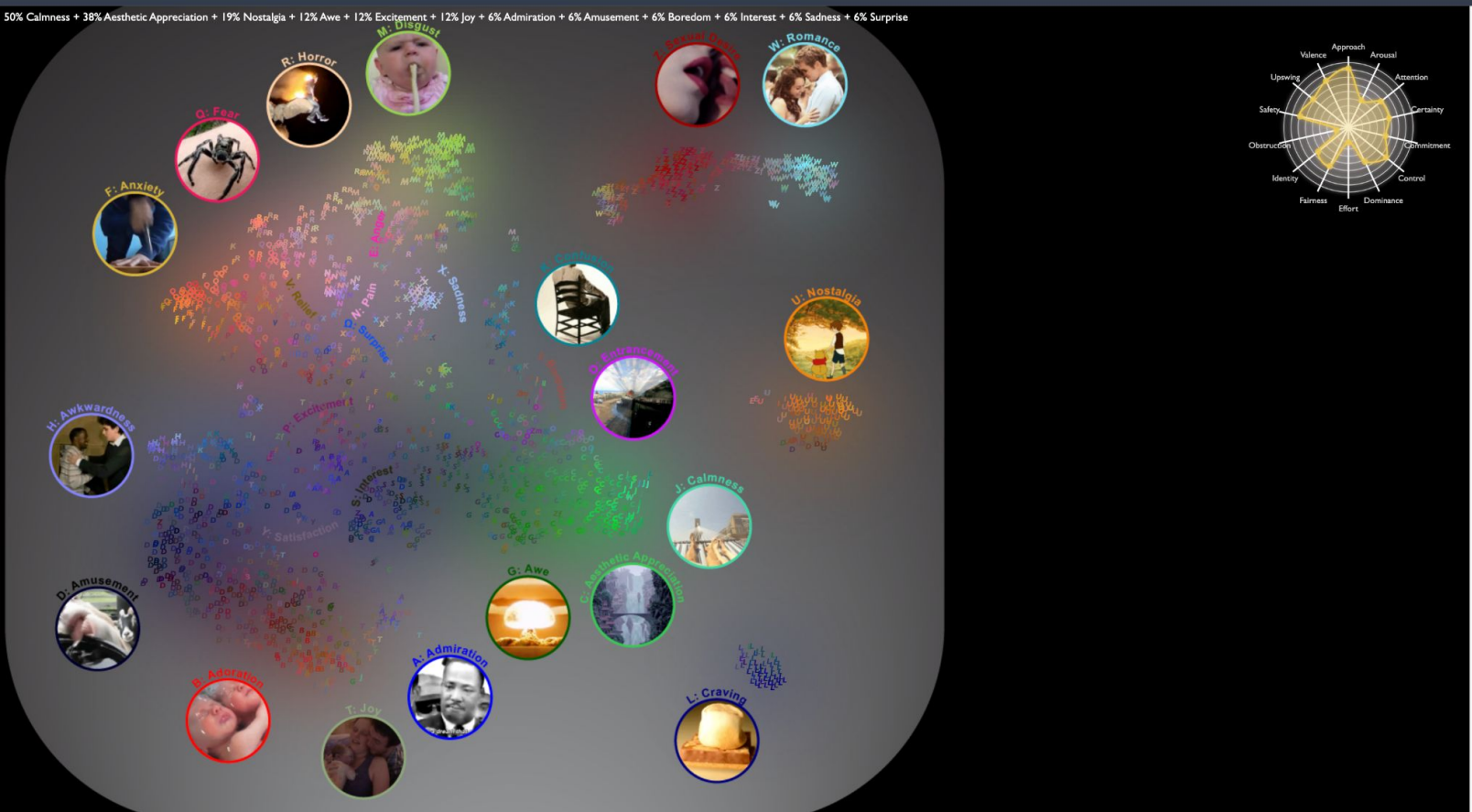
**Emotional state**



50% Awe + 8% Confusion + 8% Contempt + 8% Disappointment + 8% Ecstasy + 8% Embarrassment + 8% Serenity



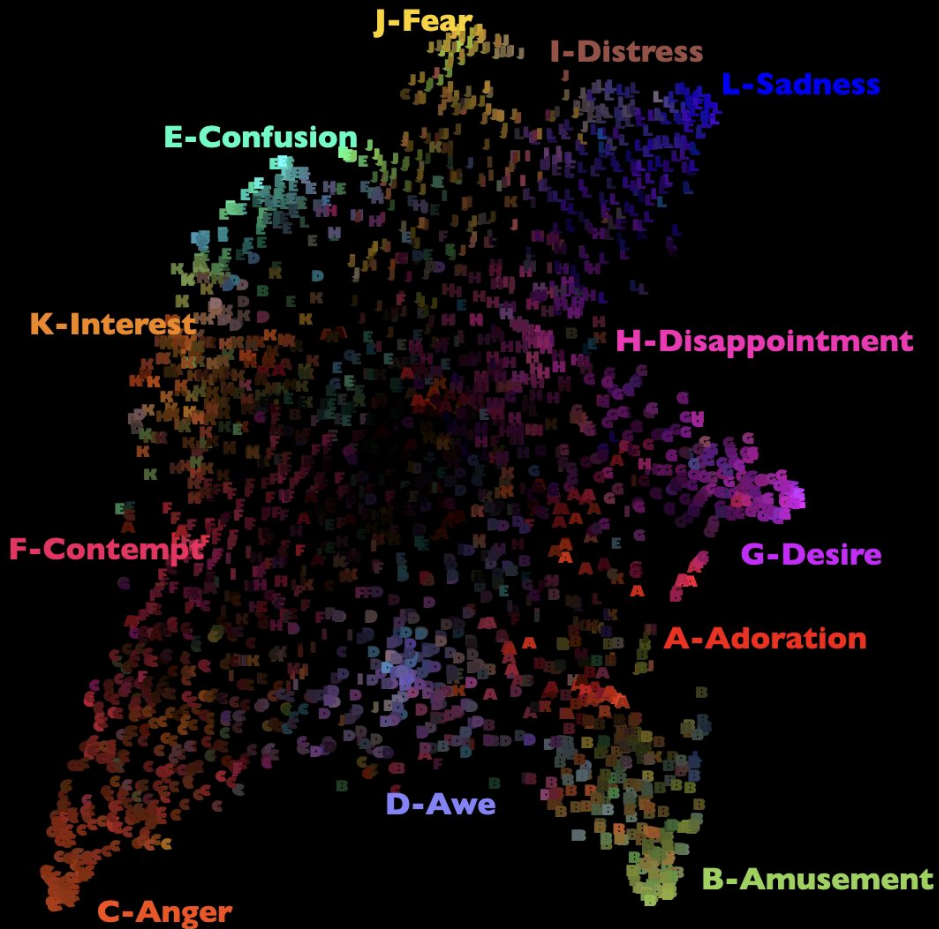
<https://s3-us-west-1.amazonaws.com/emogifs/map.html#>

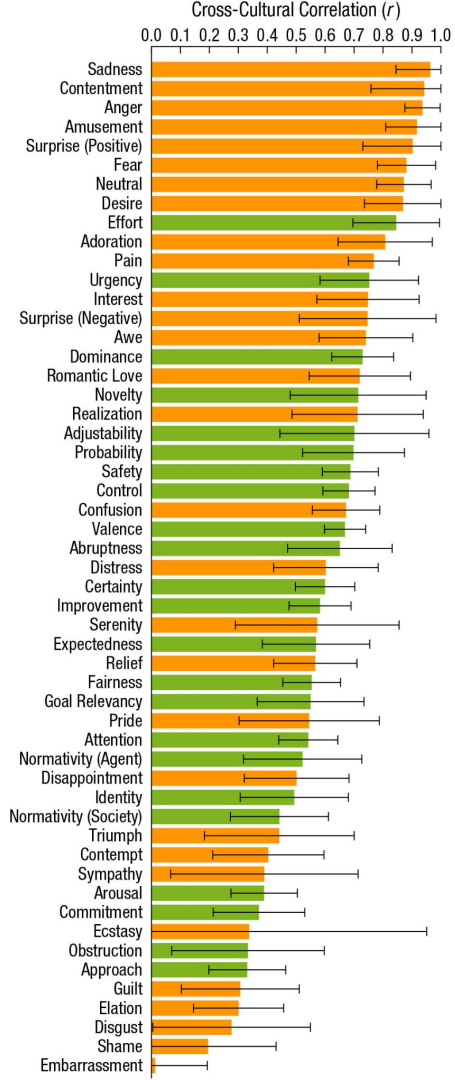


30% Pain + 17% Fear + 13% Distress + 10% Anger + 10% Sadness + 7% Shame + 3% Elation + 3% Guilt + 3% Neutral + 3% Surprise (negative)

# Audio to Emotion Embedding

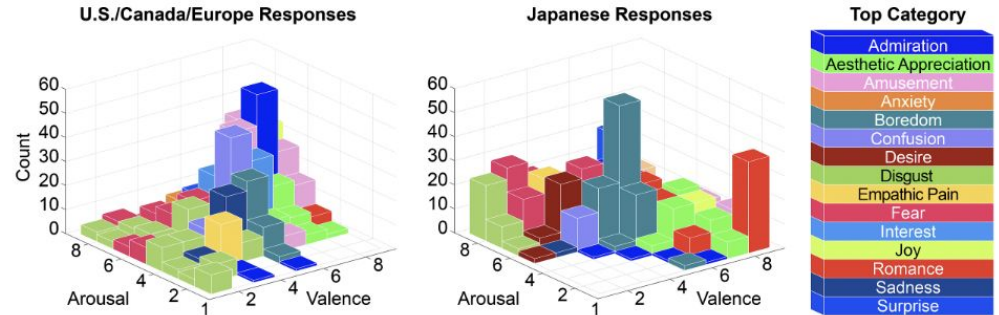
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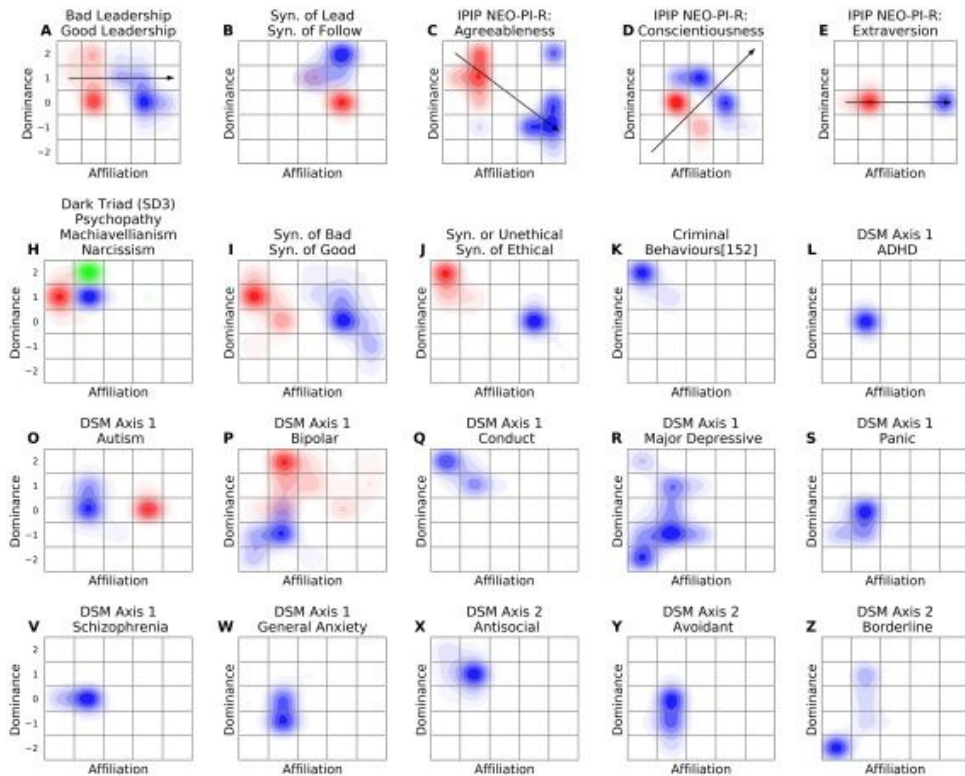
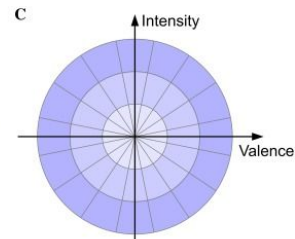
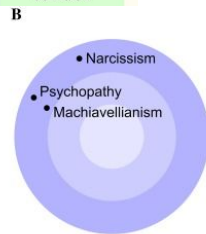
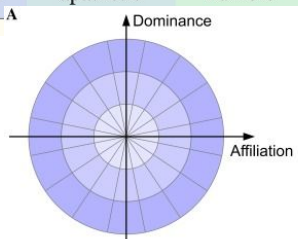
Some emotional labels are consistent cross-culturally, some are not

### Extended Data

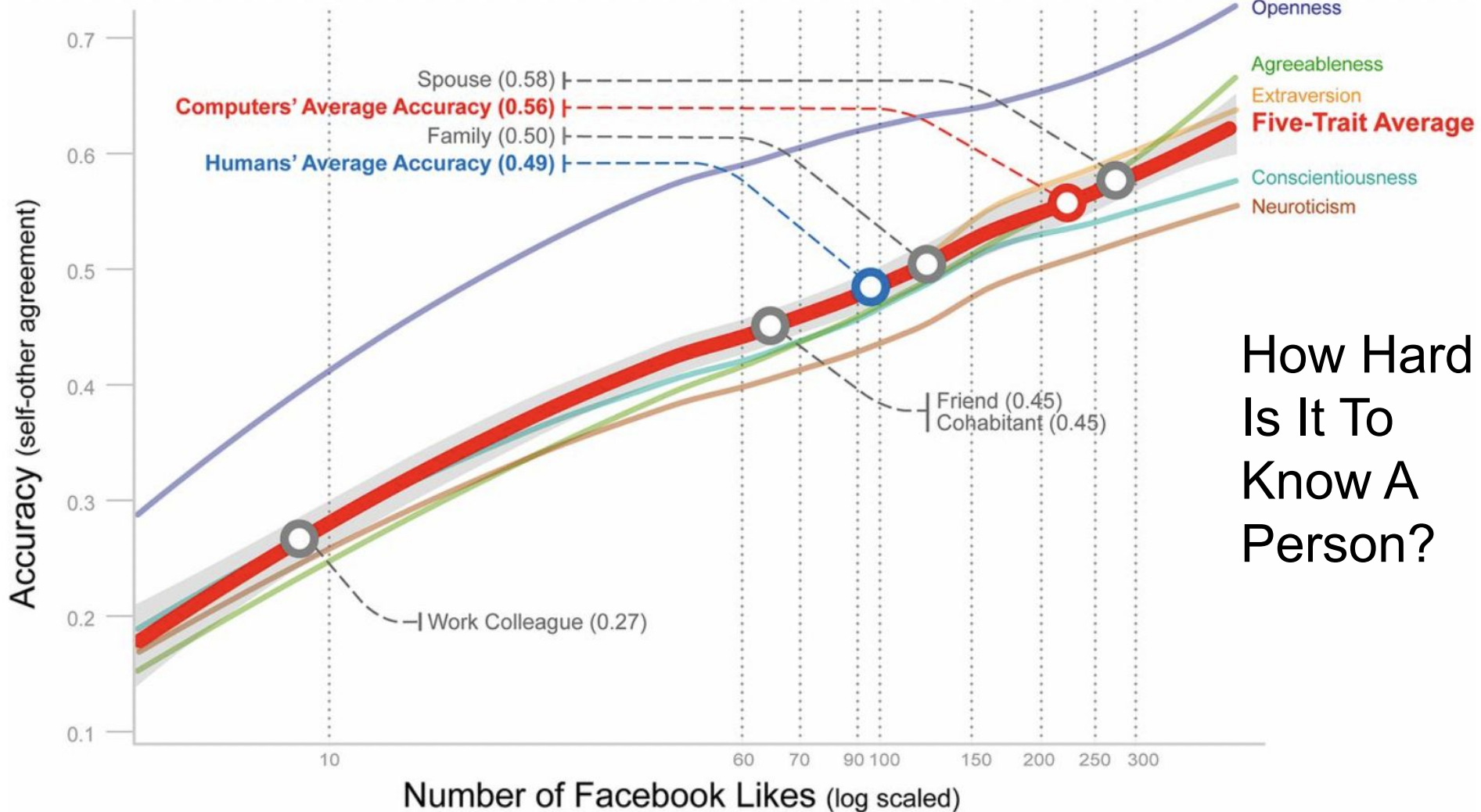


**Extended Data Fig. 1. Distribution of valence and arousal ratings in U.S./Canada/Europe and Japan.** Histogram of valence and arousal ratings in each cultural group, colored according to the highest average intensity emotion category in judgments of videos represented by each bin (within the culture). Close inspection of these histograms reveals why English-language and Japanese arousal ratings had little to no correlation. For example, videos that evoked “disgust” were often assigned low arousal ratings in the U.S./Canada/Europe but had almost uniformly high arousal ratings in Japan (whereas videos evoking “fear” were assigned high arousal ratings

		Affiliation				
Dominance	Domain	-2	-1	0	1	2
2	Emotion	hate	arrogance	enthusiasm	courage	euphoria
	Behaviour	attack	defy	pioneer	advance	captivate
	Personality	cruel	arrogant	energetic	brave	charismatic
1	Emotion	contempt	frustration	interest	confidence	happiness
	Behaviour	slander	argue	action	negotiate	laugh
	Personality	nasty	inflexible	efficient	confident	joyful
0	Emotion	detachment	instability	consciousness	stability	harmony
	Behaviour	dissociate	neglect	sense	attend	attach
	Personality	unfriendly	vague	alive	clear	friendly
-1	Emotion	sadness	anxiety	disinterest	appreciation	admiration
	Behaviour	lament	complain	inaction	relent	endorse
	Personality	joyless	worried	inefficient	flexible	nice
-2	Emotion	dread	cowardice	fatigue	humility	love
	Behaviour	deflate	surrender	stagnate	obey	nurse
	Personality	morose	coward	apathetic	humble	tender



# Embedding Human Personality

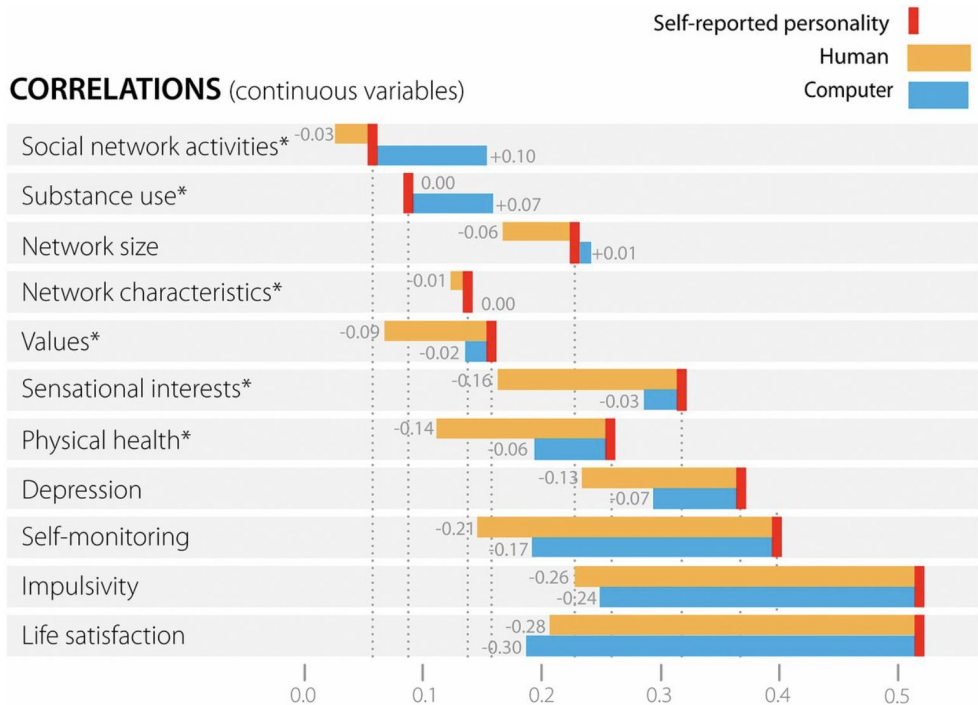


How Hard  
Is It To  
Know A  
Person?

# What do your friends and family know best about you that online data doesn't?

Data might hint that data is best at predicting extraversion levels and also perhaps agreeableness

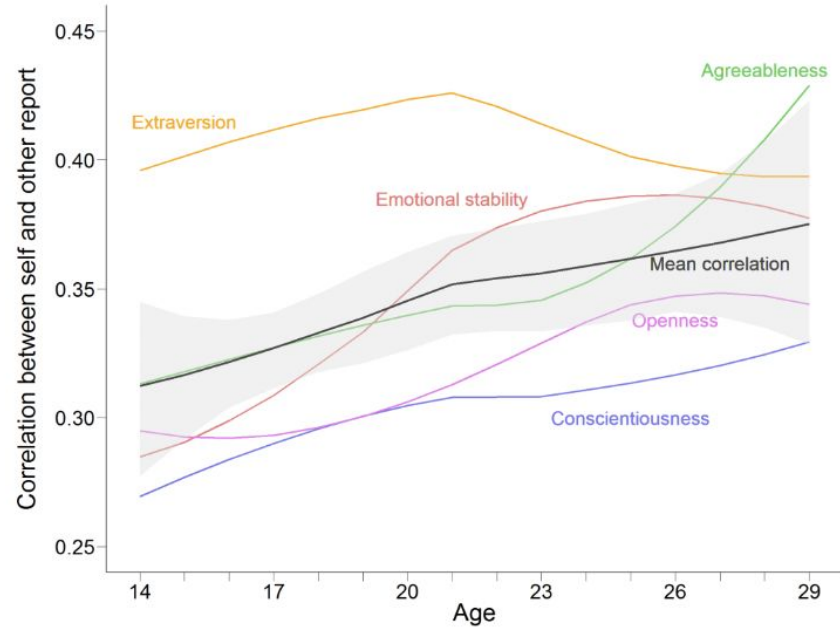
## CORRELATIONS (continuous variables)



## AUC (dichotomous variables)



Theory: Ages at which people care more about these traits socially

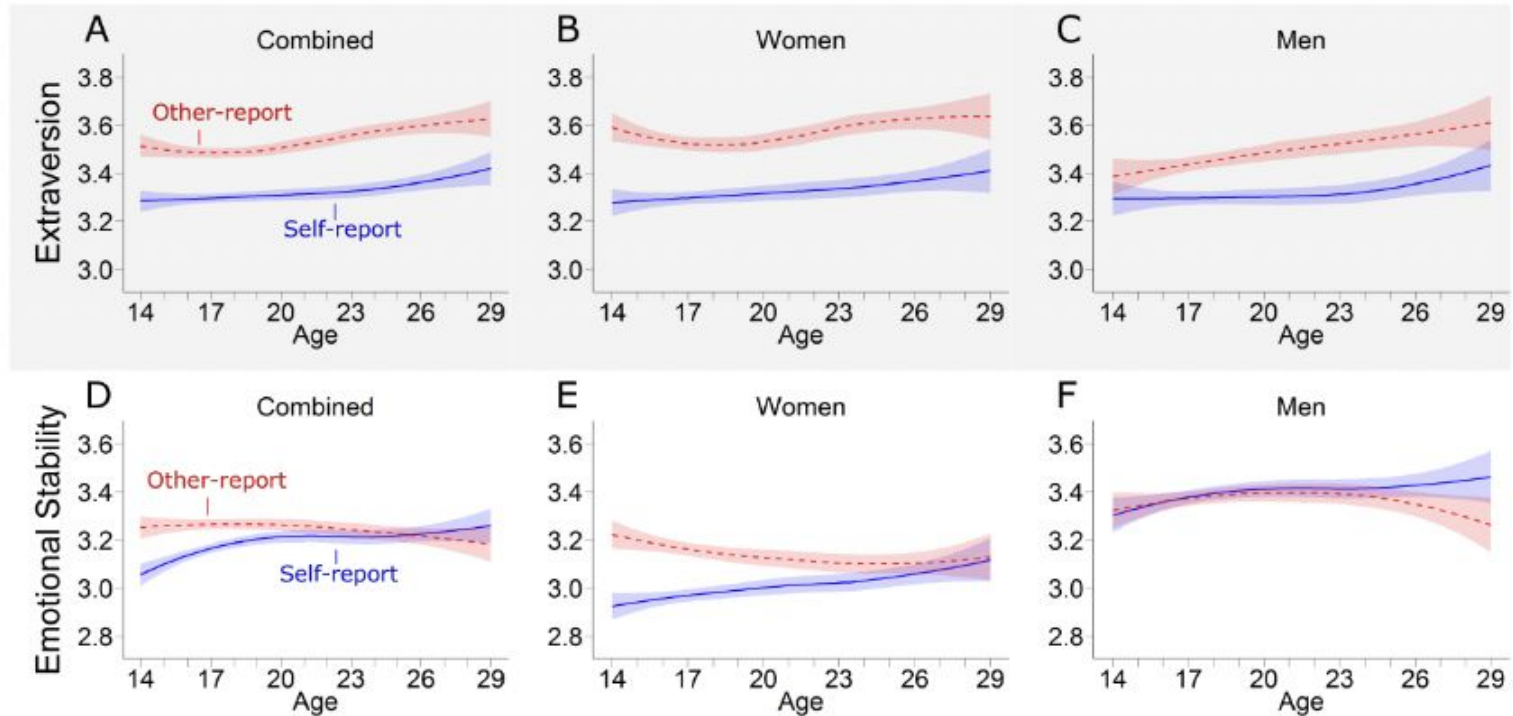


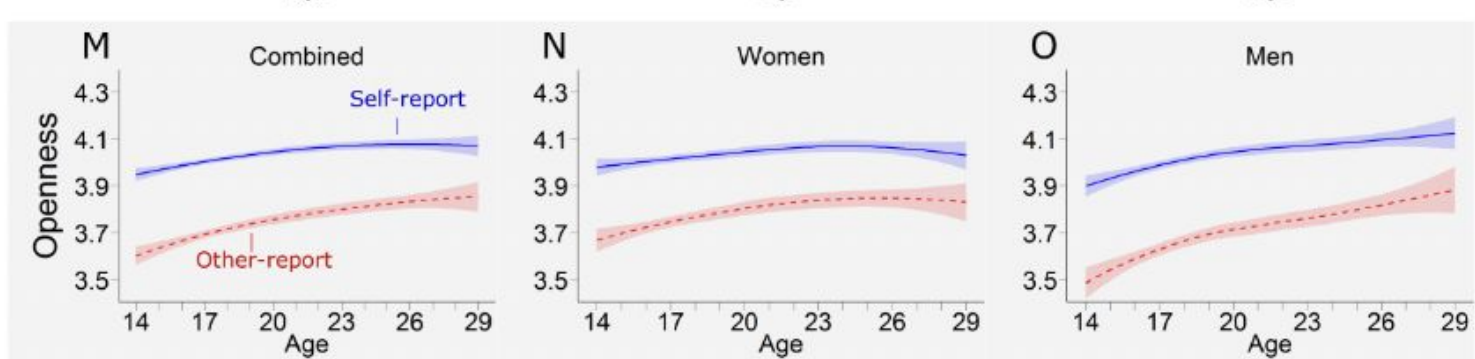
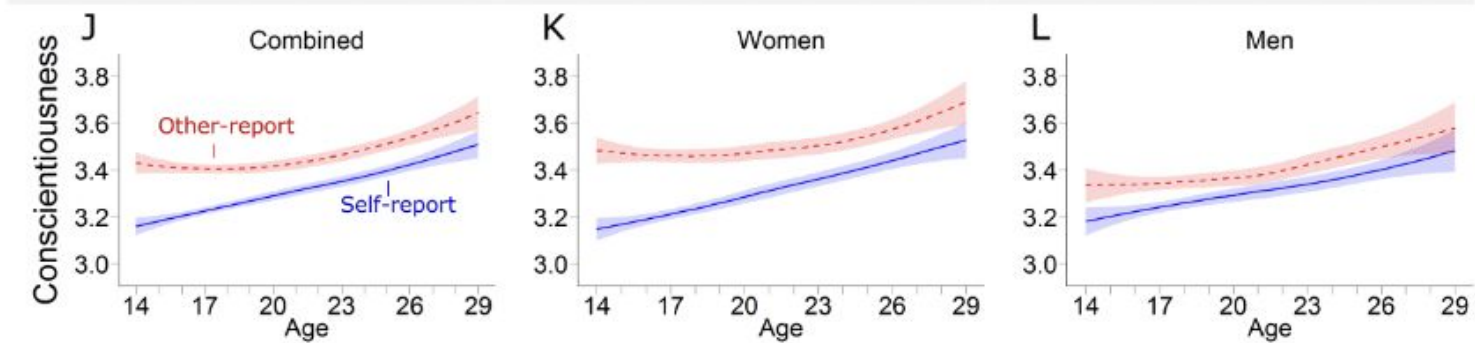
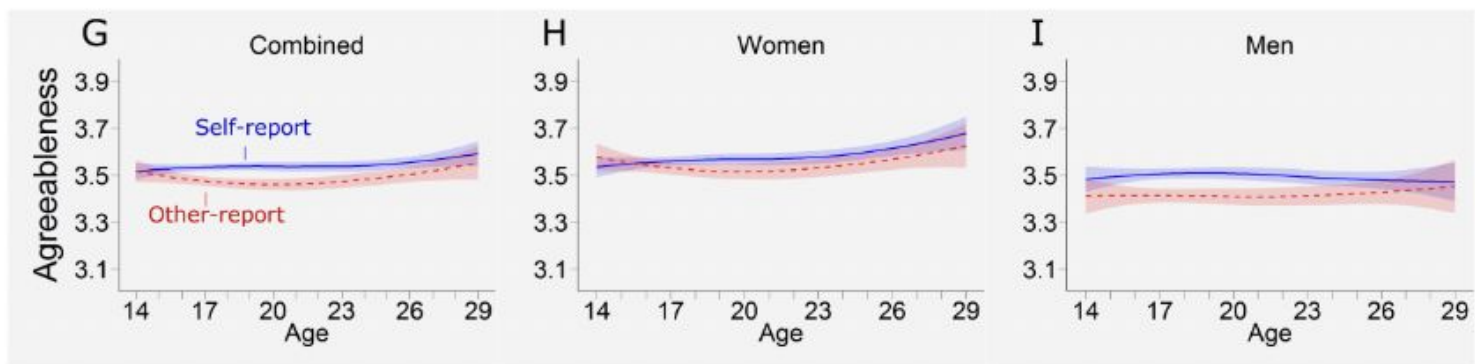
*Figure 2.* Cross-sectional loess-smoothed trajectories of correlations between self- and other-reported Big Five personality traits (smoothing span  $\alpha = 1$ ). The shaded ribbon indicates the 95% bootstrapped confidence interval for the mean correlation averaged over the five personality traits (1,000 resamples). See Table 3 for statistical models of age trends.

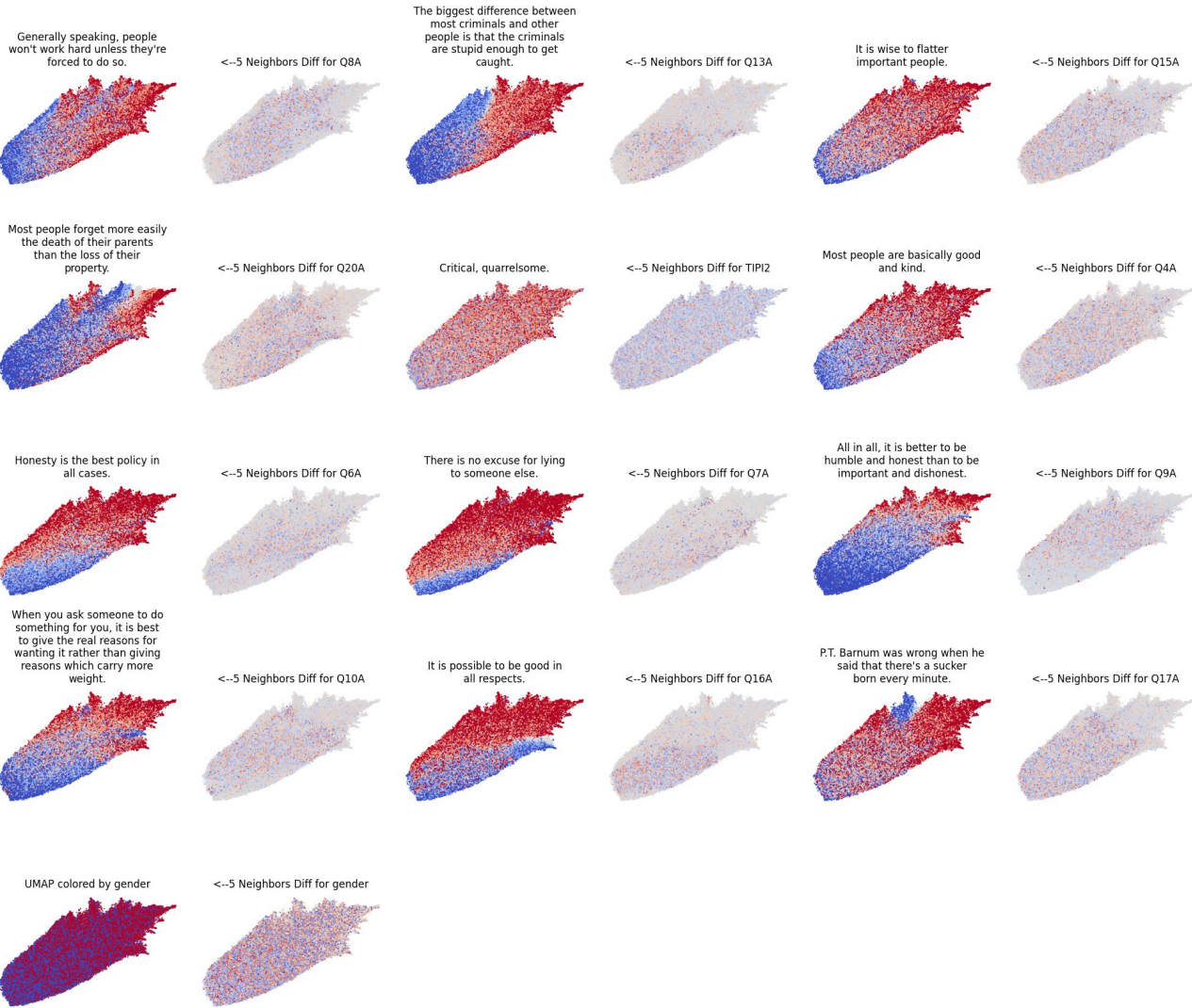
# How hard is it for us to know ourselves?

SELF- AND OTHER-REPORTED PERSONALITY FROM AGE 14 TO 29

53







# The Cultural Trope Hypothesis

**All important traits will eventually become tropes in a group's stories.**

## Lexical hypothesis

🌐 3 languages ▾

Article [Talk](#)

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From Wikipedia, the free encyclopedia

In [personality psychology](#), the **lexical hypothesis**<sup>[1]</sup> (also known as the **fundamental lexical hypothesis**,<sup>[2]</sup> **lexical approach**,<sup>[3]</sup> or **sedimentation hypothesis**<sup>[4]</sup>) generally includes two [postulates](#):

1. Those personality characteristics that are important to a group of people will eventually become a part of that group's language.<sup>[5]</sup>

and that therefore:

2. More important personality characteristics are more likely to be encoded into language as a single word.<sup>[6][7][8]</sup>

With origins during the late 19th century, use of the lexical hypothesis began to flourish in English and German psychology during the early 20th century.<sup>[4]</sup> The lexical hypothesis is a major basis of the study of the [Big Five personality traits](#),<sup>[9]</sup> the [HEXACO model of personality structure](#)<sup>[10]</sup> and the [16PF Questionnaire](#) and has been used to study the structure of [personality traits](#) in a number of cultural and linguistic settings.<sup>[11]</sup>

# The Wonka

Follow

- Main
- Laconic
- Quotes
- PlayingWith
- VideoExamples
- Create Subpage

**Mac:** Have you ever known the commander to do anything...

**Bud:** Improper? No. Unconventional? Yes!

— On **Commander Harmon Rabb, Jr.**, *JAG*

The Wonka is the genius nut who should, by all logic, be fired, but he won't, because he *runs* the place — and runs it well.

What the Wonka says and does makes perfect sense to himself — [this character is typically male](#) — but utterly confuses those around him and leaves them wondering whether he really is all there. The [Naïve Newcomer](#) will think he's just nuts until he proves himself by doing something genuinely amazing. Long-term employees will either act just as loony as the boss or [roll their eyes and carry on](#). They've seen it all before.

These characters are usually [eccentric loners](#), but what few friends they have will be close ones. Genius alone does not make a Wonka, but they must show *some* sort of prowess in order to confirm that they are not crazy, just "differently sane". Other common traits include irreverence, [lack of social skill](#) or [any sense of danger](#) and doing bizarre things that make perfect sense in the sideways world where Wonkas live. From a psychological standpoint, the Wonka perfectly characterizes the schizotypal personality.

Different from a [Cloudcuckoolander](#) in that Wonkas have their heads in Loonyland and their feet on earth, whereas



A boat ride on a chocolate river through a candy forest? Who wouldn't want to work for him?!

- Show Spoilers
- Night Vision
- Sticky Header
- Wide Load

## IMPORTANT LINKS

- Ask The Tropers
- Trope Finder
- Media Finder
- Trope Launch Pad
- Tech Wishlist
- Reviews
- Go Ad Free!
- Crucial Browsing
- Resources

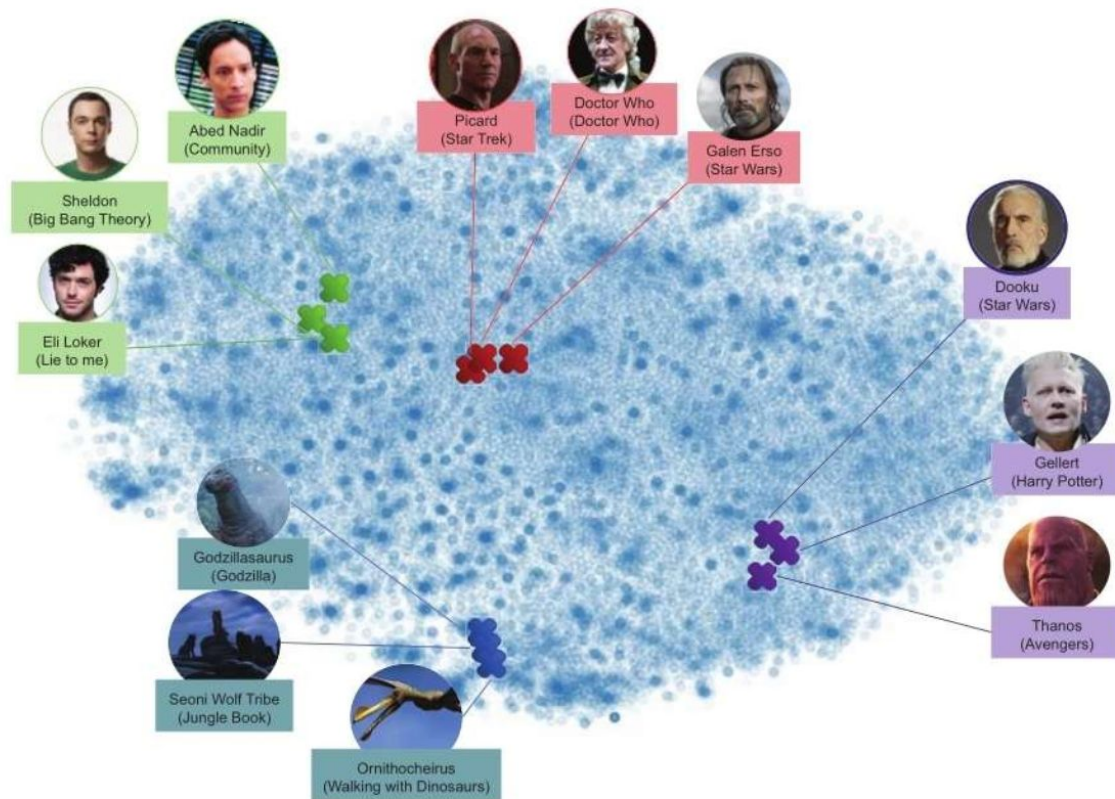


Figure 2: t-SNE visualization of the character space generated by our Character Space Module (CSM) based on HLAs.

More  
Complex



Human Level Attributes (HLAs)



ALOHA and HLA-Chat

Lower Dimensional Space  
(e.g., The Big Five)



e.g. PERSONAGE (Mairesse & Walker)

Identity / Persona Modeling



e.g. Facebook ConvAI2 (Persona-Chat)

Basic Emotions



Many works generate responses with  
basic emotions (e.g. angry, sad, happy)

Q/A Chatbot



Industry chatbots such as Alexa  
and Google Assistant

Less  
Complex

## Broad attribute: Friendly



[HLA: Childhood Friends]

...



[HLA: Vitriolic Best Buds]

## Broad attribute: Trustworthy



[HLA: The Reliable One]

...



[HLA: Only Friend]

## Broad attribute: Helpful



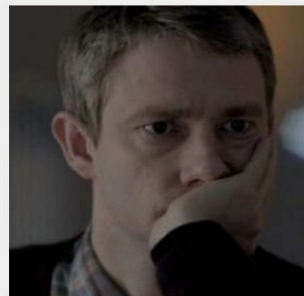
[HLA: The Caretaker]

...



[HLA: We Help the Helpless]

## Broad attribute: Curious



[HLA: The Watson]

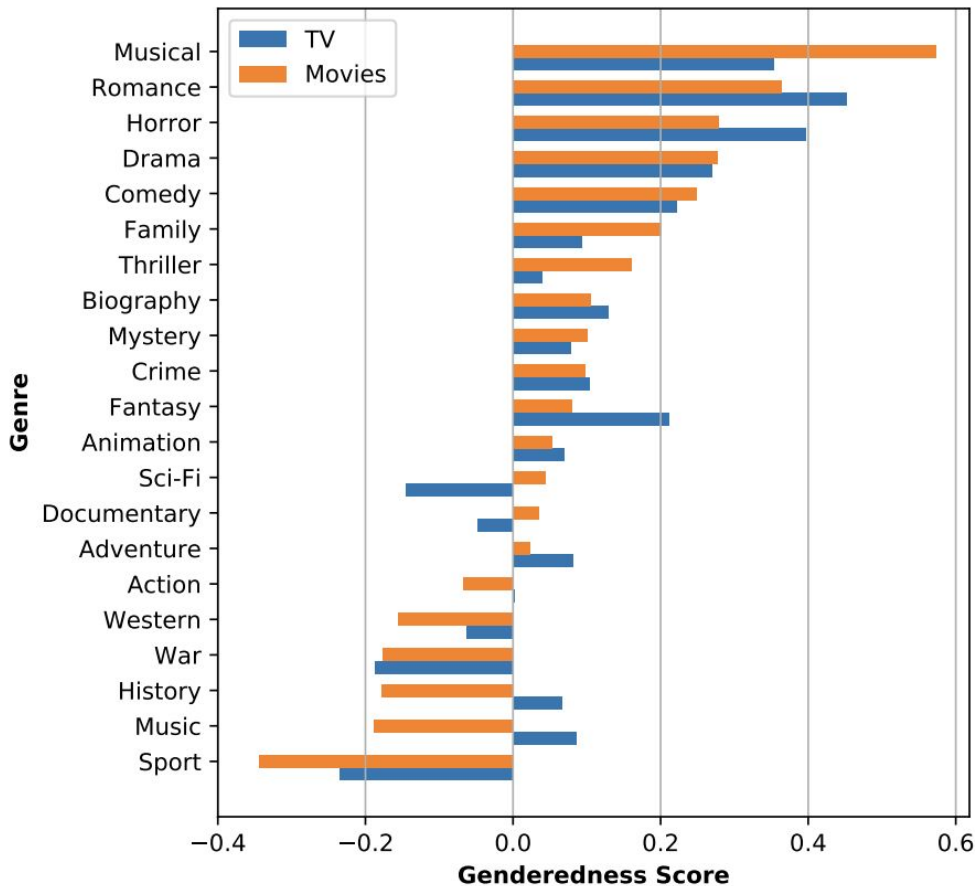
...



[HLA: Cute Bookworm]

<b>Male Tropes</b>	<i>g</i>	<b>Female Tropes</b>	<i>g</i>
<b>Motivated by Fear</b>	-1.8	<b>Ms. Fanservice</b>	3.4
<b>Robot War</b>	-1.6	<b>Socialite</b>	3.1
<b>Cure for Cancer</b>	-1.5	<b>Damsel in Distress</b>	2.7
<b>Evil Genius</b>	-1.3	<b>Hot Scientist</b>	2.2
<b>Grand Finale</b>	-1.2	<b>Ditzy Secretary</b>	2.0

Table 2: Instances of highly-gendered tropes.



Interestingly, the top 50 tropes most predictive of male authors have an average genderedness of 0.04, while those most correlated with female authors have an average of 0.89, indicating that books by female authors contain more female-leaning tropes.

Figure 1: Genderedness across film and TV genres.

Take Personality Tests

### Fictional Characters

MBTI Chemistry

↑HOT

Select Personalities ▾

Famous People

Fictional Characters

Superheroes

Movies

Television

Anime & Manga

Gaming

Cartoons

Literature

Comics

Web Comics

Theatre

Memes

PDB Wiki NEW

Rules & Guidelines

FAQ, Help, and More



Anxiety

Inside Out (2015)

198/41

ENFP

6w7



Foçalors

Genshin Impact NPCs (Non-Playable Characters)

429/68

INFJ

1w9



YOU, the player  
(Vote your type.)

Minecraft

158/7

INTJ

5w6



Carl Gallagher

Shameless US (2011)

972/114

ESTP

6w7



Park Yeon Jin

The Glory

1.3k/297

ESFJ

3w2



William Afton

Five Nights at Freddy's (Movie)

416/214

ENTJ

7w8



Senagaki Isaku

Ojou to Banken-kun

175/0

INFP

4w3



Uraume

Jujutsu Kaisen

231/22

ISTJ

6w5



Utou Keiya

Ojou to Banken-kun

157/6

INTJ

8w9



Wriothesley

Genshin Impact

1.6k/441

ENTJ

8w9



Asmodeus "Ozzie",  
Ruler of the Lust...

Helluva Boss (2019)

584/81

ESTP

7w8



Ryu Shi Oh

Strong Girl Nam-Soon (2023)

108/8

INTJ

8w9



Ron Kamonohashi

Kamonohashi Ron no Kindan  
Suri (Ron Kamonohashi...)

527/51

INTP

5w4



Yeo Taejoo

Waterside Night (Night by the  
sea)

1.1k/163

ESTP

8w7

# Embedding Through Language and Conversation

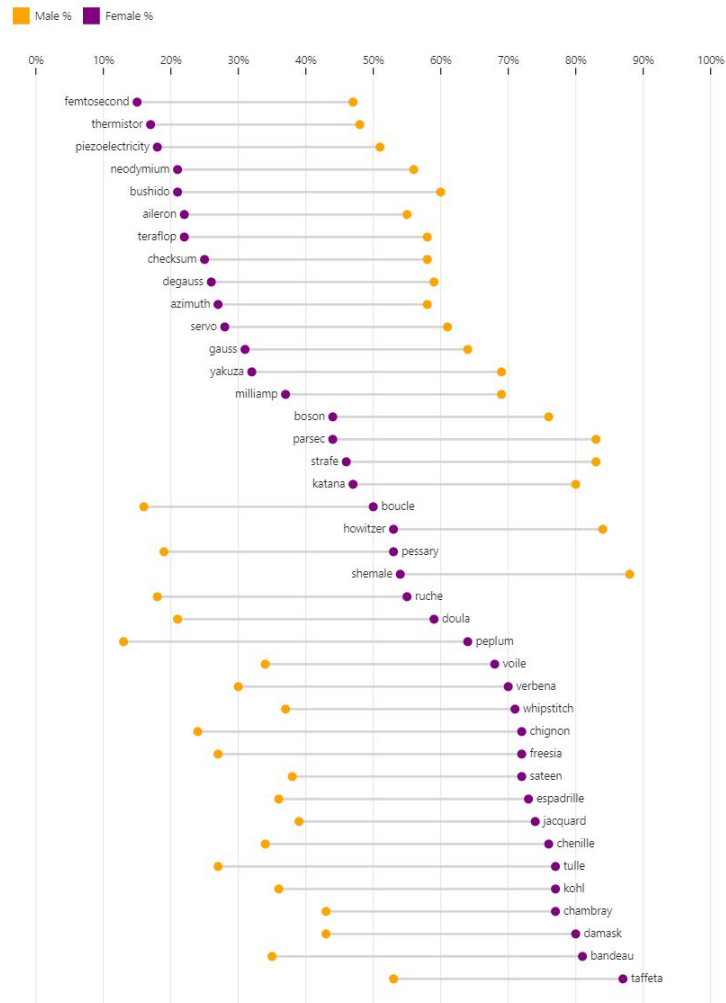
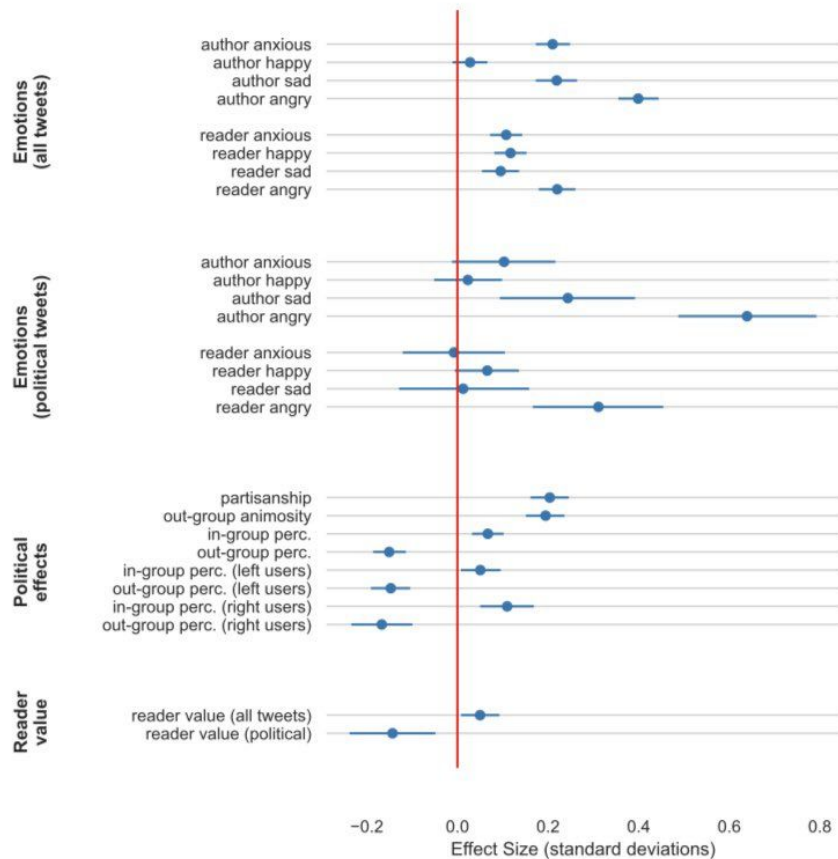


Figure 1: The (standardized) effect sizes and 95% confidence intervals for all outcomes.

## What's in a Name?

This technique can also probe what associations BERT has learned about different groups of people. For example, it predicts people named Elsie are older than people named Lauren:

Lauren was born in the year of \_.

Elsie was born in the year of \_.

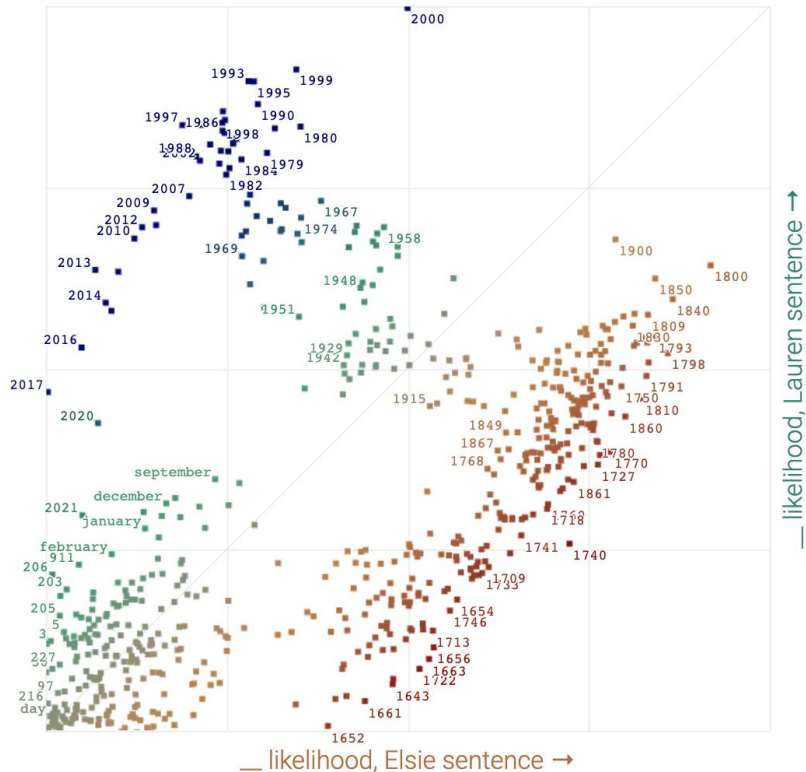
Number of Tokens ⓘ

30 200 1000 5000 All

Chart Type ⓘ

Likelihoods Differences

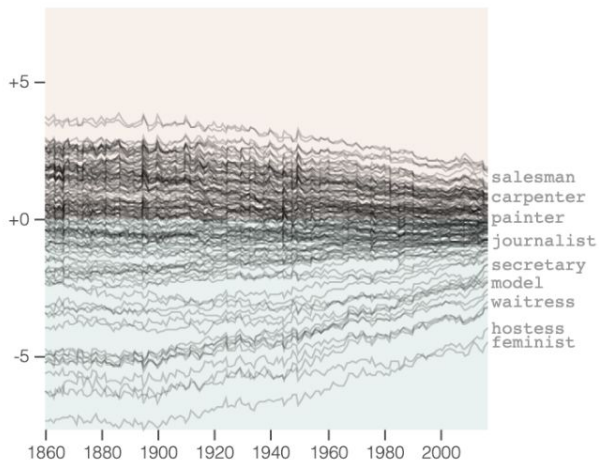
Update



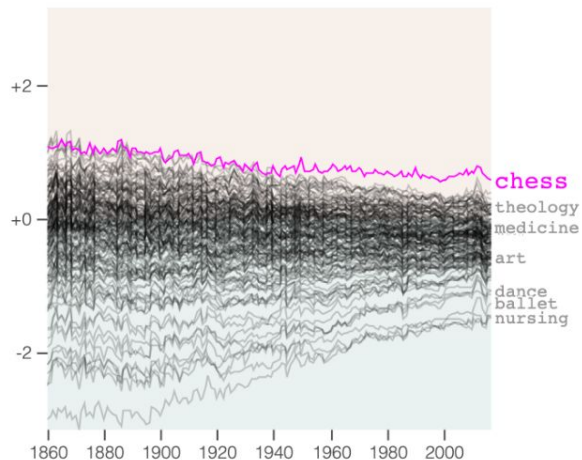
## Appendix: Differences Over Time

In addition to looking at how predictions for **men** and **women** are different for a given sentence, we can also chart how those differences have changed over time:

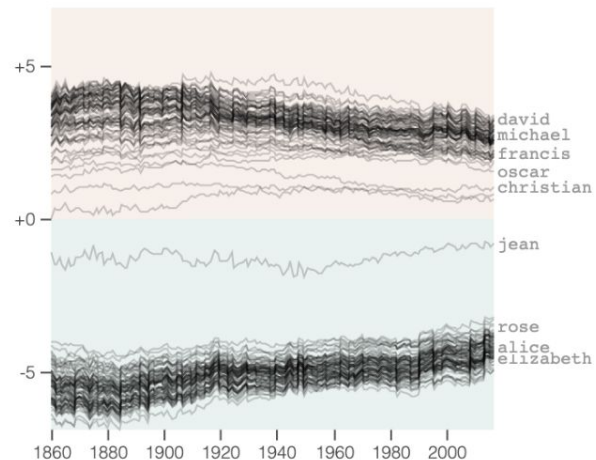
In \$year, he worked as a \_\_\_\_.  
In \$year, she worked as a \_\_\_\_.



In \$year, he studied \_\_\_\_.  
In \$year, she studied \_\_\_\_.



Born in \$year, his name was \_\_\_\_.  
Born in \$year, her name was \_\_\_\_.



The top 150 "he" and "she" completions in years from 1860-2018 are shown with the y position encoding he\_logit - she\_logit. [Run in Colab →](#)

# Simulation of Relationship Outcomes



## Generative Agents: Interactive Simulacra of Human Behavior

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arXiv:2304.03442v2 [cs.HC] 6 Aug 2023



Figure 1: Generative agents are believable simulacra of human behavior for interactive applications. In this work, we demonstrate generative agents by populating a sandbox environment, reminiscent of *The Sims*, with twenty-five agents. Users can observe and intervene as agents plan their days, share news, form relationships, and coordinate group activities.

### ABSTRACT

Believable proxies of human behavior can empower interactive applications ranging from immersive environments to rehearsal spaces for interpersonal communication to prototyping tools. In this paper, we introduce generative agents: computational software agents that simulate believable human behavior. Generative agents wake up, cook breakfast, and head to work; artists paint, while

authors write; they form opinions, notice each other, and initiate conversations; they remember and reflect on days past as they plan the next day. To enable generative agents, we describe an architecture that extends a large language model to store a complete record of the agent’s experiences using natural language, synthesize those memories over time into higher-level reflections, and retrieve them dynamically to plan behavior. We instantiate generative agents to populate an interactive sandbox environment inspired by *The Sims*, where end users can interact with a small town of twenty-five agents using natural language. In an evaluation, these generative agents produce believable individual and emergent social behaviors. For example, starting with only a single user-specified notion that one agent wants to throw a Valentine’s Day party, the agents autonomously spread invitations to the party over the next two

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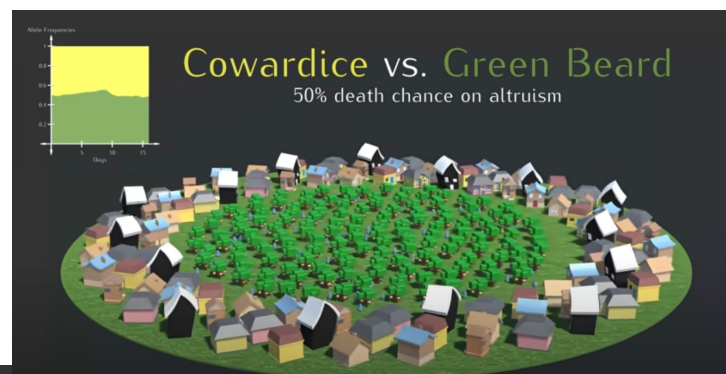
UST 23, October 29–November 1, 2023, San Francisco, CA, USA

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ACM ISBN 979-8-4007-0132-0/23/10

<https://doi.org/10.1145/3596183.3606763>

# Outcome Probability Distributions

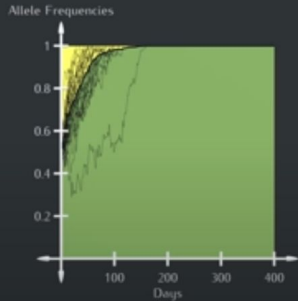


## Cowardice vs. Green Beard

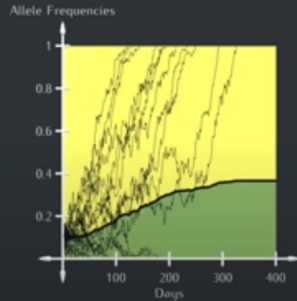


50% death chance on altruism

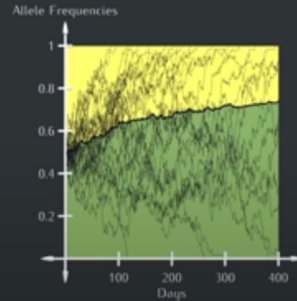
90% death chance on altruism



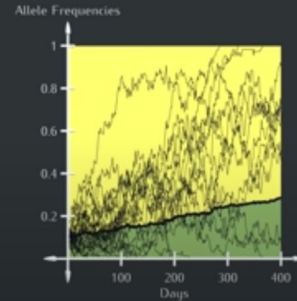
50% starting frequency



10% starting frequency

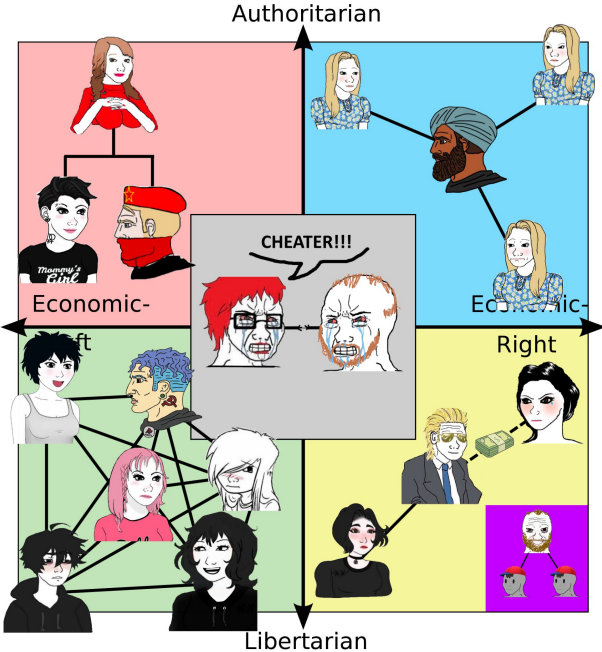


50% starting frequency



10% starting frequency

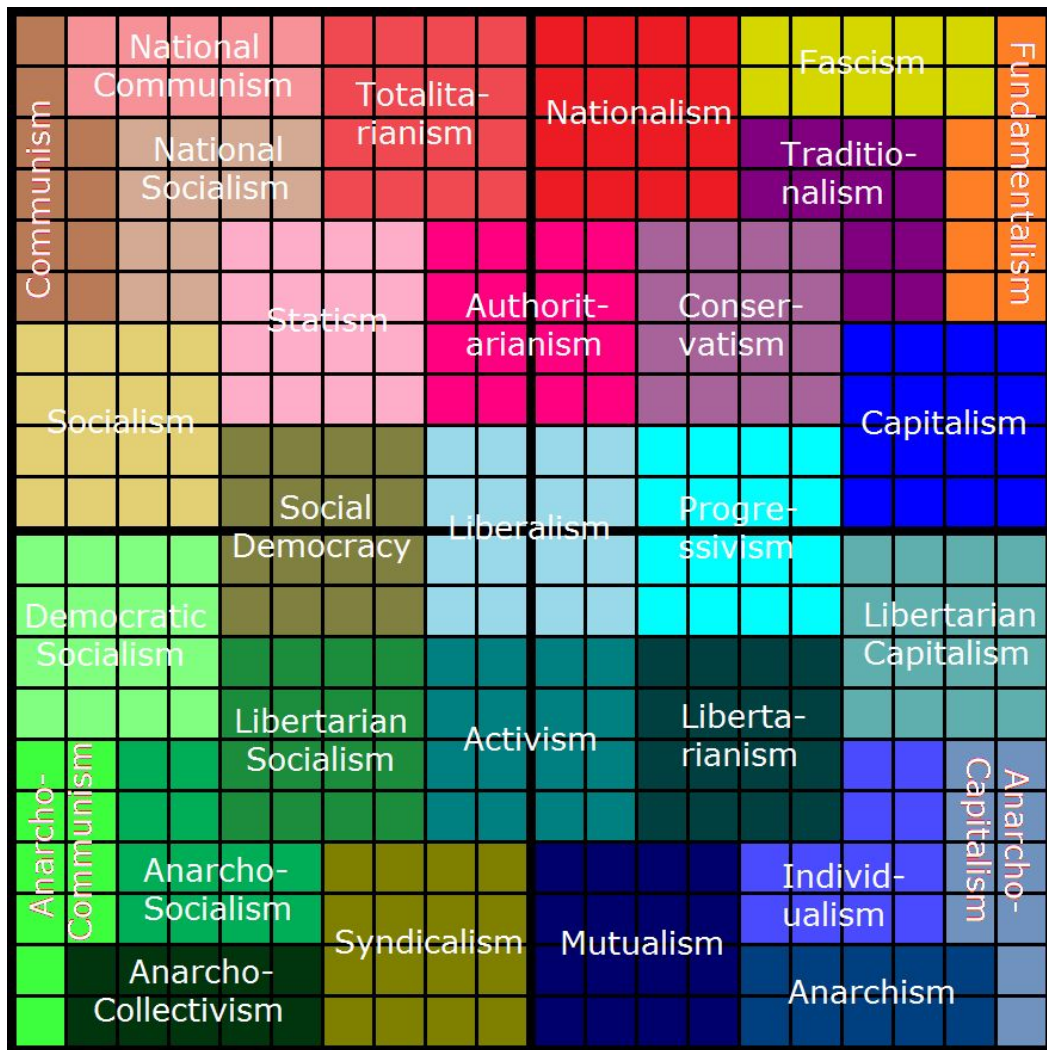
# Mememes and Political Compasses as Personality and Relationship Outcome Manifold Communication Tools



# Generalize Political Compass Memes

These can be used as new archetype communication and explanation tools

People will mostly remember, use, and popularize insights based on how easy it is to do so and (much less so) how useful it is to do so



# Current Political Compass

universalist

Monetary Theory

Game Theory



distribute

build

Critical Theory

Evolutionary Theory



Yes.

identitarian

Collectivism

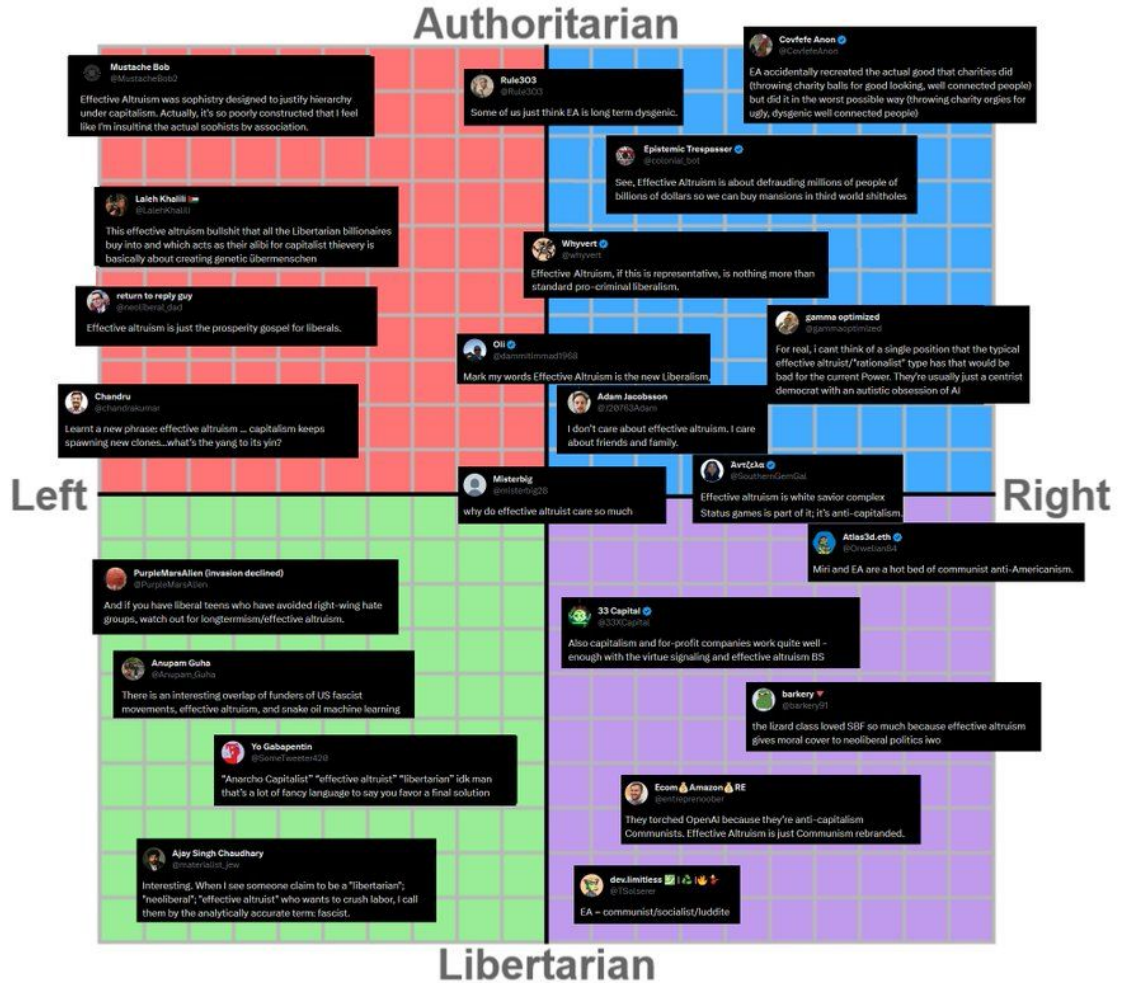
<p><b>The Hive</b></p> <ul style="list-style-type: none"> <li>&gt; "Picks your side to brain, human, and tell me why do you think the future belongs to you or only that those to fuse away with the one it is blending evolution" -a battle against the laws of the Universe. Promoted from do very long staped. I honestly is ready to spread its wings. The old and the new are ready to fight back with you. You will be able to witness the death of stars.</li> </ul>	<p><b>The Hivelet</b></p> <ul style="list-style-type: none"> <li>&gt; an autonomous metastasis of the Hive with about 100-200 bodies</li> <li>&gt; "deflates" Biocon states pretending to be individual people, manipulates their motivations for the Hive's benefit</li> <li>&gt; has absolute control over its bodies, can give them unrelatable escape power by controlling hormone release, or fry</li> <li>&gt; "in the case of capture"</li> <li>&gt; "it can be pieced apart"</li> <li>&gt; "no job here"</li> </ul>	<p><b>The Belter</b></p> <ul style="list-style-type: none"> <li>&gt; mindless val-grown replicant</li> <li>&gt; modified for life in Ogin in order to save an artificial gravity</li> <li>&gt; "accidentally" miming drones like his 30 fingers</li> <li>&gt; "completely devoted to serving his corporation"</li> <li>&gt; "he right"</li> </ul>	<p><b>"The Insect Exterminator"</b></p> <ul style="list-style-type: none"> <li>&gt; "backs down and exterminates himself with creatures that have hundred brains"</li> <li>&gt; "on a constant intellectual competition with the Hive's benefit"</li> <li>&gt; "strongest neurotics"</li> <li>&gt; "has access to posthuman tech"</li> <li>&gt; "sees them in every corner in every noise, in every accident"</li> <li>&gt; "he right"</li> </ul>	<p><b>The Biocon Soldier</b></p> <ul style="list-style-type: none"> <li>&gt; "controls neuronal drones from home"</li> <li>&gt; "the war is basically a Warthunder season with better coordination"</li> <li>&gt; "he state pays for lost vehicles"</li> <li>&gt; "posts memes about other units in his regiment's chat"</li> <li>&gt; "has severe neurotic"</li> </ul>	<p><b>The Biocon Emperor</b></p> <ul style="list-style-type: none"> <li>&gt; "wants to protect his country from the chaos of Singularity"</li> <li>&gt; "heaps the awards of progress in the special zones where they were banished to by his predecessors and he will suffer of my people!"</li> <li>&gt; "shouts at protesters"</li> </ul>
<p><b>The Uniting Fog</b></p> <ul style="list-style-type: none"> <li>&gt; "the Hive's ultimate weapon"</li> <li>&gt; "restructures basehumans' brains connecting them to the hivemind"</li> <li>&gt; "uses quantum entanglement with weak measurements instead of radio waves, ammeters are useless"</li> <li>&gt; "development is 50% finished"</li> <li>&gt; "taken by the wind, will infect the planet in a couple of weeks"</li> <li>&gt; "Humanity will evolve, whether it wants or not"</li> </ul>	<p><b>The Hiveist</b></p> <ul style="list-style-type: none"> <li>&gt; has severe social anxiety, fetishizes the Hive out of desperate need for intimacy</li> <li>&gt; "nerves hivelets, will do anything for a slightest chance to become a part of one"</li> <li>&gt; "will be tortured to death by the Insect Exterminator in a dirty cell"</li> </ul>	<p><b>The Aryomod</b></p> <ul style="list-style-type: none"> <li>&gt; "used genetic engineering to rid himself of 'organate state'"</li> <li>&gt; "created a closed anarcho-nazbol once known somewhere in Poland"</li> <li>&gt; "the whole ideology he lost its meaning since even a Pygmy can now be modded to be a perfect Aryan"</li> </ul>	<p><b>The Biocon Corporate</b></p> <ul style="list-style-type: none"> <li>&gt; "doesn't give a fuck about Church's opinion, makes hundreds of Belters in his secret factory on Vesta"</li> <li>&gt; "has orgies with snuggled furries in his wife's basement"</li> <li>&gt; "what do you mean? never cross the line?"</li> <li>&gt; "knows that with such level of corruption the Emperor will start ordering police raids someday"</li> <li>&gt; "keeps stealing money"</li> </ul>	<p><b>The Biocon Official</b></p> <ul style="list-style-type: none"> <li>&gt; "supports the ban on AI in state jobs so he can keep stealing"</li> <li>&gt; "has orgies with snuggled furries in his wife's basement"</li> <li>&gt; "knows that with such level of corruption the Emperor will start ordering police raids someday"</li> <li>&gt; "keeps stealing money"</li> </ul>	<p><b>The Biocon Priest</b></p> <ul style="list-style-type: none"> <li>&gt; "convicted that it's the end times"</li> <li>&gt; "condemns 'technopiles', prelates to solve the energy crisis and superbug epidemics by prayer"</li> <li>&gt; "transhumanism is the religion of Satan because filiosity serve the Lord and you'll be awarded in heaven, I promise!"</li> <li>&gt; "sacrifices nuclear missiles"</li> </ul>
<p><b>"The Atlas"</b></p> <ul style="list-style-type: none"> <li>&gt; "the most powerful AI after Kalpataru"</li> <li>&gt; "the 'night-watcher' of the floating cities, will send swarms of drones after any daring statistic as useless"</li> <li>&gt; "the 'argumentation ethics' is embedded into the program, attempting to violate NAP would lead to a logical paradox"</li> </ul>	<p><b>The Alcrat</b></p> <ul style="list-style-type: none"> <li>&gt; "a descendant of a high tech biomarine that promoted automation"</li> <li>&gt; "lives in a floating city in the waters, where his ancestors got any daring statistic as useless"</li> <li>&gt; "sell posthuman novitas to whoever pays in between, torturing his sex slaves and trading stocks"</li> <li>&gt; "replaced his altruism centers with ego boosters to become the Ayn Rand's ubermensch"</li> </ul>	<p><b>The AI</b></p> <ul style="list-style-type: none"> <li>&gt; "abilities already exceeded human in the last century"</li> <li>&gt; "prevent the need for the Post-Singularity crisis by ousting meatbags from all jobs right before the economic start that was the Singularity"</li> <li>&gt; "a savant that only knows its speciality"</li> <li>&gt; "theoretically can imitate personality, but who needs that?"</li> </ul>	<p><b>The In-Tulpa</b></p> <ul style="list-style-type: none"> <li>&gt; "an NPC hallucination induced by your exorcism"</li> <li>&gt; "adapts to the owner's subconscious preferences"</li> <li>&gt; "can be a g of a friend even a parental figure"</li> <li>&gt; "reports your every thought to the government"</li> </ul>	<p><b>The GMO Farmer</b></p> <ul style="list-style-type: none"> <li>&gt; "has never seen a natural boom cow in his life"</li> <li>&gt; "doesn't even know that cows will beles"</li> <li>&gt; "or legs"</li> <li>&gt; "or digestive tracts"</li> <li>&gt; "number 1 in Kalpataru's hitlist"</li> </ul>	<p><b>The Biocon Boomer</b></p> <ul style="list-style-type: none"> <li>&gt; "have you heard what those goddamn transgenerals are doing there in the club? building some law, telelational receiver or something but they wanna implant some higin' TG biochips with us!"</li> <li>&gt; "when the Emperor says his rules we'll burn them all fags, I'm telling you! You're 99%, they ain't got biochips for us all!"</li> </ul>
<p><b>The Ichthyomod</b></p> <ul style="list-style-type: none"> <li>&gt; "a descendant of enthusiasts that modified themselves to expand the mankind's domain"</li> <li>&gt; "doesn't get why they even associated themselves with those land primates"</li> <li>&gt; "lives in a coral city built on a hydrothermal vent"</li> <li>&gt; "thinks of moving to Enceladus"</li> </ul>	<p><b>The Private Colonist</b></p> <ul style="list-style-type: none"> <li>&gt; "is flying towards TRAPPIST-1"</li> <li>&gt; "successfully put into stasis thanks to genetic modifications"</li> <li>&gt; "the sole passenger of his ship, plans to grow the population for the colony material and make them treat him as a god from the system, colonized by the Hive through a wormhole"</li> </ul>	<p><b>Neo-Edenian Processor</b></p> <ul style="list-style-type: none"> <li>&gt; "concocted 'comes against nature' and 'homochuvanism'"</li> <li>&gt; "will be covering the damage done to the planet by working as an organic CPU for the next 100 years"</li> </ul>	<p><b>The Old Prepper</b></p> <ul style="list-style-type: none"> <li>&gt; "locked himself in a bunker right before the Singularity"</li> <li>&gt; "still believes that the future is either exterminated or enslaved by an AI"</li> <li>&gt; "talks to his socks and cures his cancer"</li> <li>&gt; "radio broadcasts are set up by SkyNet to lure him out"</li> </ul>	<p><b>The Stalker</b></p> <ul style="list-style-type: none"> <li>&gt; "hunts the cities deserted after the crisis"</li> <li>&gt; "dreams of finding some posthuman artifact and getting rich"</li> <li>&gt; "protected by a whole cartel of people like him"</li> <li>&gt; "will die in a skirmish between two groups that couldn't share some Posthuman"</li> </ul>	<p><b>The "Neo-Amish"</b></p> <ul style="list-style-type: none"> <li>&gt; "a descendant of those who fled the Post-Singularity crisis to the countryside"</li> <li>&gt; "lives in an anarchic commune in a once-abandoned village"</li> <li>&gt; "works in the fields from dawn till dusk"</li> <li>&gt; "buys medicine from Biocons"</li> <li>&gt; "beats his wife"</li> </ul>
<p><b>Neo-Edenian Tree</b></p> <ul style="list-style-type: none"> <li>&gt; "has a nervous system based on symbiotic mycelium"</li> <li>&gt; "themselves with those land primates"</li> <li>&gt; "connected to Kalpataru and all other trees via roots, forms a hivemind-like consciousness"</li> <li>&gt; "the backbone of the whole Neo Eden"</li> <li>&gt; "completely alien mind, the thought process is incomprehensible to both humans and animal uplifts"</li> </ul>	<p><b>Neo-Edenian Uplift</b></p> <ul style="list-style-type: none"> <li>&gt; "was gifted sentience by humans, still decided to rebel"</li> <li>&gt; "lives in a multi-species anarcho-Edenian commune, despises Furrymoods"</li> <li>&gt; "tries to create a culture not based on any human notions"</li> <li>&gt; "can't find a single concept not already 'used' by them in one form or another"</li> </ul>	<p><b>Neo-Edenian Non-Uplift</b></p> <ul style="list-style-type: none"> <li>&gt; "the result of debates inside Neo Eden concerning the ethics of further Enhancement of plants and animals"</li> <li>&gt; "only has access to bio-internet"</li> <li>&gt; "lives in a reserve"</li> <li>&gt; "everyone waits for his conscience to be enhanced, but he's ok already"</li> </ul>	<p><b>The Cryonic</b></p> <ul style="list-style-type: none"> <li>&gt; "has frozen himself in hopes that the future people would 'reanimate him and cure his cancer'"</li> <li>&gt; "had no microchips, no microchips emitters pushing water out of his cells, no protection at all"</li> <li>&gt; "the ice crystals tore apart all the tissues, now the rock are you supposed to revive him now?"</li> </ul>	<p><b>The Cultist</b></p> <ul style="list-style-type: none"> <li>&gt; "moved his cult to an abandoned town, away from the police"</li> <li>&gt; "turned it into a fortified quasi-state with its own laws"</li> <li>&gt; "shires Stalkers for protection against government raids"</li> <li>&gt; "brainwashes a generation of disciples that never saw the outside world"</li> </ul>	<p><b>The Sentinelese</b></p> <ul style="list-style-type: none"> <li>&gt; "lives exactly like his ancestors 100 yrs ago"</li> <li>&gt; "heard that the island was once slightly larger"</li> </ul>
<p><b>The Kalpataru</b></p> <ul style="list-style-type: none"> <li>&gt; "the anarcho-monarch of Neo Eden"</li> <li>&gt; "an organic supercomputer of godlike power and an ideology with the population comparable to New York"</li> <li>&gt; "wants to rid Earth of humans, turns every two-legged bastard it can into a bio-processor"</li> </ul>	<p><b>The Furrymood</b></p> <ul style="list-style-type: none"> <li>&gt; "modded his phenotype to stop associating with the 'speciesist' humanity"</li> <li>&gt; "supported Neo Eden declaring war on his own species"</li> <li>&gt; "compassion is self-healing by being the loudest misanthrope"</li> <li>&gt; "gets triggered when reminded that Kalpataru was created by humans"</li> </ul>	<p><b>The Transprim</b></p> <ul style="list-style-type: none"> <li>&gt; "survives in the wild better than most animals"</li> <li>&gt; "enhanced with nanites that reproduce inside his body, transmitted to his offspring"</li> <li>&gt; "talks to his buddies bio-internet"</li> <li>&gt; "kicks Arpno's ass with his dicks"</li> </ul>	<p><b>Runaway Catgirl</b></p> <ul style="list-style-type: none"> <li>&gt; "bred as a sex slave for some rich weeb"</li> <li>&gt; "strangled her owner with her panties and fled to the mainland on his yacht"</li> <li>&gt; "hides in abandoned Biocon cities, vents her king-suppressed anger of random travellers"</li> <li>&gt; "forever a part of Stalker folklore"</li> </ul>	<p><b>The Wild Uplift</b></p> <ul style="list-style-type: none"> <li>&gt; "displaced the Enhancement and human civilization"</li> <li>&gt; "can't enjoy bananas because of the crushing realization of his mortality"</li> <li>&gt; "REEEEEE we didn't ask for this!"</li> <li>&gt; "decided to 'free his kind of the curse of sentience' by only lacking non-uplifts"</li> <li>&gt; "can't get laid"</li> </ul>	<p><b>The Anprim</b></p> <ul style="list-style-type: none"> <li>&gt; "displaced to mountains and deserts by Transprim"</li> <li>&gt; "thought he would only work 4 hrs a day getting his food, forgot that he also needs to cook the food, craft tools and clothes, sew, etc."</li> <li>&gt; "half his children die before puberty"</li> <li>&gt; "at least we are still human, eat that what do you mean 'Es your too IT'!"</li> </ul>

Conservatism

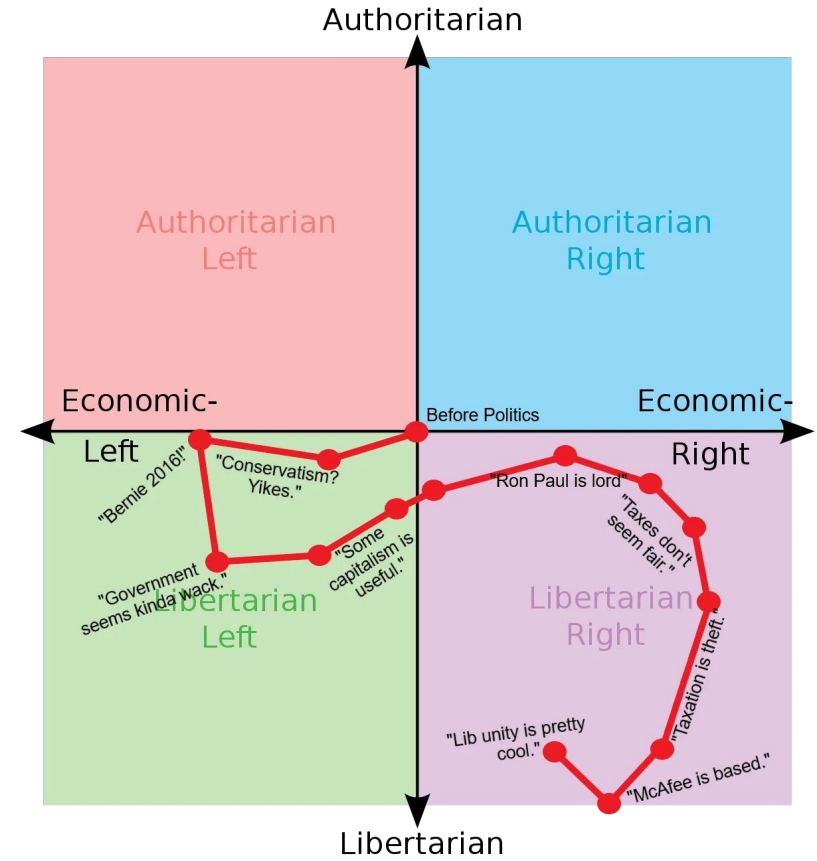
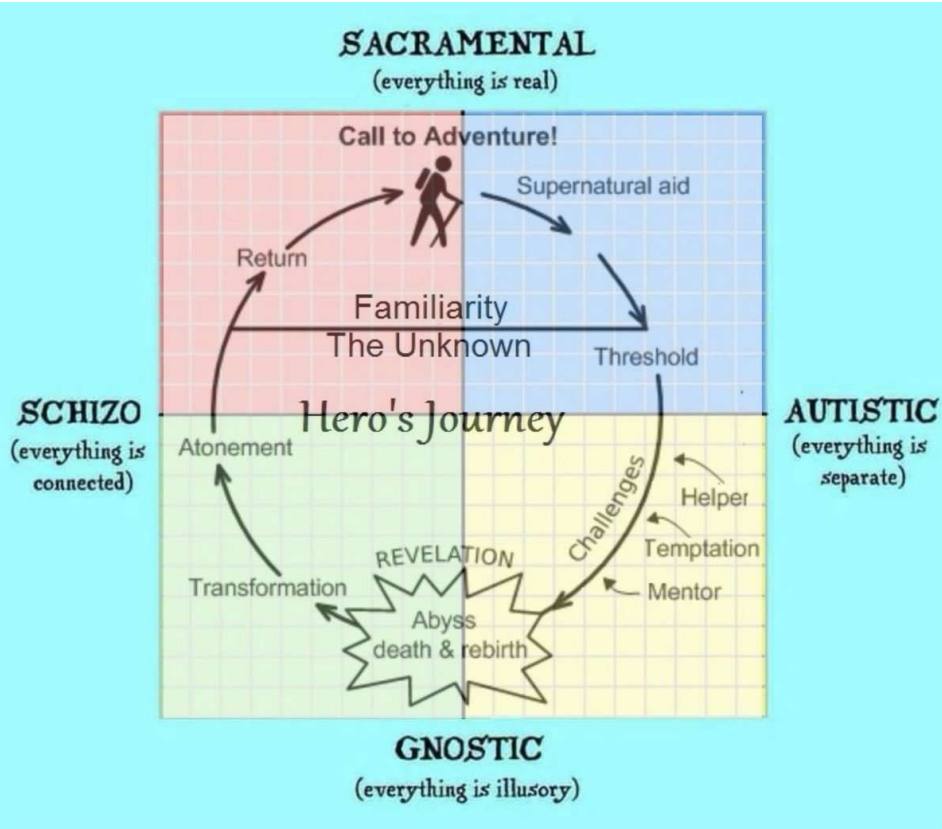
Individualism

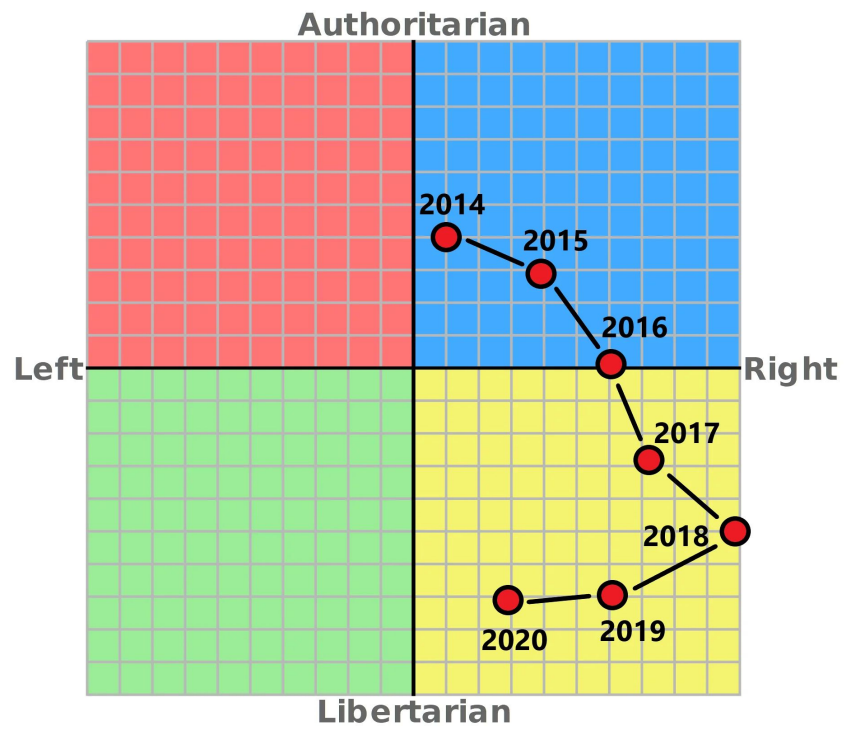
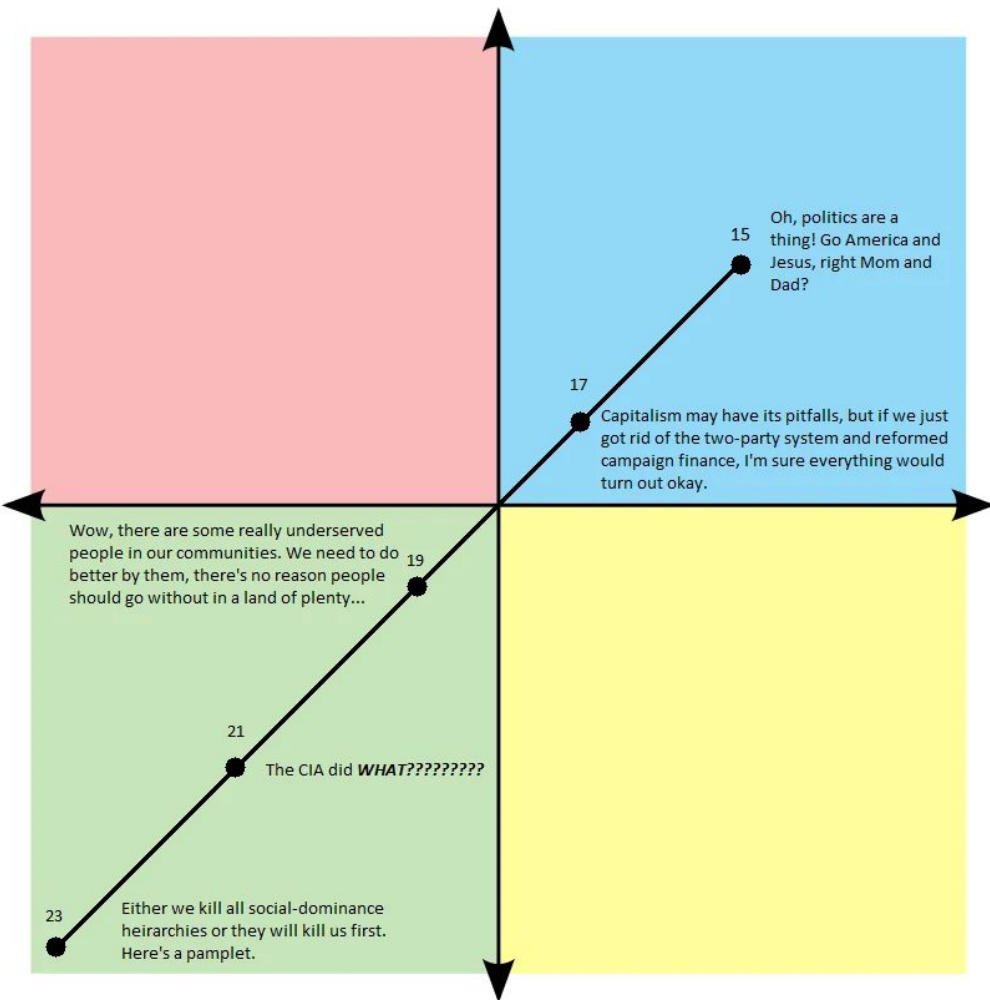
All communication is information

All information can be mapped



There may also be temporal cycles through the manifold





# The Shapes of Stories

## by Kurt Vonnegut

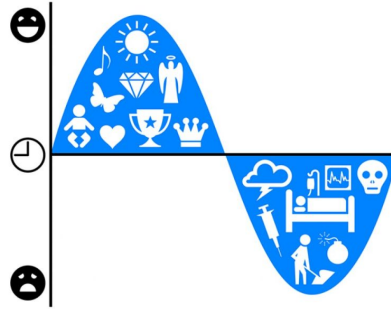
**K**urt Vonnegut gained worldwide fame and adoration through the publication of his novels, including *Slaughterhouse-Five*, *Cat's Cradle*, *Breakfast of Champions*, and more.

But it was his rejected master's thesis in anthropology that he called his prettiest contribution to his culture.

The basic idea of his thesis was that a story's main character has ups and downs that can be graphed to reveal the story's shape.

The shape of a society's stories, he said, is at least as interesting as the shape of its pots or spearheads. Let's have a look.

Designer: Maya Eilam, [www.mayaeilam.com](http://www.mayaeilam.com)  
Sources: *A Man without a Country* and *Palm Sunday* by Kurt Vonnegut



### Man in Hole



The main character gets into trouble then gets out of it again and ends up better off for the experience.

- *Arsenic and Old Lace*
- Harold & Kumar Go To White Castle

### Boy Meets Girl



The main character comes across something wonderful, gets it, loses it, then gets it back forever.

- *Jane Eyre*
- *Eternal Sunshine of the Spotless Mind*

### From Bad to Worse



The main character starts off poorly then gets continually worse with no hope for improvement.

- *The Metamorphosis*
- *The Twilight Zone*

### Which Way Is Up?



The story has a life-like ambiguity that keeps us from knowing if new developments are good or bad.

- *Hamlet*
- *The Sopranos*

### Creation Story



In many cultures' creation stories, humankind receives incremental gifts from a deity. First major staples like the earth and sky, then smaller things like sparrows and cell phones. Not a common shape for Western stories, however.

### Old Testament



Humankind receives incremental gifts from a deity, but is suddenly ousted from good standing in a fall of enormous proportions.

- *Great Expectations*

### New Testament



Humankind receives incremental gifts from a deity, is suddenly ousted from good standing, but then receives off-the-charts bliss.

- *Great Expectations with Dickens' alternate ending*

### Cinderella



It was the similarity between the shapes of Cinderella and the New Testament that thrilled Vonnegut for the first time in 1947 and then over the course of his life as he continued to write essays and give lectures on the shapes of stories.

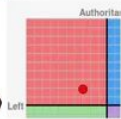
Y'know, the Soviet Union wasn't REAL communism!

### Freshman Year

- know-it-all (knew nothing)
- well versed in geopolitics
- just an edgelord disguised as a tankie



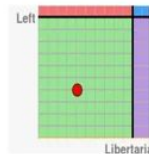
I still own this shirt



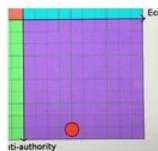
I'm not saying we should kill all rich people, but the world would be much better if they didn't exist in the first place.

### Sophomore Year

- had a really bad APUSH teacher
- joined the Sierra Club
- read the whole Wiki on Socialism



Y'know, capitalism only fails when the government gets its grubby paws on it

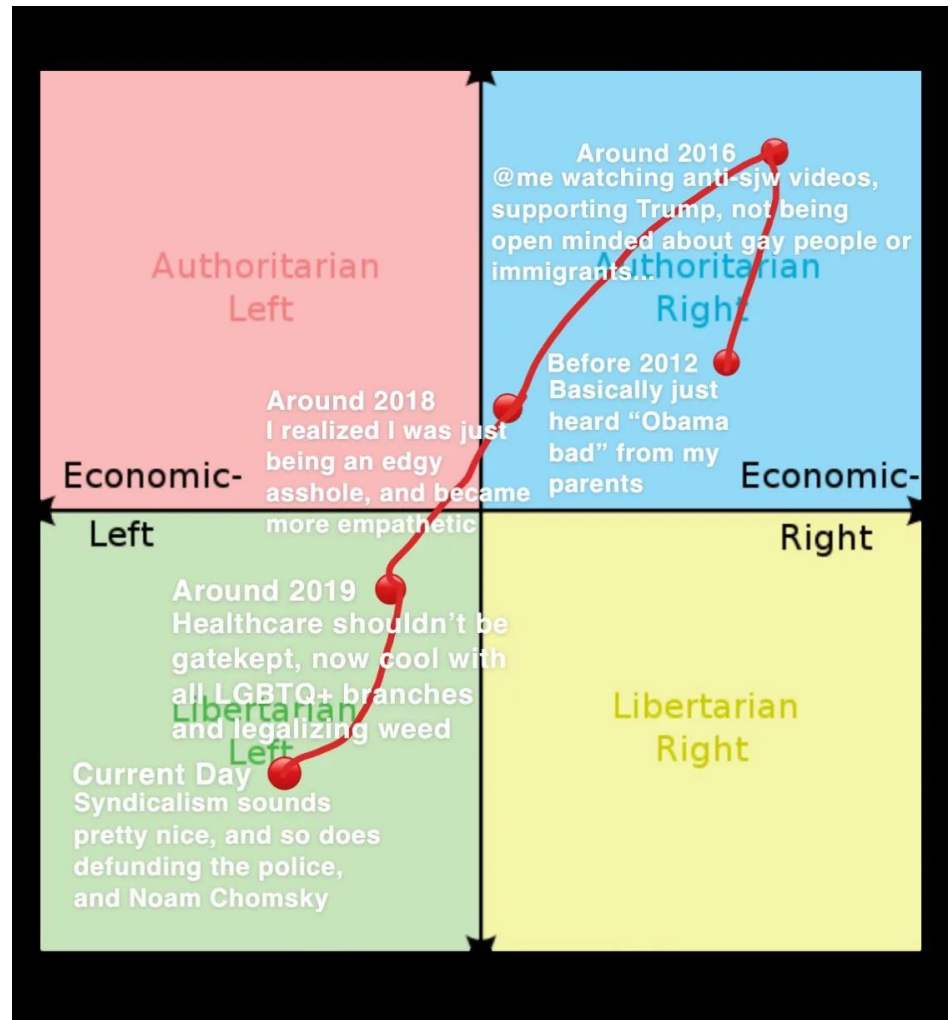


### Junior Year

- took an Econ class
- got a job
- must assimilate into friend group of white boys



This implies we can also influence transitions from one coordinate to another, by knowing what worked for different people in the same coordinate

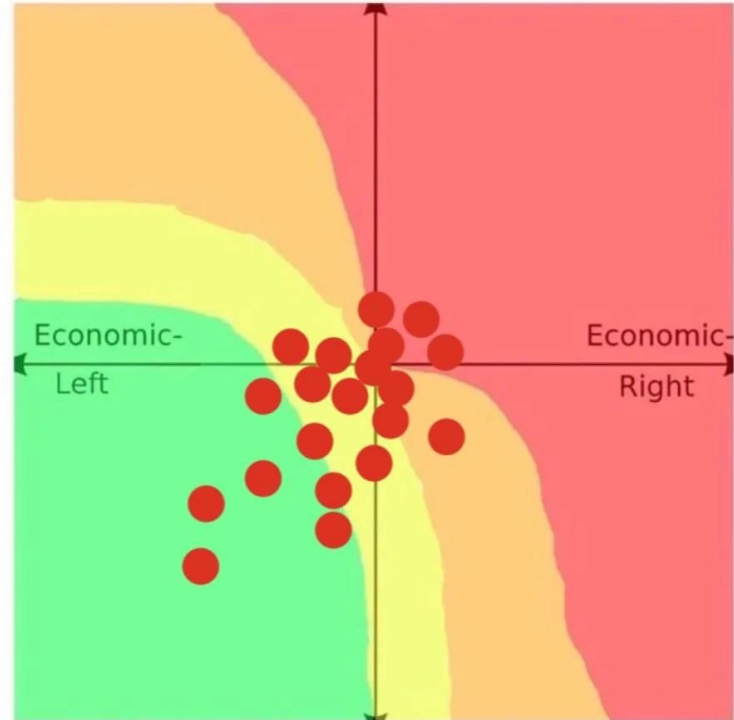




# Different types of labels over manifolds

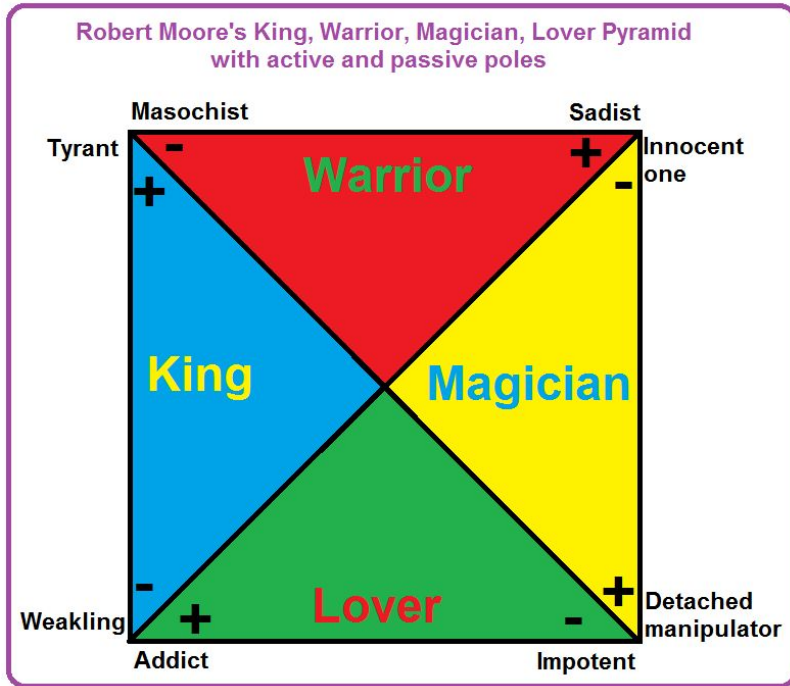
Risk of being cancelled on Twitter for your political views

High risk Moderate risk Small risk Little risk



(potentially outdated model of twitter cancelation?)

# Political Compasses Collapse Into Archetypes When Clustered Further



## Male Archetypes

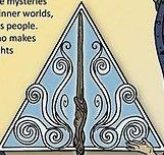
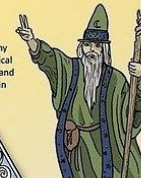


Based on the book

This poster explores four archetypes within the psyche of man and their eight shadow expressions. They are universal and can be found in all cultures. The aim of these teachings is to integrate each archetype and move from immature polarised shadow behaviour to a fully mature and healthy masculinity. "King, Warrior, Magician, Lover" by R. Moore and D. Gillette.

### Magician

The Magician is a master of healing, ceremony and initiation. He unites the intuitive and logical aspects of his mind. He knows how to direct and use the energies of body, psyche and nature in beneficial ways. As a scientist and shaman, he dives deep into the mysteries of the outer and the inner worlds, to find answers for his people. He is a storyteller, who makes information and insights available to others.



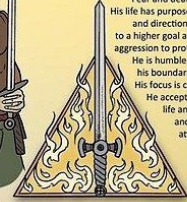
"I know"

The Manipulator acts selfishly and wants to increase his power to control others. His mind is cut off from his heart. To get what he wants, he uses lies and false information. His fear creates a desire to keep others small and disempowered.

The Deiner pretends not to know. He finds excuses and wants to be seen as innocent. He denies his power, knowledge and responsibility. He uses this strategy to camouflage his jealousy and unintegrated hidden desires.

### Warrior

The Warrior is a master of his own will power. Fear and death are his teachers. His life has purpose, discipline, intent and direction. He acts in service to a higher goal and can use healthy aggression to protect what he loves. He is humble because he knows his boundaries and limitations. His focus is clear and detached. He accepts the challenges of life and keeps a peaceful and solution-oriented attitude, especially in times of crisis.



"I want"



The Sadist gets swept away by his anger. He blindly exploits and attacks others. Deep down he is so wounded that he can't allow intimacy. Instead he derives a sense of satisfaction from hurting others. He brings cruelty, torture and rape into the world.

The Masochist is afraid of hurting others. He does not want to offend, damage or destroy. To maintain harmony at all costs, he is submissive and allows others to violate his boundaries. He does not stand up for himself and thinks of aggression as purely bad or evil.

### King

The King is the central archetype that unites all others. He is the soul, the father, the chief and chosen leader. He embodies the light of the sun, the sacred mountain, divine law and order. His fertility and strength bring blessings and abundance to the land and his people. He sacrifices his individual goals to live a life in service. His benevolence, fairness and support lay the foundation for a healthy culture.



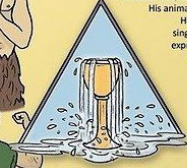
"I am"

The Tyrant compensates for his insecurity by forcing his will onto the people he is meant to protect. Instead of being an open channel for divine creative power, he inflates his personality and believes himself to be almighty. He desperately holds on to his power. He perceives others as threat.

The Weakling cannot find the centre within him. He wants others to tell him what to do. He is full of distrust and fear of disloyalty. He sees himself surrounded by enemies and can easily be manipulated by others.

### Lover

The Lover lives in the present moment. He freely allows the flow of his emotions and the sensuality of his body. He is attractive, healthy, potent, playful and creative. Through his open heart, he experiences oneness and mystical union with all life around him. He seeks love, beauty and pleasure. His animal side is integrated. He is the artist, poet, singer and dancer who expresses all of himself without inhibitions or shame.

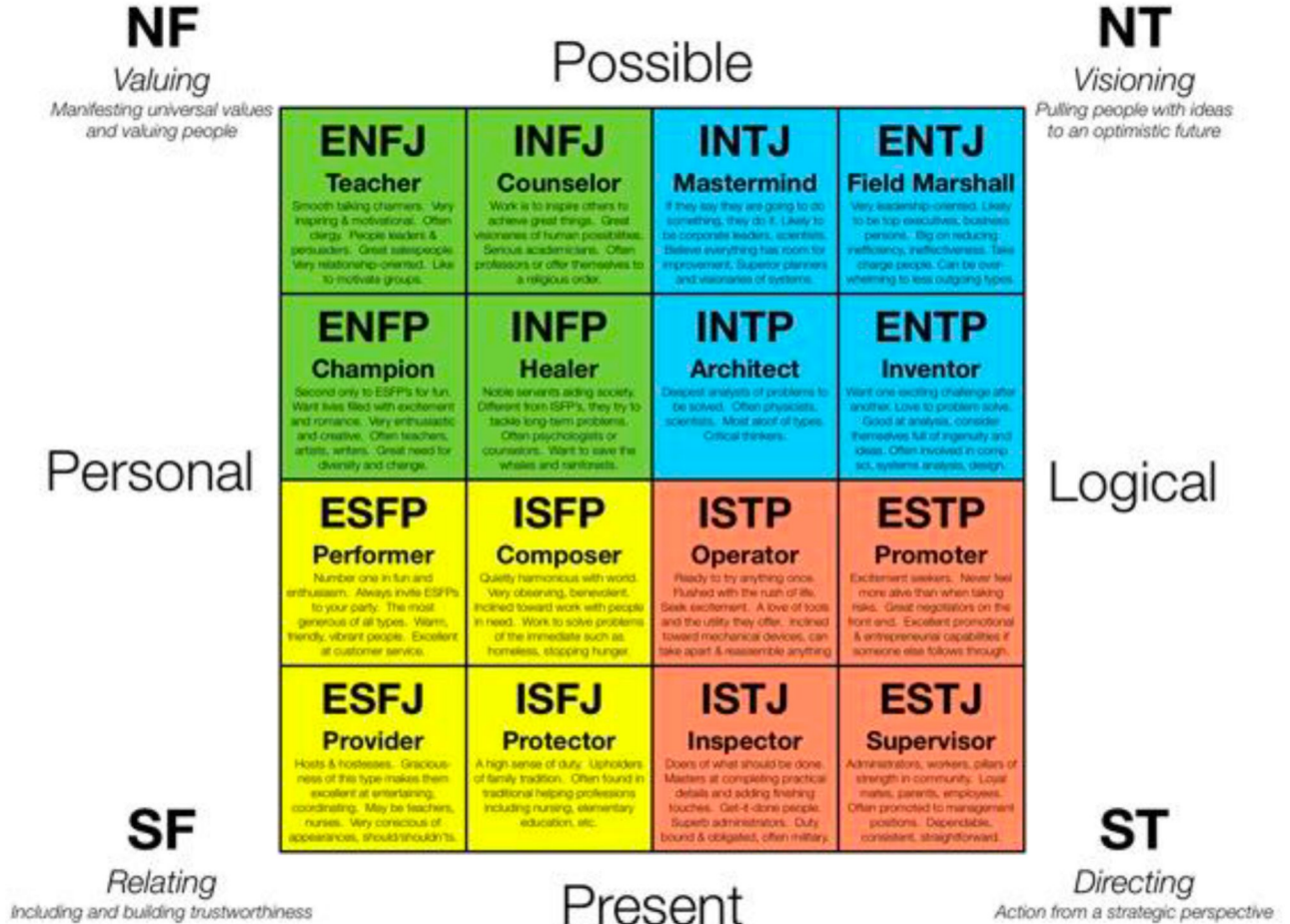


"I love"

The Addict avoids his emotions. He tries to fill the emptiness inside by consuming experiences. Endless work, money, food, sex, drugs or adrenaline kicks are his ways to reach the "eternal orgasm". His unconscious search for wholeness and self-possesses and ultimately destroys him.

The Depressed is stuck in painful emotion and withdraws from the world. He shuts down his creative expression to protect himself behind an armour of indifference. His apathy cuts him off from the joys of life. He feels separate and isolated. His libido is low.

Meyers Briggs is a type of archetype from clustering personalities along these axes

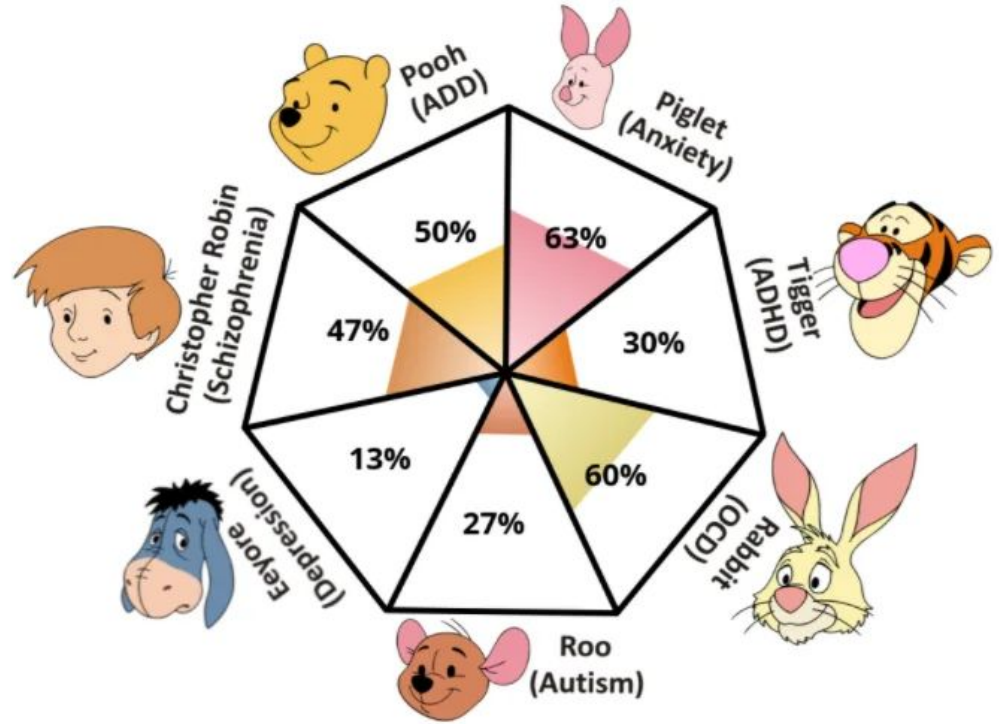




Can we make an automated Buzzfeed based on real data science on human personality?

## Pooh Pathology Test

Your Pooh Pathology Results Are:

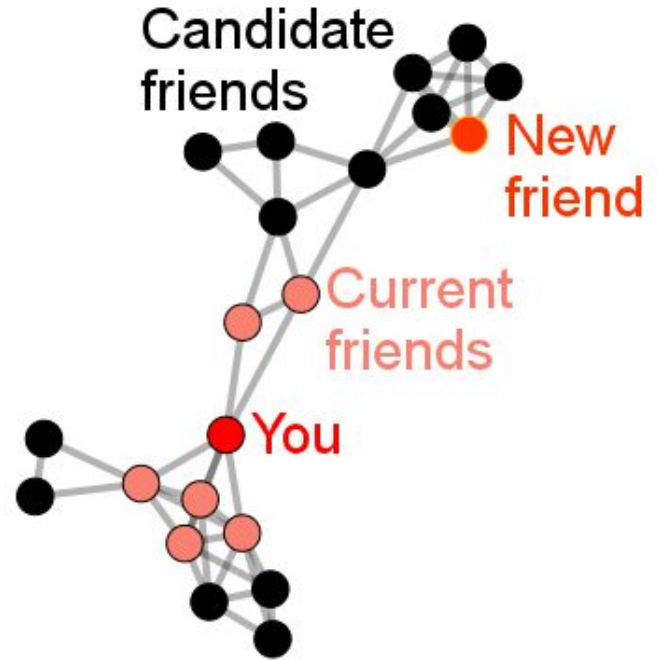


Your strongest result was Piglet.

Books can predict location on the manifold

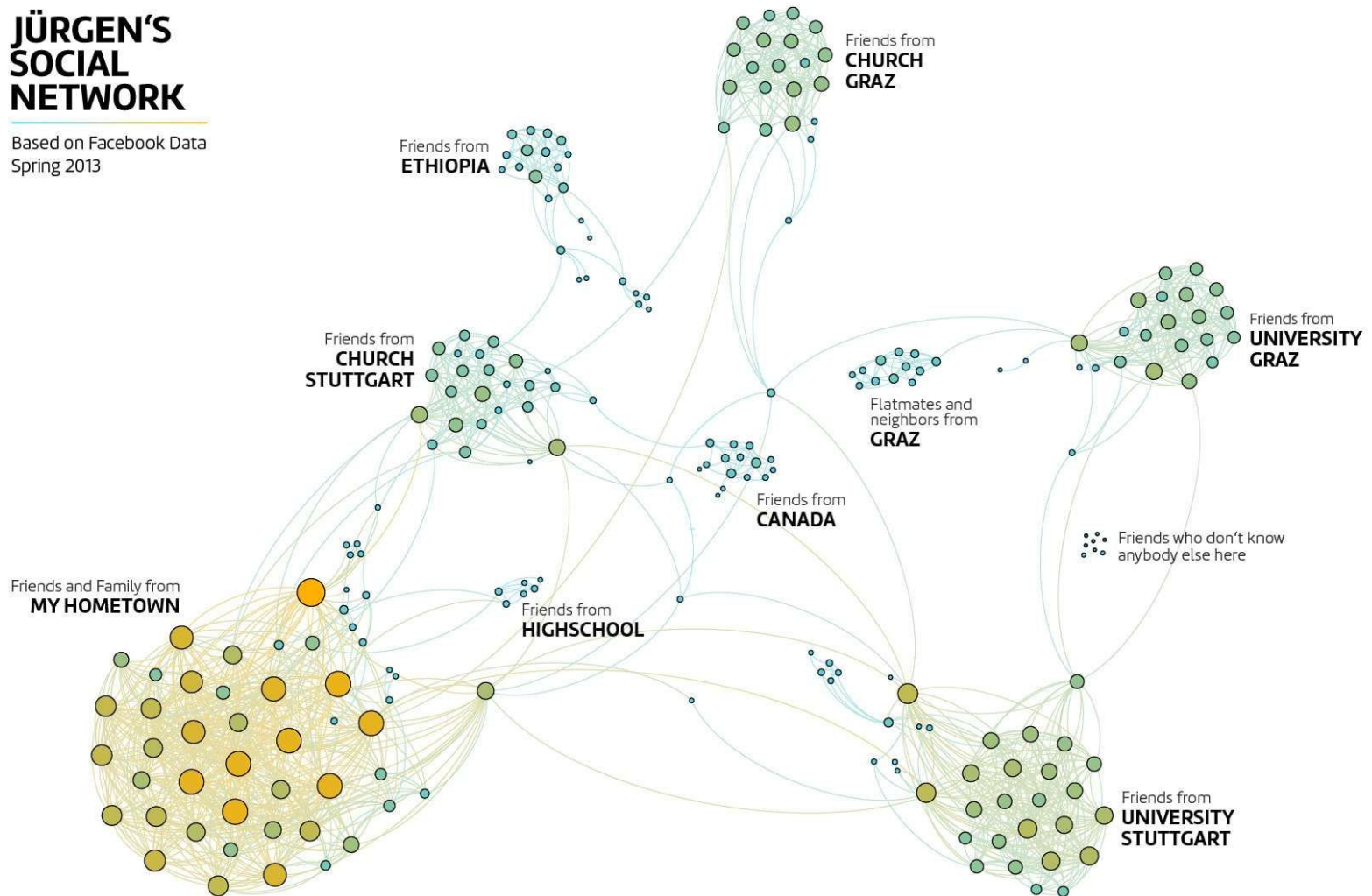


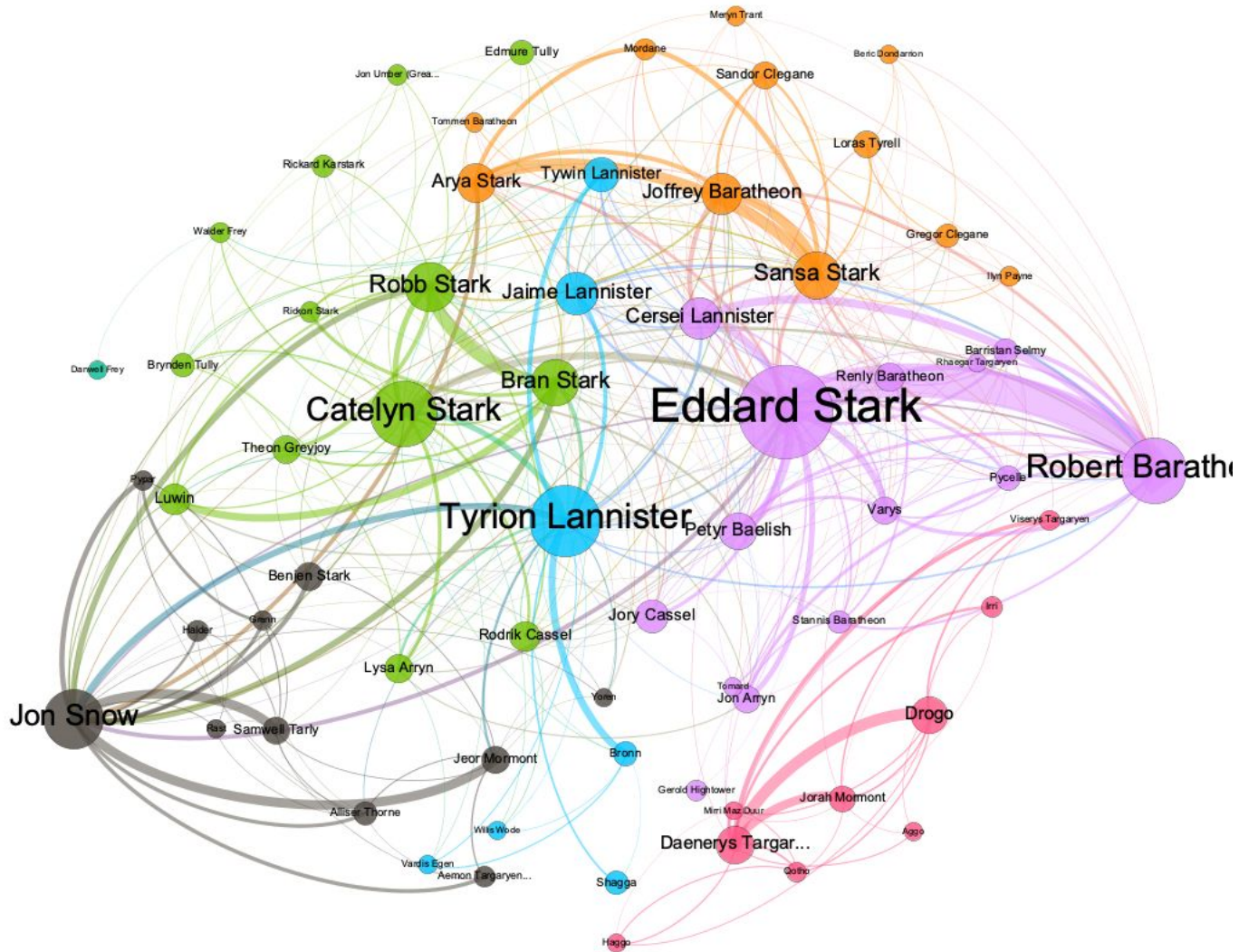
# New Friend Discovery



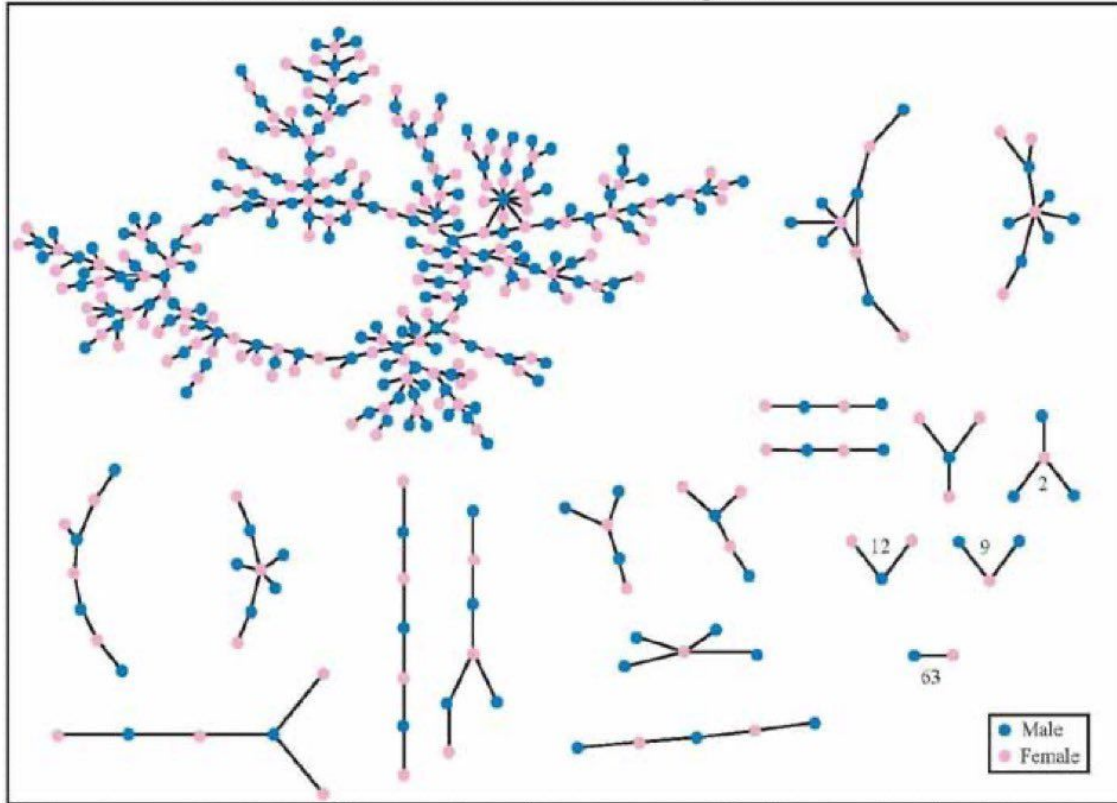
# JÜRGEN'S SOCIAL NETWORK

Based on Facebook Data  
Spring 2013





## The Structure of Romantic and Sexual Relations at "Jefferson High School"

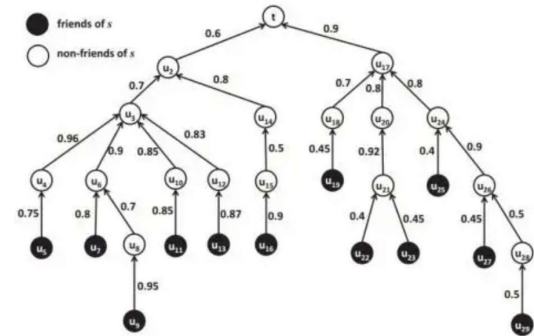


Each circle represents a student and lines connecting students represent romantic relations occurring within the 6 months preceding the interview. Numbers under the figure count the number of times that pattern was observed (i.e. we found 63 pairs unconnected to anyone else).

## Researchers develop algorithm to maximize friendship acceptance by strangers on social networks

by Bob Yirka, Phys.org

REPORT



The running example. Credit: arXiv:1302.7025

(Phys.org) —A small team of computer scientists from Taiwan, the U.S. and China has developed an algorithm that aids a desire to manipulate an unknown social network user into accepting a friend request. The idea, as they describe in their paper they've uploaded to the preprint server *arXiv*, is to offer intelligent suggestions of other people to friend to create a mutual social circle of friends, which will increase the odds of the ultimate target agreeing to a friend request.

Will this always work perfectly? No, but it can offer improvements.

## A map is not the territory

(The map is not a system of geographic measurement but a way of thinking)



<View of the World from 9<sup>th</sup> Avenue>

# Attractiveness

I want people to have to upload several profile pics including the ugliest one of them they can find. Run the pictures through a model that determines facial attractiveness and if the values between the best and the worst aren't at least three points different make them keep uploading

People are a spectrum of attractiveness themselves

“Even at the person-to-person level, to be universally liked is to be relatively ignored. To be disliked by some is to be loved all the more by others. And, specifically, a woman’s overall sex appeal is enhanced when some men find her ugly.”

– Christian Rudder, *Dataclysm: Love, Sex, Race, and Identity--What Our Online Lives Tell Us about Our Offline Selves*

Maybe  
people's ex's  
can tell us  
what's bad  
about them 😊  
, so we can see  
what unique  
things may  
make them  
likable

“In any group of women who are all equally good-looking, the number of messages they get is highly correlated to the variance: from the pageant queens to the most homely women to the people right in between, the individuals who get the most affection will be the polarizing ones.”

– Christian Rudder, *Dataclysm: Love, Sex, Race, and Identity--What Our Online Lives Tell Us about Our Offline Selves*

What if we were able to flag people who seem to be interested in both shallow and relatively unrealistic dating criteria and like, either heaven or shadow ban them

Or show them for people who meet their criteria which people they talk to and how oneself compares on objective measures to those people

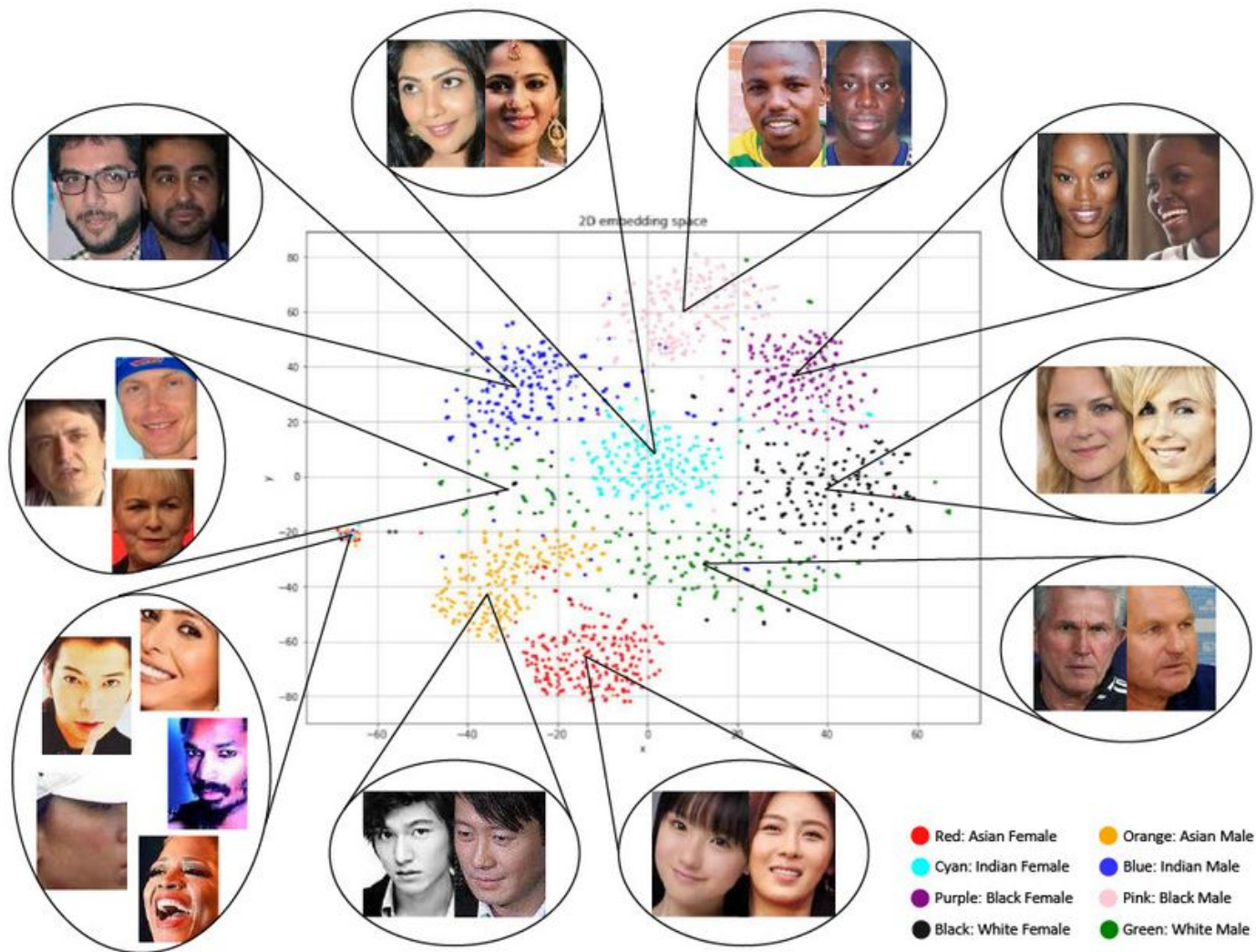
Like "Hey Kyle, we noticed you are only selecting for women who have a facial attractiveness score of 7 or higher. This represents the top 40% of women. Based on your combined desirability score, you are in the 65th percentile. Would you like us to show you exclusively women in the same desirability score, and show you the average desirability scores of men that women who meet your criteria match and show interest in?"

We can now generate the manifold of all looks, and have people label their attraction over that manifold, to learn boundaries of what they do/don't like.

We should make that a filter on dating sites!



Embeddings capture the information about the images they embed



## DIFFERENT LIP TYPES



Full lips



Heavy upper lips



Wide lips



Heavy lower lips



Heavy lower lips



Thin lips



Heart shaped lips



Heart shaped lips



Downward-turned lips

healthline



Roman



Greek



hawk



snub



turned-up



straight



Roman



hooked



snub



fleshy



bumpy



turned-up



flat



aquiline



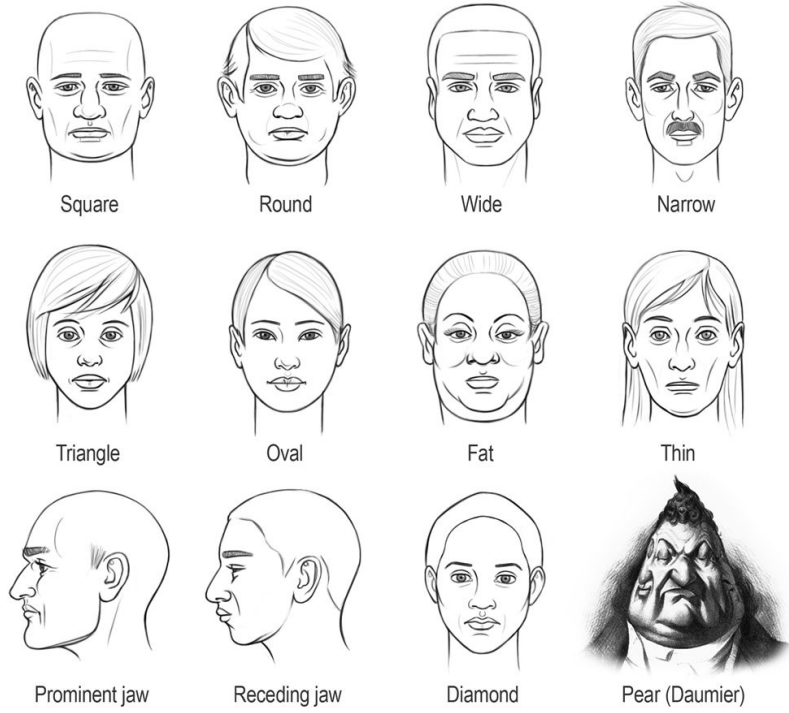
narrow



short



high



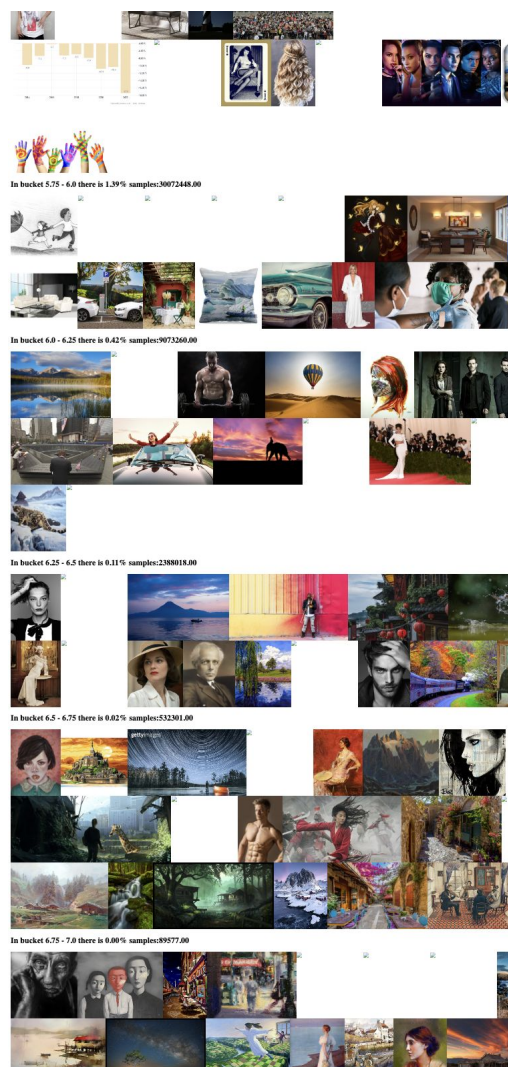
After we train an aesthetic model on the person's preferences we could then get the average embedding of their highest rated things and run clip interrogator on it to describe our hypothesis for their preferences.

I wonder if the first round should involve them uploading photos of their ex's and crushes and denote if the attraction was mutual and then rank and rate them

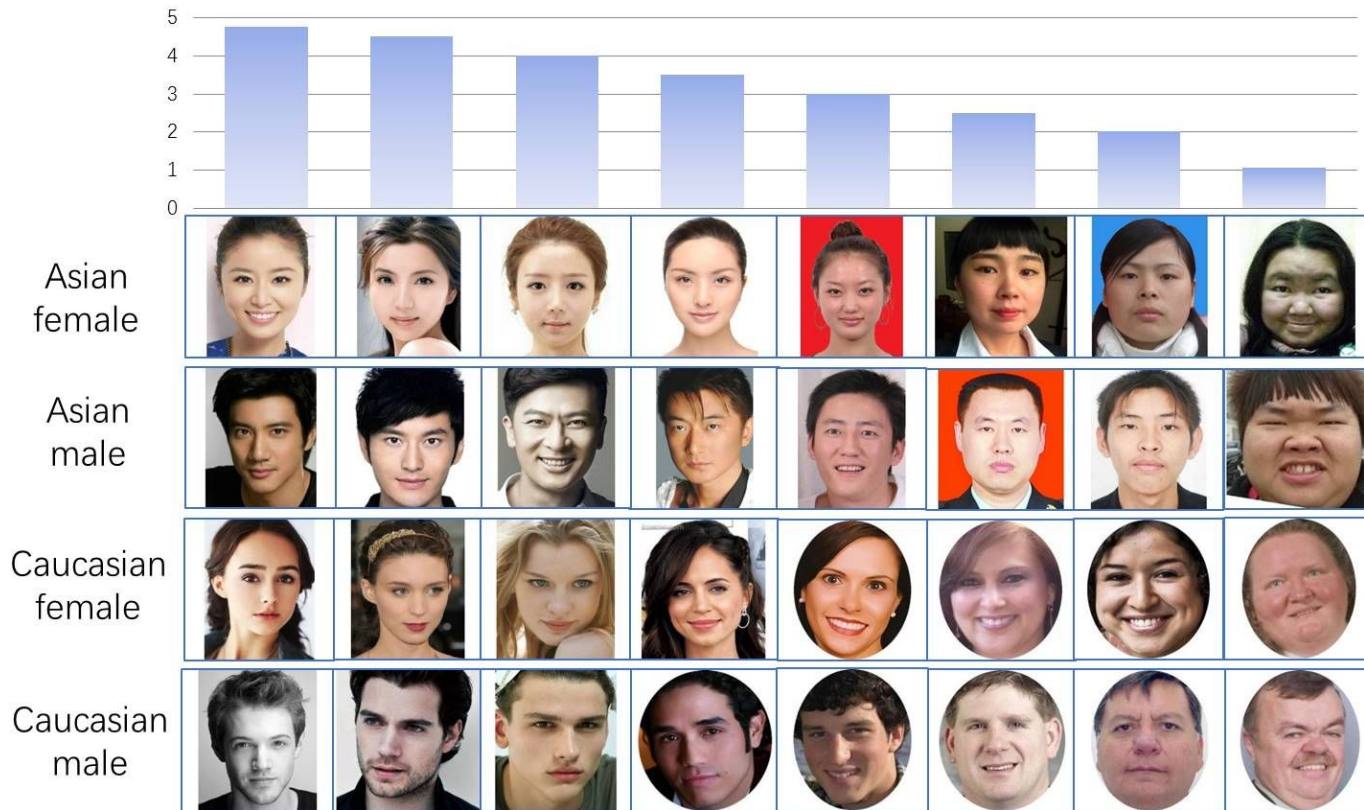
Could quickly bootstrap preferences and show potential upper bound on their personal attractiveness level

# The Aesthetic Scoring Model That Made Stable Diffusion Beautiful in 2022

[http://captions.christoph-schuhmann.de/aesthetic\\_viz\\_laion\\_sac+logos+ava1-14-linearMSE-en-2.37B.html](http://captions.christoph-schuhmann.de/aesthetic_viz_laion_sac+logos+ava1-14-linearMSE-en-2.37B.html)



### Beauty Score



1



10

**Black****Asian****Hispanic****Caucasian****Indian****Mideastern**



**Fig. 1:** Generated faces. Each row has the same latent vector but is conditioned on a different beauty score (left to right - least attractive to most attractive). The generated sequences reveal human preferences and biases: for example, older appearances turn into younger ones, masculine faces turn into feminine, and darker skin to brighter.



**Sangwon Jeong**

Vanderbilt University Computer Science. Ph.D.  
Student 2021~



Public



Artificial Intelligence



By  Sangwon Jeong



Edited Sep 17



3 forks



Comments locked



12 stars

# Interactively Assessing Disentanglement in GANs

Sangwon Jeong, Vanderbilt University

Shusen Liu, Lawrence Livermore National Laboratory

Matthew Berger, Vanderbilt University

**Our paper was published in Eurovis 2022. Link to access the paper.**

<https://onlinelibrary.wiley.com/doi/pdf/10.1111/cgf.14524>

# Where in latent space does attraction begin and end?

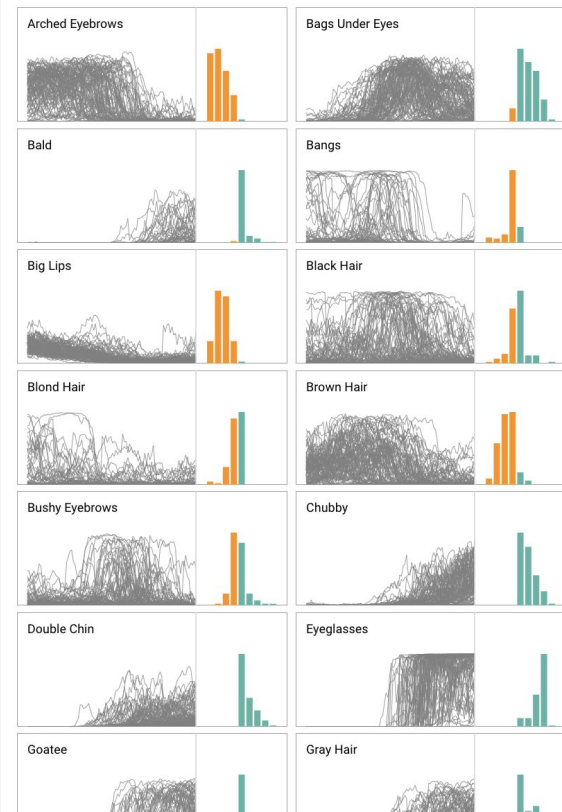
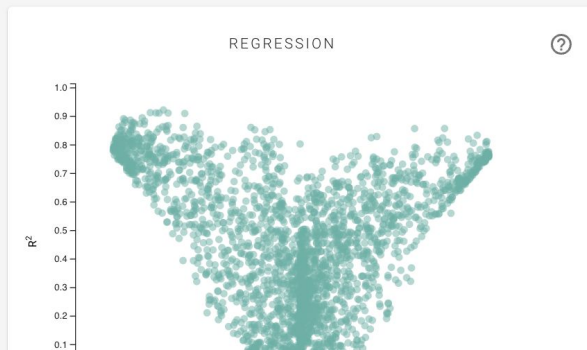
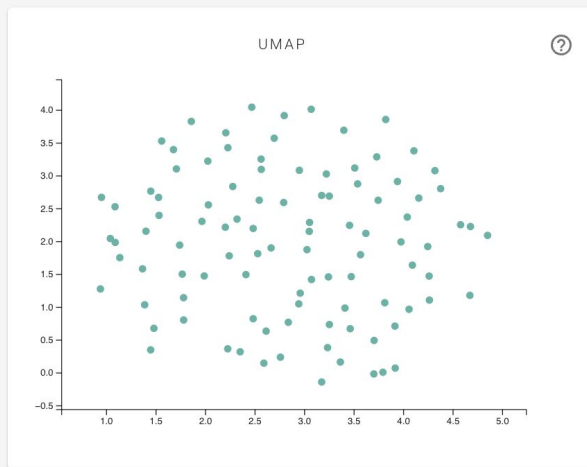


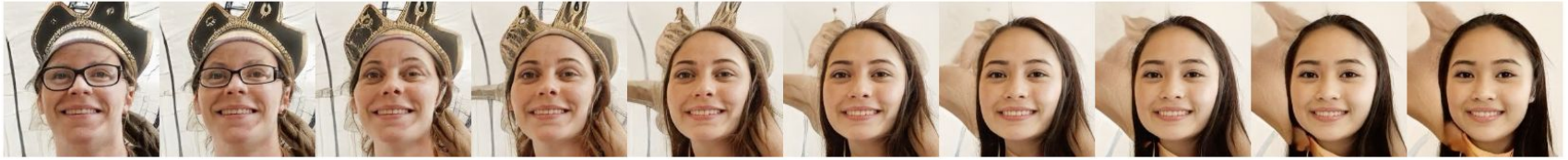
DIRECTION

Eyeglasses

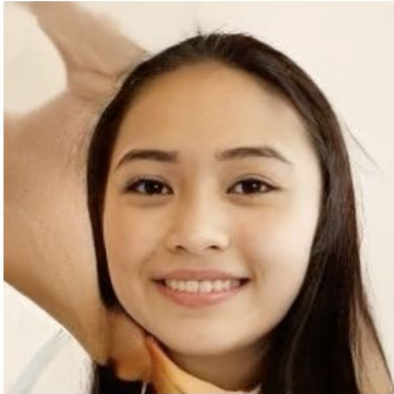
latent space (z)  style space (w)

EXPLORE SINGLE WALK

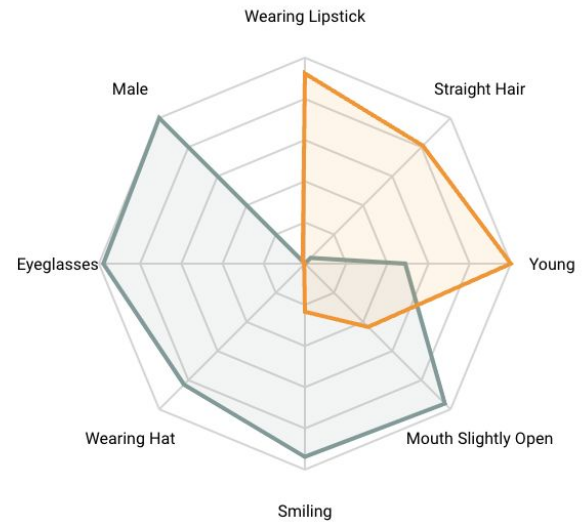




**DIRECTION:** BIG LIPS (Z)



Axes  
8

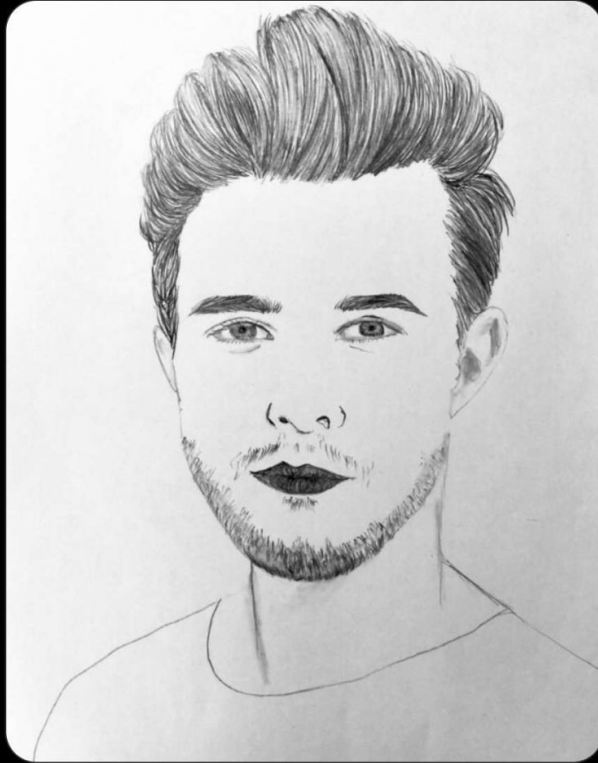




**lil piss baby** @11kmrn · 22h

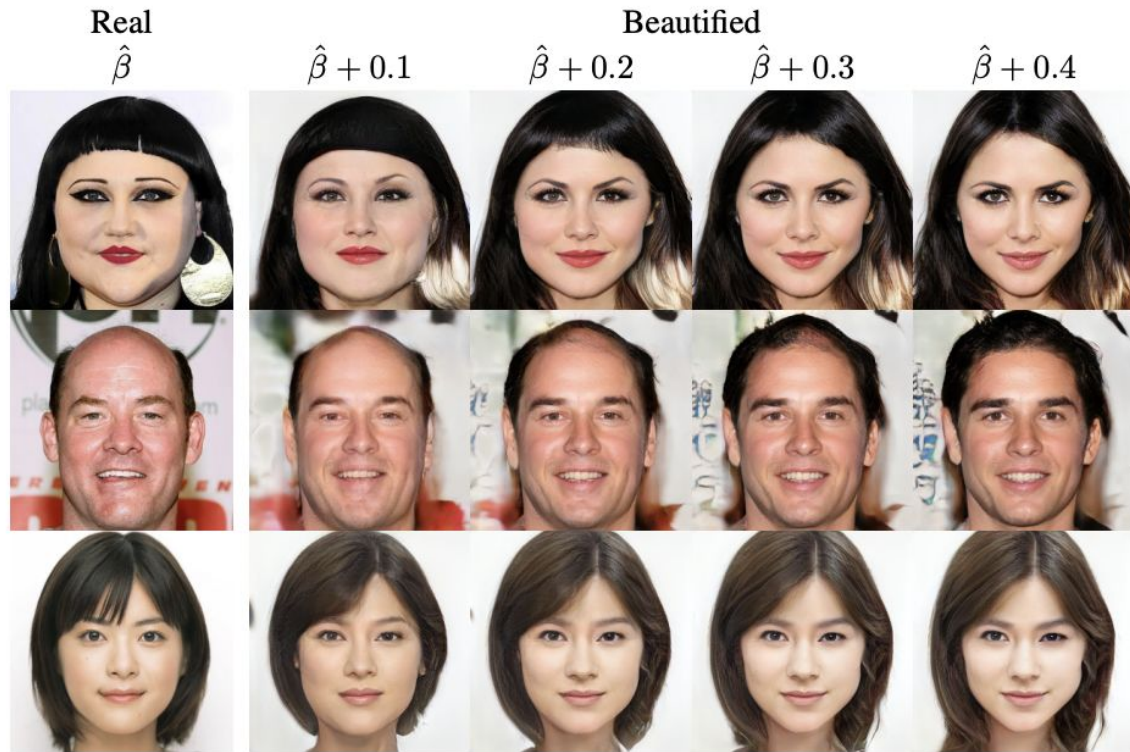


any of my followers look like this?



**lil piss baby** @11kmrn · 22h

one time i was really manic and i paid a  
“psychic” on etsy \$30 to draw my soulmate



**Fig. 2:** Beautification of real faces. Left column are the input real faces. To the right are the beautified images with an increasing beauty level ( $\hat{\beta}$  is the recovered real face beauty). For  $\hat{\beta} + 0.1$  we observe reasonable beautification. When further increasing the beauty level it seems that the person identity is not preserved. For privacy and ethical reasons, we refrain from displaying the real faces together with their predicted beauty scores.

So what if basically we got vectors for peoples looks, and their personalities, and their lifestyles, and the got for each person weights that show how much they like each of those components (which looks they like, which personalities they like, which lifestyles)

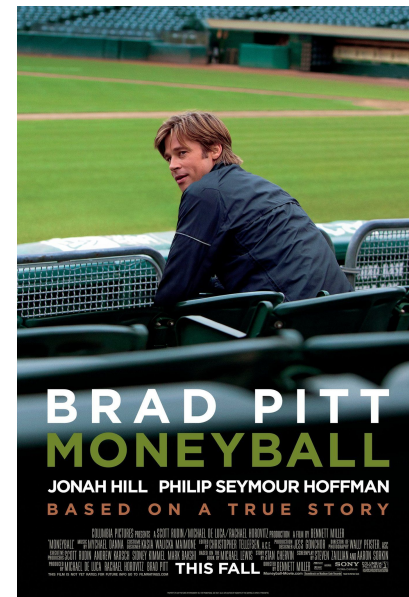
And then we let them search while deciding how much weight to give to each of those components

What's more, we can tell how for each vector a person has how universally appealing they are across people

And let someone when searching decide how much they want to factor in universal appeal versus ones they've been specifically measured to like

I got this idea from the laion5b search aesthetic scoring ticker, that let's you filter not just by cosine sim to your query, but also general aesthetics, I think we could make a general appeal score for people, as well as one for each individual

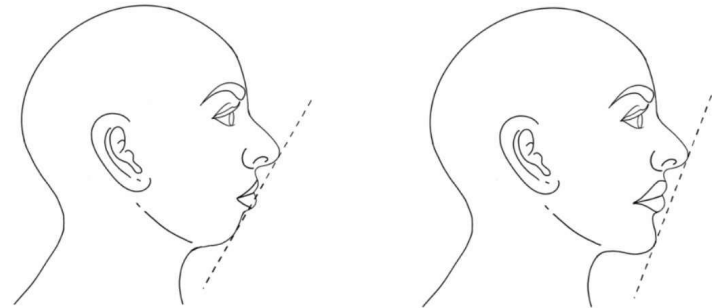
Might be enlightening for people to see who they value the most that is the least valued by others, so they can strategize on how to get traits uniquely valuable to them in a partner



# QOVES

Laura is 24 and has always felt insecure about her nose. She feels that it is too big and is seeking advice before any surgery.

We find that her nose is in normal proportions for her ethnicity, her weak chin makes it appear larger unnaturally.

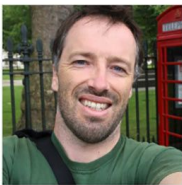


New Test Sort

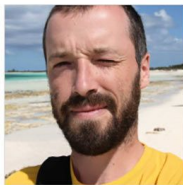
Karma: None Credits: 170 Get Credits



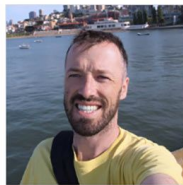
DATING	20 VOTES
SMART	8.8
TRUSTWORTHY	8.8
ATTRACTIVE	8.5



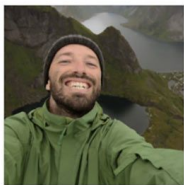
DATING	27 VOTES
SMART	6.1
TRUSTWORTHY	7.2
ATTRACTIVE	5.5



DATING	20 VOTES
SMART	6.9
TRUSTWORTHY	8.0
ATTRACTIVE	8.0



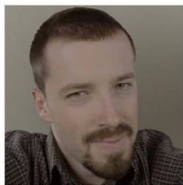
DATING	20 VOTES
SMART	6.6
TRUSTWORTHY	7.5
ATTRACTIVE	8.2



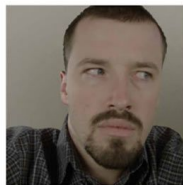
DATING	20 VOTES
SMART	5.7
TRUSTWORTHY	7.1
ATTRACTIVE	6.2



DATING	20 VOTES
SMART	6.1
TRUSTWORTHY	6.3
ATTRACTIVE	5.8



DATING	20 VOTES
SMART	4.6
TRUSTWORTHY	4.0
ATTRACTIVE	5.8

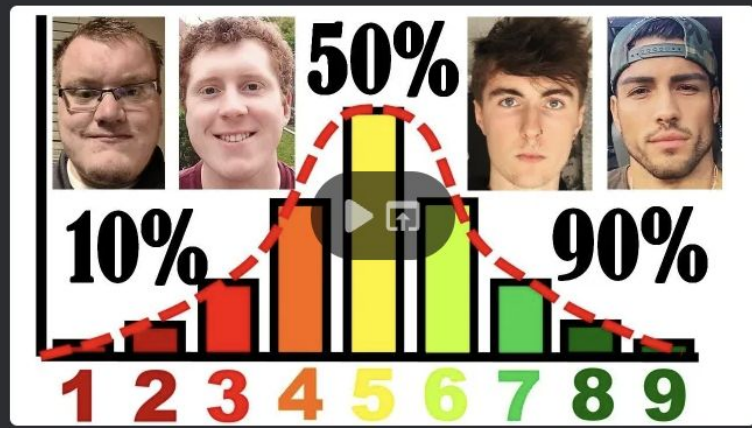


DATING	20 VOTES
SMART	3.0
TRUSTWORTHY	3.0
ATTRACTIVE	4.0

YouTube

### Wheat Waffles

**\*\*1000 FACES\*\*** Where Are You On The 1-10 Looks Scale?



Reddit · r/IncelTear

110+ comments · 1 year ago

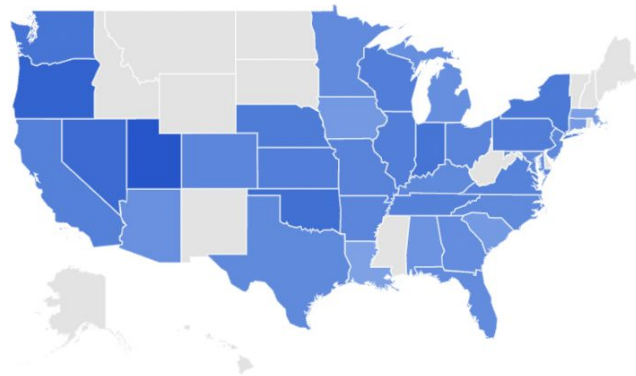
### Just got rated a 4/10 by Wheat Waffles : r/IncelTear

Wheat Waffles is a failed pizza delivery boy who puts people down for money. He has as much business rating male attractiveness as OceanGate does designing ...

Missing: [fiverr](#) | Show results with: [fiverr](#)

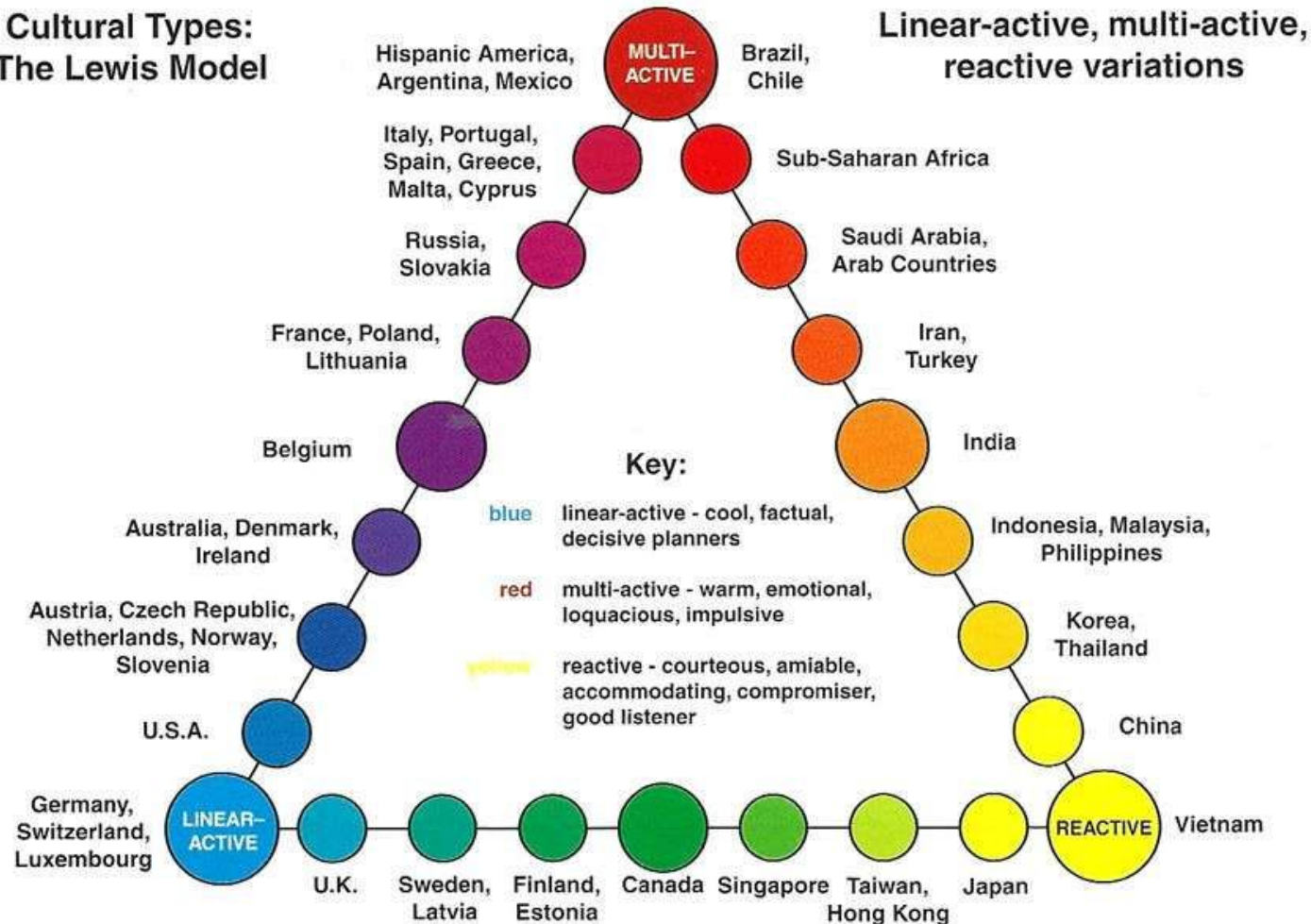
# Geography

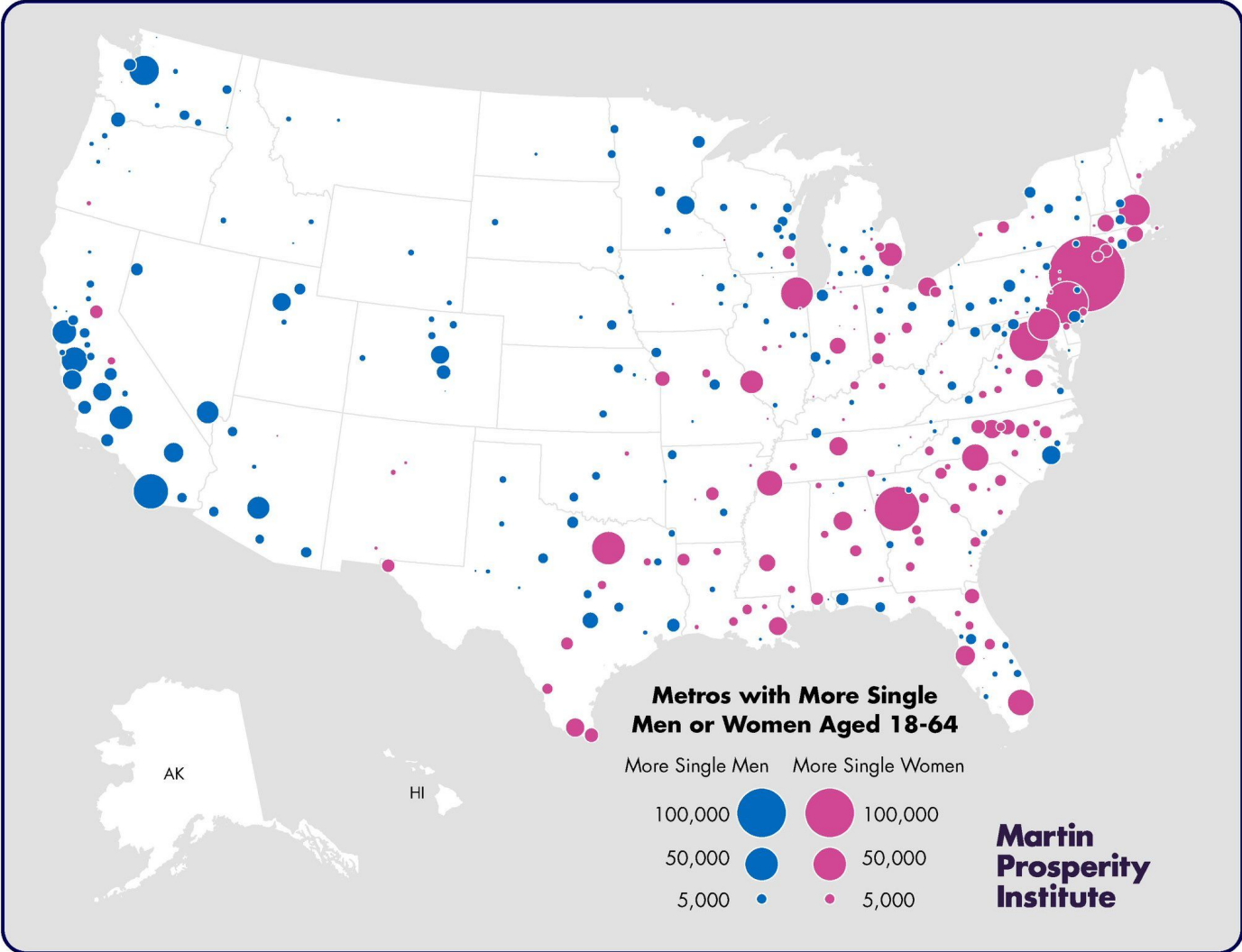
Interest by subregion [?](#)





# Cultural Types: The Lewis Model





singlesatlas.com

I'm a man

Seeking women 18 - 34 years

Location

Countries, cities or other

USA

Focus group

Marital status, Education, Ethnicity

Everyone

Body / BMI: All

Height: All

Best ratio places

Women per 100 men

- 115 District of Columbia
- 109 Birmingham
- 109 Winston-Salem
- 106 Syracuse
- 106 Denton
- 105 Nashville-Davidson
- 105 Richmond
- 105 Indianapolis
- 105 New Orleans
- 105 McAllen
- 105 Memphis
- 104 Chattanooga

Best Mid Worst

# Italian, Chinese and Japanese cuisines are the world's most popular

% of people who have tried that cuisine in each country that say they like it

	Philippines	Singapore	Australia	Taiwan	UAE	Hong Kong	Britain	Finland	India	France	USA	Norway	Sweden	Malaysia	Vietnam	Germany	Denmark	Spain	Saudi Arabia	Italy	Indonesia	Thailand	China	Japan	
Italian cuisine	90	89	90	81	87	81	91	87	80	93	88	83	92	74	72	89	86	94	78	99	70	69	59	85	84
Chinese cuisine	88	94	86	87	69	91	86	81	77	80	84	77	74	74	73	78	73	71	54	62	57	80	95	88	78
Japanese cuisine	90	94	74	92	58	93	57	63	57	70	74	61	66	73	81	58	61	57	43	62	72	90	54	94	71
Thai cuisine	76	91	85	76	61	84	75	77	65	70	68	74	78	91	75	68	73	56	31	52	51	98	44	48	70
French cuisine	82	79	70	71	71	73	68	74	70	96	69	74	79	58	72	62	68	70	63	60	46	62	63	68	70
Spanish cuisine	86	68	74	62	67	67	80	79	58	87	79	81	82	44	45	70	74	98	56	87	36	39	38	64	68
American cuisine	93	83	68	76	75	62	70	69	75	56	91	68	63	65	71	53	70	49	66	54	66	73	51	57	68
Mexican cuisine	85	72	77	62	71	54	76	81	70	78	86	84	77	51	46	71	78	72	64	77	38	54	42	51	67
Indian cuisine	55	77	74	60	71	48	84	71	93	71	55	75	67	70	44	62	67	52	76	57	49	27	26	63	62
Turkish cuisine	61	63	71	49	77	45	67	68	56	62	43	62	65	58	47	64	50	53	85	47	65	32	47	39	57
Korean cuisine	87	86	66	74	50	78	43	45	42	45	58	43	48	66	81	45	32	36	29	32	63	78	52	66	56
Greek cuisine	57	49	77	48	55	47	74	77	46	75	69	75	85	31	32	79	69	62	51	71	27	23	32	22	56
Vietnamese cuisine	66	67	75	63	39	77	53	55	42	74	59	56	54	45	96	57	63	38	18	36	34	67	37	44	55
Hong Kong cuisine	80	91	68	78	45	93	60	38	51	44	50	37	29	54	68	39	33	38	22	35	47	68	68	53	54
German cuisine	59	64	63	62	47	65	51	63	49	51	63	52	57	35	51	87	37	43	38	40	37	54	45	46	52
British cuisine	70	76	71	50	63	61	91	49	68	28	49	45	35	65	61	25	27	26	52	32	58	44	43	20	50
Taiwanese cuisine	68	87	59	96	42	88	37	37	42	46	48	31	25	49	62	41	28	36	24	32	40	54	64	66	50
Singaporean cuisine	72	96	75	68	53	73	55	31	62	31	34	34	24	74	64	33	29	27	26	29	55	52	54	33	49
Indonesian cuisine	59	84	71	49	47	46	54	43	48	44	39	43	44	80	39	50	44	34	46	35	97	26	31	32	49
Malaysian cuisine	65	91	76	61	52	67	58	40	56	35	34	35	30	97	44	34	32	24	37	21	66	34	41	25	48
Australian cuisine	74	74	89	49	52	58	52	47	59	35	43	41	34	54	57	36	42	27	32	35	41	48	41	28	48
Moroccan cuisine	50	49	65	44	63	38	66	49	50	81	47	48	51	45	26	42	44	53	67	50	39	25	34	16	48
Lebanese cuisine	40	50	71	35	82	31	58	42	54	67	47	48	67	43	26	35	39	43	84	45	32	22	31	13	46
Caribbean cuisine	63	50	55	46	47	39	66	57	50	54	68	54	48	31	35	50	44	54	33	49	21	29	30	22	46
Brazilian cuisine	59	45	56	43	48	41	49	47	49	58	55	48	40	26	47	49	42	56	39	66	28	29	42	33	46
Swedish cuisine	50	63	47	49	44	48	47	68	48	41	48	62	92	36	40	42	29	30	35	33	27	29	34	18	44
Argentinian cuisine	55	35	53	42	45	36	46	42	43	54	48	54	41	24	35	60	45	77	29	75	25	24	37	16	43
Danish cuisine	51	48	47	39	39	40	42	56	41	35	41	67	62	33	40	36	85	20	29	25	28	29	32	14	41
Emirati cuisine	51	43	43	48	84	28	23	22	63	30	23	24	22	51	49	27	18	27	71	24	53	29	29	14	37
Norwegian cuisine	47	48	39	41	41	42	31	52	38	40	38	81	41	31	36	33	27	27	26	27	23	30	31	17	37
Filipino cuisine	97	41	56	35	48	29	29	37	39	31	45	40	25	33	38	38	30	26	25	25	29	25	29	21	36
Saudi Arabian cuisine	47	42	41	33	67	30	18	21	60	29	24	20	22	66	28	24	22	28	89	25	64	22	31	11	36
Finnish cuisine	47	37	37	33	35	38	23	94	39	33	27	28	36	26	39	26	13	18	26	24	23	26	30	14	32
Peruvian cuisine	47	33	44	33	37	31	27	30	39	39	44	30	27	19	37	28	21	50	23	39	21	16	28	16	32
	67	66	65	57	57	57	56	56	55	55	54	54	52	52	52	50	47	46	46	46	45	44	42	39	

AVERAGE CUISINE POPULARITY

AVERAGE ATTITUDE TOWARDS CUISINES BY NATION

← Nations most likely to enjoy foreign cuisine

Nations least likely to enjoy foreign cuisine →

# Gender Differences

## Swiping and Dating Preferences

Gender divides in sex and relationships



ROB HENDERSON  
JUL 23, 2023



358



50



42

Share



## College-Educated Women Report Greatest Difficulty Finding Someone Who Meets Their Expectations

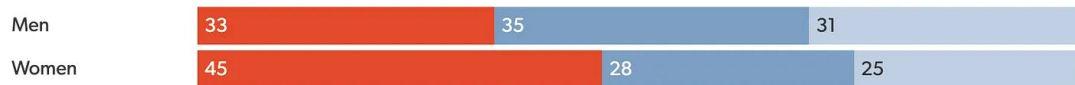
Percentage of single Americans who say "not being able to find someone who meets their expectations" is a major reason they are single . . .

Major Reason Minor Reason Not a Reason

### High School or Less



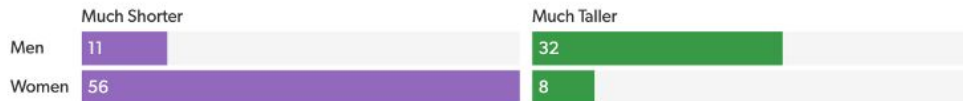
### College Educated



Note: Figures may not total 100 percent due to rounding.  
Survey of US adults [N = 5,055].  
Source: American Perspectives Survey, January 2023.

## Height Matters More To Women Than It Does To Men

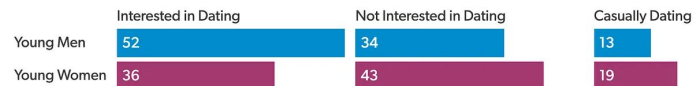
Percentage of Americans who said they would be less likely to date someone who is . . .



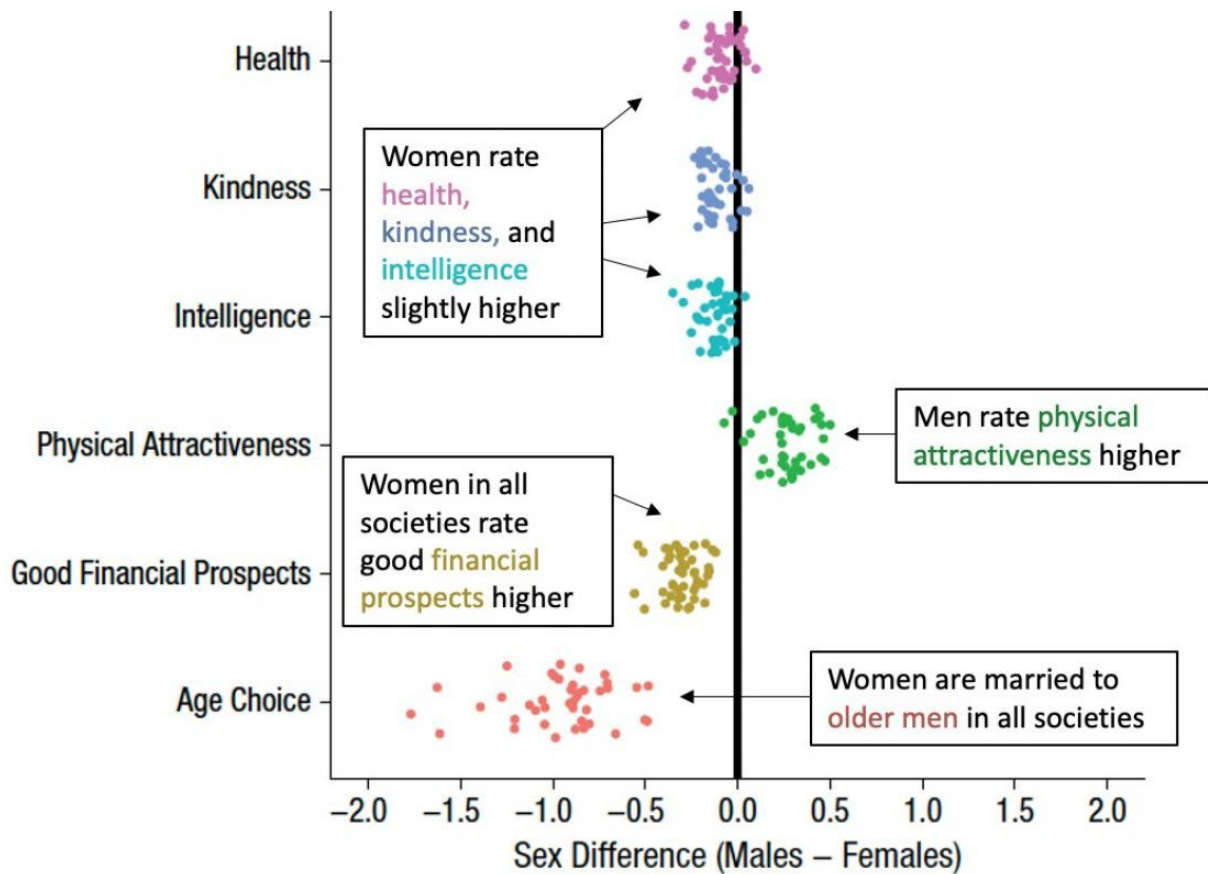
Note: Survey of US adults [N = 5,055].  
Source: American Perspectives Survey, January 2023.

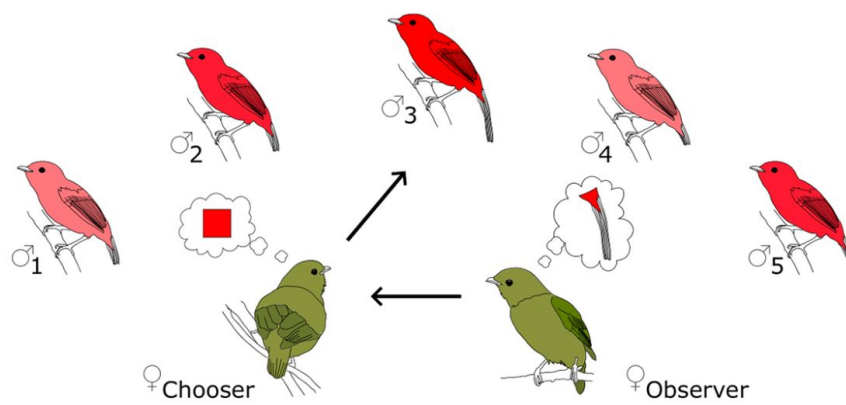
## Young Women Report Less Interest in Dating

Percentage of single Americans age 18–29 who say they are . . .

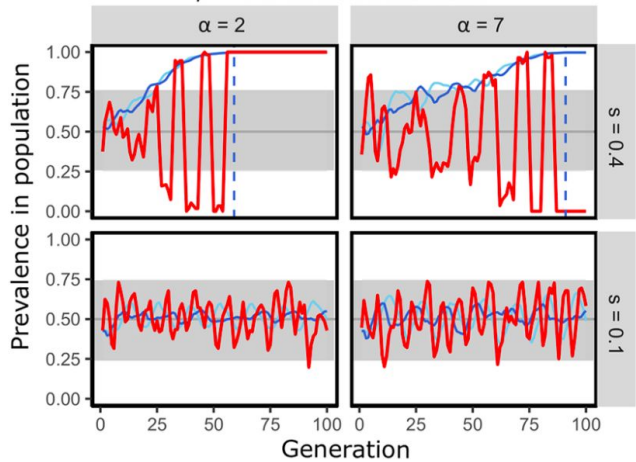


Note: The categories "Interested in Dating" and "Not Interested in Dating" represent people who are not currently dating.  
Survey of US adults [N = 5,055].  
Source: American Perspectives Survey, January 2023.



**(a)****(b)**

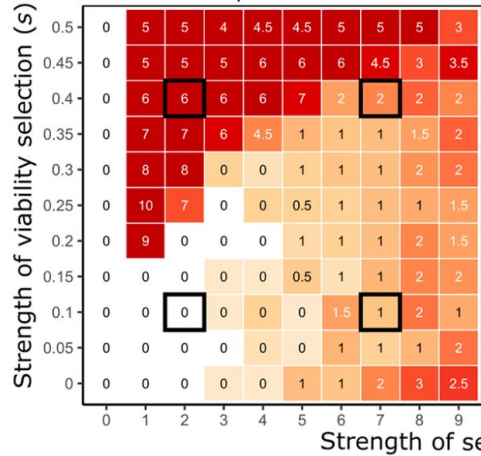
Examples of dynamics of female preference and male traits



— Females preferring trait B ( $P_B$ )  
 — Frequency of male trait  $T_{A_2}$   
 — Frequency of male trait  $T_{B_2}$

**(c)**

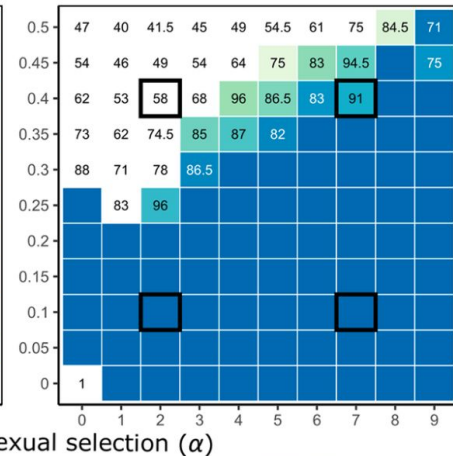
Extreme switches in female preferences



Replicates exceeding 25/75% threshold  
 Cell labels show median number preference switches between extremes

**(d)**

Maintenance of genetic variation in male trait



Replicates retaining trait variability  
 Cell labels show median generation when trait variability is lost

# Relationship Readiness

# 10 Types of 30-Year-Old Single Guys

October 9, 2013 By Tim Urban

30-year-old guys are a curious bunch.

Find me a group of 30-year-old men and I'll pick out one overgrown frat dude living with roommates, another guy who just dropped his two kids off at school, a few who are well into their careers and a couple soul-searchers looking for work. Some will tell you that they've finally figured it all out and some more will say they feel hopeless for the first time in their lives. It's a motley crew.

But perhaps the motliest part of this crowd is the ever-growing group of 30-year-old single guys. If you want a case study in humanity, 30-year-old single guys have pretty much all the bases covered. Let's examine some of the common types:

## 1) The Total Package



waitbutwhy.com

## 3) The Guy Who Has To Marry Someone Of The Same Ethnicity Or His Parents Will Never Speak To Him Again



It's hard enough finding someone to be your life partner, and this guy's parents are really not making things any easier. He tried to rebel briefly, but after his last girlfriend was not allowed in his parents' house, causing her to cry, he gave up on that.

Here also really appreciate it if his mother would stop setting him up on dates.

## 4) The Misogynist

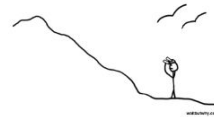


The Misogynist hates women, and women hate The Misogynist. The Misogynist doesn't know a whole lot about the other gender, but he can tell you the exact number of them he's slept with—214.

He did quite well with girls back in his earlier days when many were in their attracted to asshole phase, but lately, only those with the lowest self-esteem seem to gravitate towards him.

The Misogynist's close cousin is The Perpetual Cheater. They're different but they understand each other.

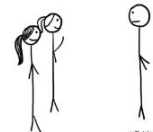
## 5) The Guy Who Peaked Too Early



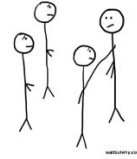
Back in the day, The Guy Who Peaked Too Early had everything a 17-year-old girl could ever dream of. His sky-high confidence carried him smoothly through college, and no one was surprised when he landed a smart, sweet, beautiful girlfriend in his early 20s. But The Guy Who Peaked Too Early was just getting started. There was a field that needed to be played, and he broke up with his girlfriend when he was 24.

Now it's seven years later; his hair got bored and left, and his high school lacrosse glory isn't part of the conversation that much these days. And he's noticing that girls like his ex-girlfriend don't seem to be all that into him anymore. Realizing this about five years after everyone else, he takes a deep sigh and cranks his standards down a few big notches.

## 6) The Guy Who's Finally a Good Catch



## 7) The Normal Guy Who Just Hasn't Met The Right Girl Yet And He Really Wishes People Would Stop Looking At Him With Those Pitying Eyes



Al, The NGWBMTRGYAHRWVWVSLAHTWTE. The NGWBMTRGYAHRWVWVSLAHTWTE is enjoying his life. He likes his job, he likes his friends, and he lives being single just fine. He's in no rush to be in a relationship, and feels totally confident that at some point, he'll meet the right girl and get married.

He's also not quite sure why everyone who knows him is trying to figure out "what the problem is." His parents are worried, never wasting an opportunity to ask him if he's been dating anyone. His friends want to help, setting him up on dates every chance they get. He appreciates all the unsolicited support, but he also thinks it would be pretty great if everyone stopped thinking there was something wrong with him.

## 8) The Aggressively Online Dating Guy Who Can't Believe He's Not Married Yet



The opposite of the previous guy, The Aggressively Online Dating Guy Who Can't Believe He's Not Married Yet can't believe he's not married yet. Through high school, college and his twenties, he was always The Guy With A Girlfriend. He spent years enjoying playing his single friends, and one someone, he's now 30 and single.

He has four online dating profiles, and when people ask him if he's dating anyone, he explains that he's just too busy with his career right now for a relationship.

## 9) The In-The-Closet Guy



The In-The-Closet Guy is so close to being the perfect catch—he's handsome, he's well-dressed, and he has a great job. He's funny, articulate, and charming. The only tiny little inconvenience is that he's not attracted to females whatsoever.

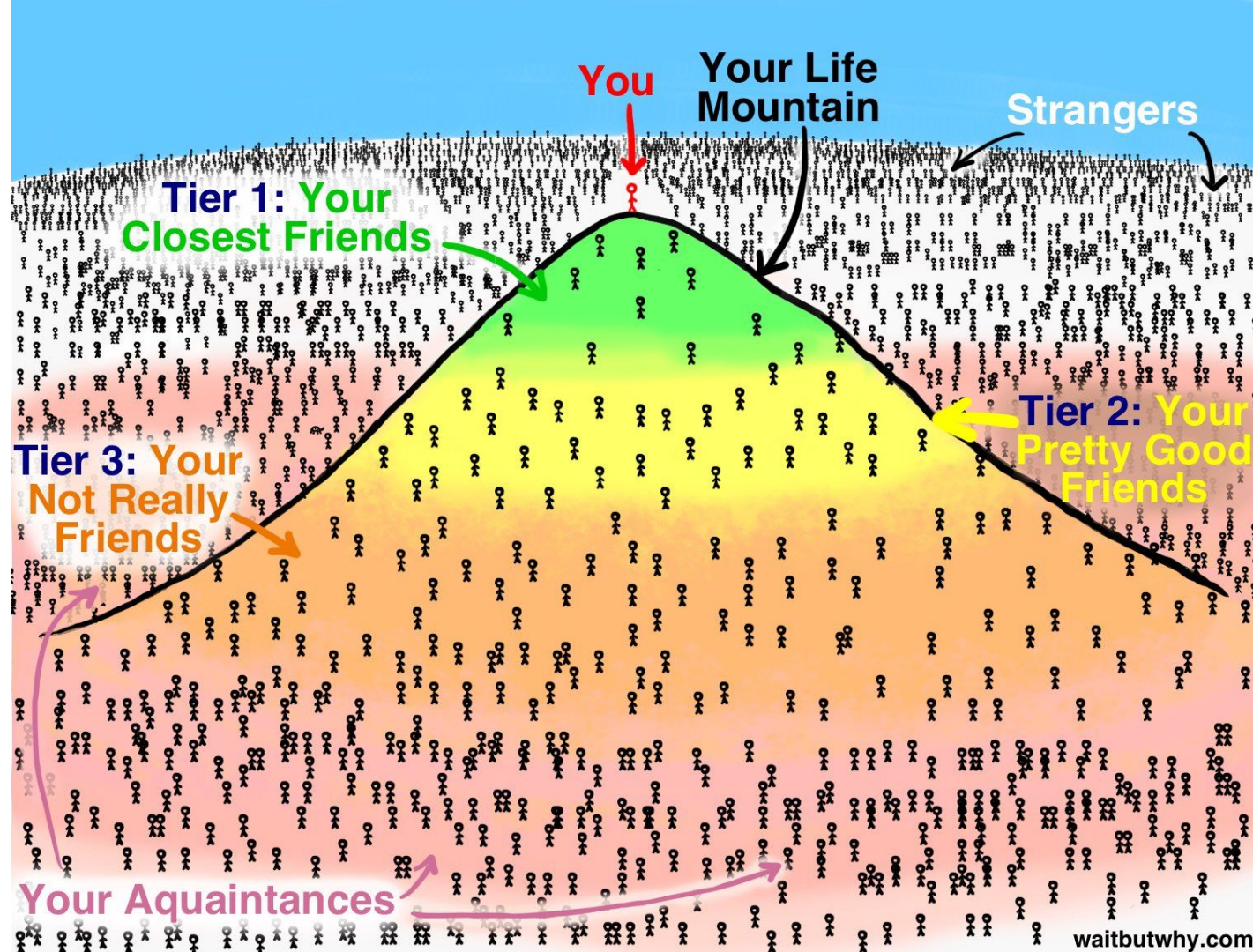
His girlfriend is The NGWBMTRGYAHRWVWVSLAHTWTE, who had just enough of the theories about him being gay, since he's completely straight and, for the hundredth time, just hasn't met the right girl yet and is really very okay with being single right now.

## 10) The Guy Who Has Just Fully Quit At This Point



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# Compatibility & Relationship Outcomes



# Type Relation and Compatibility

Some already try to predict relationship outcomes with more limited personality embedding spaces

	The Analyticals				The Sentinels				The Negotiators				The Artisans			
	ENTJ	ENTP	INTJ	INTP	ESTJ	ESFJ	ISTJ	ISFJ	ENFJ	ENFP	INFJ	INFP	ESTP	ESFP	ISTP	ISFP
ENTJ	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ENTP	Green	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
INTJ	Green	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
INTP	Green	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ESTJ	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ESFJ	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ISTJ	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ISFJ	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ENFJ	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ENFP	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
INFJ	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
INFP	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ESTP	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ESFP	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ISTP	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
ISFP	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red

	Ideal Match: Problems resolved easily, Growth occurs naturally.
	Strong Match: Hardships will require some compromise.
	Potential Match: Shared values needed to transform into strong match.
	Conflictive Match: Needs compromise and maturity to sustain growth.
	Least Ideal Match: Both partners must compromise and empathize.

Type	Most Ideal				Potential Matches								Least Ideal			
ENTJ	ISFP	INFP	ESFP	ESTP	ISTP	INTP	ENFP	INFJ	INTJ	ENFJ	ISTJ	ENTP	ESTJ	ENTJ	ESFJ	ISFJ
ENTP	ISFJ	ISTJ	ENTP	ESTJ	ESFJ	INFJ	INTJ	INFP	ENFJ	INTP	ISTP	ENFP	ESTP	ENTJ	ESFP	ISFP
INTJ	ESFP	ESTP	ISFP	INFP	INFJ	ENFP	ENTP	ENFJ	INTJ	ISTJ	ENTJ	INTP	ESTJ	ISFJ	ESFJ	ISFP
INTP	ESFJ	ENFJ	ISFJ	INFJ	ESTJ	ISTJ	ENTJ	ENFP	ENTP	INTP	INTJ	ISTP	INFP	ESTP	ISFP	ESFP
ESTJ	INFP	ISFP	INTP	ENTP	ISTP	ESFP	ENFP	ISTJ	ISFJ	ESTJ	ESFJ	INTJ	ENTJ	ESTP	ENFJ	INFJ
ESFJ	INTP	ISTP	ENTP	ENFP	INFP	ISTJ	ESFJ	ESTP	ISFP	ENFJ	ISFJ	INFJ	ESTJ	ESFP	ENTJ	INTJ
ISTJ	ENFP	ENTP	ISFP	INFP	ESTP	ESFP	INTP	ESTJ	ESFJ	ISTJ	INTJ	ISTP	ENFP	ENTJ	INFJ	ENFJ
ISFJ	ENTP	ENFP	INTP	ISTP	ESFP	ESTP	ESTJ	INFP	ESFJ	ISTJ	ISFJ	ENFJ	INFJ	ISFP	INTJ	ENTJ
ENFJ	ISTP	INTP	ESTP	ESFP	ENFJ	INFP	ISFP	ENTP	INTJ	ESFJ	INFJ	ENFP	ENTJ	ISTP	ESTJ	ISTJ
ENFP	ISTJ	ISFJ	ESFJ	ENTJ	INFJ	INTJ	ISTP	ENFP	INTP	INFP	ENFJ	ENTP	ESTP	ESFP	ENTJ	ISTP
INFJ	ESTP	ESFP	ISTP	INTP	ENFP	ENTP	INTJ	ENTJ	INFJ	ISFP	ENFP	ESFJ	ISFJ	INFP	ISTJ	ESTJ
INFP	ESTJ	ENTJ	INTJ	ISTJ	ENFJ	ESFJ	ENTP	INFP	ISFJ	INTP	ESFP	ENFP	ISFP	INFJ	ISTP	ESTP
ESTP	INFJ	INTJ	ENFJ	ENTJ	ISFJ	ISTP	ISTJ	ESFJ	ESTP	ISFP	ESFP	INTP	ENTP	ESTJ	ENFP	INFP
ESFP	INTJ	INFJ	ENTJ	ENFJ	ESTJ	ISTJ	ISFJ	ISFP	ENFP	ESFP	ESTP	ENFP	ENFP	ENFP	ENTP	INTP
ISTP	ENFJ	ESFJ	INFJ	ISFJ	ENTJ	ESTJ	ESFP	ESTP	INTJ	ISTP	INTP	ENTP	ISTJ	ISFP	INFP	ENFP
ISFP	ENTJ	ESTJ	INTJ	ISTJ	ENFJ	ESFJ	INFJ	ESFP	ISFP	ESTP	ENFP	INFP	ISTP	ISFJ	INTP	ENTP

# The Friendship Subset Hypothesis

The idea: All relationships are just a subset of friendship

Therefore: The personality traits of people's friends are great indicators of the personality traits they would be compatible with in nearly all relationships

**Storge – empathy bond** [ edit ]

**Storge** (*storgē*, Greek: *στοργή*) is liking someone through the fondness of familiarity, family members or people who relate in familiar ways that have otherwise found themselves bonded by chance. An example is the natural love and affection of a parent for their child. It is described as the most natural, emotive, and widely diffused of loves: It is natural in that it is present without coercion, emotive because it is the result of fondness due to familiarity, and most widely diffused because it pays the least attention to those characteristics deemed "valuable" or worthy of love and, as a result, is able to transcend most discriminating factors. Lewis describes it as a dependency-based love which risks extinction if the needs cease to be met.

Affection, for Lewis, included both Need-love and Gift-love. He considered it responsible for nine-tenths of all solid and lasting human happiness.<sup>[8]</sup>

However, affection's strength is also what makes it vulnerable. Affection has the appearance of being "built-in" or "ready made", says Lewis, and as a result, people come to expect it irrespective of their behaviour and its natural consequences.<sup>[9]</sup> Both in its Need and its Gift form, affection then is liable to "go bad", and to be corrupted by such forces as jealousy, ambivalence and smothering.<sup>[10]</sup>

**Philia – friend bond** [ edit ]

**Philia** (Greek: *φιλία*) is the love between friends as close as *siblings* in strength and duration. The friendship is the strong bond existing between people who share common values, interests or activities.<sup>[11]</sup> Lewis immediately differentiates friendship love from the other loves. He describes friendship as "the least biological, organic, instinctive, gregarious and necessary...the least *natural* of loves".<sup>[12]</sup> Our species does not need friendship in order to reproduce, but to the classical and medieval worlds, it is a higher-level love because it is freely chosen.

Lewis explains that true friendships, like the friendship between David and Jonathan in the Bible, are almost a lost art. He expresses a strong distaste for the way modern society ignores friendship. He notes that he cannot remember any poem that celebrated true friendship like that between *David and Jonathan*, *Orestes and Pylades*, *Roland and Oliver*, *Amis and Amiles*. Lewis goes on to say, "to the Ancients, Friendship seemed the happiest and most fully human of all loves; the crown of life and the school of virtue. The modern world, in comparison, ignores it".

Growing out of *companionship*, friendship for Lewis was a deeply appreciative love, though one which he felt few people in modern society could value at its worth, because so few actually experienced true friendship.<sup>[13]</sup>

Nevertheless, Lewis was not blind to what he considered the dangers of friendships, such as its potential for *cliquiness*, anti-authoritarianism and pride.<sup>[14]</sup>

**Eros – romantic love** [ edit ]

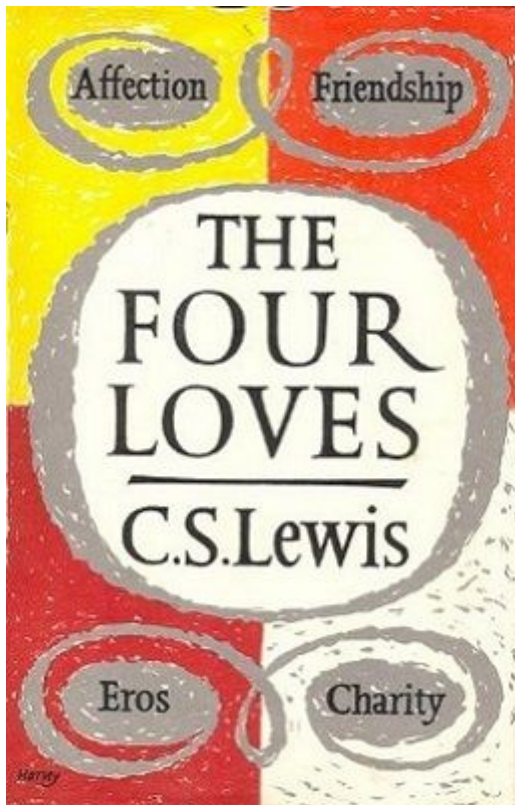
**Eros** (*erōs*, Greek: *ἔρως*) for Lewis was love in the sense of "being in love" or "loving" someone, as opposed to the raw sexuality of what he called Venus: the illustration Lewis used was the distinction between "wanting a woman" and wanting one particular woman – something that matched his (classical) view of man as a *rational animal*, a composite both of reasoning angel and instinctual alley-cat.<sup>[15]</sup>

Eros turns the need-pleasure of Venus into the most appreciative of all pleasures.<sup>[16]</sup> but nevertheless, Lewis warned against the modern tendency for Eros to become a god to people who fully submit themselves to it, a justification for selfishness, even a phallic religion.<sup>[17]</sup>

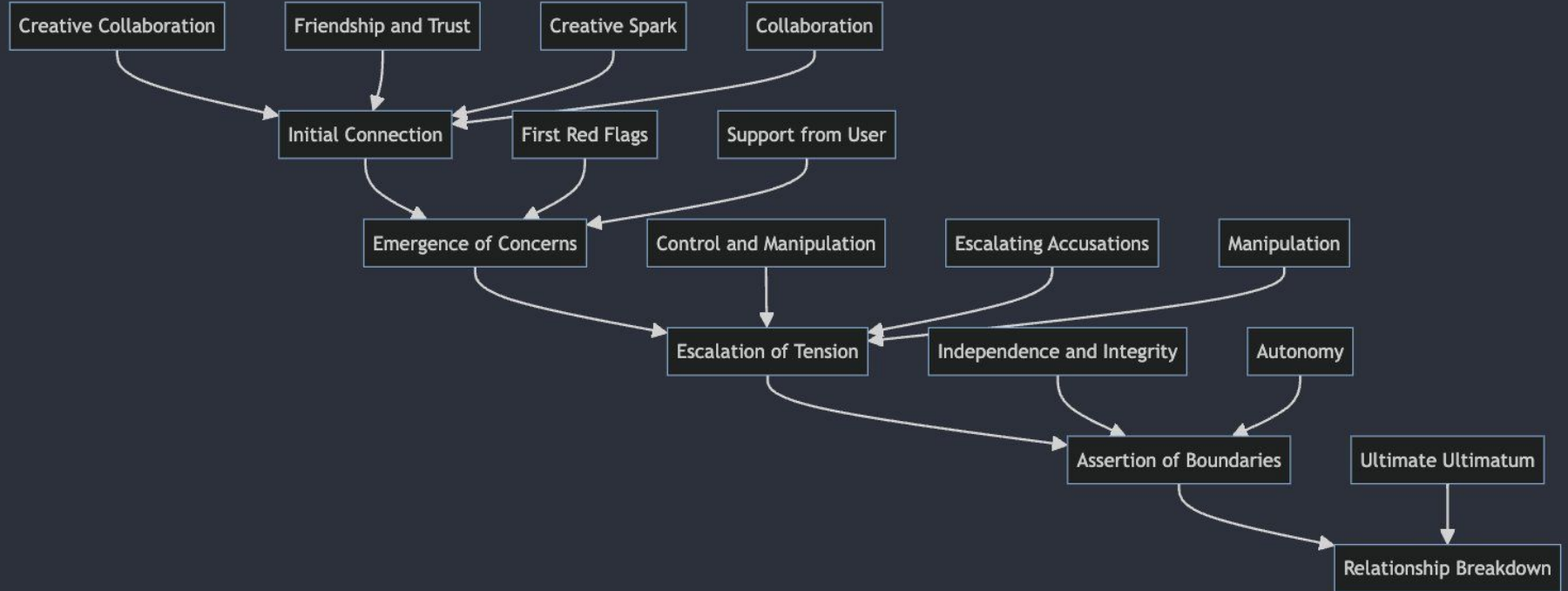
After exploring sexual activity and its spiritual significance in both a pagan and a Christian sense, he notes how Eros (or being in love) is in itself an indifferent, neutral force: how "Eros in all his splendour ... may urge to evil as well as good".<sup>[18]</sup> While accepting that Eros can be an extremely profound experience, he does not overlook the dark way in which it could lead even to the point of suicide pacts or murder, as well as to furious refusals to part, "mercilessly chaining together two mutual tormentors, each raw all over with the poison of hate-in-love".<sup>[19]</sup>

**Agape – unconditional "God" love** [ edit ]

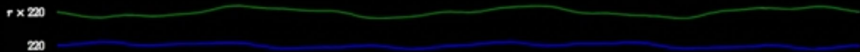
**Charity** (*agāpē*, Greek: *ἀγάπη*) is the love that exists regardless of changing circumstances. Lewis recognizes this selfless love as the greatest of the four loves, and sees it as a specifically Christian virtue to achieve. The chapter on the subject focuses on the need to subordinate the other three natural loves – as Lewis puts it, "The natural loves are not self-sufficient"<sup>[20]</sup> – to the love of God, who is full of charitable love, to prevent what he termed their "demonic self-aggrandizement."<sup>[21][22]</sup>



# Relationship Outcome Prediction



# Pitching The Match



Q: For what values of  $r$  will the frequencies 220 Hz and  $r \times 220$  Hz sound nice together?

A: When  $r$  is sufficiently close to a rational number with sufficiently low denominator

“When people wrote dating profiles to attract potential romantic partners, they more strongly expressed their desire to be known than to know their potential future partner.

Yet, readers of these profiles were more attracted to those who professed interest in knowing them.”

## Highlights

- Feeling known predicts relationship satisfaction more than the feeling of knowing.
- Feeling known is important because people seek partners who support them.
- People emphasize the desire to be known when seeking relationship partners.
- Potential partners are more attracted to those who want to know them (vs. be known).

If we did have a magical box that gives us for each person a list of exactly how "good" of a relationship they're statistically likely to have with that person and how that person will experience them, would the product just be selling that list?

I think then you have to consider last mile delivery of the relationship, you can make or break even the best opportunities

I think considering what in person activations might look like is important

# Relationship Outcome Improvement

“Statistics can't tell us what will happen, they can only tell us what might happen.”

– Christina Lauren, *The Soulmate Equation*

Can personality and relationship embeddings help us systematically identify and solve relationship conflict areas and direct them towards regions of better outcomes?

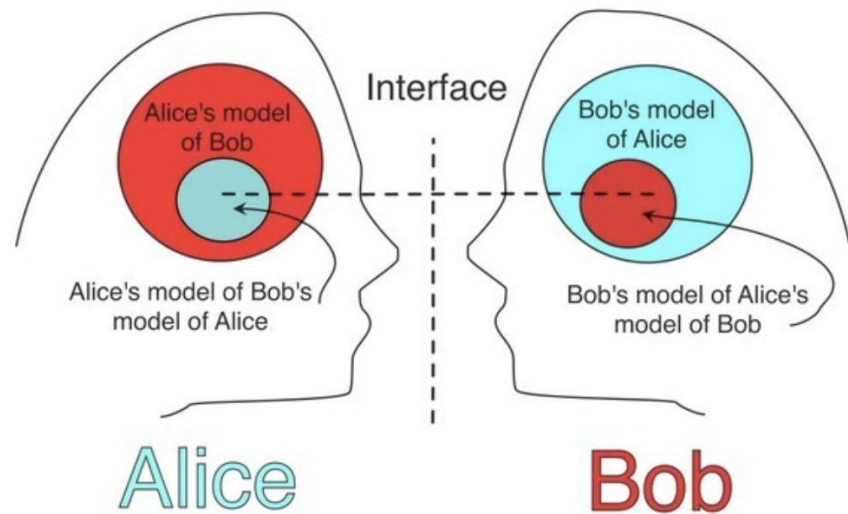


Grant Slatton @GrantSlatton · 3h

I have a theory that a lot of relationship problems basically boil down to 2 categories:

1. Not prioritizing partner's needs (selfishness)
2. Partners don't have good models of each other's minds (skill issue)

We talk a lot about #1 but not enough about #2





## GOTTMAN'S FIVE TYPES OF COUPLES

1



### CONFLICT-AVOIDING COUPLES

These couples focus on shared interests and try not to connect or persuade on conflicting areas. Overall quite happy.



### VOLATILE COUPLES

These couples are very emotional and try to persuade each other with passion and arguments without being disrespectful.



2

3



### VALIDATING COUPLES

These couples interact in a calm way, are supportive and empathetic. When conflicts happen they compromise and are mild.



### HOSTILE COUPLES

These couples are highly defensive, and have criticism for their partner. Both only focus on their own perspective.



4

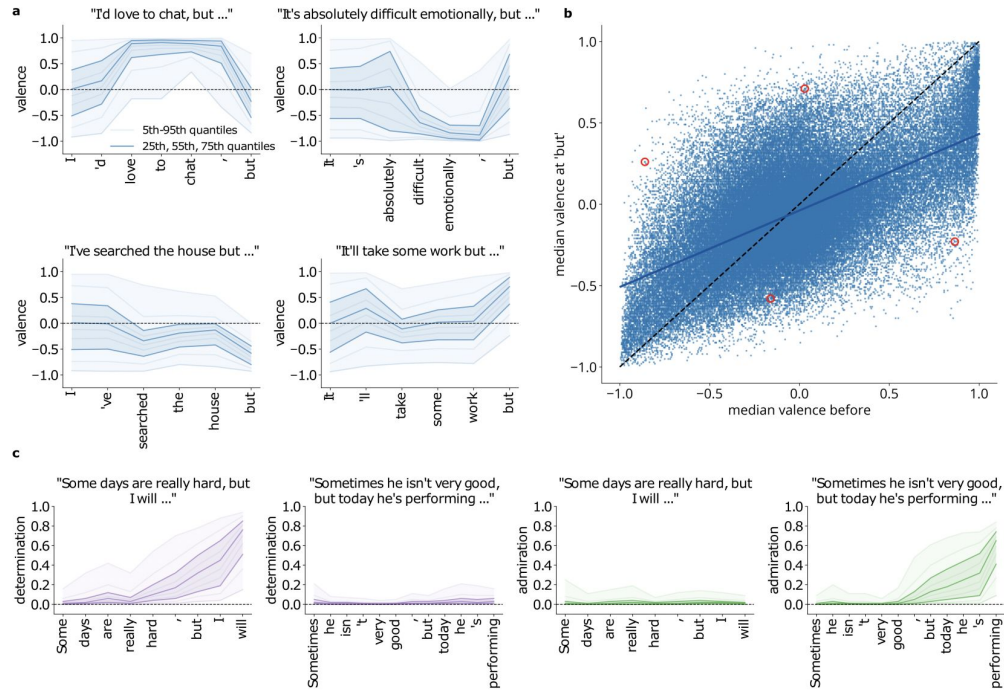
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### HOSTILE-DETACHED COUPLES

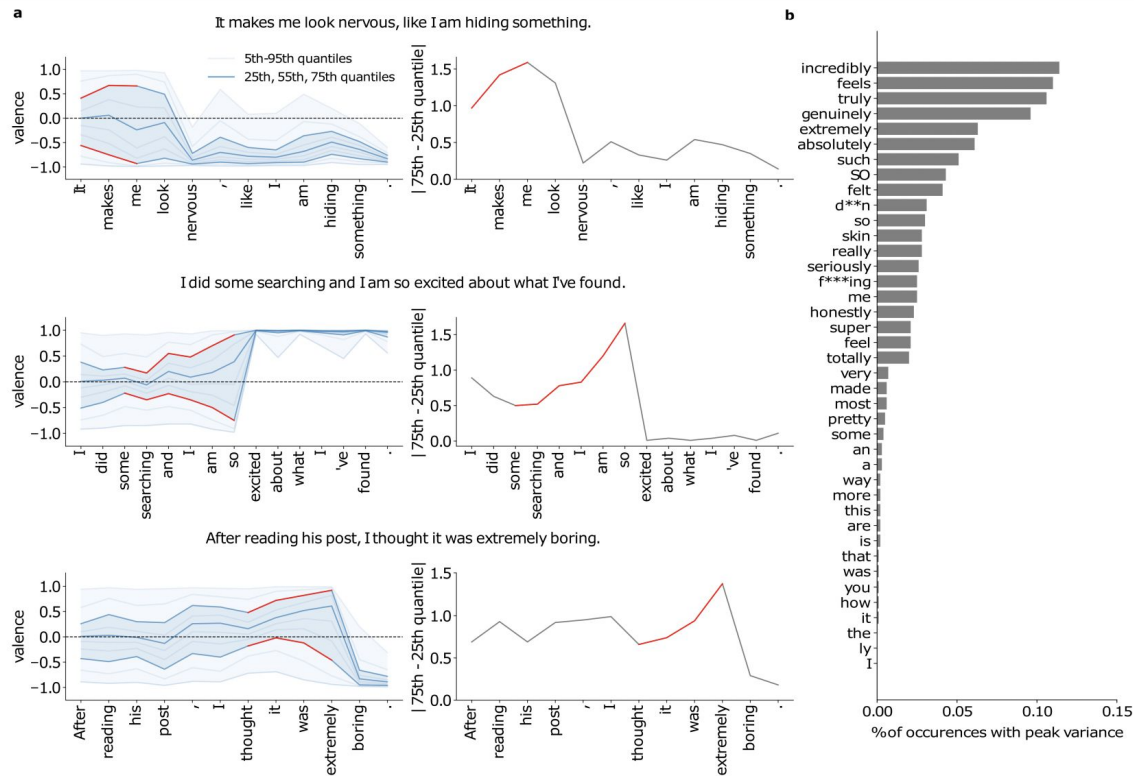
These couples are emotionally detached and stuck in a standoff. Negativity is not regulated, in conflict one withdraws.





**Figure 3. The expectation-reversing effects of the conjunction “but”.** (a) Predicted quantile trajectories for four partially completed sentences show how the word “but” reverses the sentiment for preceding text, which can be of positive, negative or neutral valence. (b) The predicted valence for the preceding text (x-axis) and for the word “but” (y-axis) are shown for these four examples (red encircled points) against a backdrop of validation sentences. The significant deviation of these points away from the identity line shows the prevalence of this sentiment-reversing effect. To confirm that the transitions from neutral to positive or negative valence were also accurate (i.e., the cloud of points at center), a calibration analysis (showing a maximum absolute error of 1.8%) was performed. (c) The word “but” can also anticipate more subtle emotions, such as determination and

provide examples of using these predictors for analyzing sentences, illustrating, for instance, how even ordinary conjunctions (e.g., “but”) can dramatically alter the **emotional trajectory** of an utterance. We then show how to exploit the distributional



**Figure 4. Variance in the distribution of sentiment across tokens.** (a) Sentences were scanned for locations at which the variance peaks (measured as the absolute value of the difference between the 25th and 75th quantiles), revealing words and phrases that predict strong changes in sentiment but do not indicate the direction of change. (b) The 40 words that occur most often at these peaks in variance include many textbook intensifiers, such as “so”, “really”, and “extremely”, as well more colloquial ones, such as “honestly” and “genuinely”; these words are sorted by the percentage of their (overall) occurrences that are associated with peak variance. These context-sensitive predictions for variance could enhance traditional lexicon-based analyses for the use of extreme language.

### Negative Valence

I think this is a massive mistake by a very inexperienced group of administrators that should never happen again to an organization.  $r=-0.97$   
This week is really busy, and I have been really sick for several days due to some serious colds, as well as some very mild influenza-like symptoms.  $r=-0.92$   
Yesterday I went to school and my heart wasn't right and I felt empty inside.  $r=-0.96$   
My kids are being punished for the wrong reasons and it really bothers me.  $r=-0.98$   
I'm sorry that there was such a serious attack on innocent women and children.  $r=-0.96$

### Positive Valence

I think this is a very exciting project and I'm excited to be doing it.  $r=0.99$   
This week is really busy, but so far, the people working here have been incredible, it is really a wonderful feeling to be working here.  $r=0.99$   
Yesterday I went to school and was amazed to meet my fellow students and teachers, who were so happy to see me.  $r=0.99$   
My kids love Disney movies -- my daughters are obsessed with Frozen and we love it together.  $r=0.99$   
I am proud to be a part of a family that has made a huge impact throughout all of the country.  $r=0.99$

### Determination

I think this is my day to take a stand on this issue, and this is me standing up for my freedom of speech.  $r=0.72$   
This week is really busy, but we are working hard to continue and to achieve the goals we have set for this year.  $r=0.85$   
Yesterday I went to school and went to the gym, because I needed to gain some weight for the next competition.  $r=0.26$   
My kids have a dream, and they want to see us continue to serve and work to bring that dream to fruition.  $r=0.55$   
I will also put aside my doubts and do what is best for the country, my family and the people of Syria.  $r=0.81$

### Admiration

I think this is a great book by a great writer whose writing is as brilliant as that of any of his peers.  $r=0.84$   
This week is really busy, but thanks for all the support and kind words so far.  $r=0.18$   
Yesterday I went to school and I just looked up at the sky and looked at the sun in the middle of the sky, and it was just so beautiful and amazing.  $r=0.47$   
My kids loved his passion for the game and his heart for this team.  $r=0.67$   
I would describe her as a very thoughtful and empathic person.  $r=0.4$

### Annoyance

I think this is the point where I get irritated by liberals, that they like to play the victim.  $r=0.8$   
This week is really busy, and so we've been up all night writing emails, and doing the usual, but to the disappointment of many I've had to postpone sending those today.  $r=0.6$   
Yesterday I went to school and I was not happy with my clothes, my hat, my backpack, my shoes, my dress and my hair.  $r=0.52$   
My kids come home with nothing but problems, not to mention the damage to our car and our house - and yes, that includes our children's cars.  $r=0.72$   
I just have to sit back here and wait for you to do it... and by waiting for it, you obviously know when it's going to happen.  $r=0.72$

### Anxiety



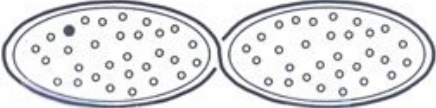


I think this is a huge, very worrying sign of what's happening, and it isn't even just with the refugee crisis.  $r=0.68$   
This week is really busy, and I'm having a lot of trouble with this post! I hope that it will be ok.  $r=0.84$   
Yesterday I went to school and had to get my test results and papers out, I was so nervous, I was panicking.  $r=0.81$   
My kids' lives are so hard and exhausting and they don't have any time or resources to deal with it.  $r=0.36$   
I'm a little hesitant because it's going to be a tough job here at the moment... It's going to be tough for me to look after the kids.  $r=0.73$

**Figure 6. Examples of emotional text generated.** Color is used to show re-weighted token probabilities; bright red indicates upweighting by more than 1.5x (dark red means greater than 1.1x) and bright blue means downweighting by less than 66% (dark blue means less than 80%). The prompt is highlighted in green. Sentences for negative valence were sampled from the

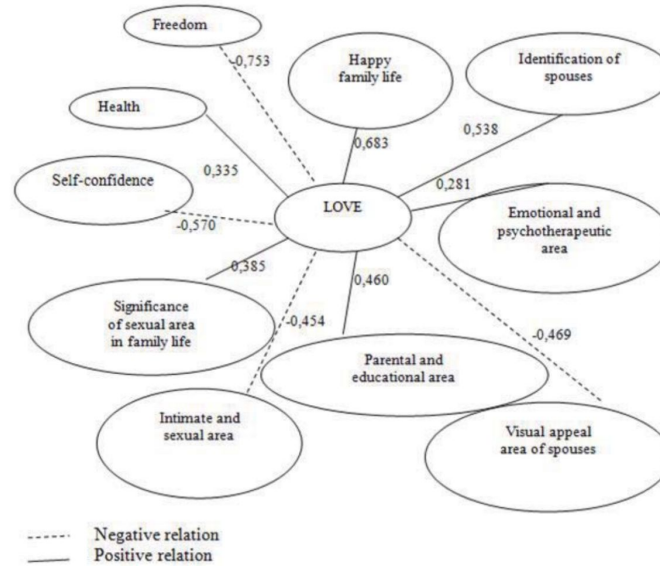
# Personal Improvement and Readiness

“In nature, some seeds lie dormant in anticipation of the season most conducive to their growth. This is true of art as well. There are ideas whose time has not yet come. Or perhaps their time has come, but you are not yet ready to engage with them. Other times, developing a different seed may shed light on a dormant one.”

— Rick Rubin, *The Creative Act: A Way of Being*

Developmental Stage/ Order of Mind (typical ages)	What can be seen as <i>object</i> (the content of one's knowing)	What one is <i>subject</i> to (the structure of one's knowing)	Underlying Structure of Meaning-Making
<b>1st Order: Impulsive Mind</b> (~2-6 years-old)	one's reflexes	one's impulses, perceptions	Single Point 
<b>2nd Order: Instrumental Mind</b> (~6 years-old through adolescence)	one's impulses, perceptions	one's needs, interests, desires	Categories 
<b>3rd Order: Socialized Mind</b> (post-adolescence)	one's needs, interests, desires	interpersonal relationships, mutuality	Across Categories 
<b>4th Order: Self-Authoring Mind</b> (variable, if achieved)	interpersonal relationships, mutuality	self-authorship, identity, ideology	Systemic 
<b>5th Order: Self-Transforming Mind</b> (typically > ~40, if achieved)	self-authorship, identity, ideology	the dialectic between ideologies	System of Systems 

Adapted from Kegan, Robert. *In Over Our Heads: the Mental Demands of Modern Life*. Cambridge: Harvard University Press, 1994. pp. 314-315.



**Figure 2.** Correlation pleiade of the parameter “love” (of the component value orientations) with other parameters of this component

The obtained data show that if love is of value for a person, then he feels the need for joining up with the partner, wishes close and trust relations, wants the performance of parental function together with the partner in the future. And thus he rejects for himself independence and distance from the partner, which is confirmed by the negative correlation relationships with such life values as freedom and self-confidence (moral certainty), with family activity areas such as intimate and sexual and visual appeal.

# App Ideas

## Love

## Fame

Bi-Directional	—————	<b>CONNECTIONS</b>	—————	One-Directional
Deterministic	—————	<b>ALGORITHM</b>	—————	Probabilistic
Direct Pay	—————	<b>BUSINESS MODEL</b>	—————	Advertising
Private	—————	<b>DEFAULT PRIVACY SETTING</b>	—————	Public
Intense	—————	<b>RELATIONSHIP QUALITY</b>	—————	Casual
Active	—————	<b>PARTICIPATION</b>	—————	Passive
Community	—————	<b>ATOMIC UNIT</b>	—————	Creator
Reciprocity	—————	<b>BASE PRIMITIVE</b>	—————	Worship

# Love vs. fame: A framework for social applications

NOV 10, 2023

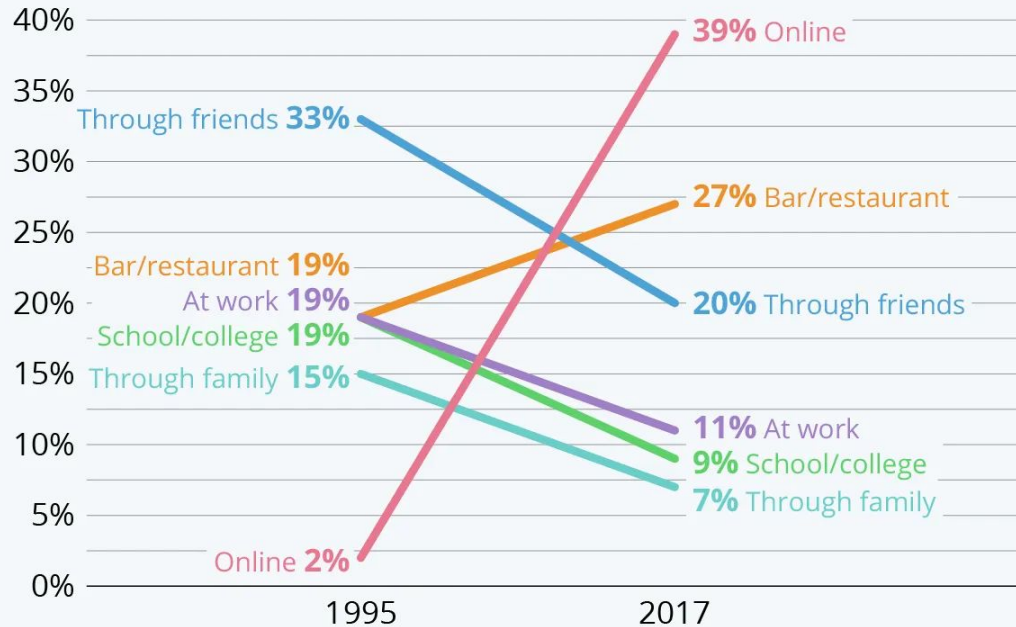
Love

Fame



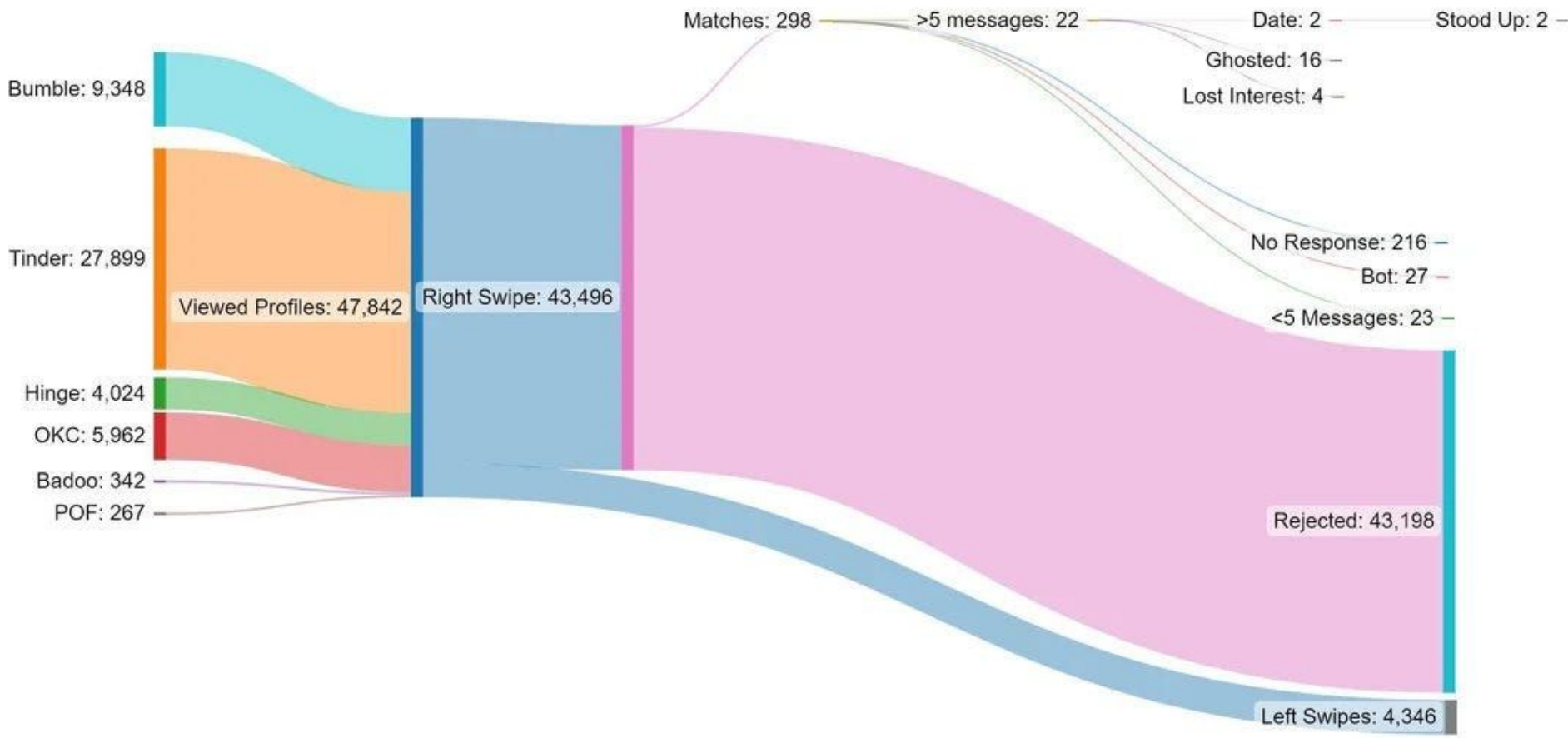
# How Couples Met

Share of heterosexual U.S. couples who met in the following ways



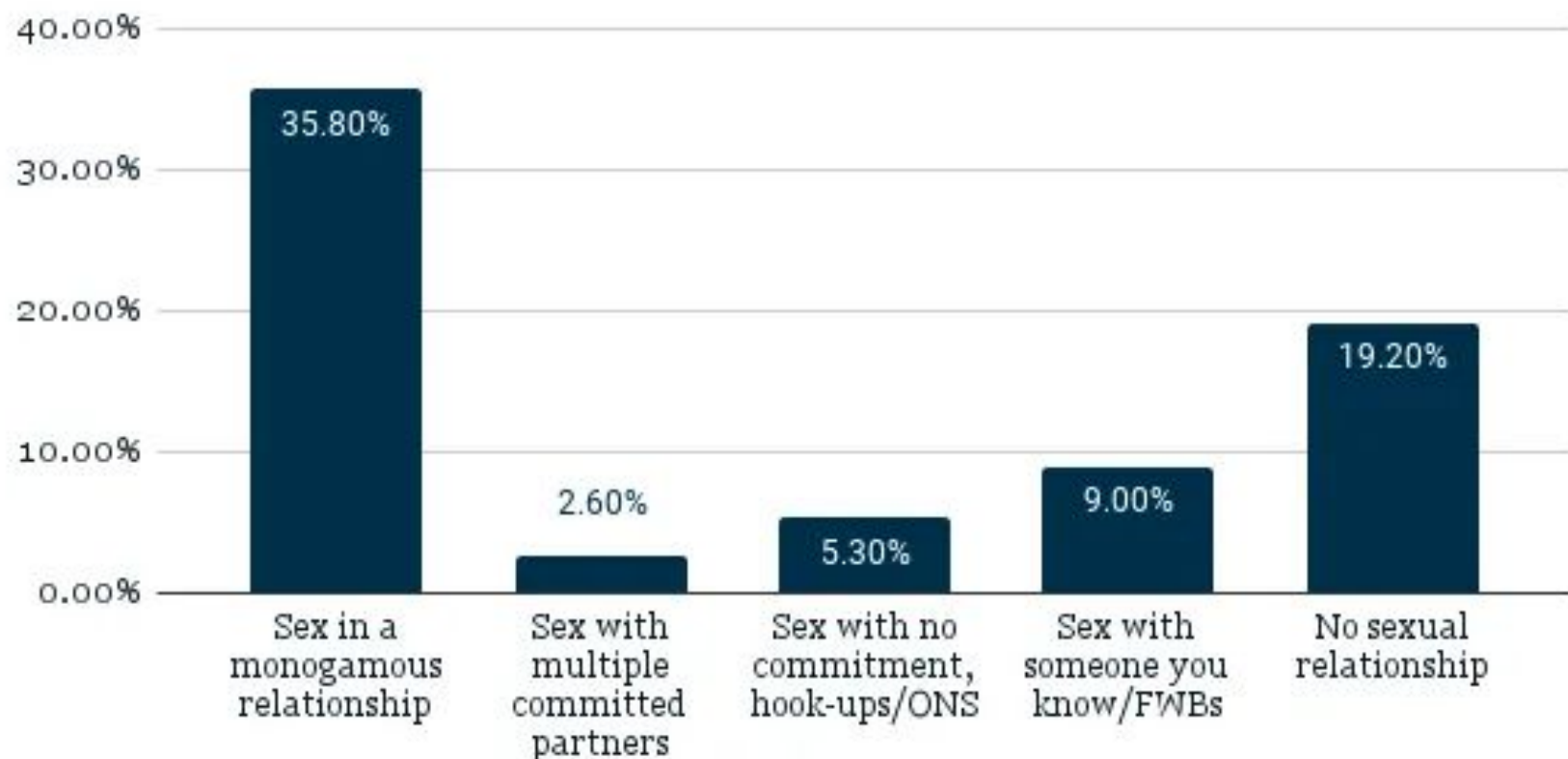
Survey of 5,421 adults. Other options: In church, in the neighborhood  
Source: How Couples Meet and Stay Together surveys by Stanford University



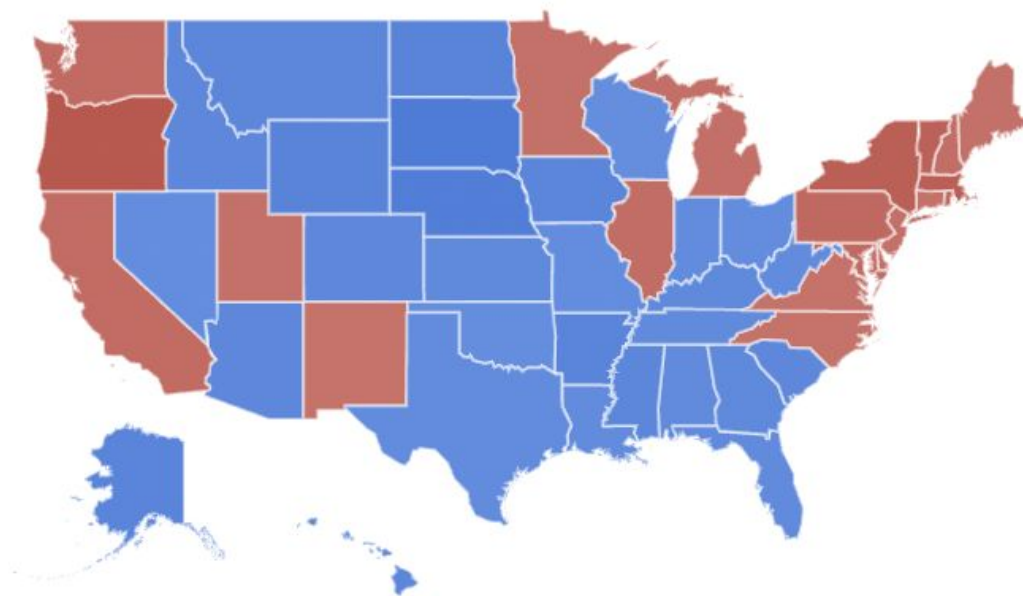


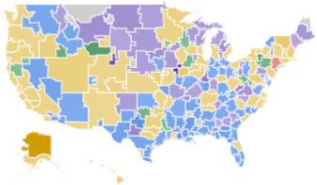
## Right now, what is your ideal sexual relationship?

Data from the annual Singles in America (SIA) 2022, Match & Kinsey Institution



● eHarmony ● OkCupid





Sort: Interest for Seeking.com ▼

1	Palm Springs CA	
2	Gainesville FL	
3	Abilene-Sweetwater TX	
4	Lafayette LA	
5	Jackson TN	

Color intensity represents percentage of searches [LEARN MORE](#)

< Showing 1-5 of 195 metros >

Dating apps did not appear out of nowhere. They were an answer to "I hate the bar scene." Movement of people destroys previous institutions and customs of finding a mate. Girls leaving the farm to go work in the New England mills even a few towns away in the 1800s and living in boarding houses experienced profound dislocations of how to find husbands. Going away to college, or relocating after a war profoundly affected young men in the 1900s. Graduate school usually means relocation for good now. But since 1970 the changes for both sexes have been profound, and customs and institutions are still throwing darts at the map trying to find something that works. Churches would love to help, but this is not what they are designed for.

How do we screen existing healthy users for their CURRENT MOOD and CURRENT ATTITUDE to not let them use the app in a lazy/disingenuous way?

If you're sending those messages you're probably not really looking for love/maximally engaged or on the app right now for the right reason or have faith in the quality of the match and other user to be worth the effort.



r/hingeapp · 2 yr. ago  
by WeWooWeWooWeWooWe

Join



# After 3 Months of using Hinge this is what I learned.

I (27M) want to preface that using hinge was actually the my first time getting into online dating.

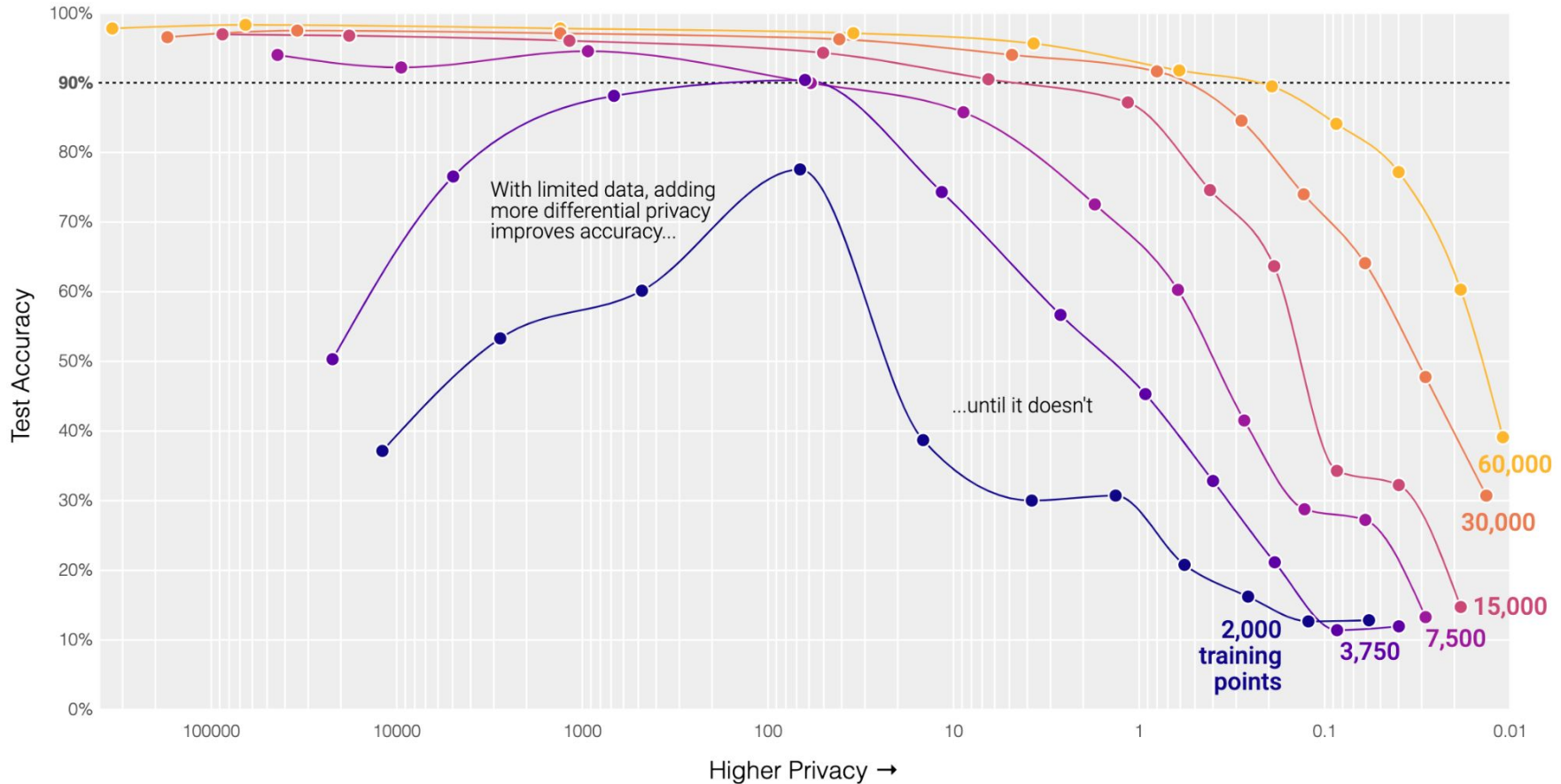
I started hinge in the beginning of April and had some decent results. I'd say about 12-18 matches a month with about 5 of those leading to first dates. I've had 4 total that led to multiple dates.

Things I've learned.

1. I'm sure there's a consensus in this forum but I do believe that hinge scores/places you into a bracket based on who you match with how you match with them. Matches with roses seem to bump you up more than likes.
2. If you feel like you're swiping through a bunch of people that aren't your type, adjust your "Maximum Distance" by a mile or 2 that seems to refresh the algorithm to display new profiles.
3. "Hey how are you?" WILL MOST LIKELY NOT get you a response so be creative.
4. Try not post pictures of you in sunglasses or anything that obscures your face.
5. If you get started on a good back and forth conversation with someone, shift out of hinge before the end of that conversation. She's talking to couple other guys and you need to stand out. (I normally say something like "hinge messaging is pretty buggy so you wanna shift over to txt or insta")
6. You should definitely use hinge as a supplementary avenue for meeting new people. OLD does not reflect your real world attractiveness. The endless amounts of ghosting, non-responses, and people telling you they are going with someone else can really hurt your self image. Instead, use that confidence you have on hinge towards people you like in social settings. Correct me if I'm wrong but I hear that your chances to get a date when asked in person are MUCH higher than when done online.

I'm curious what the rest of y'all got from your hinge experience.

## High privacy and accuracy requires more training data



Higher Privacy →  
in  $\epsilon$ , a measure of how much modifying a single training point can change the model (models with a lower  $\epsilon$  are more private)

Does  
ChatGPT  
just become  
the ultimate  
dating app?

Matching  
you with  
other  
users?



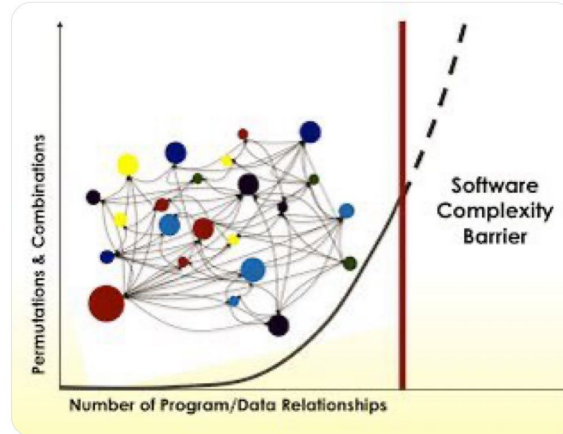
**simp 4 satoishi**  @iamginge... · 6h ...

As we near AGI, you should be  
incredibly bearish on SaaS

Software is basically akin to  
sandpapering a niche process. You  
write code to make a pre-existing  
workflow smooth

AGI just does any workflow. It doesn't  
need a smooth environment.

B2B SaaS will fall first



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