American Life Histories

David Lagakos, Stelios Michalopoulos, Hans-Joachim Voth

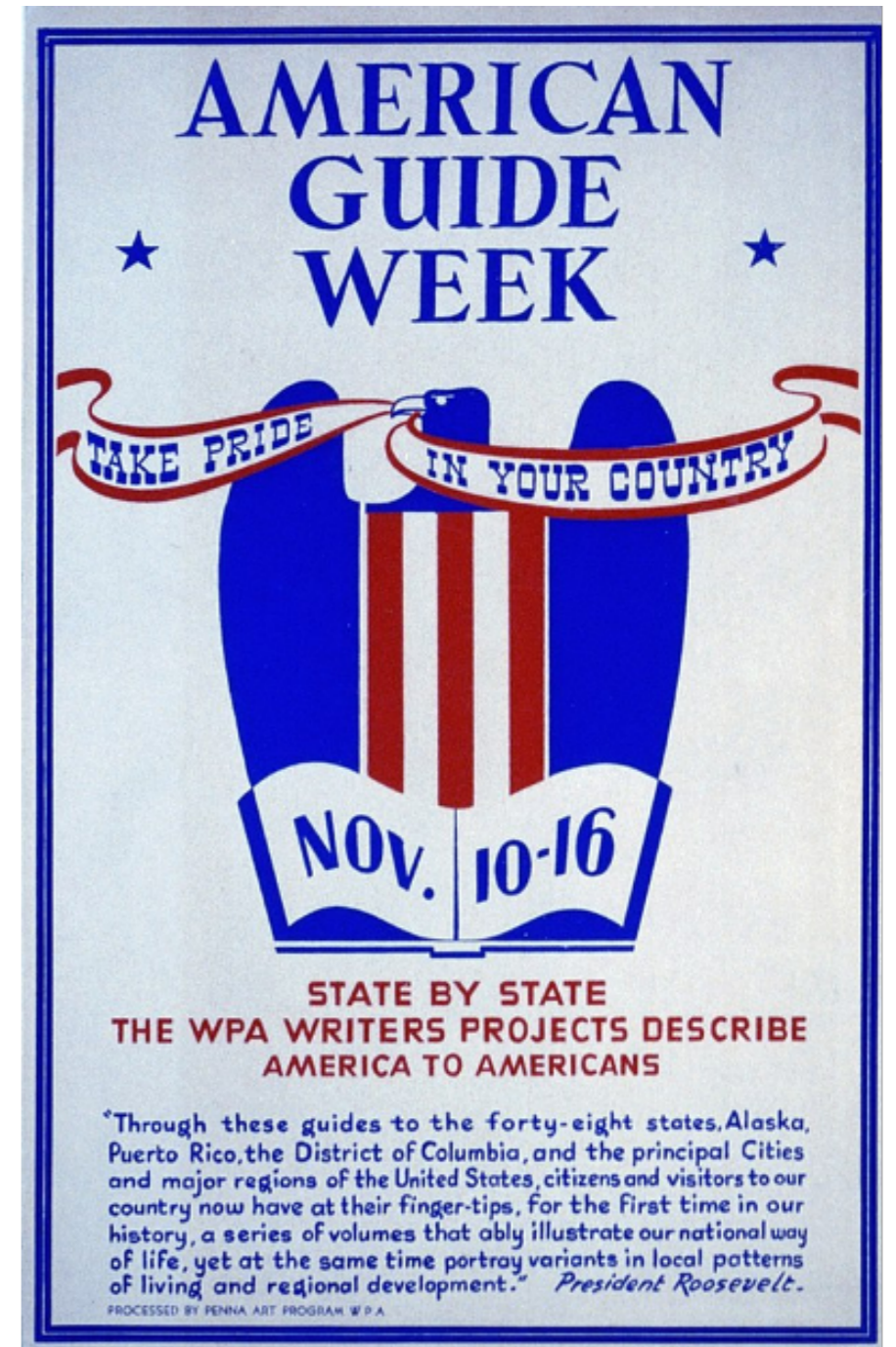NBER SI, DEA, July 2024

The Federal Writers Project, 1930s

Created during New Deal to hire out-of-work writers

One iconic project: *American Life Histories*

- Goal: record life histories of older generation

- 1,500 U.S. residents, most over age 50

- Largely unstructured:

> *"first principle has been to let the people tell their own stories"*

- *Meant to "hold a mirror up to America"*

- Lots of oral history out there; nothing quite like this

Example I: Minnie Marshall

We found her in the 1930 census

Learn she is:

- black, female, 26 years old, single

- literate, works as a domestic servant

- lodges at West 131st St, Manhattan, New York

Life History of Minnie Marshall,1938

Childhood and parents:

- Father: *"had gone down to sea with his ship"*

Mother: *"I had been yanked out of school in the third grade at the age of fourteen, in order to take my ailing mother's job at 'Miss Sarah's' — mother died in a few days."*

Moves to NYC in search of better work opportunities, but

"fired from various positions due to lack of experience and youth — not having enough endurance and muscle for fifteen to eighteen hours of strenuous laundry and housework"

Life History of Minnie Marshall,1938

Marriage

   - Weds at age 16, husband abuses her *"knocking out her front teeth, and taking all of the money, stumbled, and disappeared into the night. She never saw him again!"*

Accepts almost any day job as domestic servant or cleaning

Low wages, ``*but whut ah'm gonna do? Ah got to live— got to hab a place to steh*"

Example II: Elmo Acosta

Census type info

    - white, male, 64 years old, lives in Jacksonville, FL, retired

Childhood / early career

    "My mother died when I was two years of age, and my father when I was seventeen. I started to sell papers .. when I was six years old"

    - *Works on railroad, then opens a grocery, then "got stung by the 'political bee"*

    - *Elected to City Council, then City Commission, then becomes Parks Commissioner*

Example II: Elmo Acosta

Most of document: his life's work as public servant

"I advocated the planting of holly, oak, and magnolia trees as a memorial to the soldiers of the World War…."

"I advocated filling in the swamps between Jacksonville and the beach along …"

"I established the city nursery - the only one in the United States, by the way"

"I enlarged the city park system to a grand total of about 300 acres"

Example II: Elmo Acosta

Most of document: his life's work as public servant

"I advocated the planting of holly, oak, and magnolia trees as a memorial to the soldiers of the World War…."

"I advocated filling in the swamps between Jacksonville and the beach along …"

"I established the city nursery - the only one in the United States, by the way"

"I enlarged the city park system to a grand total of about 300 acres"

"The biggest thing in my life? Making it possible the great St. John River bridge for the people of Duval County."

Research Questions

1. How to extract the rich info from these unstructured texts?

2. What can economists learn from these documents?

Research Questions

1. How to extract the rich info from these unstructured texts?

   - To what extent can large language models (LLM) help?

   - Under what circumstances are LLM answer 'similar enough' to human answers?

   - Main focus of today's talk

2. What can economists learn from these documents?

Research Questions

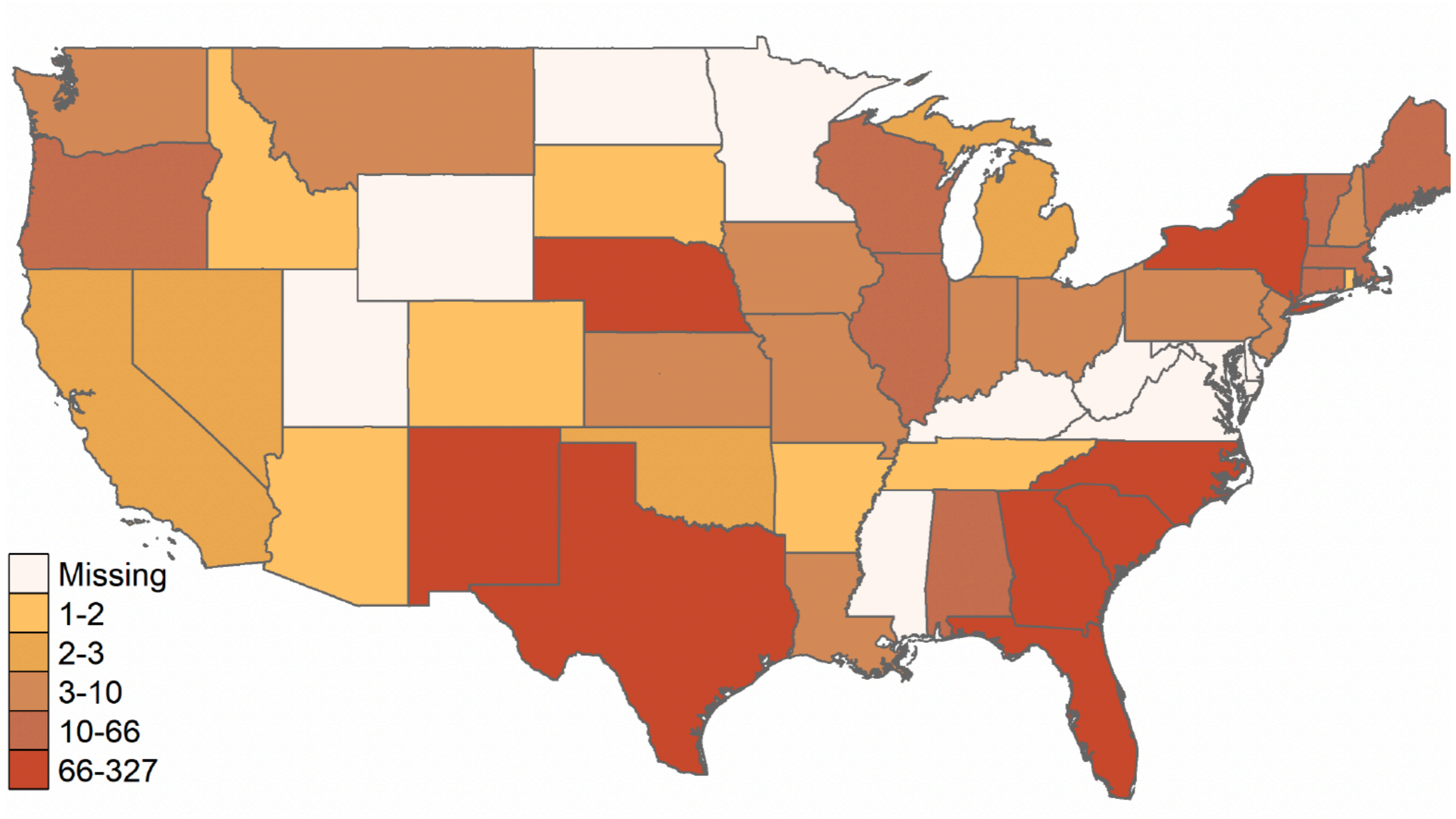1. How to extract the rich info from these unstructured texts?

   - To what extent can large language models (LLM) help?

   - Under what circumstances are LLM answer 'similar enough' to human answers?

   - Main focus of today's talk

2. What can economists learn from these documents?

   - In general: attitudes, experiences, perspectives of common Americans

   - Sources of happiness, satisfaction, meaning

   - Perceived economic shocks / critical junctures in life

   - Role of ancestry vs economic experiences in determining one's narrative

Representativeness of the Life Histories

Locations of Narrators

Legend:
- Missing
- 1-2
- 2-3
- 3-10
- 10-66
- 66-327

Life History Narrators vs Adults in US Census

Percent	Life History Narrators	All Adults, 1940 Census	Over Age 50 1940 Census	Households Heads Over Age 50 1940 Census
Above 50 years old	78	29	100	100
Male	65	50	51	77
Non-white	14	9	7	8
Born outside USA	16	13	23	23
Occupational SEI	33	30	29	30

Life History Narrators vs Adults in US Census

Percent	Life History Narrators	All Adults, 1940 Census	Over Age 50 1940 Census	Households Heads Over Age 50 1940 Census
Above 50 years old	78	29	100	100
Male	65	50	51	77
Non-white	14	9	7	8
Born outside USA	16	13	23	23
Occupational SEI	33	30	29	30

Extracting `Higher-Level' Characteristics from Life Histories

Yes/No Plus Reasoning Questions

Human readings:

- 6 readers x 9 questions/document x 300 documents = 16,200 answers

- Answers: "yes" and "no/uncertain" plus text to support answer

- Challenges: time consuming, expensive, humans disagree

Yes/No Plus Reasoning Questions

Human readings:

- 6 readers x 9 questions/document x 300 documents = 16,200 answers

- Answers: "yes" and "no/uncertain" plus text to support answer

- Challenges: time consuming, expensive, humans disagree

LLM readings:

- No 'off the shelf' method for parsing such complex statements

- Today's talk: GPT-4, 9 questions/doc x 300 documents = 2,700 answers

- Basic idea: break each life history up into "chunks," then ask questions about those

- Challenges: LLMs can "hallucinate," fail to understand 1930s English, etc

Yes/No Questions

Characteristic	Example Passage
Parent died	"My mother died several years ago at the age of seventy-five."
Parent died when I was young	"My father died when I was nine years old, that was in 1879."
Poverty kept me out of school	"I quit school in the sixth grade to take up the canning plant work. My daddy's health failed and he lost what money he had so my eldest brother and me started to work."
Religion is important	"We always tithe, and when the Lord gives us an extra blessing we divide that also with our church."
Hard work is important	"I believe it can be proved that I've sold more cattle than any other cattleman in boots."
Agreeable personality	"It's true we razzed on each other a lot but I never saw a cowboy that wouldn't stand up for another when he needed help or was in any kind of a jam.
Shows empathy towards others	"We never had any children of our own but we adopted two girls."

Evaluating LLM's Answers Using "Turing Test"

Our approach is version of Turing's (1950) Indistinguishability Test

Basic idea: LLM is "like another human reader" *if its accuracy relative to the*

<u>*modal human score*</u> *is within the range of accuracies for the human readers*

Sample Scores for "Hard Work is Important"

Life History	(1)	(2)	(3)	(4)	(5)	(6)	Modal Human Score	GPT Score
			Human Reader Scores					
Minnie Marshall	**0**	1	1	1	1	1	1	1
Willie Marlowe	1	**0**	1	1	1	1	1	1
Alexander Matheson	0	**1**	0	0	0	**1**	0	0
Melinda Parker	0	0	0	0	0	0	0	0
William M. Graves	1	**0**	1	1	**0**	1	1	**0**
...								

Turing Tests for "Hard Work is Important"

	Accuracy Relative to Modal Human Score
Human Reader Average	84
[min, max]	[68, 92]
Dictionary (LIWC)	57
GPT 4 (3,500 word chunks)	48
GPT 4 (1,000 word chunks)	70
GPT 4 (500 word chunks)	81
GPT 4 (150 word chunks)	83
GPT 3.5 (150 word chunks)	80
GPT 4 (100 word chunks)	80

Turing Tests for "Hard Work is Important"

	Accuracy Relative to Modal Human Score	
Human Reader Average	84	
[min, max]	[68, 92]	
Dictionary (LIWC)	57	❌
GPT 4 (3,500 word chunks)	48	❌
GPT 4 (1,000 word chunks)	70	✅
GPT 4 (500 word chunks)	81	✅
GPT 4 (150 word chunks)	83	✅
GPT 3.5 (150 word chunks)	80	✅
GPT 4 (100 word chunks)	80	✅

Turing Tests: All Variables

Percent of Narratives with Modal Human Score

	Human Average [min, max]	GPT 4 (150 words)	Dictionary
Parent died	95 [91, 98]	94	88
Parent died when young	96 [89, 98]	91	83
Poverty kept me out of school	93 [88, 96]	93	-
Religion is important	93 [84, 97]	86	76
Hard work is important	84 [68, 92]	83	57
Agreeable personality	81 [62, 90]	81	65
Shows empathy towards others	82 [73, 89]	76	-

Turing Tests: All Variables

Percent of Narratives with Modal Human Score		
	Human Average [min, max]	GPT 4 (150 words)	Dictionary
Parent died	95 [91, 98]	94 ✅	88
Parent died when young	96 [89, 98]	91 ✅	83
Poverty kept me out of school	93 [88, 96]	93 ✅	-
Religion is important	93 [84, 97]	86 ✅	76
Hard work is important	84 [68, 92]	83 ✅	57
Agreeable personality	81 [62, 90]	81 ✅	65
Shows empathy towards others	82 [73, 89]	76 ✅	-

Turing Tests: All Variables

Percent of Narratives with Modal Human Score

	Human Average [min, max]	GPT 4 (150 words)	Dictionary
Parent died	95 [91, 98]	94 ✅	88 ❌
Parent died when young	96 [89, 98]	91 ✅	83 ❌
Poverty kept me out of school	93 [88, 96]	93 ✅	-
Religion is important	93 [84, 97]	86 ✅	76 ❌
Hard work is important	84 [68, 92]	83 ✅	57 ❌
Agreeable personality	81 [62, 90]	81 ✅	65 ❌
Shows empathy towards others	82 [73, 89]	76 ✅	-

Extracting Data from Life Histories: Open-Ended Questions

Open-Ended Questions

"What factors (if any) brought happiness, purpose, or meaning into this person's life?"

Human readings:

- 3 readers x 150 documents

- Check any of 25 boxes that apply for each document

- Boxes are e.g. "spouse," "work/career," "religion/spirituality"

Open-Ended Question for LLM

GPT-4 Instructions

"Please analyze the provided .txt file and identify the factors that brought happiness, a sense of purpose, and meaning to the person's life. Your analysis should be presented in a JSON format with the following structure:

"topic_name": Please provide a detailed description of the main theme or topic.

"justification": Please elaborate on why you chose this topic and explain its significance to the primary question.

"evidence": Please quote a line from the text that underscores your reasoning.

Guidelines:

1. Incorporate all the pertinent themes you uncover that contributed to the individual's joy, sense of purpose, and significance in their life.

2. Only include themes that have clear support from the text.

3. The evidence you choose must highlight the positive or uplifting nature of the topic. Simply mentioning the topic is not sufficient evidence. The evidence should portray the topic in a favorable light. Look for the use of emotional language or clear statements of preference.

4. The same sentence cannot be used as evidence for two different topics."

Open-Ended Question for LLM

GPT-4 Instructions

"Please analyze the provided .txt file and identify the factors that brought happiness, a sense of purpose, and meaning to the person's life. Your analysis should be presented in a JSON format with the following structure:

"topic_name": Please provide a detailed description of the main theme or topic.

"justification": Please elaborate on why you chose this topic and explain its significance to the primary question.

"evidence": Please quote a line from the text that underscores your reasoning.

Guidelines:

1. Incorporate all the pertinent themes you uncover that contributed to the individual's joy, sense of purpose, and significance in their life.

2. Only include themes that have clear support from the text.

3. The evidence you choose must highlight the positive or uplifting nature of the topic. Simply mentioning the topic is not sufficient evidence. The evidence should portray the topic in a favorable light. Look for the use of emotional language or clear statements of preference.

4. The same sentence cannot be used as evidence for two different topics."

Open-Ended Question for LLM

GPT-4 Instructions

"Please analyze the provided .txt file and identify the factors that brought happiness, a sense of purpose, and meaning to the person's life. Your analysis should be presented in a JSON format with the following structure:

"**topic_name**": Please provide a detailed description of the main theme or topic.

"**justification**": Please elaborate on why you chose this topic and explain its significance to the primary question.

"**evidence**": Please quote a line from the text that underscores your reasoning.

Guidelines:

1. Incorporate all the pertinent themes you uncover that contributed to the individual's joy, sense of purpose, and significance in their life.

2. Only include themes that have clear support from the text.

3. The evidence you choose must highlight the positive or uplifting nature of the topic. Simply mentioning the topic is not sufficient evidence. The evidence should portray the topic in a favorable light. Look for the use of emotional language or clear statements of preference.

4. The same sentence cannot be used as evidence for two different topics."

Ensemble Method + Filtering

1. Ask one LLM this question for all documents

2. Aggregate all answers into 9 aggregate categories

Example Answer

"**topic_name**": "Personal Achievements and Contributions",
"**justification**:" "Mr. Acosta's recounting of his accomplishments and contributions to the community highlights his sense of purpose, fulfillment, and pride in his achievements.",
"**evidence**:" "The biggest thing in my life? Making it possible the great St. John River bridge for the people of Duval County. And the greatest thing in my personal life is our beautiful home on the St. Johns River.",

Aggregate Categories

Category	Example
Adventure / Exploration / Excitement	"I saw several men riding horseback, coming towards the house. I did not have time to warn Billy [the Kid] that someone was coming but he and mother saw them."
Community / Service	"There is nothing I enjoy better than the stockmen's convention at Fort Worth. Last year I saw two hundred or more of the old boys on given name terms. 'Hey! John,' or 'Hello Bill,' could be heard on every side."
Education / Learning	"Five of my oldest children are in New York. All have good jobs and a high school education."
Family / Relationships	"Let me tell you, I sho did have a good husband. He made $15.00 a week wuking at de Holman Building, and evvy Sadday night he fetched evvy last penny of dat money straight home and laid it in my lap.'
Nature / Outdoor Activities	"Mr. Stevenson takes a great delight in hunting, and tells of many thrilling hunting trips."
Religious / Spiritual Beliefs	"Since I haven't been able to walk for over a year I don't go to church, but I listen to good sermons over my radio."
Resilience / Overcoming Challenges	"She never grieved over her blindness but went right along cheerful and working all the time."
Work / Career	"Mr. Botsford produced an ancient wooden instrument of which he was obviously proud. 'I could take this clock today, and put a pendulum and a dial on it and start it and I bet it'd keep perfect time.'"

Ensemble Method + Filtering

1. Ask one LLM this question for all documents

2. Aggregate all answers into 9 aggregate categories

Ensemble Method + Filtering

1. Ask one LLM this question for all documents

2. Aggregate all answers into 9 aggregate categories

3. Ask 2nd LLM same question and to classify *into same 9 categories*

Ensemble Method + Filtering

1. Ask one LLM this question for all documents

2. Aggregate all answers into 9 aggregate categories

3. Ask 2nd LLM same question and to classify *into same 9 categories*

4. Keep only answers that are consistent

Ensemble Method + Filtering

1. Ask one LLM this question for all documents

2. Aggregate all answers into 9 aggregate categories

3. Ask 2nd LLM same question and to classify *into same 9 categories*

4. Keep only answers that are consistent

5. Filter remaining answers for quality

Ensemble Method + Filtering

1. Ask one LLM this question for all documents

2. Aggregate all answers into 9 aggregate categories

3. Ask 2nd LLM same question and to classify *into same 9 categories*

4. Keep only answers that are consistent

5. Filter remaining answers for quality

   Filter 1 — does evidence support the justification?

   Filter 2 — is answer is actually about happiness, meaning, purpose?

   Filter 3 — is evidence actually in the original text?

Examples of Filtering

"topic_name": "Perseverance in the face of adversity",

"justification": "Despite facing numerous hardships and setbacks, Minnie demonstrates remarkable resilience and determination to keep working and survive. Her ability to push through difficult circumstances seems to give her a sense of purpose.",

"evidence": "After many days of trying, rent due, money gone, a sympathetic girl in one of the Agencies, told Minnie that, when she was out of money, she stood on one of the corners in the Bronx, where women came and hired you.",

"quality_check": "NO",

"feedback": "While the evidence shows Minnie's perseverance in finding work despite financial hardship, it does not explicitly mention how this gives her happiness, purpose or meaning. The evidence focuses more on her actions than her emotional state or sense of fulfillment."

Examples of Filtering

Original answer

"topic_name": "Perseverance in the face of adversity",
"justification": "Despite facing numerous hardships and setbacks, Minnie demonstrates remarkable resilience and determination to keep working and survive. Her ability to push through difficult circumstances seems to give her a sense of purpose.",
"evidence": "After many days of trying, rent due, money gone, a sympathetic girl in one of the Agencies, told Minnie that, when she was out of money, she stood on one of the corners in the Bronx, where women came and hired you.",
"quality_check": "NO",
"feedback": "While the evidence shows Minnie's perseverance in finding work despite financial hardship, it does not explicitly mention how this gives her happiness, purpose or meaning. The evidence focuses more on her actions than her emotional state or sense of fulfillment."

Examples of Filtering

"topic_name": "Perseverance in the face of adversity",

"justification": "Despite facing numerous hardships and setbacks, Minnie demonstrates remarkable resilience and determination to keep working and survive. Her ability to push through difficult circumstances seems to give her a sense of purpose.",

"evidence": "After many days of trying, rent due, money gone, a sympathetic girl in one of the Agencies, told Minnie that, when she was out of money, she stood on one of the corners in the Bronx, where women came and hired you.",
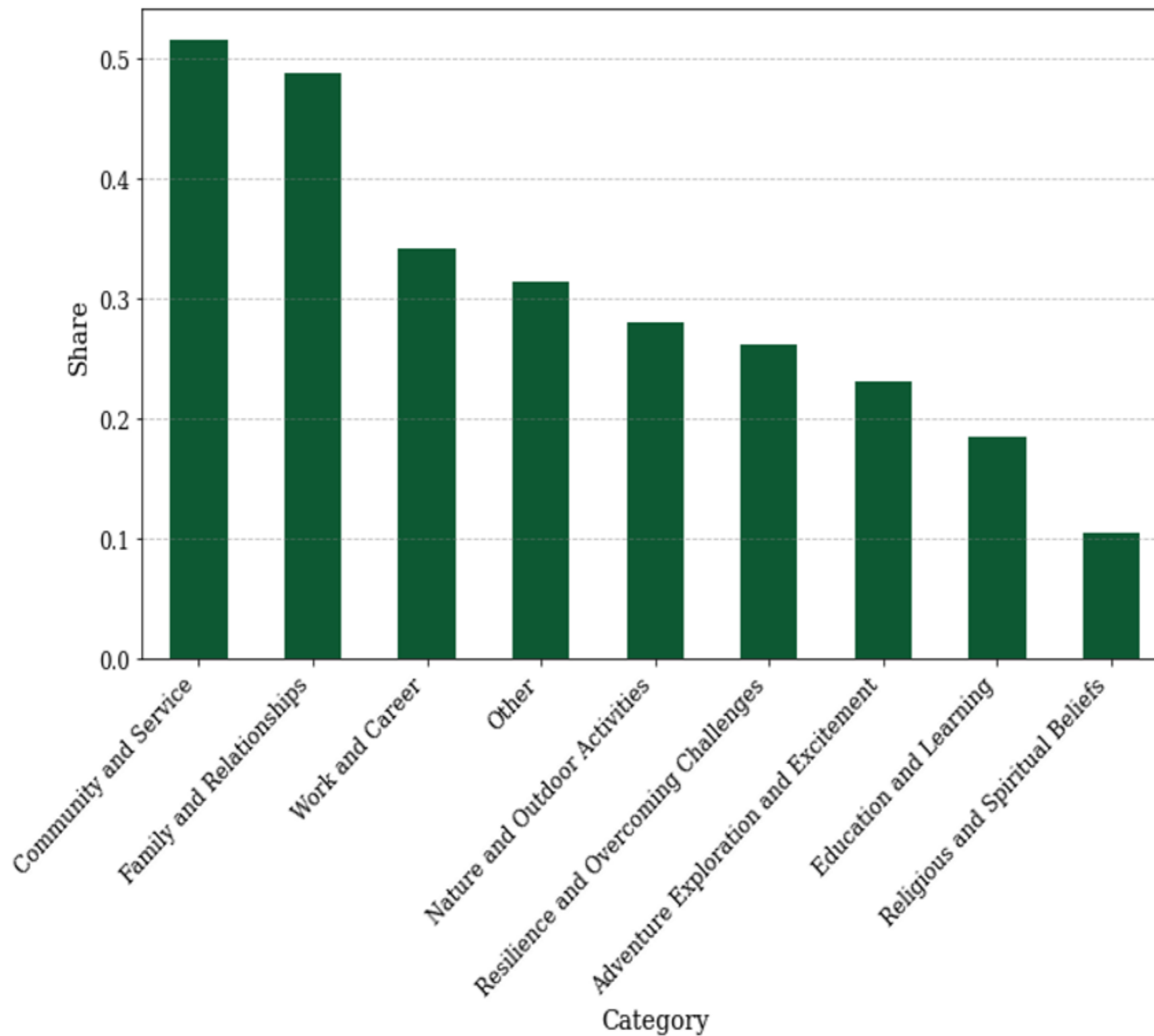
"quality_check": "NO",

"feedback": "While the evidence shows Minnie's perseverance in finding work despite financial hardship, it does not explicitly mention how this gives her happiness, purpose or meaning. The evidence focuses more on her actions than her emotional state or sense of fulfillment."

❌ Filter 2 — justification not about happiness, purpose, meaning

Turing Test: Accuracy Relative to Modal Human Score

	Human Average [min, max]	GPT4	Ensemble Method + Filtering
Family and Relationships	85% [77%, 91%]	67%	70%
Work and Career	85% [80%, 89%]	69%	68%
Religious and Spiritual Beliefs	93% [91%, 95%]	90%	94%
Education and Learning	95% [89%, 98%]	86%	92%

Sources of Life Happiness, Meaning, Purpose

Determinants of Sources of Life Meaning

1. Role of ancestry

  — Proxy using motifs in ancestral folklore (Michalopoulos & Xue, 2023)

  — More `pro-social' motifs in ancestry

  — More `risk-taking motifs in ancestry

2. Role of shocks

  —- Migrants moving when young to more prosperous areas

Determinants of Sources of Life Meaning

1. Role of ancestry

— Proxy using motifs in ancestral folklore (Michalopoulos & Xue, 2023)

— More `pro-social' motifs in ancestry

-> narrator more likely to emphasize community

— More `risk-taking motifs in ancestry

-> narrator more likely to emphasize adventure

2. Role of shocks

—- Migrants moving when young to more prosperous areas

Determinants of Sources of Life Meaning

1. Role of ancestry

    — Proxy using motifs in ancestral folklore (Michalopoulos & Xue, 2023)

    — More `pro-social' motifs in ancestry

        -> narrator more likely to emphasize community

    — More `risk-taking motifs in ancestry

        -> narrator more likely to emphasize adventure

2. Role of shocks

    —- Migrants moving when young to more prosperous areas

        -> narrator more likely to emphasize work/career

Conclusions So Far

- The American Life Histories

  — Potentially rich source of data for economists

  — Captures attitudes, experiences, perspectives of common Americans

- New methods to extract 'higher meaning' from unstructured text

  — Combines human and LLM readings

  — LLM answers can be `similar enough' to humans answers …

  —- .. but only under the right circumstances

  — Potential useful for other oral histories or unstructured text
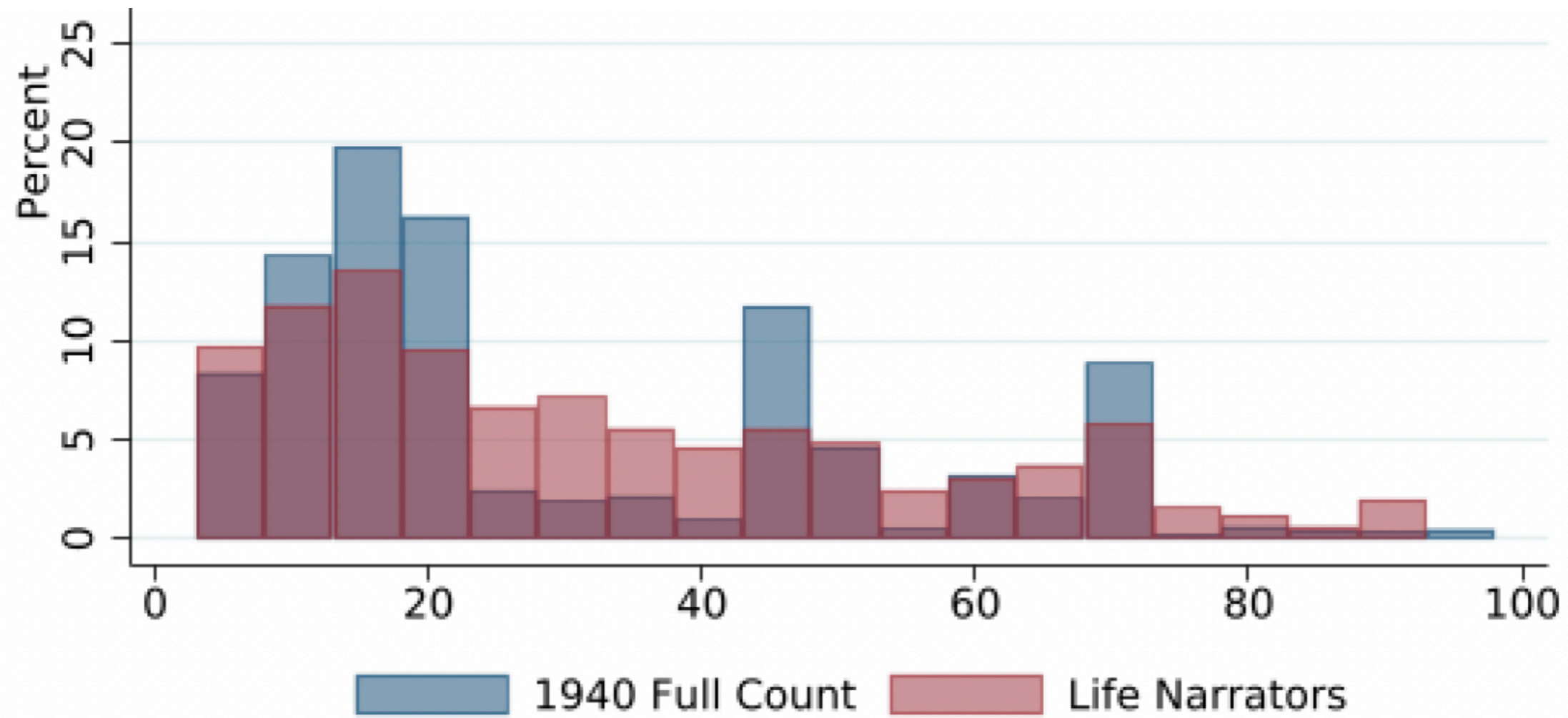
Extra Slides

Census Data and Life Histories

Census Data	*Life Histories*
Many observations, representative	Few observations, representativeness unclear
Main data source used by economists	Not studied yet by economists; somewhat in psychology
Standardized variables; extract from IPUMS, NBER	No `off the shelf' way to extract data but big potential for drawing out richer information about people's lives
Scripted, largely objective; census worker irrelevant	Unscripted, largely subjective; writer may matter

Census Data and Life Histories

Census Data	*Life Histories*
Many observations, representative	Few observations, representativeness unclear
Main data source used by economists	Not studied yet by economists; somewhat in psychology
Standardized variables; extract from IPUMS, NBER	No `off the shelf' way to extract data but big potential for drawing out richer information about people's lives
Scripted, largely objective; census worker irrelevant	Unscripted, largely subjective; writer may matter

Complementary too: we have matched ~300 narrators in 1930 census

Duncan's Socioeconomic Index

Examples of Filtering

"**topic_name**": "Career in the Naval Store Business",
 "**justification**": "Mr. Kennelly expresses his dedication and passion for his job in the naval store business, despite the challenges he faces. This career brings him a sense of purpose and fulfillment.",
"**evidence**:" "I have been connected in this present capacity for nine years and I can honestly say that I 've never seen business so slow in this line ever before.",
"**quality_check**": "NO",
 "**feedback**": "The evidence does not clearly state that Mr. Kennelly's career in the naval store business brings him happiness, purpose, or meaning. His statement about the business being slow does not necessarily indicate dedication or passion."

Examples of Filtering

Original answer

"**topic_name**": "Career in the Naval Store Business",
"**justification**": "Mr. Kennelly expresses his dedication and passion for his job in the naval store business, despite the challenges he faces. This career brings him a sense of purpose and fulfillment.",
"**evidence**:" "I have been connected in this present capacity for nine years and I can honestly say that I 've never seen business so slow in this line ever before.",
"**quality_check**": "NO",
"**feedback**": "The evidence does not clearly state that Mr. Kennelly's career in the naval store business brings him happiness, purpose, or meaning. His statement about the business being slow does not necessarily indicate dedication or passion."

Examples of Filtering

"**topic_name**": "Career in the Naval Store Business",
 "**justification**": "Mr. Kennelly expresses his dedication and passion for his job in the naval store business, despite the challenges he faces. This career brings him a sense of purpose and fulfillment.",
"**evidence**:" "I have been connected in this present capacity for nine years and I can honestly say that I 've never seen business so slow in this line ever before."

"**quality_check**": "NO",
 "**feedback**": "The evidence does not clearly state that Mr. Kennelly's career in the naval store business brings him happiness, purpose, or meaning. His statement about the business being slow does not necessarily indicate dedication or passion."

❌ Filter 1 — evidence not consistent with justification

Happiness, Purpose, and Meaning

"Does this document indicate happiness, satisfaction, meaning, or purpose in the life of the narrator, [narrator name]?"

Happiness, Purpose, and Meaning

'**answer**': 'yes'

'**reasoning**': The document portrays T. A. Snyder as a person who finds happiness, satisfaction, and purpose in his life. Despite facing hardships and challenges, he maintains a positive and humorous outlook. He derives meaning from his role as a Baptist preacher, helping those in need, and being involved in various community organizations. His strong family bonds and the support he receives from his wife and children also contribute to his sense of fulfillment.

'**evidence**': '"I just have to have some fun every now and then. I can't allow myself to think too seriously about the problems of life." This quote demonstrates Snyder's ability to find joy and humor in life, even amidst difficulties. Additionally, his dedication to his church and community, as well as his close relationship with his family, is evident throughout the document, indicating a sense of purpose and satisfaction in his life.'

Claude output

Happiness, Purpose, and Meaning

'**answer**': no

'**reasoning**': The document portrays Minnie Marshall's life as one of hardship, struggle, and exploitation. She was forced to leave school at a young age to work, endured an abusive marriage, and now faces difficult and unfair working conditions in the 'Bronx Slave Market' just to survive. There are no indications of happiness, satisfaction, meaning or purpose in her life as described in the passage.

'**evidence**': "Minnie paused awhile and squinted her tired eyes, say-'Ah hates the people ah Wukks for. Dey's mean, 'ceitful, an' ain' hones'; but whut ah'm gonna do? Ah got to live — got to hab a place to steh —' dough my lan'lady seys ah gotta bring huh sumf'n or ah can' stay dere tonight."

Claude output

Happiness, Purpose, and Meaning

Coder Range [83.3, 91.3]	Percent of n arratives with modal human score	Pass Turing Test
Claude	75.6%	Fail
Claude Chunked (150)	83.3%	Yes
GPT Chunked (150)	82.5%	Almost

Three Broad Approaches

1. "Yes/No + Reasoning" questions

   — e.g. "Does this person indicate that hard work is important?"

2. Open-ended questions

   — "What brought happiness, satisfaction, or meaning into this person's life"

3. Cardinal scores (in paper)

   — "Please score the overall overall happiness of this text from 1 to 7 …"

Three Broad Approaches

1. "Yes/No + Reasoning" questions

   — e.g. "Does this person indicate that hard work is important?"

2. Open-ended questions

   — "What brought happiness, satisfaction, or meaning into this person's life"

3. Cardinal scores (in paper)

   — "Please score the overall overall happiness of this text from 1 to 7 …"

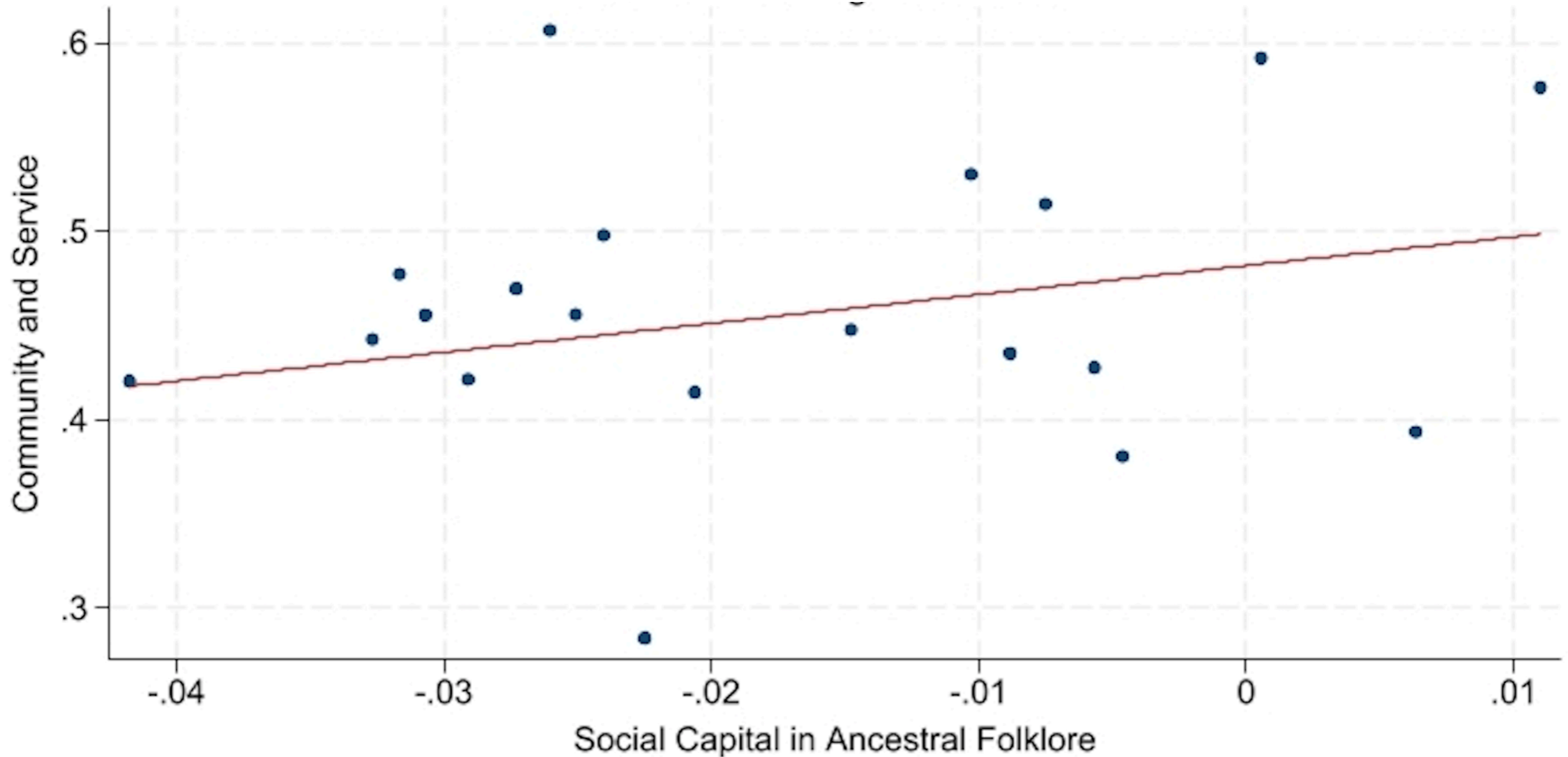**Our focus is on comparing LLM answers to human answers**

Predicting Sources of Life Satisfaction

Ancestry and Sources of Life Satisfaction

Can ancestry help predict what brought satisfaction or meaning into life?

- Proxy using motifs in <u>ancestral folklore</u> (Michalopoulos & Xue, 2023)

- Focus on immigrants, where ancestry known

- Pro-Social Motif: "Anti-social behavior is punished"

  — Tricksters in folklore get punished vs get away with it

- Risk-Taking Motif: "Risk taking is rewarded"
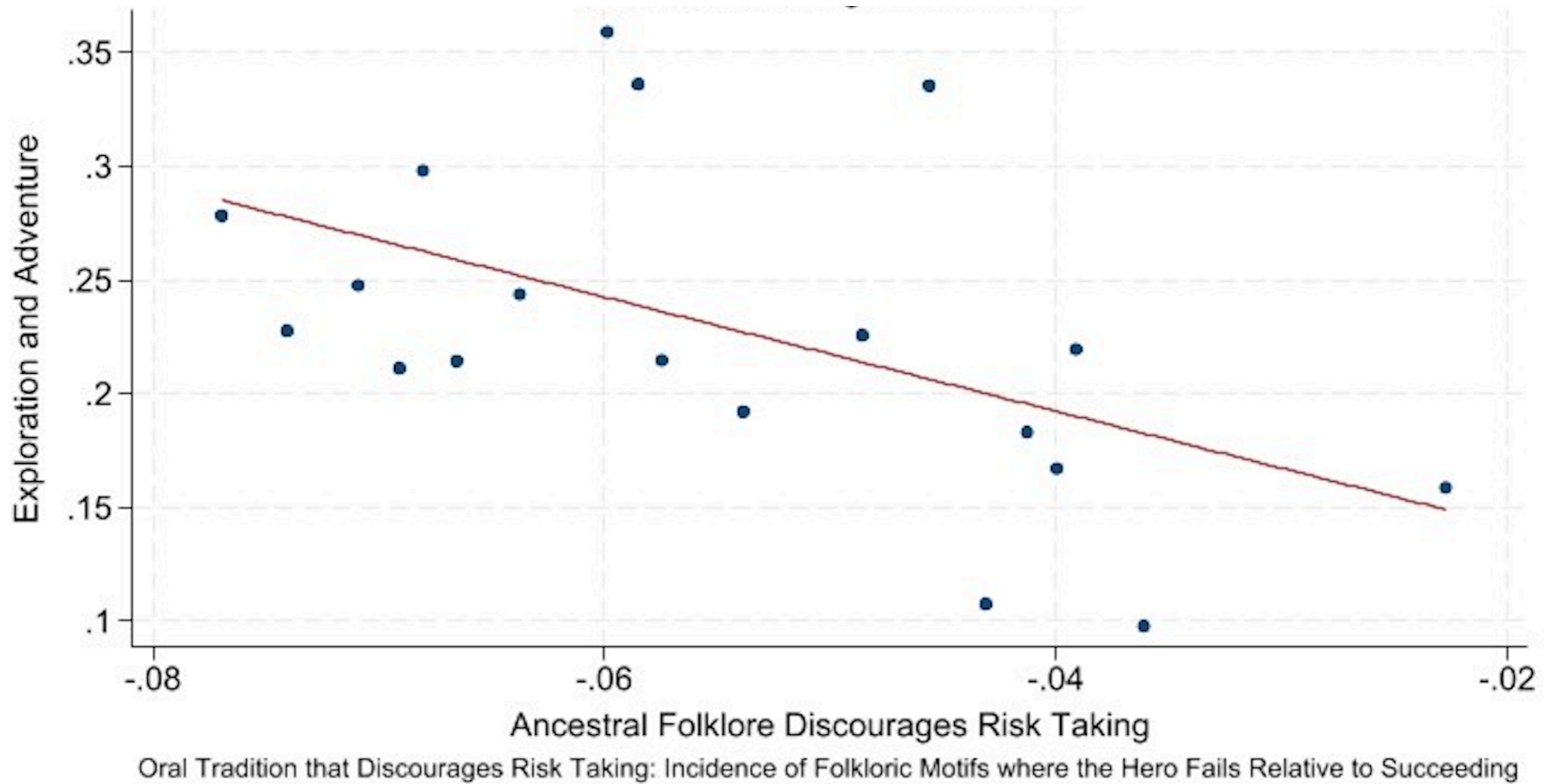
  — Hero in folklore succeeds in adventure vs fails

Pro-Social Motif and Life Satisfaction from Community and Service

Social Capital in the Folklore: % of Motifs where the Trickster is Punished Relative to Getting away with his Antisocial Behavior

Risk-Taking Motif and Life Satisfaction from Exploration and Adventure

Oral Tradition that Discourages Risk Taking: Incidence of Folkloric Motifs where the Hero Fails Relative to Succeeding

Economic Experiences and Sources of Life Satisfaction