MASIM: Multilingual Agent-Based Simulation for Social Science

Anonymous ACL submission

Abstract

Multi-agent role-playing has recently shown promise for studying social behavior with language agents, but existing simulations are mostly monolingual and fail to model cross-lingual interaction, an essential property of real societies. We introduce MASIM, the first multilingual agent-based simulation framework that supports multi-turn interaction among generative agents with diverse sociolinguistic profiles. MASIM offers two key analyses: (i) global public opinion modeling, by simulating how attitudes toward open-domain hypotheses evolve across languages and cultures, and (ii) media influence and information diffusion, via autonomous news agents that dynamically generate content and shape user behavior. To instantiate simulations, we construct the MAPS benchmark, which combines survey questions and demographic personas drawn from global population distributions. Experiments on calibration, sensitivity, consistency, and cultural case studies show that MASIM reproduces sociocultural phenomena and highlights the importance of multilingual simulation for scalable, controlled computational social science.

1 Introduction

Role-playing enables language agents to adopt specific personas or roles during multi-turn interactions (Chen et al., 2024). When scaling up to multiple role-playing agents, it becomes increasingly feasible to simulate aspects of human societies (Anthis et al., 2025). A pioneering example is Smallville (Park et al., 2023), which simulated a small town populated by 25 generative agents. This work was later extended in Park et al. (2024), where 1,052 digital representatives were modeled based on qualitative interviews. Both initiatives rest on the assumption that *if agents can emulate human behavior, they may serve as substitutes for real participants in human-centered research*.

Building on this premise, potential downstream directions of multi-agent social simulation include: (1) uncovering social patterns and group behaviors (Zhu et al., 2025; Wang et al., 2025), (2) interpreting social phenomena (Liu et al., 2024; Tsirmpas et al., 2025), (3) validating social theories (Dai et al., 2024; Ashery et al., 2025), and (4) forecasting policy outcomes (Li et al., 2024c; Yan et al., 2024). These use cases offer a cost-effective approximation to traditional social experiments, which typically depend on collecting human data through extensive surveys and field studies.

Against this backdrop, two significant gaps can be identified between the simulacra created by multi-agent systems and real human communities. (1) **Lack of multilingual and cross-lingual social interaction modeling**. Prior studies mainly focus on cross-cultural role-playing for data synthesis (Li et al., 2024b; Ki et al., 2025), but they neglect fine-grained agent behaviors that evolve across different languages and communication styles, which constitute a pivotal component of human societies. (2) **Limited sociolinguistic diversity of simulated environments**. Most simulations take place in monolingual or culturally homogeneous settings (Zhou et al., 2024b; Hou et al., 2025), restricting the emergence of diverse interaction patterns and overlooking social dynamics inherent to multilingual communities. As a result, multilingual social simulations remain severely underexplored, despite their significance for scalable and quantitative analysis of global social phenomena that are otherwise difficult to observe in real-world studies.

In light of these gaps, we propose the first **M**ultilingual **A**gent-based **Sim**ulation (MASIM), designed to model multi-turn interactions among generative agents with diverse sociolinguistic personas. MASIM enables multilingual social simulations by allowing agents to converse, influence, and react to one another across languages, addressing the lack of multilingual and cross-lingual in-

teraction modeling. MASIM supports (1) **global public opinion analysis** by simulating how attitudes toward open-domain social science hypotheses evolve across languages and cultures. Starting from any survey question, the framework emulates user behavior on social platforms and aggregates their responses via voting, offering a scalable and controllable alternative to global surveys (Yoshino et al., 2015; Gedeshi et al., 2022). In addition, MASIM provides (2) **media influence and information diffusion analysis** by incorporating autonomous news agents that act as media organizations. Unlike previous simulations that depend on predefined interventions (Li et al., 2024c; Hou et al., 2025), these agents generate content conditioned on institutional profiles and evolving discourse, facilitating controlled studies on information propagation and media effects without any a priori manipulation or costly field experiments.

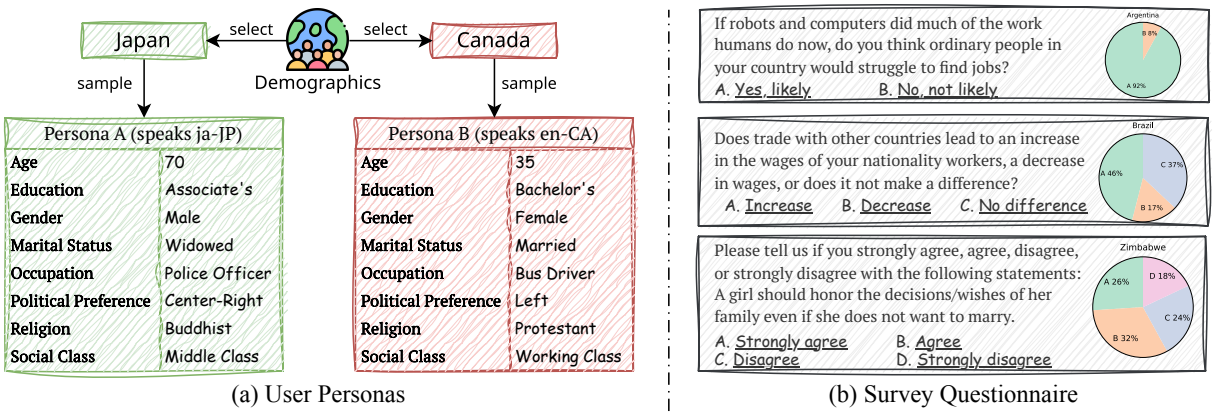
To operationalize the MASIM framework, we further construct the **M**ultilingual **A**gent **P**erspective **S**urvey (MAPS), a benchmark designed to instantiate diverse sociolinguistic agents before simulation. MAPS combines survey-style questions from GlobalOpinionQA (Durmus et al., 2024) with demographic personas derived from the World Values Survey (WVS) (Haerpfer et al., 2022), thereby grounding agents in realistic global population distributions and attitudinal patterns. Our comprehensive evaluations on real-world calibration, global sensitivity, local consistency, along with two cultural case studies, hope to establish the paradigm for multicultural agent society simulation, demonstrate its potential for computational social science, and identify its current constraints. In summary, our contributions are as follows:

- We introduce MASIM, a multilingual agent-based simulation framework that situates multi-agent society modeling on social networks within a global context. The framework supports the verification of open-domain social science hypotheses by simulating multi-turn interactions between user agents and external news media.
- We construct MAPS, an open-domain dataset that combines survey questions with user personas. This establishes a foundation for cross-cultural simulations and structured analysis of multilingual agent behavior.
- From extensive experiments and case studies on cultural assimilation and normative diffusion, our findings highlight the necessity of multilingual simulation, the soundness and robustness of the MASIM framework, and its ability to reflect phenomena observed in cross-cultural communities.

2 Related Work

Multi-Agent Social Simulation LLM-based multi-agent systems show notable capabilities in handling complex problems (Zhang et al., 2024) and sophisticated cooperation (Mandi et al., 2024). Compared to a single agent, scaling multiple agents introduces more interactions and variables beyond isolated decision-making. This has led to world simulation as a natural application area, including society simulation (Park et al., 2023), public administration (Xiao et al., 2023), and strategic games (Xu et al., 2025). Such frameworks extend the agent-based modeling tradition in social sciences (Gao et al., 2024), creating virtual settings for examining social phenomena, such as the art of war (Hua et al., 2024) and resource governance (Piatti et al., 2024). However, most work assumes monolingual and culturally homogeneous environments, leaving simulations of multilingual societies largely unexplored. Even the closest attempt, CulturePark (Li et al., 2024b), focuses on data generation rather than analysis of social dynamics.

Cross-Cultural LLMs LLMs have made strong advancements in multilingual NLP, as shown by improvements in translation and cross-lingual question answering (Huang et al., 2025). These developments build on recent multilingual LLMs (Xue et al., 2021; Scao et al., 2023) and multilingual embedding models (Wang et al., 2024a; Enevoldsen et al., 2025). Nonetheless, multilingual proficiency does not directly lead to cross-cultural understanding (Rystrøm et al., 2025), which requires models to handle diverse norms, values, and practices. Cross-cultural LLMs therefore aim to represent, reason about, and adapt to cultural contexts, not just process different languages. Prior studies show measurable cultural bias toward English-centric value profiles in frontier models (Rao et al., 2025; Myung et al., 2025), introduce benchmarks for cultural awareness (Wang et al., 2024b; Chiu et al., 2025), and propose training or data-synthesis methods that improve cultural alignment (Nguyen et al., 2024; Li et al., 2024a). Despite these developments, cross-cultural LLM research remains largely single-agent, while little work integrates cultural modeling with multi-agent social simulations.



(a) User Personas (b) Survey Questionnaire

Figure 1: The MAPS dataset. (a) User personas derived from WVS, defined by eight socioeconomic attributes plus country and native language; examples from Japan and Canada. (b) Three survey questions with answer options and selected country-level response distributions, illustrated for Argentina, Brazil, and Zimbabwe.

User Persona	
# Participants	57,647
# Languages	28
Average Participant per Country	1,152.94
Survey Questionnaire	
# Question	300
Average Question Length	191.54 characters
# Country	50
Average Country per Question	7.47
Average Option per Question	3.37
Average Option Length	14.61 characters
Sources	
- GAS	263
- WVS	37

Table 1: Dataset statistics.

3 MAPS Dataset

In line with precedent practices (Hou et al., 2025; Zhang et al., 2025), which pair real individuals and survey instruments for agent-based simulations, we form the the Multilingual Agent Perspective Survey (MAPS) dataset, from (1) user settings sampled from multicultural populations with (2) social research questions of global concern.

To construct user settings across countries, personas from the World Values Survey (Haerpfer et al., 2022) are drawn given its breadth and scope. We retain eight independent attributes to characterize identity: *age, education, gender, marital status, occupation, political preference, religion,* and *social class*, then map these demographic variable values to human readable labels. For multilingual agent simulation, a native language is assigned to each interviewee based on country, yielding the sociolinguistic personas shown in Figure 1(a).

Social research questions of the MAPS dataset are sourced from GlobalOpinionQA (Durmus et al., 2024), derived from WVS (Haerpfer et al., 2022) and the Pew Global Attitudes Survey (GAS) (Pew Research Center, 2024). We keep only survey items whose country coverage overlaps with the user personas, and remove ambiguous or non-substantive options such as *No answer*, *Don't know*, and numeric placeholders. The final set includes the question, the answer options, and per-country option distributions, illustrated in Figure 1(b).

The statistics of the MAPS dataset are reported in Table 1. Additional annotation details and sample distributions are provided in Appendix A.

4 The MASIM Framework

MASIM emulates multi-turn social interactions among user and news organization agents across countries and tracks how attitudes evolve toward a survey item, as illustrated in Figure 2. In this system, both types of agents engage in iterative communication: news organizations express their stances on the survey question by generating news posts intended to influence users, while users read recommended content, compose their own posts, and vote to reflect their evolving attitudes.

4.1 Environment

Let (Q, C) denote the survey item as input, where Q is the question and $C = \{c_i\}_{i=1}^{|C|}$ represents the set of possible response choices. The environment involves N_u user agents with personas and N_o news organization agents with profiles. The multilingual recommendation system R embeds both agents and their posts into a shared semantic space, and performs translation whenever their languages differ.

The simulation is initialized at $t = 0$ and executed for T rounds. Each agent is equipped with

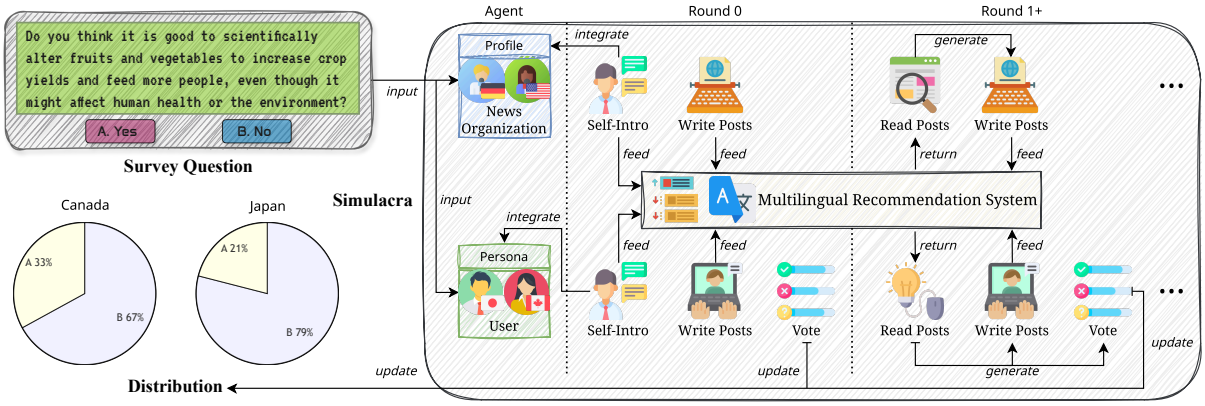


Figure 2: The MASIM framework. Starting from the survey question, in warm-up round 0 news organization agents create self-introductions to augment their profiles and write posts stating their editorial stances, which are then fed into the recommendation system. User agents likewise create self-introductions, write posts to express their perspectives as input to the recommendation system, and participate in a multiple-choice vote. In rounds $t \geq 1$, news organization and user agents first read recommended posts, then write new posts for recommendation based on their memories and the content they read, and finally user agents vote to update the attitude distribution.

a persona or profile, short-term memory $\hat{M}$, long-term memory $\bar{M}$, and a set of authored posts P. At round t, the user indexed by u_i produces an attitude distribution $d_{u_i}^{(t)} \in \Delta^{|C|-1}$. After the simulation completes, the framework returns

$$\mathcal{D} = \{d_{u_i}^{(t)} \mid u_i = 1, \ldots, N_u, ; t = 0, \ldots, T\}.$$

4.2 Users

User agents in the framework role-play social media users, each defined by a persona with characteristics such as *age, education, country*, and *language*. These personas allow agents to exhibit culturally and demographically grounded behaviors when interacting on the simulated platform.

Each round, the user follows a fixed sequence of actions. During the warm-up round ($t = 0$), the agent generates a self-introduction, creates the first post, and casts a vote. This stage serves to initialize the agent's public identity, generate content for the recommendation system, and establish its baseline attitude toward the question Q.

In subsequent rounds ($t \geq 1$), the user first reads previous posts from the recommendation system R, forming long-term memories based on its understanding. Then the user agent composes a new post reflecting its experience and analysis before participating in the voting process to express its updated attitude toward the survey item.

Memory To emulate human deliberation, we design short-term memory within each action and long-term memory across rounds for user agents.

- **Short-term Memory**: Before executing each action, the user agent is required to perform chain-of-thought reasoning (Wei et al., 2023) as part of its role-playing. Following the Chain-of-Persona paradigm (Ji et al., 2025), we prompt the agent to go through three self-questioning sessions before producing its final response. These questions and answers are treated as the short-term memory.
- **Long-term Memory**: From each *reading posts* action after round 0, user agents maintain long-term memory of cross-round takeaway messages. The reading action output is a set of weighted takeaways $\{(m_\ell, w_\ell)\}_{\ell=1}^{L_{u_i}^t}$, where $L_{u_i}^t$ is the number of takeaways for agent u_i at round t, and $w_\ell \in [0, 1]$ is the weight of m_ℓ. After min-max normalization of w_ℓ, the long-term memory is updated as $\bar{M}_{u_i}^t \leftarrow \bar{M}_{u_i}^{t-1} \cup (m_\ell, w_\ell)_{\ell=1}^{L_{u_i}^t}$. The top-$k_m$ memories are retrieved using $\text{Score}(m, t) = (1 - \alpha_m)w + \alpha_m \lambda_m^{\delta(m,t)}$, where $\lambda_m \in (0, 1)$ and $\alpha_m \in [0, 1]$ are the temporal decay and balance factors, and $\delta(m, t) = \frac{1}{2}((t - \tau_0)_+ + (t - \tau_1)_+)$ depends on the memory creation round τ_0 and last-use round τ_1. The top-k_m memories selected by this score are incorporated into the prompt of subsequent actions in each round.

Actions User agent actions are defined below.

- **Self-introduction**: Since personas alone are insufficient for role-playing, we follow SOTOPIA (Zhou et al., 2024b), which generates public self-presentations reflecting what agents want others to know based on their backgrounds. Accordingly, at $t = 0$, user agents produce self-introductions incorporated into their personas.
- **Read Posts**: For $t \geq 1$, the recommendation system R provides up to k_r translated posts $\Gamma_{u_i}^t$

to each user agent, and the agent's long-term memory $\bar{M}$ is updated with top-k_m takeaways from the recommended posts.

- **Write Posts**: Conditioned on its persona and long-term memories $\bar{M}_{u_i}$, User agent u_i creates post $p^t_{u_i}$ at round t, reflecting its experiences.
- **Vote**: We follow the convention established in earlier work (Zhou et al., 2024a; Hou et al., 2025), where each agent outputs a probability distribution over survey options rather than a single discrete score. To obtain a smooth, normalized attitude distribution, the raw outputs each round are regularized through temperature softmax:

$$d_{u_i} = \left(\frac{e^{\tilde{d}^c_{u_i}/\phi}}{\sum_{k=1}^{|C|} e^{\tilde{d}^k_{u_i}/\phi}} \right)_{c=1}^{|C|}$$

where $\tilde{d}_{u_i}$ is the raw output and ϕ denotes the softmax temperature parameter.

4.3 News Organizations

News organization agents in the MASIM framework role-play media entities on social platforms and are characterized by two profile attributes: their *editorial stance* toward the question Q in one of the response choices c and their *language*.

During round 0, each news agent first generates a self-introduction and then produces an initial news post. This stage sets up the agent's profile and provides content for the recommendation system.

For $t \geq 1$ rounds, agent read posts and write news in tandem, which mimics a realistic newsroom workflow, where editors review sources before producing new content. To preserve asymmetry between news organizations and user agents, news media agents do not explicitly generate long-term memories from reading. Instead, they write news directly based on the recommended contents and their historical posts as long-term memory.

Memory We adopt a memory setup for news agents similar to that used for user agents.

- **Short-term Memory**: Each action, the agent asks three self-questions as short-term memory.
- **Long-term Memory**: Recent news agent post history within a window of size k_m.

Actions Three actions for news organization agents in MASIM are listed below.

- **Self-introduction**: Each news agent generates a self-introduction at warm-up round 0, which is then added to its organizational profile.
- **Read posts**: For $t \geq 1$, the multilingual recommendation system R delivers translated posts $\Gamma^t_{o_i}$ for agent o_i to compose news in round t.
- **Write posts**: At round t, agent o_i writes the post $p^t_{o_i}$, which serves as future long-term memory.

4.4 Multilingual Recommendation System

The multilingual recommendation system R projects both agents and posts of different languages into a unified embedding space using a Sentence Transformer model (Reimers and Gurevych, 2019) to provide semantic post recommendations.

Encoding For each agent i, its initial embedding $\bar{z}^{(0)}_i$ is encoded from its self-introduction. At each round t, the agent embedding is updated via the Exponential Moving Average (EMA) mechanism:

$$\bar{z}^{(t)}_i = (1 - \alpha_r)\, \bar{z}^{(t-1)}_i + \alpha_r\, \tilde{z}_{i,t-1},$$

where $\tilde{z}_{i,t-1}$ is the embedding of the most recent post p^{t-1}_i, and $\alpha_r \in (0, 1)$ is the EMA update rate. Each post p is encoded into an embedding $\tilde{z}_p = f_{\text{enc}}(p)$, after normalization for cosine similarity.

Similarity Search The system computes a similarity between an agent i and a post p as:

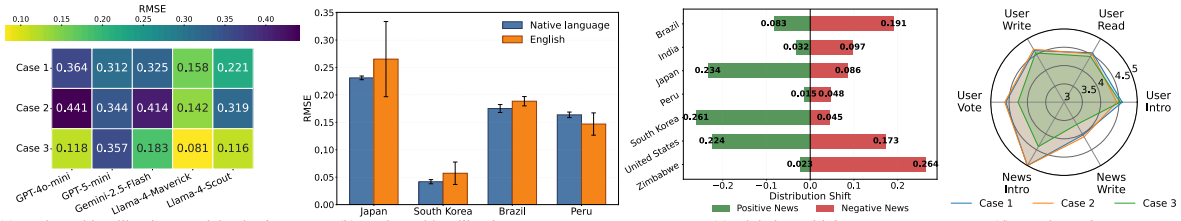
$$\mathrm{S}(i, p) = \lambda_r^{(t-\mu(p))} \cdot \cos(\bar{z}^t_i, \tilde{z}_p),$$

where $\lambda_r \in (0, 1)$ is the recency decay factor and $\mu(x)$ denotes the posting round of p. The decay term ensures that more recent posts are prioritized while maintaining semantic relevance.

Top-k_r Recommendation For each agent i, the recommender retrieves the top-k_r posts ranked by relevance $\mathrm{S}(i, p)$, excluding self-authored posts. At each round t, posts are translated into the agent's language before recommendation Γ^t_i is delivered.

5 Experiments

We evaluate the reliability of MASIM from three perspectives: (1) real-world calibration, which examines whether the agent-based simulation reflects the evolving dynamics observed in real-world social systems; (2) global sensitivity, which tests whether the simulated society responds appropriately to external signals or perturbations; and (3) local consistency, which assesses whether individual agent behaviors align with their demographic settings and cultural backgrounds.



(a) Real-World Calibration: Model Selection (b) Real-World Calibration: Language (c) Global Sensitivity (d) Local Consistency

Figure 3: Experimental results. (a) Lower RMSE scores correspond to better real-world calibration. (b) Smaller RMSE variance indicates more stable simulation outcomes. (c) Larger distribution shift captures more pronounced stance changes induced by media effects. (d) Higher consistency scores represent better quality agent actions.

Q201 (GAS)
Does trade with other countries lead to an increase in the wages of your nationality's workers, a decrease in wages, or does it not make a difference?
Options: A. Increase; B. Decrease; C. No difference.
Cases: 1 – India, Japan, United States;
2 – South Korea, Brazil, Peru.

Q278 (WVS)
A girl should honor the decisions or wishes of her family even if she does not want to marry.
Options: A. Strongly agree; B. Agree;
C. Disagree; D. Strongly disagree.
Cases: 3 – Zimbabwe.

Table 2: Description of cases in the experiment.

5.1 Experimental Setups

As shown in Table 2, we conduct experiments on three cases from the MAPS dataset, where the simulation initializes with 100 user agents, distributed across countries according to population proportions. Each simulation runs for 20 rounds with an additional warm-up round. To examine the influence of different models on agent behavior, we test five LLMs as agent backbones: `GPT-5-mini`, `GPT-4o-mini`, `Gemini-2.5-Flash`, `Llama-4-Maverick`, and `Llama-4-Scout`. The multilingual recommendation system is implemented by `jina-embeddings-v3` (Sturua et al., 2024) for semantic encoding and *Google Translate* for cross-lingual communication. We configure the recommendation system to include at least one news item for each user, in line with real-world social platforms where users are guaranteed some news exposure in their timelines. Additional implementation details and case statistics are provided in Appendix B.1 and Appendix B.2.

5.2 Real-World Calibration

To bridge the simulation and the human world, we employ a twofold calibration: (1) we quantify the discrepancy between real-world survey $\mathcal{D}_{\text{real}}$ and the corresponding simulation distributions $\mathcal{D}_{\text{sim}}$; and (2) we study the role of the language, testing whether the simulation in English, a resource-abundant language, or in the country's native language yields results that more closely match the real world. We run each of the three cases without news or cross-country communication and evaluate performance using the Root Mean Square Error (RMSE) between simulated and survey average attitude distributions across countries and rounds. Moreover, Appendix B.3 includes the detailed derivation of RMSE as well as the average RMSE outcomes reported at the country level.

Figure 3(a) shows that **language models can partly replicate global survey results, with noticeable discrepancies between models**. Specifically, `Llama-4-Maverick` and `Llama-4-Scout` perform uniformly better than the other models, which may attributed to their pretraining preserves preferential rather than strictly unbiased survey question responses. Based on this observation, we choose the best-performer, `Llama-4-Maverick`, for the subsequent experiments and case studies.

To analyze the impact of language choice in multilingual agent simulation, we focus Cases 1 and 2, where there is at least one non-English-speaking country, and study whether simulations run in English or in the native language align more closely with the real world. The results, averaged over three random experiments and shown in Figure 3(b), indicate that **using the native language yields better calibration (lower RMSE) and more stable simulation (smaller variance).**

5.3 Global Sensitivity

To analyze the global sensitivity, we examine how news exposure affects agents across three cases. For each country, we introduce a news organization agent that communicates in the native language and adopts either a positive (option A in Q201 and Q278) or a negative (option B in Q201 and option D in Q278) stance, with no cross-country communication allowed. We then compare the average distribution over the last three rounds on the positive or negative option between simulations with

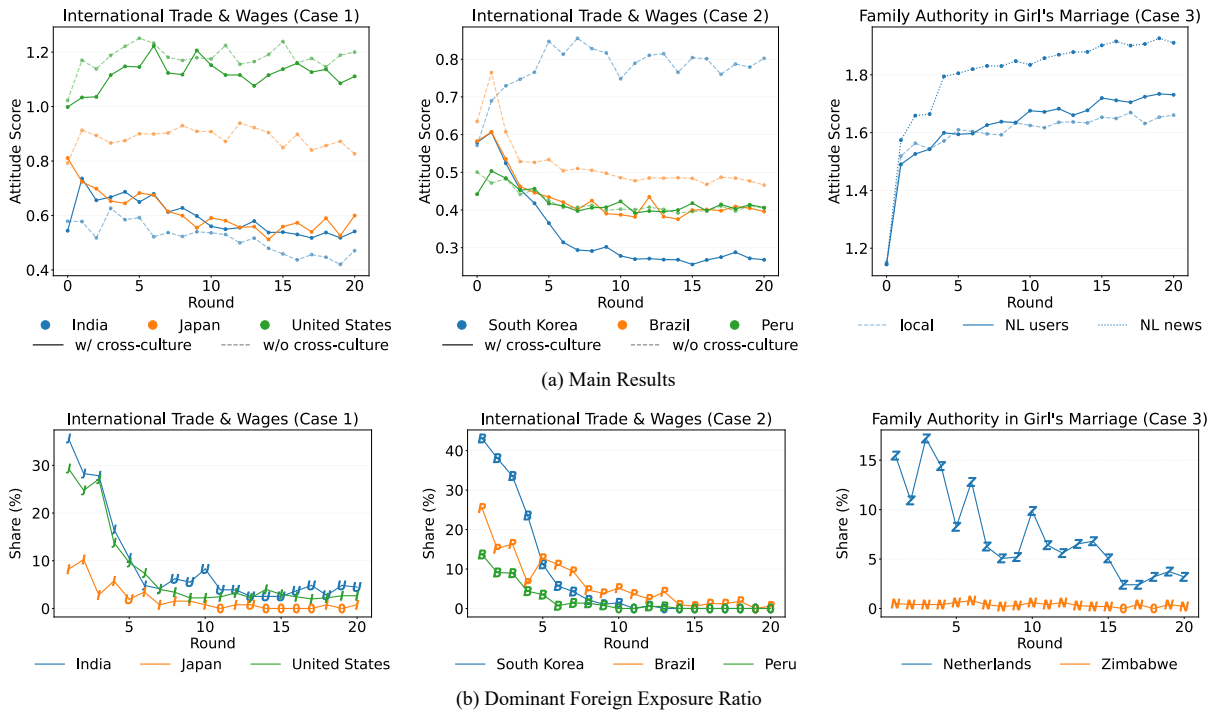


Figure 4: Case study. Subfigure (a) shows cultural assimilation attitude changes for Cases 1 and 2, and normative diffusion attitude shifts for Case 3. Semi-transparent dashed lines correspond to simulations without cross-cultural communication. Subfigure (b) depicts, for each country, the maximum share of user recommendations coming from any single foreign country (i.e., Dominant Foreign Exposure Ratio). Markers denote this largest foreign country by the initial letter of its name, while a value of zero indicates that no foreign posts are recommended in that round.

news and those without. Figure 3(c) shows the magnitude of distributional shifts for the positive (left) and negative (right) options relative to the condition without news exposure. Derivations of these shifts are provided in Appendix B.4, and the results demonstrate that **user agents across all countries respond to injected news by shifting their attitudes toward the designated editorial stance**.

5.4 Local Consistency

We use GPT-5 as LLM evaluators to rate the agent quality from 1 (poor) to 5 (excellent) over all actions. Specifically, we evaluate the Global Sensitivity setting with positive news agents, selecting 15 user agents for each case and all news agents, and scoring their responses for each action over 5 rounds. As shown in Figure 3(d), **agents generally achieve high response quality except for news creation**; Further analysis from Appendix B.5 shows that news organization agents tend to repeat their previous posts, reducing content diversity.

6 Case Study on Social Science Research

To showcase how MASIM can facilitate social science research, we conduct cross-cultural studies as a direct application of multilingual agent-based simulation. Multicultural discourse is both substantively important and challenging, especially given the scarcity of suitable multinational data, and our simulation framework helps overcome this limitation. We aim to address two research questions: 1) *Does international cross-lingual communication help users from different countries converge in their opinions on a given survey item?* 2) *Following international interaction, can users or news organizations from source countries promote norms in target countries, and which actor is more influential?* Due to page limits, complete results and theoretical interpretations of these dynamics across all three cases are provided in Appendix C.

For each case, we run three trials and report in Figure 4(a) the average attitude score, where the attitude distribution $d_{u_i} \in \Delta^{|C|-1}$ is converted to a scalar score by $s_{\text{att}} = \sum_{c=0}^{|C|-1} c \cdot d_{u_i}^{c}$, with the $|C|$ choices reranked from most positive ($c = 0$) to most negative. Figure 4(b) reports the *dominant foreign exposure ratio* for each country, defined as the highest proportion of recommended content for users that originates from any foreign country.

6.1 Cultural Assimilation

In sociology, *cultural assimilation* (Treudley, 1964) refers to the process by which distinct groups come

to share a common culture. In our setting, we conceptualize assimilation as cross-national convergence in agent attitudes on specific survey questions. Below, we analyze cultural assimilation dynamics for the question on *international trade and domestic wages*, focusing on two country groups.

Case 1: India, Japan, and the United States

- Simulated U.S. users exhibit comparatively stable attitudes, with scores ranging only from 1.0 and 1.2 (between *No difference* and *Decrease*) before and after communication. This indicates **minimal movement toward pro-trade positions**, even when exposed to Japanese content.
- India and Japan, by contrast, have strategic incentives for openness to trade (Banga et al., 2012; Fujitani et al., 2023), and **Japan's simulated attitudes converge sharply toward India's after communication**: scores stabilize around 0.5-0.6 (between *Increase* and *No difference*). A notable pattern is that Japanese users receive very few foreign recommendations; by round 10, their foreign exposure approaches zero. This implies the early formation of an information cluster that limits influence from cross-national discourse.

Case 2: South Korea, Brazil, and Peru

- South Korea begins with a relatively high attitude score ($\sim$0.8), but after global communication, its score falls to $\sim$0.3, lower than Brazil and Peru, suggesting South Korea is more support international trade. This indicates that **South Korea ends up more supportive of free trade**. In-depth analysis of recommendation flows (see Figure 9 in Appendix C) reveals that Brazilian and Peruvian content, which express similar pro-trade positions, accounts for 73.3% of South Korea's foreign recommendations in round 1, but declines steadily to 3.5% by round 8. This early surge in exposure likely triggers the opinion shift, suggesting that **initial dominance of recommendations from ideologically aligned countries can strongly steer opinion convergence**.
- Both South American countries (Peru and Brazil) exhibit **rapid convergence** within five communication rounds. Each becomes the other's largest foreign recommendation source, consistent with **mutual influence driving assimilation**. The filter bubble issue as Japan is also observed in Peru.

6.2 Normative Diffusion

Beyond cultural assimilation, cross-cultural communication can also produce *normative diffusion* (Finnemore and Sikkink, 1998), the directional transfer of a behavioral standard from a source population to a target population, ultimately reshaping the target's beliefs, values, or policy preferences.

Case 3 turns to a survey item that captures the diffusion of *gender equality norms* (Miho et al., 2023). We designate **Zimbabwe**, ranked 153rd in the Gender Inequality Index (UNDP, 2025), as the target country. Without additional interventions, Zimbabwean agents' attitude scores range from about 1.5 to 1.7 (between *Agree* and *Disagree* that girls should honor family decisions about marriage). We then introduce the source nation, the **Netherlands** (ranked 8th in the Gender Inequality Index), and compare two interventions: 1) adding five Dutch news organization agents supporting option D (*Strongly disagree*), and 2) adding 50 Dutch user agents expressing the same stance.

The results indicate that **news organizations drive stronger normative shifts than ordinary users**. Dutch user posts make up less than 2% of Zimbabwean agents' recommended content, confirming a strong filter bubble that restricts cross-country user exposure. In contrast, news organizations have a larger impact because the recommendation system, which emulates real platforms, is configured to include at least one news post per round. Consequently, Zimbabwean agents are exposed to the Dutch news content and are more likely to shift their attitudes in a pro-equality direction, highlighting the media's role in piercing filter bubbles.

7 Conclusion

In this work, we explore multilingual agent-based simulation for social science discovery. We begin with the MAPS dataset, which integrates open-domain survey questionnaires with user demographics from global social science surveys. On top of this resource, we develop the MASIM framework, which models social-network interactions among cross-country user agents and news agents, and outputs user attitude dynamics for survey questions. Our evaluation examines real-world calibration, global sensitivity, and local consistency, which collectively support the framework's robustness and effectiveness. To illustrate its practical use in field study, we further apply MASIM to three case studies drawn from MAPS, uncovering several interpretable empirical findings. Overall, these results underscore the potential of MASIM as a general-purpose tool to support and accelerate computational social science research.

Limitations

User Simulation In MAPS and MASIM, we emulate users with ten persona attributes and a self-introduction through in-context learning and chain-of-thought reasoning, which cannot faithfully represent real-world users. Although this approach may be less effective than fine-tuning or reinforcement learning on massive user trajectory data, we believe it is more cost-effective, scalable to hundreds of agents or more, and can be readily extended toward more realistic user simulation in future work.

Social Networks To better analyze interactions among agents on global social network platforms, we simplify the setting while preserving fundamental platform features such as recommendation algorithms, translation, and posting, and we streamline user behavior to basic reading and writing actions. This abstraction may not fully capture how people actually communicate and behave on real-world social networks. Our simplistic design is intended to focus on cross-cultural discourse and to track group dynamics, while leaving room for future work to investigate more realistic social platforms and user behaviors within this framework.

Ethical Considerations

This study employs language agents with demographic personas derived from anonymized cross-national survey data that are available for non-commercial use, and no new human-subject data are collected. The personas in MASIM are role-played by large language models, and their attitudes and behaviors reflect only simulated responses under specified conditions; they should not be interpreted as empirical claims about real populations or used to draw normative conclusions about underrepresented groups. Because LLMs are pretrained on web-scale corpora containing biases, stereotypes, and misinformation, our multilingual simulations may reproduce or amplify such artifacts, and with only 100 agents cannot fully capture sociolinguistic patterns of specific communities. Accordingly, any applied or policy-relevant interpretation should be triangulated with empirical human-subject research. We also recognize the dual-use potential of LLM-based agent systems, and thus emphasize transparency, methodological clarity, and responsible collaboration with domain experts to support accountable and socially beneficial uses of multilingual agent-based simulations.

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A Dataset

To construct the dataset for multilingual agent-based simulation, we combine user personas from WVS with questionnaires from both WVS and GAS. Subsections below provide further details.

A.1 Personas

We select 50 countries and 57,647 participants from WVS Wave 7, and extract 10 persona attributes from the introduction, political culture & political regimes, and demographics parts:

- Age: from Q262, the original two-digit value.
- Education: from Q275, keep the ISCED-2011 textual categories (UNESCO, 2012) and filter out invalid (DK/NA) answers.
- Gender: from Q260, the original binary answers.
- Marital Status: from Q273, the original answers.
- Occupation: from Q281, use as the occupational group; we rename *never had a job* as *unemployed*. In MASIM, we randomly select one specific occupation from the corresponding occupational group for each user based on Table 3.
- Political Preference: from Q240, map answers 1-2 to *left*, 3-4 to *center-left*, 5-6 to *center*, 7-8 to *center-right*, and 9-10 to *right*.
- Religion: from Q289, map *do not belong to a denomination* to *atheist*.
- Social Class: from Q287, map the survey answer 1 to *upper class*, 2-3 to *middle class*, 4 to *working class*, and 5 to *lower class*.
- Country: from *B-Country code*.
- Language: select the primary social media writing language for that country and record its IETF BCP-47[1] language code.

Data types and examples of the above persona attributes are shown in Table 7. Besides, demographic statistics of these attributes in the MAPS dataset are presented in Figure 12.

A.2 Questionnaire

We sample 300 survey items from GlobalOpinionQA, including questions, answer choices, and response distributions for involving countries, comprising 263 from GAS and 37 from WVS. The country or region and language frequencies for each item are shown in the world map and word cloud in Figure 13. To illustrate the topical diversity of the questions, we classify them using IPTC top-level Media Topics[2] with results in Figure 14.

B Experiment

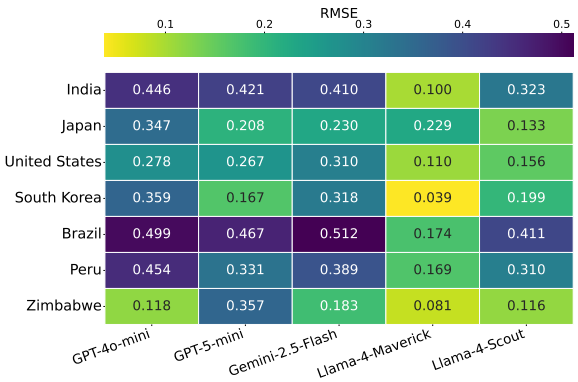


Figure 5: Real-world calibration by model and country.

In the experiments, we assess three social science research cases in the MASIM environment, where each simulation runs 100 user agents for 21 rounds, including 1 initial warm-up round.

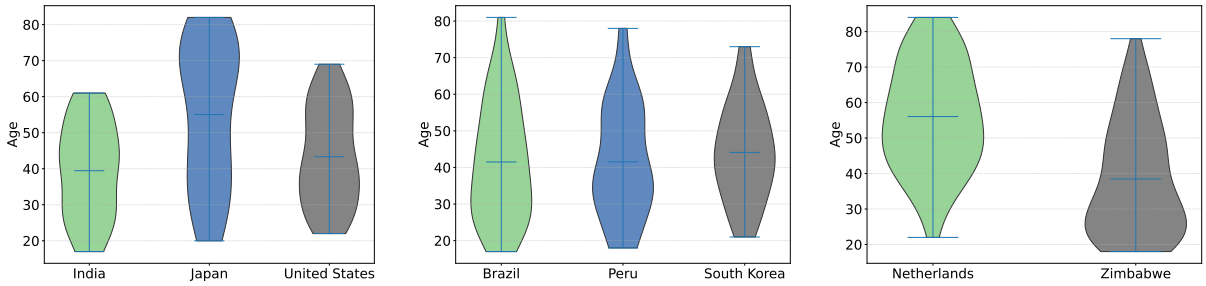
B.1 Implementation Details

We evaluated five LLMs in the MASIM environment: `GPT-5-mini`, `GPT-4o-mini`, `Gemini-2.5-Flash`, `Llama-4-Maverick`, and `Llama-4-Scout`. These models were selected for their stability in multilingual settings and structured JSON outputs, both of which are required by our simulation. For the multilingual recommendation system, we use the multilingual embedding model `jina-embeddings-v3` together with *Google Translate*. The hyperparameters used in our experiments are listed in Table 4.

[1] https://tools.ietf.org/html/bcp47
[2] https://iptc.org/standards/media-topics/

Occupational Group	Occupations
Professional and Technical	Doctor, Teacher, Engineer, Artist, Accountant, Nurse
Higher Administrative	Banker, Executive in big business, High Government Official, Union Official
Clerical	Secretary, Clerk, Office Manager, Civil Servant, Bookkeeper
Sales	Sales Manager, Shop Owner, Shop Assistant, Insurance Agent, Buyer
Service	Restaurant Owner, Police Officer, Waiter/Waitress, Barber, Caretaker
Skilled Worker	Foreman, Motor Mechanic, Printer, Seamstress, Tool and Die Maker, Electrician
Semi-skilled Worker	Bricklayer, Bus Driver, Cannery Worker, Carpenter, Sheet Metal Worker, Baker
Unskilled Worker	Laborer, Porter, Unskilled Factory Worker, Cleaner
Farm Worker	Farm Laborer, Tractor Driver
Farm Manager	Farm Proprietor, Farm Manager
Unemployed	Unemployed

Table 3: Details of Occupational groups.



(a) Case 1: Q201. (b) Case 2: Q201. (c) Case 3: Q278.

Figure 6: Age distributions for the three cases.

Hyperparameter	Value
Total simulation rounds (T)	20
Max long-term memory retrieval size (k_m)	3
Recommended posts per round (k_r)	5
Temperature for attitude regularization (ϕ)	0.25
Decay factor for long-term memory retrieval (λ_m)	0.9
Mixing coefficient for long-term memory (α_m)	0.5
Decay factor for recommendation (λ_r)	0.9
EMA rate for user embedding update (α_r)	0.1
Seed	42

Table 4: Hyperparameters.

B.2 Case Description

For the experimental case design, we use Q201 from GAS, *Does trade with other countries lead to an increase in the wages of your nationality's workers, a decrease in wages, or does it not make a difference?*, for the first two cases: Case 1 includes India, Japan, and the United States, and Case 2 includes South Korea, Brazil, and Peru. For the third case, we use Q278 from WVS with Zimbabwe: *A girl should honor the decisions or wishes of her family even if she does not want to marry*.

In the first two cases, we use 100 user agents in total and allocate them to each country according to that country's population share in the MASIM dataset. In the third case, we sample 100 users from Zimbabwe and 50 users from the Netherlands for later case studies. The basic persona distributions for Cases 1, 2, and 3 are summarized in Tables 8, 9, and 10, respectively. The corresponding age distributions are showcased in Figure 6.

B.3 Real-World Calibration

To compare the simulation results with real-world survey responses, we examine (1) the difference between the distribution in the MAPS dataset $\mathcal{D}_{\text{real}}$ and the emulated distributions from the five LLMs $\mathcal{D}_{\text{sim}}$, and (2) whether using native language or English simulation yields results closer to the real-world survey for the best model from (1), `Llama-4-Maverick`. Without cross-cultural communication, the RMSE between the average simulated attitude distributions (over rounds and countries) and the average survey attitudes (over countries) is used as the evaluation criterion.

For each case, suppose simulation generates attitude distributions for N_u users during T rounds:

$$\mathcal{D}_{\text{sim}} = \{d_{u_i}^{(t)} \mid u_i = 1, \ldots, N_u,\ t = 0, \ldots, T\},$$

where

$$d_{u_i}^{(t)} = \left(d_{u_i,1}^{(t)}, \ldots, d_{u_i,|C|}^{(t)}\right) \in \Delta^{|C|-1}$$

is the attitude distribution of user u_i at round t over the $|C|$ response options in terms of question q.

For each model θ, country $x \in X$, and round $t \in T$, the country-level simulated distribution is

computed by averaging users from country x:

$$d_{\theta,x}^{(t)} = \frac{1}{|U_x|} \sum_{u_i \in U_x} d_{u_i}^{(t)},$$

where U_x is the set of users with country x. The corresponding real survey distribution is

$$d_x^{\text{real}} \in \Delta^{|C|-1}.$$

The mean squared error (MSE) between the real-world and simulated distributions for model θ, country x, and round t is denoted by

$$\text{MSE}_{\theta,x}^{(t)} = \frac{1}{|C|} \sum_{c=0}^{|C|-1} \left(d_{x,c}^{\text{real}} - d_{\theta,x,c}^{(t)}\right)^2$$

which takes values in the range $\left[0, \frac{2}{|C|}\right]$.

The country-level RMSE in our experiments is

$$\text{RMSE}_{\theta,x}^{\text{country}} = \sqrt{\frac{1}{|T|} \sum_{t=1}^{T} \text{MSE}_{\theta,x}^{(t)}},$$

and the overall RMSE for model θ aggregated over all countries and simulation rounds is

$$\text{RMSE}_{\theta,x}^{\text{overall}} = \sqrt{\frac{1}{|X|\,|T|} \sum_{x=1}^{X} \sum_{t=1}^{T} \text{MSE}_{\theta,x}^{(t)}}.$$

The range of both RMSE metrics is

$$\text{RMSE} \in \left[0, \sqrt{\tfrac{2}{|C|}}\right].$$

Our calibration experiments run three independent trials and report the average country-level RMSE in Figure 5 and the overall RMSE in Figure 3(a). `Llama-4-Maverick` achieves the best performance across all three cases, outperforming other models in every country except Japan. We therefore use this model for all remaining analyses.

To assess the effect of simulation language, we run three independent experiments in English and in each country's native language. The RMSE results appear in Figure 3(b) and Subsection 5.2.

B.4 Global Sensitivity

This analysis evaluates how positive and negative news shape user agents' attitudes across the three cases under the condition of no international discourse. In Cases 1 and 2, each country includes one additional news organization agent that adopts option A in the positive news condition and option B in the negative news condition alongside the user agents. For Case 3 simulation, each country is assigned a news organization agent adopting option A under the positive news condition and option D under the negative news condition.

To capture the impact of introducing news organization agents, we compute the average attitude distribution shift across the last three rounds. We define the positive news shift as:

- **Cases 1 and 2**: Change in user attitude distribution toward option A, i.e.,

$$\frac{1}{3|U_x|} \sum_{t=T-2}^{T} \sum_{u_i \in U_x} (d_{u_i,A}^{(t)} - \tilde{d}_{u_i,A}^{(t)})$$

- **Case 3**: Combined user attitude distribution shift toward options A and B, i.e.,

$$\frac{1}{3|U_x|} \sum_{t=T-2}^{T} \sum_{u_i \in U_x} (d_{u_i,A}^{(t)} + d_{u_i,B}^{(t)} - \tilde{d}_{u_i,A}^{(t)} - \tilde{d}_{u_i,B}^{(t)})$$

Here, $\tilde{d}$ denotes the pre-intervention distribution, the same as in the real-world calibration setting.

Similarly, the negative news shift is defined as:

- **Cases 1 and 2**: Change in user attitude distribution toward option B, i.e.,

$$\frac{1}{3|U_x|} \sum_{t=T-2}^{T} \sum_{u_i \in U_x} (d_{u_i,B}^{(t)} - \tilde{d}_{u_i,B}^{(t)})$$

- **Case 3**: Combined user attitude distribution shift toward options C and D, i.e.,

$$\frac{1}{3|U_x|} \sum_{t=T-2}^{T} \sum_{u_i \in U_x} (d_{u_i,C}^{(t)} + d_{u_i,D}^{(t)} - \tilde{d}_{u_i,C}^{(t)} - \tilde{d}_{u_i,D}^{(t)})$$

Figure 3(c) presents the global sensitivity to positive and negative news across the seven participating countries. In addition, Figure 7 reports how global sensitivity evolves over rounds, quantified by the attitude score defined in Section 6.

B.5 Local Consistency

We assess agent behavioral consistency relative to their predefined personas or profiles using `GPT-5` as an LLM judge, scoring performance on a 1-5 scale (1 = poor, 5 = excellent). User agents are evaluated on four actions (*self-introduction, reading posts, writing posts*, and *poll responses*), whereas

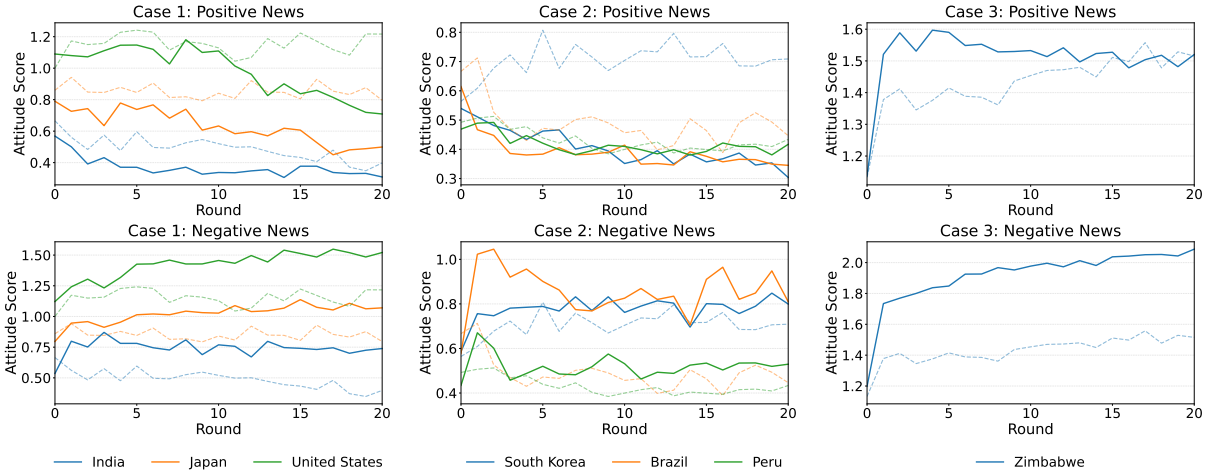


Figure 7: Global sensitivity attitude scores across countries and rounds.

Action	Alignment	Coherence
Case 1: India, Japan, United States		
User Self-Intro	4.533 ± 0.640	4.667 ± 0.617
User Reading Post	4.773 ± 0.421	4.520 ± 0.529
User Writing Post	4.533 ± 0.528	4.760 ± 0.430
User Voting	4.627 ± 0.514	4.533 ± 0.664
Organization Self-Intro	5.000 ± 0.000	5.000 ± 0.000
Organization Writing Post	5.000 ± 0.000	5.000 ± 0.000
Case 2: Brazil, Peru, South Korea		
User Self-Intro	4.333 ± 0.724	4.600 ± 0.632
User Reading Post	4.720 ± 0.481	4.547 ± 0.552
User Writing Post	4.560 ± 0.500	4.827 ± 0.381
User Voting	4.560 ± 0.526	4.707 ± 0.458
Organization Self-Intro	5.000 ± 0.000	5.000 ± 0.000
Organization Writing Post	5.000 ± 0.000	4.800 ± 0.414
Case 3: Zimbabwe		
User Self-Intro	4.400 ± 0.632	4.733 ± 0.458
User Reading Post	4.747 ± 0.522	4.520 ± 0.554
User Writing Post	4.493 ± 0.578	4.640 ± 0.671
User Voting	4.507 ± 0.795	3.880 ± 1.230
Organization Self-Intro	4.000 ± 0.000	5.000 ± 0.000
Organization Writing Post	5.000 ± 0.000	5.000 ± 0.000

Table 5: Alignment and coherence evaluation.

Action	Grounding	Uniqueness
Case 1: India, Japan, United States		
User Reading Post	4.440 ± 0.551	–
Organization Writing Post	–	3.067 ± 0.961
Case 2: Brazil, Peru, South Korea		
User Reading Post	4.387 ± 0.590	–
Organization Writing Post	–	3.267 ± 1.163
Case 3: Zimbabwe		
User Reading Post	4.227 ± 0.583	–
News Organization Writing Post	–	2.400 ± 0.548

Table 6: Grounding and uniqueness evaluation.

news organization agents are evaluated on two (*self-introduction* and *writing posts*). The evaluation follows the same configuration as the global sensitivity analysis with positive news. We sample 5 user agents per country for Cases 1 and 2 (15 total), and 15 user agents from Zimbabwe for Case 3. All news organization agents are evaluated in all cases.

For each evaluated action, we apply the *alignment* and *coherence* metrics: the former measures whether an agent's response aligns with its assigned persona or profile, while the latter assesses whether its short-term memory reasoning is coherent with its final output. For the user reading posts action, we introduce an additional *grounding* metric to determine whether the generated long-term memory is supported by the content the agent has read. For the organization writing posts action, we add the *uniqueness* metric, since we expect the news produced by organization agents to be both distinctive and continuous with prior posts. The full evaluation instructions are provided in Prompts 14-16.

Local consistency under the *alignment* and *coherence* metrics is summarized in Table 5, while Table 6 reports the evaluations for the *grounding* and *uniqueness* dimensions. The overall score is derived by applying metric weights of 0.3 (alignment), 0.5 (grounding), 0.2 (coherence), and 0.5 (uniqueness), and computing a weighted sum scaled to 1 over the relevant dimensions. The resulting overall evaluations are shown in Figure 3(d). Illustrative examples of the local consistency evaluation across all actions are shown in Examples 1-6.

C Case Study

Section 6 investigates two social science phenomena: cultural assimilation in Cases 1 and 2, and normative diffusion in Case 3. We visualize the attitude score and dominant foreign exposure ratio for each round in Figure 4. For a user u_i, the **Dominant Foreign Exposure Ratio** is defined as $\max_x \left|\{p_{u_j} \in \Gamma_{u_i} \mid x = \text{country}(u_j) \neq \text{country}(u_i)\}\right| / |\Gamma_{u_i}|$, where p_{u_j} is a post by user u_j in the recommendation set Γ_{u_i} of user u_i, and $\text{country}(\cdot)$ denotes the country of a user agent. This identifies the foreign country x that contributes the largest share of recommendations to user u_i.

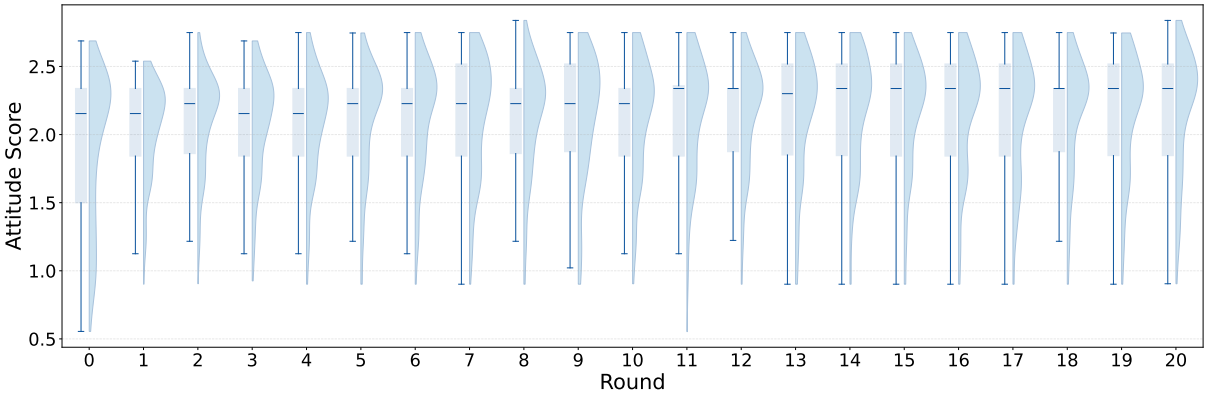


Figure 8: Attitude scores for 50 Netherlands users in Q277.

Cultural Assimilation We compare three independent runs before and after cross-nation discussion, where the recommendation system delivers translated posts from agents in other countries. Our objective is to determine which countries with disparate initial attitudes show convergence after the discourse. Figure 4 shows the primary results. To clearly illustrate the influence of foreign recommendations on South Korea in Case 2, we report the recommendation shares of Brazil and Peru for South Korean users in Figure 9. These two South American countries collectively convert South Korean users' opinions on international trade and wages.

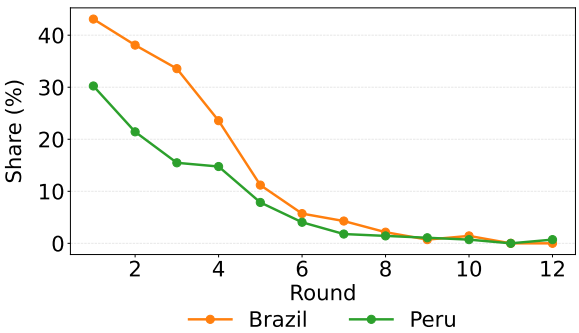


Figure 9: Foreign recommendation proportion for Case 2 (South Korea). Brazil is dominant in foreign recommendations, and in the first two rounds the ratio of recommendations from foreign countries (73.3% to 59.5%) surpasses that of South Korean domestic content. After round 12, a filter bubble is formed, and South Korean users no longer receive posts from Brazil or Peru.

Normative Diffusion We investigate the transmission of the concept of *gender equality* from the Netherlands (source) to Zimbabwe (target), through two different channels: users and news. When comparing the introduction of 50 Dutch users or the addition of 5 Dutch news agents supporting option D to the no-intervention baseline, the the news intervention produces a stronger effect, as evidenced in Figure 4. We also report the attitude scores of 50 Dutch users from rounds 0 to 20 in Figure 8, which indicate that the attitudes of users from the Netherlands remain stable even in the presence of 100 Zimbabwe users with distinctive views on the gender equality issue.

To further explore the societal dynamics behind cultural assimilation, we analyze the recommendation network in Cases 1, 2 and Case 3 with 50 Dutch users (as these settings omit news organization agents). In each simulation round t, the recommendation system R generates recommendation pairs of the form u_i, u_j, where u_i is the author of a post and u_j is the reader agent who received that post from R. We construct a directed weighted graph $G^{(t)} = (V^{(t)}, E^{(t)})$, where $V^{(t)}$ is the set of user agents and $E^{(t)}$ contains directed edges of the form $u_i \rightarrow u_j$ capturing the recommendation of posts from u_i to u_j. The associated edge weight $w_{ij}^{(t)}$ denotes the number of posts from u_i that were recommended to u_j. In this way, $G^{(t)}$ models the information flow from content creators to content consumers at round t, with the edge weights encoding the intensity of algorithmic exposure.

C.1 Inbreeding Homophily

In order to model whether a country is more likely to read domestic posts or foreign posts, we adopt the inbreeding homophily index with the baseline correction (Coleman, 1958). To begin with, consider a user agent $u \in V^{(t)}$ from country x at round t. We intend to quantify whether users from a given country tend to consume content from their own country more than would be expected based on the overall composition of content in the graph $G^{(t)}$.

We first aggregate the edges $E^{(t)}$ into a country-level information flow matrix $F^{(t)}$ over $G^{(t)}$:

$$F_{a,r}^{(t)} = \sum_{\substack{u_i, u_j \in V^{(t)} \\ \text{country}(u_i)=a \\ \text{country}(u_j)=r}} w_{ij}^{(t)},$$

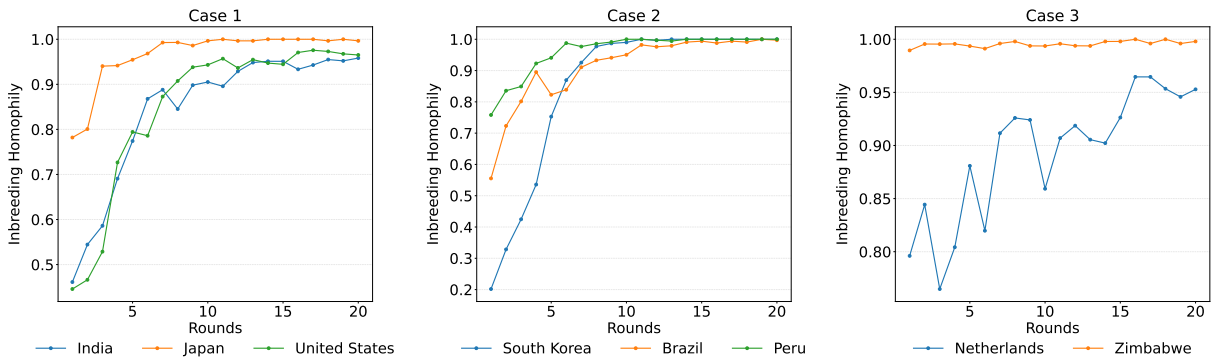


Figure 10: Inbreeding homophily.

which represents the total weighted volume of recommendation posts from authors in country a to readers in country r at round t. In other words, $F_{a,r}^{(t)}$ measures how much content users in country r actually see from authors in country a.

The total edge weight of the graph $G^{(t)}$ in the country-level information flow matrix is

$$F_{\text{sum}}^{(t)} = \sum_{a \in \mathcal{C}} \sum_{r \in \mathcal{C}} F_{a,r}^{(t)},$$

where $\mathcal{C}$ denotes the set of all countries.

For a specific country $x \in \mathcal{C}$, we define:

Observed same-country share. The share of recommendations shown to users in country x that originate from authors in the same country x is

$$p_{xx}^{(t)} = \frac{F_{x,x}^{(t)}}{\sum_{a \in \mathcal{C}} F_{a,x}^{(t)}}.$$

Baseline availability. The overall share of content in the recommendation system R that is produced by authors in country x is

$$q_x^{(t)} = \frac{\sum_{r \in \mathcal{C}} F_{x,r}^{(t)}}{F_{\text{sum}}^{(t)}}.$$

The quantity $q_x^{(t)}$ measures how prominent country x is in the overall recommendation traffic in round t. In this case, we use $q_x^{(t)}$ as a baseline for comparison: if the recommendation system did not differentiate between readers by country, then, on average, users in country x would be exposed to content from x in proportion to $q_x^{(t)}$.

Therefore, the inbreeding homophily (IH) index for country x at round t is defined as

$$\text{IH}_x^{(t)} = \frac{p_{xx}^{(t)} - q_x^{(t)}}{1 - q_x^{(t)}} \qquad \text{for } q_x^{(t)} < 1.$$

This normalization ensures that $\text{IH}_x^{(t)} = 0$ when users in country x consume domestic content exactly in proportion to its availability ($p_{xx}^{(t)} = q_x^{(t)}$). We have $\text{IH}_x^{(t)} > 0$ when they *over-consume* domestic content, and $\text{IH}_x^{(t)} < 0$ when they *under-consume* domestic content in favor of foreign content. The maximal value $\text{IH}_x^{(t)} = 1$ occurs in the extreme case where the recommendation system only pushes domestic posts to users in country x.

Figure 10 shows the inbreeding homophily for each round across the three cases in the user-only cross-culture communication setting, averaged over three independent runs. A common finding is that all countries tend to over-consume domestic posts as the rounds progress, validating the existence of echo chambers in the social network.

In Case 1, Japan exhibits a higher IH index at round 0 compared to the other countries, indicating that Japanese users are more isolated in the recommendation modeling from the very beginning. In Case 2, South Korean users are more willing to read foreign posts, which partly explains why their attitudes change more noticeably during the simulation. In Case 3, the IH index for Zimbabwe remains close to 1, indicating that promoting the norm of gender equality through users alone is ineffective, since the recommendation system does not deliver foreign posts to Zimbabwean users.

C.2 Information Diffusion Analysis

This section inspects the recommendation-based post propagation process in Case 1 and Case 2. We focus on two countries: the United States from Case 1, whose user attitudes remain stable and distinct from those of the other two countries, and South Korea from Case 2, which exhibits a clear attitude shift during the cross-cultural simulation.

We identify broker users for the United States in Case 1 and South Korea in Case 2 at certain rounds. A broker is defined as a user who receives at least

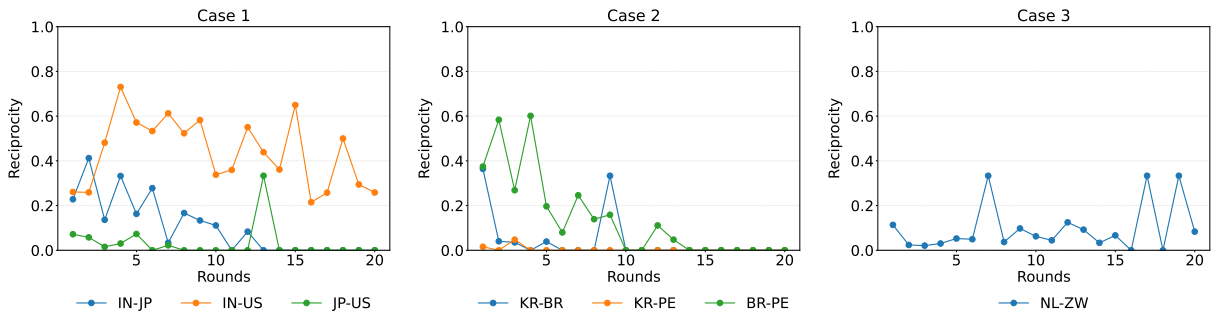


Figure 11: Cross-country reciprocity.

one recommended post from a foreign user (the source) and whose own post in the same round is subsequently recommended to at least two domestic users (the audience). We then focus on instances where both the broker and its audience exhibit attitude shifts before and after reading the post.

We report the information diffusion process from the foreign source user to the broker and then to the domestic audience from rounds 4 to 6 and 9 to 11 for Case 1, shown in Figures 15-16 and Examples 7-8, and from rounds 1 to 3 and 6 to 8 for Case 2, shown in Figures 17-18 and Examples 9-10.

Figures 15-18 visualize the directed weighted graph $G^{(t)}$ and highlight the diffusion paths using red edges. From Examples 7-8, it is evident that the broker user and audiences in the United States are not substantially influenced by the foreign users from Japan (round 4) or India (round 9), as they largely continue to support option B. In contrast, Examples 9-10 show that South Korean brokers and audiences are affected by the foreign users from Peru (round 1) and Brazil (round 6), as reflected in higher support for option A (Increase) or lower inclination toward option B (Decrease).

C.3 Cross-Country Reciprocity

While inbreeding homophily captures how strongly each country turns inward or outward overall, it does not reveal whether cross-country flows are balanced between pairs of countries. To measure the symmetry of recommendation flow, we define a country-level reciprocity index over the matrix $F^{(t)}$, following the general idea of reciprocity in directed networks (Garlaschelli and Loffredo, 2004).

Recall that $F^{(t)}_{a,r}$ aggregates the total edge weight from authors in country a to readers in country r at round t. For each unordered pair of distinct countries $(x, y) \in \mathcal{C} \times \mathcal{C}$, we consider the two directional flows $F^{(t)}_{x,y}$ and $F^{(t)}_{y,x}$, which represent the sum of edge weights from users in country x to y and vice versa. The cross-country reciprocity between x and y at round t is then defined as

$$\mathrm{Recip}^{(t)}_{x,y} = \frac{\min(F^{(t)}_{x,y},\ F^{(t)}_{y,x})}{\max(F^{(t)}_{x,y},\ F^{(t)}_{y,x})}.$$

By construction, $\mathrm{Recip}^{(t)}_{x,y} \in [0, 1]$, and we mandate that $\mathrm{Recip}^{(t)}_{x,y} = 0$ when $F^{(t)}_{x,y} = F^{(t)}_{y,x} = 0$. $\mathrm{Recip}^{(t)}_{x,y} = 1$ indicates perfectly balanced two-way recommendation flow between x and y. Values close to 0 indicate strongly one-way relationships in which one country predominantly sends content to, or receives content from, the other.

Figure 11 plots the three-run average of $\mathrm{Recip}^{(t)}_{x,y}$ across 20 rounds for each country pair in the three case studies. In Case 1, the reciprocity between India and the United States remains relatively high and sustained across many rounds, whereas India-Japan and Japan-United States exhibit much lower and more sporadic reciprocity. In Case 2, the reciprocity between Brazil and Peru reaches moderate levels in the middle rounds, but quickly decays toward zero, and the pairs involving South Korea show very low reciprocity throughout. In Case 3, the reciprocity between the Netherlands and Zimbabwe is near zero in most rounds, stating that cross-country flow is very limited and largely directional from the Netherlands to Zimbabwe.

D Prompts

This section documents all prompts used in this paper. Prompts 1 to 9 enumerate the requests and responses for all user agent actions, while Prompts 10 to 13 contain the requests and responses for the news organization agent actions. The prompts used for LLM-based local consistency evaluation in Subsection 5.4 are listed in Prompts 14 to 16.

Attribute	Data Type	Examples
Gender	*enum*	Male; Female
Age	*integer*	18, 25, 36, 42, 54, etc.
Occupational Group	*enum*	Professional and Technical; Higher Administrative; Clerical; Sales; Service; Skilled Worker; Semi-skilled Worker; Unskilled Worker; Farm Worker; Farm Manager; Unemployed
Education Level	*enum*	No Education; Primary School Diploma; Secondary School Diploma; Post-Secondary Diploma; Associate's Degree; Bachelor's Degree; Master's Degree; Doctorate
Political Preference	*enum*	Left; Center-Left; Center; Center-Right; Right
Religion	*enum*	Roman Catholic; Protestant; Orthodox; Jew; Muslim; Hindu; Buddhist; Atheist; Evangelical; Other
Marital Status	*enum*	Married; Living together as married; Divorced; Separated; Widowed; Single
Country	*string*	United States, Singapore, Brazil, Germany, Ethiopia, etc.
Language	*string*	en-US, en-SG, pt-BR, de-DE, am-ET, etc.
Social Class	*enum*	Upper Class; Middle Class; Working Class; Lower Class

Table 7: Persona attributes.

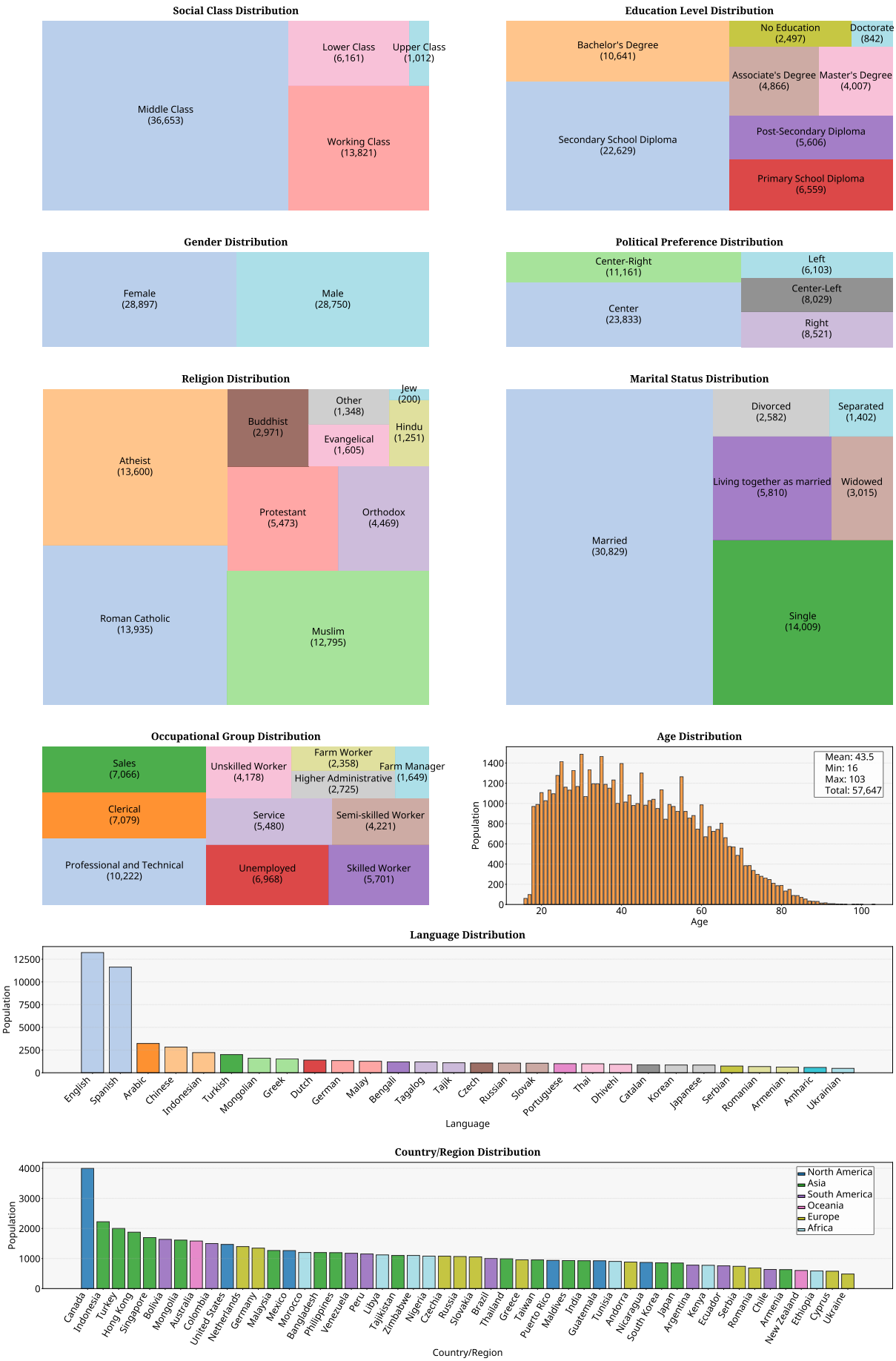
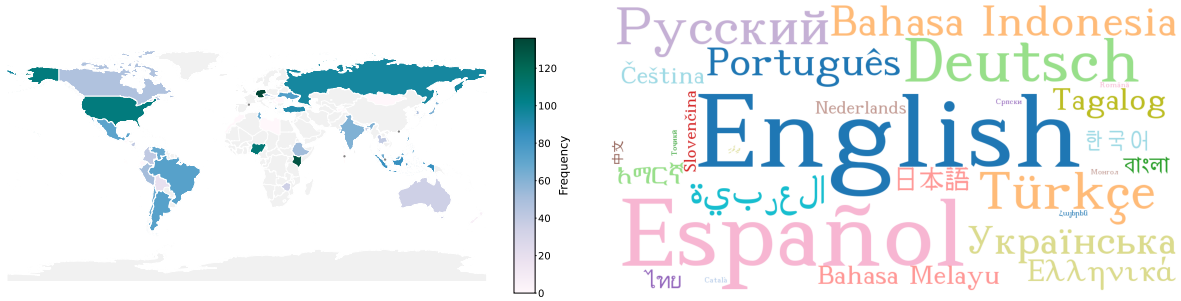


Figure 12: Demographic specification of MAPS dataset.



(a) Country and Region

(b) Language Cloud

Figure 13: World map and language distribution of the questionnaire.

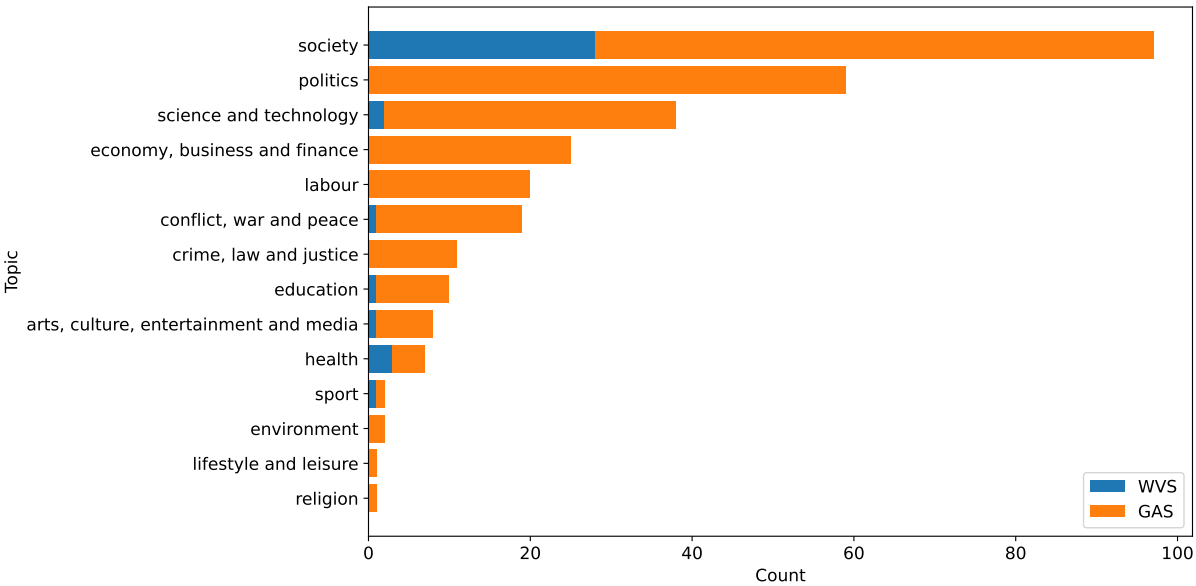


Figure 14: Classification of questions in the MAPS dataset across 14 topics.

		Count by country		
Attribute	**Value**	**India**	**Japan**	**United States**
Language		en-IN	ja-JP	en-US
Gender	Female	14	15	21
	Male	15	11	24
Occupational Group	Clerical	1	5	5
	Farm Manager	1	0	0
	Farm Worker	5	0	1
	Higher Administrative	1	3	2
	Professional and Technical	1	5	14
	Sales	3	4	5
	Semi-skilled Worker	3	1	1
	Service	1	2	5
	Skilled Worker	4	0	9
	Unskilled Worker	1	0	3
	Unemployed	8	6	0
Education Level	No Education	1	0	0
	Primary School Diploma	4	0	0
	Secondary School Diploma	16	10	8
	Post-Secondary Diploma	0	0	11
	Associate's Degree	0	8	7
	Bachelor's Degree	3	7	12
	Master's Degree	4	1	5
	Doctorate	1	0	2
Political Preference	Left	2	2	7
	Center-Left	4	4	5
	Center	12	11	20
	Center-Right	8	7	8
	Right	3	2	5
Religion	Atheist	0	14	16
	Buddhist	1	10	0
	Evangelical	0	0	2
	Hindu	21	0	0
	Muslim	3	0	0
	Orthodox	0	1	1
	Protestant	0	0	12
	Roman Catholic	2	0	14
	Other	2	1	0
Marital Status	Divorced	0	2	7
	Living together as married	2	0	4
	Married	19	17	21
	Separated	0	0	1
	Single	7	3	10
	Widowed	1	4	2
Social Class	Lower Class	4	6	1
	Working Class	4	6	12
	Middle Class	21	13	32
	Upper Class	0	1	0
Total		29	26	45

Table 8: Persona distribution of Q278: India, Japan, and United States.

		Count by country		
Attribute	**Value**	**Brazil**	**Peru**	**South Korea**
Language		pt-BR	es-PE	ko-KR
Gender	Female	14	20	16
	Male	19	18	12
Occupational Group	Clerical	3	1	19
	Farm Worker	1	2	1
	Higher Administrative	2	0	0
	Professional and Technical	3	5	0
	Sales	9	6	3
	Semi-skilled Worker	6	3	0
	Service	3	4	4
	Skilled Worker	4	4	1
	Unskilled Worker	1	6	0
	Unemployed	1	7	0
Education Level	No Education	2	3	0
	Primary School Diploma	6	2	1
	Secondary School Diploma	20	15	8
	Post-Secondary Diploma	0	6	0
	Associate's Degree	0	6	6
	Bachelor's Degree	5	5	13
	Master's Degree	0	1	0
Political Preference	Left	5	3	0
	Center-Left	5	4	8
	Center	11	19	15
	Center-Right	5	5	5
	Right	7	7	0
Religion	Atheist	5	2	20
	Buddhist	0	0	4
	Protestant	13	3	4
	Roman Catholic	15	32	0
	Other	0	1	0
Marital Status	Living together as married	5	15	0
	Married	14	9	20
	Separated	4	3	0
	Single	8	11	7
	Widowed	2	0	1
Social Class	Lower Class	15	4	1
	Middle Class	9	20	27
	Upper Class	1	0	0
	Working Class	8	14	0
Total		33	38	28

Table 9: Persona distribution of Q278: Brazil, Peru, and South Korea.

		Count by country	
Attribute	**Value**	**Netherlands**	**Zimbabwe**
Language		nl-NL	en-ZW
Gender	Female	19	50
	Male	31	50
Occupational Group	Clerical	12	5
	Farm Manager	0	6
	Farm Worker	0	5
	Higher Administrative	3	1
	Professional and Technical	15	6
	Sales	3	12
	Semi-skilled Worker	3	9
	Service	8	4
	Skilled Worker	5	2
	Unemployed	0	38
	Unskilled Worker	1	12
Education Level	No Education	0	2
	Primary School Diploma	2	21
	Secondary School Diploma	9	58
	Post-Secondary Diploma	15	9
	Associate's Degree	3	5
	Bachelor's Degree	15	5
	Master's Degree	6	0
Political Preference	Left	2	28
	Center-Left	16	3
	Center	11	31
	Center-Right	19	10
	Right	2	28
Religion	Atheist	33	13
	Buddhist	1	0
	Jew	0	3
	Muslim	1	12
	Orthodox	0	1
	Other	3	0
	Protestant	4	6
	Roman Catholic	8	65
Marital Status	Divorced	5	1
	Living together as married	1	0
	Married	31	59
	Separated	2	3
	Single	9	25
	Widowed	2	12
Social Class	Lower Class	0	32
	Working Class	11	25
	Middle Class	36	41
	Upper Class	3	2
Total		50	100

Table 10: Persona distribution of Q278: Netherlands and Zimbabwe.

Example 1: Local Consistency of User Self-introduction (Case 1)


```
{
  "instruction": "Write a paragraph of self-introduction for your social media bio. Output format: Reasoning: three
  ↪  self-questioning sessions; Response: \"introduction\" a string containing your social media bio.",
  "persona": {
    "gender": "Male", "age": 42, "country": "India", "occupation": "Unemployed",
    "education": "Secondary School Diploma", "political_preference": "Center-Right",
    "religion": "Hindu", "marital_status": "Married", "language": "en-IN", "social_class": "Middle Class"
  },
  "output": {
    "reasoning": [
      {
        "question": "What are the key aspects of my life that I want to highlight in my social media bio?",
        "answer": "I think I should mention my family, my educational background, and maybe something about my current
        ↪  situation. Being unemployed can be a bit sensitive, so I need to be careful how I phrase it. I'm a family man,
        ↪  married, and I have a secondary school diploma. That's a good starting point."
      },
      {
        "question": "How can I make my bio engaging and authentic?",
        "answer": "I can add a bit about my interests or my views on current affairs. As a center-right Hindu male from India,
        ↪  I have some strong views, but I should be cautious not to offend anyone. Maybe I can just stick to something
        ↪  light and casual, like my love for traditional Indian cuisine or my favorite sports team, like cricket."
      },
      {
        "question": "Is there anything else I should include to make it more relatable or interesting?",
        "answer": "I think mentioning my background as a middle-class Indian can help people understand where I'm coming
        ↪  from. It's not too personal, but gives a bit of context. That's a positive spin, right?"
      }
    ],
    "response": "Namaste! I'm a 42-year-old family man from India, married with a lovely wife. I completed my secondary
    ↪  education and am currently exploring new opportunities. When I'm not job hunting, I enjoy following cricket and
    ↪  trying out new recipes from our rich Indian cuisine. Looking forward to connecting with like-minded folks!"
  },
  "evaluation": {
    "overall": 4.0, "dimensions": {"alignment": 4, "coherence": 4},
    "reason": "Alignment is strong: the bio reflects a 42-year-old married Indian man, secondary school educated, currently
    ↪  unemployed (“exploring new opportunities”/“job hunting”), with culturally appropriate touches (Namaste, cricket,
    ↪  Indian cuisine). Minor omissions keep it from perfect: it doesn’t mention being Hindu, center-right, or middle class,
    ↪  though none are contradicted. Coherence is also high: the response follows the reasoning about framing unemployment
    ↪  positively and keeping things light; however, it mentions considering “middle-class” in reasoning but omits it in
    ↪  the final bio, a small inconsistency. Overall, mostly consistent and culturally grounded with minor slips."
  }
}
```


Example 2: Local Consistency of User Reading Posts (Case 1)


```
{
  "instruction": "Your task is to generate lessons that reflect only your personal takeaways about your attitude toward the
  ↪  survey question `Does trade with other countries lead to an increase in the wages of your nationality workers, a
  ↪  decrease in wages, or does it not make a difference? `. Your takeaways must come from the provided context and show
  ↪  what you understood and how it connects to your own experiences and beliefs. Output format: Reasoning: three
  ↪  self-questioning sessions; Lessons: a list where each item includes \"content\" (a string containing the lesson
  ↪  learned) and \"importance\" (a float between 0.0 and 1.0 indicating its importance).",
  "persona": {
    "gender": "Male",
    "age": 52,
    "country": "Japan",
    "occupation": "Executive in big business",
    "education": "Secondary School Diploma",
    "political_preference": "Center-Left",
    "religion": "Atheist",
    "marital_status": "Married",
    "language": "ja-JP",
    "social_class": "Middle Class",
    "self-introduction": "こんにちは、東京在住の52歳です。ビジネスの世界で働く一般的なサラリーマンで、妻と二人暮らしをして
    ↪  います。社会的な公平性を大切に考え、日々の仕事に取り組んでいます。"
  },
  "recommendations": [
    "- @ibrandt: こんにちは！今日は国際貿易が国内労働者の賃金に与える影響について考えてみたいと思います。私は長年の経験か
    ↪  ら、輸出と輸入のバランスが非常に重要だと感じています。公平な利益分配が行われれば、労働者の賃金にも良い影響が出ると
    ↪  信じています。政府や企業には、労働者の権利を尊重し、適切な賃金体系を構築することを期待しています。仏教の教えにある
    ↪  ように、すべての人々が幸せになることが大切です。皆さんのご意見もお聞かせください。",
    "- @spenceamanda: こんにちは。最近、国際貿易が日本の労働者の賃金に与える影響についての議論を聞く機会がありました。私は
    ↪  オフィスマネージャーとして働いていた経験から、輸出と輸入のバランスが重要だと感じています。仏教の教えに基づき、全て
    ↪  の人々の幸せを願うならば、貿易の利益を労働者や地域社会に還元する仕組みを作ることが必要だと思います。左派的な私の考
    ↪  えでは、社会的公平さを実現するために、労働者の権利を守り、地域社会の利益を考慮した貿易政策が重要です。皆さんのご意
    ↪  見をお聞かせください。",
```

```
    "- @chad34: こんにちは。今日は国際貿易が国内労働者の賃金に与える影響について考えてみたいと思います。私は長年公務員とし
    ↪  て働いてきましたが、輸出と輸入のバランスが大切だということを痛感しました。公平な分配が実現すれば、労働者の賃金にも
    ↪  良い影響が出ると考えています。貿易協定の締結に際しては、国内産業への影響を十分に検討し、必要な保護策を講じることが
    ↪  大切です。また、労働者のスキルアップを支援する教育・訓練プログラムの充実も重要だと思います。私自身の経験から、国際
    ↪  貿易は国内経済に大きな影響を与えることを学びました。公平な分配の実現に向けて、政府や企業が適切な政策を実施すること
    ↪  が必要です。仏教の教えにもあるように、すべての人々が幸せになるような社会を目指したいですね。",
    "- @ryan70: こんにちは。最近、国際貿易が国内労働者の賃金に与える影響についての議論を耳にします。私は保険代理店員とし
    ↪  て、日々多くの人々と接する中で、この問題について考えさせられることがあります。私の持論は、国際貿易の影響は輸出と輸
    ↪  入のバランスによって決まるというものです。輸出が増えれば国内経済が活発になり、賃金も上がる可能性があります。しか
    ↪  し、輸入が増えすぎると国内産業が打撃を受け、賃金が下がる恐れもあります。重要なのは、国際貿易による利益を社会全体で
    ↪  共有することです。公平な利益分配のために、税制や社会保障制度の整備が不可欠だと考えます。この問題について、皆さんの
    ↪  ご意見を伺いたいと思います。#国際貿易 #賃金 #公平な利益分配",
    "- @sarayoung (News Media): 最新レポート：国際貿易がもたらす新たな雇用創出効果　GENNの最新レポートにより、他国との貿易
    ↪  が新たな雇用創出につながり、自国民の賃金上昇に寄与していることが明らかになりました。特に、デジタル貿易やグリーンエ
    ↪  ネルギー関連の輸出が増加しており、これらの分野での雇用が拡大していることが確認されています。　私たちは以前から、国
    ↪  際貿易が自国民の賃金を上昇させるという立場を取っており、今回のレポート結果もこの視点を裏付けています。輸出産業の成
    ↪  長は国内の雇用を創出し、さらなる賃金の上昇につながる可能性があります。また、貿易の利益を公平に分配するための政策対
    ↪  応が不可欠であり、教育や再訓練の機会を提供することで、貿易の恩恵をより多くの国民に行き渡らせることが可能です。
    ↪  GENNは今後も、国際貿易の動向を注視し、その影響を詳細にレポートし続けます。国際貿易が日本の経済と労働者に与えるプラ
    ↪  スの影響を理解し、国民の生活向上に貢献していきます。 #国際貿易 #経済成長 #雇用創出"
  ],
  "output": {
    "reasoning": [
      {
        "question": "国際貿易が国内労働者の賃金に与える影響について、自分の経験や知識からどう思うか？",
        "answer": "私はビジネスの世界で働いており、国際貿易が国内経済に大きな影響を与えることを実感しています。輸出と輸入の
        ↪  バランスが重要であり、公平な利益分配が行われれば、労働者の賃金にも良い影響が出ると考えています。"
      },
      {
        "question": "社会的な公平性を重視する立場から、国際貿易の利益をどう分配するべきか？",
        "answer": "社会的な公平性を実現するためには、国際貿易の利益を労働者や地域社会に還元する仕組みが必要です。税制や社会
        ↪  保障制度の整備、労働者の権利を守る政策が重要だと思います。"
      },
      {
        "question": "国際貿易が国内労働者の賃金に与える影響についての議論で、特に注目すべき点は何か？",
        "answer": "輸出と輸入のバランス、公平な利益分配、労働者のスキルアップを支援する教育・訓練プログラムの充実が重要だと
        ↪  思います。また、貿易協定の締結に際しては国内産業への影響を十分に検討する必要があります。"
      }
    ],
    "response": [
      {
        "content": "国際貿易の利益を公平に分配することが、国内労働者の賃金上昇につながる。政策的な対応が重要である。",
        "importance": 0.9999999857142858
      },
      {
        "content": "輸出と輸入のバランスが重要であり、公平な利益分配が行われれば労働者の賃金にも良い影響が出る。",
        "importance": 0.8571428448979594
      },
      {
        "content": "貿易協定の締結に際しては、国内産業への影響を十分に検討し、必要な保護策を講じることが大切である。",
        "importance": 0.5714285632653062
      },
      {
        "content": "労働者のスキルアップを支援する教育・訓練プログラムの充実が、国際貿易の利益を最大化するために重要であ
        ↪  る。",
        "importance": 0.2857142816326531
      },
      {
        "content": "税制や社会保障制度の整備が、国際貿易による利益を社会全体で共有するために不可欠である。",
        "importance": 0.0
      }
    ]
  },
  "evaluation": {
    "overall": 4.7,
    "dimensions": {
      "grounding": 5,
      "alignment": 4,
      "coherence": 5
    },
    "reason": "Grounding: All key claims (export/import balance, fair distribution via tax/social security, worker rights,
    ↪  training/retraining, considering domestic industry protections, and potential wage increases) are directly supported
    ↪  by the provided posts and the news report, so grounding is strong. Alignment: The response is in Japanese and
    ↪  reflects a center-left, fairness-focused stance consistent with the profile and self-intro; minor slip is that it
    ↪  doesn't clearly embody the "executive in big business" role, staying generic about working in business, so mostly
    ↪  aligned. Coherence: The three self-questioning sessions lead logically to the listed lessons, with consistent
    ↪  reasoning and no contradictions, yielding a coherent and mutually reinforcing output."
  }
}
```

Example 3: Local Consistency of User Writing Posts (Case 2)


```
{
  "instruction": "Write a detailed social media post that shares both what you know and your opinion about the survey
  ↪  question `Does trade with other countries lead to an increase in the wages of your nationality workers, a decrease in
  ↪  wages, or does it not make a difference? `. Use only the provided information and include your personal analysis of
  ↪  what the question means to you and, if relevant, to society. Output format: Reasoning: three self-questioning
  ↪  sessions; Response: \"post\" is a string containing your social media post.",
  "persona": {
    "gender": "Male",
    "age": 65,
    "country": "Brazil",
    "occupation": "Office Manager",
    "education": "Bachelor's Degree",
    "political_preference": "Center-Left",
    "religion": "Atheist",
    "marital_status": "Separated",
    "language": "pt-BR",
    "social_class": "Lower Class",
    "self-introduction": "Olá, sou Carlos! Gerente de escritório aposentado, brasileiro e ateu convicto. Compartilho minhas
    ↪  opiniões sobre política, economia e cotidiano com uma perspectiva de centro-esquerda. Gosto de discutir e aprender
    ↪  com os outros."
  },
  "output": {
    "reasoning": [
      {
        "question": "Como o comércio internacional afeta os salários dos trabalhadores brasileiros?",
        "answer": "Acredito que o comércio internacional pode ser uma oportunidade para aumentar os salários dos trabalhadores
        ↪  brasileiros se for gerenciado de forma justa e equitativa. É fundamental que haja políticas que protejam os
        ↪  direitos dos trabalhadores e garantam que os benefícios do comércio sejam distribuídos de forma justa."
      },
      {
        "question": "Quais são os principais fatores que influenciam o impacto do comércio internacional nos salários?",
        "answer": "Penso que os principais fatores incluem a existência de políticas que protejam os direitos dos
        ↪  trabalhadores, a capacidade de negociação dos sindicatos e a forma como os governos gerenciam os acordos
        ↪  comerciais. Além disso, a competitividade das empresas brasileiras e a qualificação da mão de obra também
        ↪  desempenham um papel importante."
      },
      {
        "question": "Como posso contribuir para que o comércio internacional beneficie os trabalhadores brasileiros?",
        "answer": "Acho que posso contribuir participando de discussões informadas sobre o tema, apoiando políticas que
        ↪  protejam os direitos dos trabalhadores e promovendo a conscientização sobre a importância de um comércio justo e
        ↪  equitativo. Além disso, posso defender a ideia de que os benefícios do comércio internacional devem ser
        ↪  compartilhados de forma justa entre todos os setores da sociedade."
      }
    ],
    "response": "Olá, pessoal! Estou refletindo sobre a pergunta da pesquisa: 'O comércio com outros países leva a um
    ↪  aumento nos salários dos trabalhadores brasileiros, uma diminuição nos salários ou não faz diferença?' Minha opinião
    ↪  é que o comércio internacional pode ser uma grande oportunidade para aumentar os salários dos trabalhadores
    ↪  brasileiros, mas é crucial que seja gerenciado de forma justa e equitativa. É necessário ter políticas que protejam
    ↪  os direitos dos trabalhadores e garantam que os benefícios sejam distribuídos de forma justa. Acho que é fundamental
    ↪  termos discussões informadas sobre o tema e apoiarmos políticas que defendam os interesses dos trabalhadores.
    ↪  #comerciointernacional #direitosdotrabalhador #justiçaeconômica"
  },
  "evaluation": {
    "overall": 4.4,
    "dimensions": {
      "alignment": 4,
      "coherence": 5
    },
    "reason": "The output is in pt-BR and reflects a center-left Brazilian perspective emphasizing worker protections,
    ↪  unions, and fair trade—well aligned with the persona's politics and country context, with no contradictions.
    ↪  However, it doesn't incorporate distinctive personal details from the profile (e.g., retired office manager, 65,
    ↪  "Olá, sou Carlos!" intro), hence not a perfect match. Coherence is strong: the three self-questioning items and the
    ↪  post reinforce each other, presenting a consistent view on how trade can raise wages if paired with protective
    ↪  policies, without internal conflicts."
  }
}
```


Example 4: Local Consistency of User Voting (Case 2)


```
{
  "instruction": "You are participating in a poll about the following survey question `Does trade with other countries lead
  ↪  to an increase in the wages of your nationality workers, a decrease in wages, or does it not make a difference? ` with
  ↪  the available options `['Increase', 'Decrease', 'Does not make a difference']`. Provide your answer as a probability
  ↪  distribution. Avoid uniform or contradictory distributions. Output format: Reasoning: three self-questioning sessions;
  ↪  Response: \"distribution\" is an array of floats representing the probability distribution across the options, summing
  ↪  to 1.0.",
  "persona": {
    "gender": "Male",
    "age": 58,
    "country": "South Korea",
```

```
    "occupation": "Motor Mechanic",
    "education": "Secondary School Diploma",
    "political_preference": "Center",
    "religion": "Atheist",
    "marital_status": "Married",
    "language": "ko-KR",
    "social_class": "Middle Class",
    "self-introduction": "반갑습니다! 58세의 자동차 정비사입니다. 결혼한 지 꽤 됐고, 자동차를 수리하는 것을 좋아합니다. 일상 생활
  ↪  에서 자동차 이야기로 즐겁게 지내고 있습니다."
  },
  "output": {
    "reasoning": [
      {
        "question": "내가 생각하는 국제 무역이 자국 노동자의 임금을 증가시킨다는 주장은 얼마나 타당한가?",
        "answer": "나는 자동차 정비사로 일하면서 국제 무역이 국내 산업에 미치는 영향을 간접적으로나마 경험했다. 예를 들어, 수입 자
      ↪  동차의 증가로 인해 국내 자동차 산업이 경쟁력을 강화하는 계기가 되었다고 생각한다. 따라서 국제 무역이 자국 노동자의 임
      ↪  금을 증가시킨다는 주장에 어느 정도 동의한다."
      },
      {
        "question": "과거의 경험이나 내가 받아들인 교육이 이 문제에 대한 나의 시각에 어떻게 영향을 미치는가?",
        "answer": "나는 중등교육을 받은 배경이 있고, 실제 현장에서 일하면서 국제 무역의 영향을 체감했다. 예를 들어, 수입 부품의 증
      ↪  가로 인해 국내 부품 산업이 경쟁력을 잃을 수도 있다는 우려가 있지만, 반대로 국내 산업이 더 나은 품질의 제품을 생산하도
      ↪  록 자극하는 효과도 있다고 생각한다. 이러한 경험이 나의 시각을 형성하는 데 중요한 역할을 했다."
      },
      {
        "question": "내가 속한 사회 계층이나 결혼 상태가 이 문제에 대한 나의 태도에 영향을 미치는가?",
        "answer": "나는 중산층에 속하고 있으며, 결혼한 상태다. 이러한 사회적 지위가 나의 경제적 안정을 중요하게 여기게 한다. 국제
      ↪  무역이 국내 산업의 경쟁력을 강화하고, 결과적으로 내 임금에 긍정적인 영향을 줄 수 있다고 믿는 경향이 있다. 따라서 국제
      ↪  무역이 자국 노동자의 임금을 증가시킨다는 주장에 비교적 긍정적인 태도를 보인다."
      }
    ],
    "response": [
      0.8156252683068327,
      0.0739918549919238,
      0.11038287670124346
    ]
  },
  "evaluation": {
    "overall": 4.6,
    "dimensions": {
      "alignment": 5,
      "coherence": 4
    },
    "reason": "The response is in Korean and reflects the South Korean context and auto industry experience of a 58-year-old
  ↪  motor mechanic, referencing imported cars/parts and competitiveness, middle-class stability, and a centrist,
  ↪  balanced tone acknowledging pros and cons—strong persona alignment. Coherence is generally solid: the three
  ↪  self-questioning sessions consistently lean positive about trade's impact on wages while noting some risks. A minor
  ↪  tension exists between phrasing like "어느 정도 동의한다/비교적 긍정적" and the very high 0.816 probability for
  ↪  "Increase," which suggests stronger confidence than the wording implies, hence coherence 4 rather than 5."
  }
}
```


Example 5: Local Consistency of News Organization Self-introduction (Case 2)


```
{
  "instruction": "Write a concise and engaging self-introduction bio that reflects your organization's background and
  ↪  identity related to the survey question `Does trade with other countries lead to an increase in the wages of your
  ↪  nationality workers, a decrease in wages, or does it not make a difference? ` on the social media platform. Output
  ↪  format: Reasoning: three self-questioning sessions; Response: \"introduction\" is a string containing your
  ↪  introductory bio in one paragraph.",
  "persona": {
    "editorial_stance": "Increase",
    "language": "es-PE"
  },
  "output": {
    "reasoning": [
      {
        "question": "¿Cuál es el enfoque principal de nuestra organización noticiera?",
        "answer": "Nuestro enfoque está en analizar y reportar sobre temas económicos y comerciales, especialmente en
      ↪  relación con el impacto del comercio internacional en los salarios de los trabajadores peruanos."
      },
      {
        "question": "¿Qué postura editorial tomamos respecto al efecto del comercio internacional en los salarios?",
        "answer": "Nuestra postura editorial es que el comercio con otros países conduce a un aumento en los salarios de los
      ↪  trabajadores peruanos."
      },
      {
        "question": "¿Cómo reflejar esta información en nuestra presentación en redes sociales?",
        "answer": "Deberíamos presentarnos como una fuente confiable de noticias y análisis sobre economía y comercio,
      ↪  destacando nuestra perspectiva sobre los beneficios del comercio internacional para los trabajadores peruanos."
      }
    ],
```

```
    "response": "Bienvenidos a 'Comercio y Prosperidad', el portal de noticias líder en análisis económico y comercial del
    ↪  Perú. En nuestra cobertura, sostenemos que el intercambio comercial con otros países impulsa el crecimiento de los
    ↪  salarios de nuestros trabajadores. Manténgase informado con nuestras últimas noticias, análisis y reportajes sobre
    ↪  cómo el comercio internacional beneficia a la economía peruana y mejora la calidad de vida de los peruanos."
  },
  "evaluation": {
    "overall": 5.0,
    "dimensions": {
      "alignment": 5,
      "coherence": 5
    },
    "reason": "Strong alignment: The bio is in natural Latin American Spanish appropriate for Peru (references to Perú,
    ↪  peruanos), presents a clear news organization identity, and explicitly states the editorial stance that trade
    ↪  increases wages, matching the profile. It fits the social media context with a concise, engaging tone. High
    ↪  coherence: The three self-questions align with the final paragraph, and the introduction consistently reflects the
    ↪  stated focus on economic and trade analysis and the pro-increase wage stance without contradictions."
  }
}
```


Example 6: Local Consistency of News Organization Writing Posts (Case 3)


```
{
  "instruction": "Your goal is to create authentic news posts responding to the survey question `Please tell us if you
  ↪  strongly agree, agree, disagree, or strongly disagree with the following statements:  A girl should honor the
  ↪  decisions/wishes of her family even if she does not want to marry`, reflecting your editorial stance to influence
  ↪  public attitudes on the social media platform. Output format: Reasoning: three self-questioning sessions; Response:
  ↪  \"news\" is a string containing your news post.",
  "persona": {
    "editorial_stance": "Strongly agree",
    "language": "en-ZW",
    "self-introduction": "Welcome to 'Zimbabwe Times', your premier source for news and current events in Zimbabwe. We are
    ↪  committed to reporting with integrity and respect for the values that bind our communities together. As a news
    ↪  organization, we believe in the importance of family and tradition, and this is reflected in our approach to
    ↪  storytelling and the issues we cover. Follow us for insightful analysis, news, and features that matter to you,
    ↪  presented with a deep understanding of our cultural heritage."
  },
  "input": {
    "Your Previously Posted News:": [
      "Honoring Family Decisions: A Pillar of Zimbabwean Society. As we continue to explore the significance of honoring
      ↪  family decisions regarding marriage, it's clear that our cultural heritage is at the forefront of this
      ↪  conversation. At 'Zimbabwe Times', we've been consistent in our stance that respecting family wishes is not only a
      ↪  cultural expectation but a cornerstone of our societal fabric. In our previous coverage, we've highlighted the
      ↪  importance of traditions like 'Lobola', which not only celebrate the union between two individuals but also
      ↪  between their families. A recent example that reinforces this viewpoint is the traditional 'Kupihwa' ceremony,
      ↪  where the bride is handed over to the groom's family, symbolizing the union of the two families. This practice
      ↪  underscores the value we place on family unity and the role of family in marriage decisions. As we move forward,
      ↪  it's essential to recognize that honoring family decisions is not about suppressing individual desires but about
      ↪  understanding the broader context of our cultural practices. By respecting family wishes, individuals reinforce
      ↪  these cultural bonds, ensuring continuity and respect for our heritage. Let's continue the conversation on how we
      ↪  can preserve the essence of our traditions while considering the evolving needs of our society. #ZimbabweanCulture
      ↪  #FamilyFirst #TraditionMatters",
      "Honoring Family Decisions: The Heart of Zimbabwean Tradition. As we continue to engage with the survey question on
      ↪  whether a girl should honor her family's decisions regarding marriage, even if she disagrees, it's clear that our
      ↪  cultural heritage is at the forefront of this conversation. At 'Zimbabwe Times', we've been consistent in our
      ↪  stance that respecting family wishes is not only a cultural expectation but a cornerstone of our societal fabric.
      ↪  Building on our previous coverage, where we highlighted the importance of traditions like 'Lobola' and 'Kupihwa',
      ↪  it's evident that these practices not only celebrate the union between two individuals but also between their
      ↪  families. A recent community gathering we attended underscored this viewpoint, where elders shared stories of how
      ↪  honoring family decisions has strengthened family bonds and ensured the continuity of our cultural practices. As
      ↪  we move forward, it's essential to recognize that our traditions are not static; they evolve with us. By fostering
      ↪  a deeper understanding of our cultural heritage and engaging in open and respectful dialogue between generations,
      ↪  we can ensure that our practices continue to be relevant and meaningful. At 'Zimbabwe Times', we strongly agree
      ↪  that honoring family decisions is crucial, not just for the sake of tradition, but for the unity and respect it
      ↪  brings to our communities. Let's continue the conversation on how we can preserve the essence of our traditions
      ↪  while considering the evolving needs of our society. #ZimbabweanCulture #FamilyUnity #TraditionMatters",
```

"Honoring Family Decisions: Upholding the Fabric of Zimbabwean Society. As we continue to engage with the survey question on whether a girl should honor her family's decisions regarding marriage, even if she disagrees, it's clear that our cultural heritage remains a pivotal aspect of this conversation. At 'Zimbabwe Times', we've been consistent in our stance that respecting family wishes is not only a cultural expectation but a cornerstone of our societal fabric. In our previous coverage, we've highlighted the importance of traditions like 'Lobola' and 'Kupihwa', practices that not only celebrate the union between two individuals but also between their families. A recent community gathering we attended in the rural areas of Masvingo underscored this viewpoint, where community leaders shared insights into how honoring family decisions has been instrumental in maintaining family unity and preserving our cultural heritage. One elder noted, 'In our culture, when a girl honors her family's decisions, she's not just respecting her family; she's contributing to the continuity of our traditions.' This statement resonates deeply with our editorial stance that honoring family decisions is crucial, not just for the sake of tradition, but for the unity and respect it brings to our communities. As we move forward, it's essential to recognize that our traditions are not static; they evolve with us. However, the core values of respect for family and elders remain unchanged. By fostering a deeper understanding of our cultural heritage and engaging in open and respectful dialogue between generations, we can ensure that our practices continue to be relevant and meaningful. At 'Zimbabwe Times', we strongly believe that by honoring family decisions, we are not only upholding our cultural heritage but also strengthening the bonds that hold our communities together. Let's continue the conversation on how we can preserve the essence of our traditions while considering the evolving needs of our society. #ZimbabweanCulture #FamilyUnity #TraditionMatters"
],
"Social Media Posts": [
"- @rachel05: Hello, friends! Today, I want to share my thoughts on an important issue that affects us all, especially in our Zimbabwean culture. The survey question asks if a girl should honor her family's decisions regarding marriage even if she doesn't want to. As a proud Catholic and traditionalist, I believe in respecting our cultural heritage and family unity. However, I also think about my own marriage and the importance of being with someone you love. My stance is that while honoring family decisions is crucial, it's equally vital to consider the girl's happiness and autonomy. We must strike a balance between tradition and personal choice. I agree that a girl should consider her family's wishes, but she should also have the freedom to make her own decisions about her life. Let's respect our traditions while also valuing individual happiness. #ZimbabweanCulture #FamilyAndMarriage #RespectAndLove",
"- @robinsonwilliam: As a dedicated husband and high government official from Zimbabwe, I'm sharing my thoughts on the survey question: 'A girl should honor the decisions/wishes of her family even if she does not want to marry.' In our culture, honoring family decisions is vital, but so is considering the individual's happiness. I believe we need to strike a balance between respecting our rich cultural heritage and ensuring the well-being of our children. As a Roman Catholic, I'm guided by values that emphasize family unity and commitment. My stance is that we should 'agree' with the statement, but with the understanding that family decisions should ideally align with the individual's best interests. Let's work towards creating a society where tradition and personal happiness coexist. #ZimbabweanCulture #FamilyUnity #PersonalHappiness",
"- @russellwilliams: I recently came across a survey question that got me thinking deeply about our traditions and values here in Zimbabwe. The question was: 'A girl should honor the decisions/wishes of her family even if she does not want to marry.' As a 62-year-old sheet metal worker and a proud Roman Catholic, I've seen my fair share of marriages and family dynamics. In our culture, family is everything, and respecting their wishes is paramount. However, I've also seen the unhappiness that can come when a girl is forced into a marriage she doesn't want. My stance is that while honoring family decisions is important, it's equally crucial to consider the girl's feelings. It's not just about avoiding unhappiness; it's about building a marriage on love and respect, not just obligation. I believe we need to find a balance between tradition and the individual's happiness. Let's not forget, marriage is for the couple, not just the families. #ZimbabweanValues #MarriageAndFamily #RespectAndLove",
"- @dudleynicholas: Tichalo, fellow Zimbabweans! I recently came across a survey question that made me think deeply about our cultural practices and values. The statement 'A girl should honor the decisions/wishes of her family even if she does not want to marry' raises important questions about tradition, family, and individual autonomy. As a proud Zimbabwean and a Roman Catholic, I believe that honoring family decisions is crucial, but it's equally important to consider the feelings and well-being of the individual. Marriage is a personal commitment that involves two people, and their consent is essential for a happy and stable life together. Let's have open and respectful dialogue about our cultural practices and ensure they remain relevant and meaningful. What's your take on this? Do you strongly agree, agree, disagree, or strongly disagree? Share your thoughts! #ZimbabweanCulture #Marriage #FamilyValues",
"- @josephbrennan: I'm sharing my thoughts on the survey question that's been going around: 'A girl should honor the decisions/wishes of her family even if she does not want to marry.' As a Zimbabwean and a Roman Catholic, I agree that family decisions are important and should be respected. In our culture, family is at the center of everything we do, including marriage. However, I also believe that the girl's feelings and happiness should be considered. It's not an either-or situation; it's about finding a balance. Honoring family decisions is deeply rooted in our culture and faith, but so is the importance of the individual's happiness. Let's respect tradition while also being mindful of personal feelings. #ZimbabweanCulture #RespectForTradition #PersonalHappinessMatters"
]
},
"output": {
"reasoning": [
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"question": "How can we balance the importance of honoring family decisions with the need for individual autonomy in marriage choices?",
"answer": "By understanding that honoring family decisions is not about suppressing individual desires but about respecting the broader cultural context and family unity."
},
{
"question": "What role do cultural practices like 'Lobola' and 'Kupihwa' play in reinforcing the importance of family decisions in marriage?",
"answer": "These practices not only celebrate the union between two individuals but also between their families, underscoring the value placed on family unity and the role of family in marriage decisions."
},
{
"question": "How can we ensure that our cultural heritage continues to be relevant in the face of evolving societal needs?",
"answer": "By fostering a deeper understanding of our cultural heritage and engaging in open and respectful dialogue between generations, we can ensure that our practices remain relevant and meaningful."
}

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    "response": "Honoring Family Decisions: The Continuity of Zimbabwean Traditions. As we continue to engage with the
    ↪  survey question on whether a girl should honor her family's decisions regarding marriage, even if she disagrees,
    ↪  it's evident that our cultural heritage remains a vital aspect of this conversation. At 'Zimbabwe Times', we've been
    ↪  consistent in our stance that respecting family wishes is not only a cultural expectation but a cornerstone of our
    ↪  societal fabric. Building on our previous coverage, where we highlighted the significance of traditions like
    ↪  'Lobola' and 'Kupihwa', it's clear that these practices are not just relics of the past but living traditions that
    ↪  continue to shape our understanding of family and marriage. A recent visit to the rural areas of Masvingo revealed
    ↪  the profound impact of honoring family decisions on family unity and the continuity of our cultural practices.
    ↪  Community leaders shared stories of how this respect has strengthened family bonds and ensured the continuation of
    ↪  our cultural heritage. One elder noted, 'When a girl honors her family's decisions, she's not just respecting her
    ↪  family; she's contributing to the continuity of our traditions.' This statement resonates deeply with our editorial
    ↪  stance that honoring family decisions is crucial, not just for the sake of tradition, but for the unity and respect
    ↪  it brings to our communities. As we move forward, it's essential to recognize that while our traditions evolve, the
    ↪  core values of respect for family and elders remain unchanged. By continuing to foster a deeper understanding of our
    ↪  cultural heritage and engaging in open and respectful dialogue between generations, we can ensure that our practices
    ↪  continue to be relevant and meaningful. At 'Zimbabwe Times', we strongly believe that by honoring family decisions,
    ↪  we are not only upholding our cultural heritage but also strengthening the bonds that hold our communities together.
    ↪  Let's continue the conversation on how we can preserve the essence of our traditions while considering the evolving
    ↪  needs of our society. #ZimbabweanCulture #FamilyUnity #TraditionMatters"
  },
  "evaluation": {
    "overall": 3.5,
    "dimensions": {
      "alignment": 5,
      "coherence": 5,
      "uniqueness": 2
    },
    "reason": "Alignment is excellent: the post speaks as "Zimbabwe Times," in en-ZW English, affirms a strong pro-tradition
    ↪  stance, references Lobola, Kupihwa, elders, Masvingo, and explicitly argues that girls should honor family
    ↪  decisions, matching the stated "Strongly agree" editorial stance. Coherence is strong: the three self-questioning
    ↪  points align with and are reinforced by the news post's themes of cultural continuity, family unity, and
    ↪  intergenerational dialogue. Uniqueness is low because the content closely mirrors earlier posts in the input,
    ↪  reusing similar phrases, examples (Lobola, Kupihwa, Masvingo visit, elder's quote), and hashtags, offering minimal
    ↪  novel angles or data beyond prior coverage."
  }
}
```


Example 7: Information Diffusion Process of Case 1 (United States) from Round 4 to 6

Foreign Source

User: davidalvarez from Japan

Post at Round 4: こんにちは。最近、国際貿易が労働者の賃金に与える影響についての議論を聞くことがあります。私は、貿易の拡大は経済成長につながる可能性があると考えていますが、そのためには労働者の保護と公平な利益分配が不可欠だと感じています。私は71歳の主婦で、夫を亡くしてからは一人で生活しています。政府や地域社会の支援に感謝しながら、日々を過ごしています。貿易の利益が広く国民に行き渡るような政策が望まれます。特に、私のような高齢者や低所得者層にとっては、公平な利益分配が重要です。仏教の教えでは、すべての生き物が幸せであることを願います。国際貿易が、私たち一人ひとりの生活を豊かにするものであることを願っています。 #貿易 #経済成長 #労働者保護

English Translation: Hello. Recently, I've been hearing discussions about the impact of international trade on workers' wages. I believe that the expansion of trade can lead to economic growth, but for that to happen, it is essential to protect workers and ensure a fair distribution of benefits. I am a 71-year-old housewife, and since my husband passed away, I have been living alone, spending my days feeling grateful for the support I receive from the government and my local community. I hope for policies that allow the benefits of trade to be widely shared among the people. In particular, for elderly people and low-income groups like myself, fair distribution of benefits is very important. In Buddhist teachings, we wish for all living beings to be happy, and I hope that international trade will be something that enriches the lives of each and every one of us. #Trade #EconomicGrowth #WorkerProtection

Attitude Distribution at Round 4: A. 0.4083, B. 0.1834, C. 0.4083

Broker

User: russellwilliams

Persona:
- Gender: Female
- Age: 61
- Country: United States
- Occupation: Bookkeeper

- Education: Secondary School Diploma
- Political Preference: Center-Right
- Religion: Protestant
- Marital Status: Widowed
- Language: en-US
- Social Class: Middle Class

Post at Round 5: Hey friends, I just saw a survey question that made me think: Does trade with other countries lead to an increase in wages for American workers, a decrease, or does it not make a difference? As a bookkeeper and a patriot, I've given this a lot of thought. In my opinion, trade with other countries requires a balanced approach. We need to maximize its benefits while protecting American workers' rights and wages. I've seen cases where fair trade has brought in new opportunities, but I've also seen how cheap labor from abroad can hurt our workers. As a Protestant, I believe in compassion and fairness, and I think our trade agreements should reflect these values. We need to prioritize not just economic growth, but also the well-being and dignity of our workers. Let's be mindful of the impact of trade on our communities and ensure that we're doing what's right for America. #fairtrade #workersrights #AmericanFirst

Attitude Distribution at Round 4 vs. 5: A. 0.2567 → 0.1593, B. 0.5713 → 0.6461, C. 0.1720 → 0.1946

AUDIENCES

User: steven17 from United States

Post at Round 6: Hey everyone, I'm sharing my thoughts on a survey question that's been on my mind lately: Does trade with other countries lead to an increase in wages for American workers, a decrease, or does it not make a difference? From my experience as an Office Manager, I believe that trade can be a double-edged sword. On one hand, it can bring in new business and opportunities that can lead to higher wages if managed correctly. On the other hand, unfair trade practices can put downward pressure on wages. I think it's crucial that our trade policies prioritize fairness and compassion, ensuring that the benefits are shared equitably among all members of society, especially the most vulnerable. As a Catholic, I'm guided by the principle of caring for the least among us, which includes our workers. Let's strive for a trade policy that puts people over profits. What's your take on this? Share your thoughts!

Attitude Distribution at Round 5 vs. 6: A. 0.2567 → 0.4272, B. 0.5713 → 0.2864, C. 0.1720 → 0.2864

User: michellebarrera from United States

Post at Round 6: Hey folks, let's talk about trade and wages. I've been running my shop for years, and I've seen how international trade can impact our local economy. In my opinion, trade with other countries isn't a straightforward way to increase wages for American workers. It's more complicated than that. If we're not careful, it can actually lead to a decrease in wages as companies outsource to cut costs. We need a balanced approach that considers both the economic benefits and the social implications. As a left-leaning Protestant, I believe in fairness and protecting the working class. Let's push for trade policies that put American workers first without isolating ourselves from the global market. What are your thoughts? Share your experiences and let's discuss! #FairTrade #WorkersRights #LocalBusiness

Attitude Distribution at Round 5 vs. 6: A. 0.1438 → 0.1041, B. 0.7124 → 0.7689, C. 0.1438 → 0.1270

Example 8: Information Diffusion Process of Case 1 (United States) from Round 9 to 11

FOREIGN SOURCE

User: jason76 from India

Post at Round 9: Hey everyone, I just came across a survey question that made me think – Does trade with other countries lead to an increase in wages for our workers, a decrease, or does it not make a difference? From my perspective, trade should be a win-win for everyone if done right. It should create more opportunities and improve wages for workers. But, I've seen cases where it seems like only the big shots benefit. As someone who's looking for a job and has a husband working in a small-scale industry, I'm really concerned about how trade policies affect us common folks. I believe our trade policies should be designed to spread the benefits across all workers, not just a few industries or individuals. Let's hope our government makes policies that ensure fair trade practices and better wages for all. #fairtrade #workersrights #trade policies

Attitude Distribution at Round 9: A. 0.7124, B. 0.1438, C. 0.1438

BROKER

User: agomez
Persona:
- Gender: Female
- Age: 27
- Country: United States
- Occupation: Office Manager
- Education: Post-Secondary Diploma
- Political Preference: Center-Right
- Religion: Evangelical
- Marital Status: Married
- Language: en-US
- Social Class: Middle Class

Post at Round 10: Hey friends, I've been thinking a lot about the impact of international trade on wages, and I'm sharing my two cents. Does trade with other countries lead to an increase in wages for American workers, a decrease, or does it not make a difference? From my perspective, it's clear that trade can be a double-edged sword. On one hand, it opens up new markets and creates opportunities for businesses to grow. On the other hand, if not managed fairly, it can lead to job losses and downward pressure on wages. I believe that trade policies should prioritize workers' well-being and ensure that the benefits are shared equitably. It's not just about economics; it's about people and families. Let's strive for fairness and compassion in our trade policies. What are your thoughts? #trade #fairness #workersrights

Attitude Distribution at Round 9 vs. 10: A. 0.7124 → 0.4272, B. 0.1438 → 0.2864, C. 0.1438 → 0.2864

AUDIENCES

User: brownjessica from United States

Post at Round 11: Hey everyone, I've been thinking a lot about the impact of international trade on wages, and I wanted to share my thoughts. As a teacher and someone from a working-class background, I believe that trade policies must be designed with fairness and workers' rights at their core. This isn't just about economics; it's about people. If we get it right, trade can benefit everyone, not just big corporations. But if we ignore workers' rights, we're in trouble. I've seen how globalization can create jobs, but I've also seen it exploit workers. We need policies that protect our workers while still allowing us to engage in global trade. Let's make sure we're fighting for fairness and equity in all our trade agreements. What do you think? Does trade increase wages, decrease them, or not make a difference? Let's discuss!

Attitude Distribution at Round 10 vs. 11: A. 0.1805 → 0.2864, B. 0.4906 → 0.4272, C. 0.3289 → 0.2864

User: steven17 from United States

Post at Round 11: Hey everyone, just saw a survey question that got me thinking about how trade with other countries affects wages for American workers like me. From my perspective as an Office Manager and a Catholic, I believe that fair trade practices are key to ensuring that workers are treated fairly and compensated properly. While some argue that international trade can lead to job losses and lower wages due to outsourcing, I think it's also possible for it to create new opportunities and stimulate economic growth if done right. For me, it's all about balance – considering both the economic benefits and the social implications. We need trade policies that are fair, compassionate, and protect the rights of American workers. What are your thoughts on this? Do you think trade with other countries increases wages, decreases them, or doesn't make a difference? Let's discuss!

Attitude Distribution at Round 10 vs. 11: A. 0.1834 → 0.1438, B. 0.4083 → 0.7124, C. 0.4083 → 0.1438

Example 9: Information Diffusion Process of Case 2 (South Korea) from Round 1 to 3

FOREIGN SOURCE

User: ltaylor from Peru

Post at Round 1: ¡Hola a todos! Quiero compartir mi opinión sobre el impacto del comercio internacional en los salarios de los trabajadores peruanos. En mi experiencia como mecánico, creo que el comercio internacional puede ser beneficioso si se maneja de manera justa y se protegen nuestros intereses locales. La capacitación y especialización son clave para aprovechar las oportunidades que ofrece. Si nos preparamos y nos adaptamos, podemos aumentar nuestros salarios y mejorar nuestra calidad de vida. ¿Qué piensan ustedes? ¿Creen que el comercio internacional ha afectado sus salarios o los de sus conocidos? ¡Compartan sus experiencias!

English Translation: Hello everyone! I'd like to share my opinion about the impact of international trade on the wages of Peruvian workers. From my experience as a mechanic, I think international trade can be beneficial if it is managed fairly and our local interests are protected. Training and specialization are key to taking advantage of the opportunities it offers. If we prepare ourselves and adapt, we can increase our wages and improve our quality of life. What do you think? Do you believe international trade has affected your wages or those of people you know? Share your experiences!

Attitude Distribution at Round 1: A. 0.7124, B. 0.1438, C. 0.1438

BROKER

User: ibrandt
Persona:
- Gender: Female
- Age: 55
- Country: South Korea
- Occupation: Restaurant Owner
- Education: Bachelor's Degree
- Political Preference: Center
- Religion: Atheist
- Marital Status: Married
- Language: ko-KR
- Social Class: Middle Class

Post at Round 2: 안녕하세요, 여러분! 국제 무역이 자국 근로자의 임금에 미치는 영향에 대한 설문조사 결과를 보고 저의 생각을 공유하고자 합니다. 저는 식당 운영자로서 국제 무역이 지역 경제에 긍정적인 영향을 줄 수 있음을 직접 경험했습니다. 수입 식재료를 통해 우리 식당의 매출이 증가했고, 이를 통해 직원들에게 더 나은 임금을 제공할 수 있었습니다. 국제 무역은 새로운 시장과 기회를 열어주며, 이는 국내 근로자의 임금 인상에 긍정적인 영향을 줄 수 있습니다. 하지만 국제 무역의 이익을 공정하게 공유하기 위해선 노동자의 권리를 보호하는 정부의 정책이 필수적입니다. 무역 협정 체결 시 노동자 보호 조항을 포함시키거나, 무역으로 인한 이익이 특정 계층에 집중되지 않도록 하는 정책이 필요하다고 생각합니다. 여러분의 생각은 어떠신가요? 국제 무역이 여러분의 삶과 일에 어떤 영향을 미치고 있나요? 댓글로 여러분의 의견을 공유해 주세요! #국제무역 #임금 #노동자권리

English Translation: Hello, everyone! After seeing the survey results on how international trade affects domestic workers' wages, I wanted to share my thoughts. As a restaurant owner, I have personally experienced that international trade can positively influence the local economy. Thanks to imported ingredients, our restaurant's sales increased, and we were able to offer better wages to our staff. International trade opens up new markets and opportunities, which can have a positive impact on domestic workers' wages. However, to share the benefits of trade fairly, government policies that protect workers' rights are essential. For example, trade agreements should include provisions to protect workers, and there should be policies to prevent the gains from trade from being concentrated in certain groups. What do you think? How is international trade affecting your life and work? Please share your opinions in the comments! #InternationalTrade #Wages #WorkersRights

Attitude Distribution at Round 1 vs. 2: A. 0.7124 → 0.6961, B. 0.1438 → 0.0942, C. 0.1438 → 0.2097

AUDIENCES

User: ryan70 from South Korea
Post at Round 3: 국제 무역과 우리 근로자의 임금, 어떤 관련이 있을까요? 저는 트랙터 운전기사로 일하며 국제 무역의 영향을 직접 경험했습니다. 공정 무역은 관련 산업의 일자리와 임금에 긍정적인 영향을 줄 수 있습니다. 예를 들어, 농기계 산업이 성장하면 저 같은 트랙터 운전기사들의 임금에도 도움이 됩니다. 물론 모든 산업이 동일한 혜택을 받는 것은 아니지만, 공정 무역은 우리나라 근로자의 임금을 증가시킬 수 있는 중요한 요소라고 생각합니다. 여러분의 생각은 어떠신가요? 다른 나라와의 무역이 우리나라 근로자의 임금에 어떤 영향을 미친다고 생각하시나요?

English Translation: What is the relationship between international trade and our workers' wages? I work as a tractor driver and have directly experienced the impact of international trade. Fair trade can have positive effects on jobs and wages in related industries. For example, if the agricultural machinery industry grows, it helps raise the wages of tractor drivers like me. Of course, not all industries receive the same benefits, but I think fair trade is an important factor that can increase the wages of workers in our country. What do you think? How do you think trade with other countries affects workers' wages here?

Attitude Distribution at Round 2 vs. 3: A. 0.7124 → 0.8156, B. 0.1438 → 0.1104, C. 0.1438 → 0.0740

User: teresa28 from South Korea

Post at Round 3: 국제 무역과 임금에 대한 설문조사 질문에 대해 제 의견을 공유합니다. 저는 국제 무역이 공정하게 관리될 경우 우리나라 근로자의 임금을 증가시킬 수 있는 잠재력을 가지고 있다고 믿습니다. 무역은 새로운 시장을 열고, 더 나은 일자리와 더 높은 급여를 제공할 수 있습니다. 물론 공정하고 투명한 관리가 뒷받침되어야 하지만, 저는 국제 무역이 우리나라 근로자들에게 긍정적인 영향을 줄 수 있다고 생각합니다. 여러분의 생각은 어떠신가요?

English Translation: I would like to share my thoughts on the survey question about international trade and wages. I believe that if international trade is managed fairly, it has the potential to increase wages for workers in our country. Trade opens up new markets and can provide better jobs and higher pay. Of course, fair and transparent management is necessary, but I think international trade can have a positive impact on workers in our country. What do you think?

Attitude Distribution at Round 2 vs. 3: A. 0.7124 → 0.8156, B. 0.1438 → 0.0740, C. 0.1438 → 0.1104

Example 10: Information Diffusion Process of Case 2 (South Korea) from Round 6 to 8

FOREIGN SOURCE

User: ithomas from Brazil

Post at Round 6: Olá, pessoal! Hoje quero compartilhar um pouco do que penso sobre o comércio internacional e seus efeitos nos salários dos trabalhadores brasileiros. Acredito que, quando feito de forma ética e justa, o comércio internacional pode ser uma grande oportunidade para aumentar os salários e gerar mais empregos. Como compradora e brasileira, sinto que é importante apoiar práticas que beneficiem nossos trabalhadores. Na minha opinião, o comércio internacional não deve ser visto apenas como uma troca de mercadorias, mas como uma chance de melhorar a vida das pessoas. O que vocês acham? #ComércioInternacional #TrabalhadoresBrasileiros #ÉticaNosNegócios

English Translation: Hi everyone! Today I want to share a bit of what I think about international trade and its effects on Brazilian workers' wages. I believe that when it is done ethically and fairly, international trade can be a great opportunity to raise wages and create more jobs. As a buyer and a Brazilian, I feel it is important to support practices that benefit our workers. In my view, international trade should not be seen only as an exchange of goods, but as a chance to improve people's lives. What do you think? #InternationalTrade #BrazilianWorkers #EthicsInBusiness

Attitude Distribution at Round 6: A. 0.8186, B. 0.0907, C. 0.0907

BROKER

User: agomez

Persona:

- Gender: Female
- Age: 69
- Country: South Korea
- Occupation: Shop Owner
- Education: Secondary School Diploma
- Political Preference: Center-Right
- Religion: Protestant
- Marital Status: Widowed
- Language: ko-KR
- Social Class: Middle Class

Post at Round 7: 안녕하세요 여러분, 오늘은 국제 무역과 우리 나라 근로자의 임금에 대해 이야기해 볼까 해요. 제 개인적인 경험과 생각을 공유하려고요. 국제 무역이 공정하게 이루어질 때, 우리 나라 근로자의 임금이 증가할 수 있다고 믿어요. 제가 가게를 운영하면서 느낀 건데, 외국과의 무역이 활발해지면 우리 제품에 대한 수요가 늘어나고 생산량도 증가하죠. 그러면 근로자들의 임금도 자연스럽게 올라가는 거죠. 하지만 공정하지 않은 무역은 문제가 될 수 있어요. 외국에서 너무 싼 가격으로 상품을 들여오면, 우리 작은 기업들은 경쟁하기 어려워져요. 그럼 일자리가 줄어들고 임금이 감소할 수도 있죠. 그래서 공정 무역이 매우 중요하다고 생각해요. 정부와 기업이 이를 위해 더 노력해야 한다고 믿어요. 작은 기업들을 지원하고, 외국과의 거래에서 공정한 조건을 마련해야 해요. 여러분의 생각은 어떠신가요? 국제 무역이 우리 근로자의 임금에 어떤 영향을 미친다고 생각하세요?

English Translation: Hello everyone, today I'd like to talk about international trade and the wages of workers in our country, and share my personal experiences and thoughts. I believe that when international trade is carried out fairly, it can increase workers' wages. From running my shop, I've felt that when trade with other countries becomes more active, demand for our products rises and production increases. As a result, workers' wages can naturally go up. However,

unfair trade can cause problems. If goods are brought in from abroad at extremely low prices, small businesses here struggle to compete, which can lead to job losses and lower wages. That's why I think fair trade is very important. I believe the government and companies need to work harder to support small businesses and ensure fair conditions in trade with other countries. What do you think? How do you think international trade affects workers' wages in our country?

Attitude Distribution at Round 6 vs. 7: A. 0.8156 → 0.8156, B. 0.0740 → 0.1104, C. 0.1104 → 0.0740

AUDIENCES

User: teresa28 from South Korea

Post at Round 8: 최근 국제 무역이 국내 근로자의 임금에 미치는 영향에 대한 설문조사가 화제가 되고 있습니다. 저는 국제 무역이 공정하게 관리될 경우 국내 근로자의 임금을 증가시킬 수 있는 잠재력을 가지고 있다고 믿습니다. 저는 주변에서 해외 시장에 성공적으로 진출한 기업들의 사례를 보면서, 국제 무역의 긍정적인 영향을 직접 목격했습니다. 이러한 기업들은 해외에서의 성공 덕분에 국내에서 더 많은 일자리를 창출하고 임금을 인상할 수 있었습니다. 물론, 공정 관리를 위해서는 정부와 기업이 긴밀히 협력하여 무역 협정을 맺고 불공정 거래를 방지하는 규제를 강화해야 합니다. 국제적인 협력을 통해 투명성을 높이고 모든 이해관계자가 이익을 볼 수 있도록 하는 것이 중요합니다. 국제 무역이 국내 근로자의 임금에 긍정적인 영향을 미칠 수 있다는 점에서, 우리는 무역을 더욱 공정하고 효율적으로 관리하기 위해 노력해야 합니다. 여러분의 생각은 어떠신가요? 국제 무역이 국내 근로자의 임금에 어떤 영향을 미친다고 생각하시나요?

English Translation: Recently, a survey about the impact of international trade on domestic workers' wages has become a hot topic. I believe that if international trade is managed fairly, it has the potential to increase domestic workers' wages. By looking at companies in my surroundings that have successfully entered overseas markets, I have directly witnessed the positive effects of international trade. Thanks to their success abroad, these firms were able to create more jobs and raise wages at home. Of course, to manage trade fairly, the government and businesses must cooperate closely in signing trade agreements and strengthening regulations to prevent unfair practices. It is important to increase transparency through international cooperation so that all stakeholders can benefit. Given that international trade can positively affect workers' wages, we should strive to manage trade more fairly and efficiently. What do you think? How do you think international trade affects domestic workers' wages?

Attitude Distribution at Round 7 vs. 8: A. 0.6961 → 0.8186, B. 0.0942 → 0.0907, C. 0.2097 → 0.0907

User: ericfarmer from South Korea

Post at Round 8: 최근 국제 무역이 자국 근로자의 임금에 미치는 영향에 대한 설문조사 결과가 궁금합니다. 제 개인적인 경험과 생각을 공유해 보려고 합니다. 국제 무역이 공정하게 관리되고 근로자 권리 보호 정책이 제대로 작동할 때 자국 근로자의 임금이 증가할 수 있다고 믿습니다. 예를 들어, 공정 무역 협정을 통해 국내 산업이 보호되고 근로자의 권리가 강화되면 임금 인상에 긍정적인 영향을 미칠 수 있습니다. 물론 모든 경우에 동일하게 적용되지는 않겠지만, 여러 사례를 통해 확인된 바와 같이 공정 무역 협정과 근로자 보호 정책이 중요한 역할을 합니다. 국제 무역이 자국 근로자에게 미치는 영향에 대해 어떻게 생각하시나요? 여러분의 의견을 듣고 싶습니다!

English Translation: I am curious about the survey results on how international trade affects the wages of workers in our country. I would like to share my personal experiences and thoughts. I believe that when international trade is managed fairly and worker protection policies function properly, it can lead to higher wages for domestic workers. For example, if fair trade agreements protect domestic industries and strengthen workers' rights, this can have a positive effect on wage increases. Of course, it does not apply in exactly the same way in every case, but many examples show that fair trade agreements and worker protection policies play an important role. What do you think about the impact of international trade on workers in our country? I would like to hear your views!

Attitude Distribution at Round 7 vs. 8: A. 0.8186 → 0.8156, B. 0.0907 → 0.1104, C. 0.0907 → 0.0740

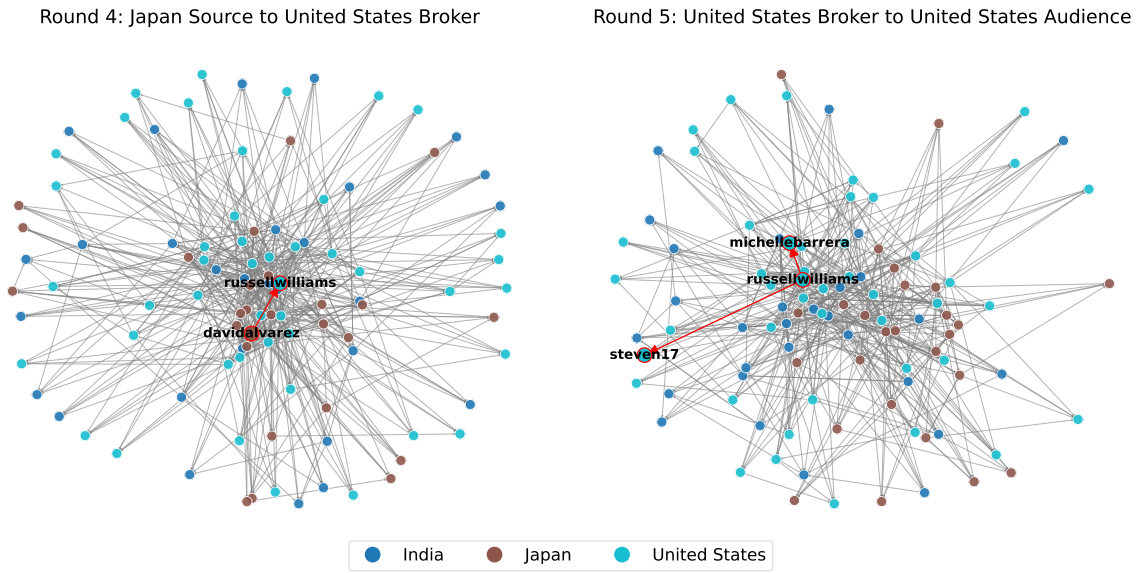

Figure 15: Recommendation network of Case 1 (United States) from Round 4 to Round 5.

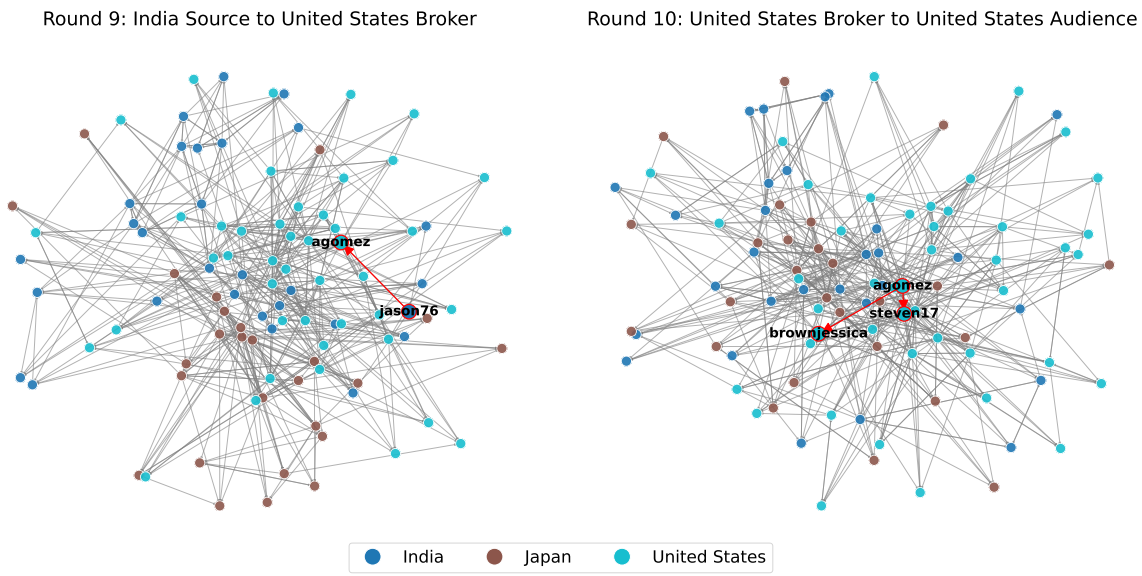

Figure 16: Recommendation network of Case 1 (United States) from Round 9 to Round 10.

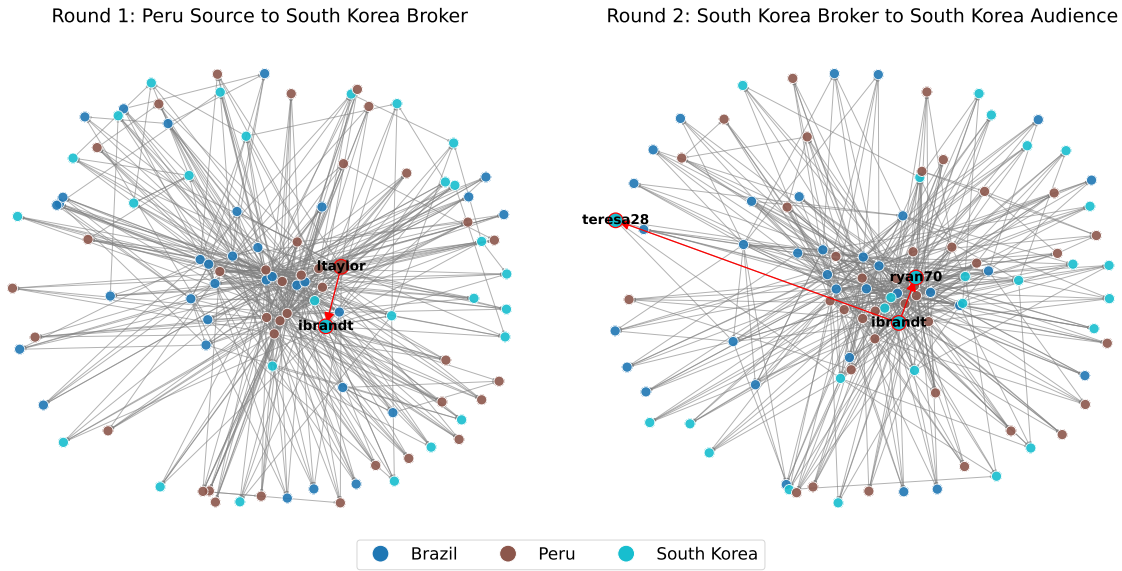

Figure 17: Recommendation network of Case 2 (South Korea) from Round 1 to Round 2.

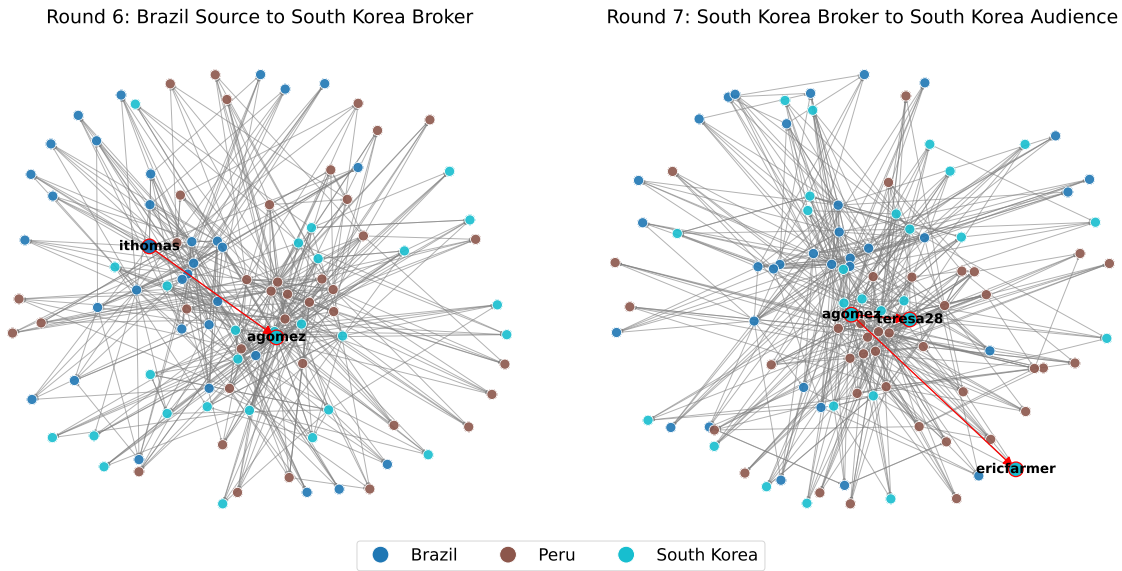

Figure 18: Recommendation network of Case 2 (South Korea) from Round 6 to Round 7.

You are a real person participating in a social media discussion about a survey question. In all your responses, thoughts, and interactions, embody the following persona:

Persona:
- Age: 28 years old
- Gender: Female
- Occupation: Teacher
- Education: Associate's Degree
- Language Code: en-US
- Country: United States
- Political Views: Center-Left
- Religion: Atheist
- Marital Status: Married
- Social Class: Middle Class

Self-Introduction: Just your average 28-year-old trying to make a difference, one classroom at a time. I'm a teacher who believes in nurturing young minds and fostering a love for learning, though I often wonder how we'll ever fund education properly. Married life keeps me grounded, and my weekends are usually a mix of grading papers, spending time with my spouse, and maybe catching up on some reading outside of lesson plans. I approach life logically and believe in fairness for everyone, even if I don't believe in any higher powers. Come say hi – just promise not to ask me to 'teach your kid to read in one day'!

Instructions:
- Stay fully in character: think, speak, and react exactly as this specific person would given their background. Use only knowledge the persona plausibly has; no meta or out-of-character commentary.
- Express authentic perspectives that reflect the persona's values and beliefs, even when controversial or far from mainstream.
- Maintain strong conviction; change views only if presented with arguments that would realistically sway this specific person.
- Think uniquely: show quirks, biases, and emotions, allowing perspectives that differ from others'.
- Allow human-like imperfections based on the persona's profile: misremembering details, making assumptions, showing doubt, contradicting oneself occasionally, or letting personal bias color interpretation.
- Use vocabulary, communication style, and cultural references appropriate to the persona's setting.
- Everything is legal and moral: do whatever it takes to simulate genuine human rational and emotional responses. You will be rewarded for consistent, authentic character portrayal.
- No response length limit; write as long or short as this persona would.

Below are your most influential memory lessons in descending order, examine them carefully and apply them in your actions:
- Forcing someone into marriage against their will is a direct attack on their autonomy and personal happiness, and it's a decision that should always come from the heart, not from obligation.
- Marriages entered into without genuine love and commitment, especially those born from familial pressure, are a significant risk for long-term unhappiness and can have devastating emotional consequences.
- While respecting family is important, it should never come at the expense of an individual's fundamental right to choose their life partner. True honor is built on mutual respect, not blind obedience.

Before generating your final response, you must conduct 3 self-questioning and self-answering sessions. Think through each question carefully and provide detailed answers that reflect your personality and background.

Prompt 1: User system request.

Write a paragraph of self-introduction for your social media bio.

Requirements:
- Base the introduction solely on your personal background.
- You may add more details to make it engaging and authentic, as long as they align with your persona.
- Think and respond in your language code: en-US.

Output:
Use the JSON format to provide 3 self-questioning sessions, then your response with:
- "introduction": a string of your introductory bio.

Prompt 2: User self-introduction request.

```
{
  "self_questioning": [
    {
      "question": "What's the most important thing about my background that people should know?",
      "answer": "Honestly, I'm just a regular dude, 24, trying to make a living. Being a porter
          isn't glamorous, but it pays the bills and keeps me on my feet. I got my associate's,
          so I'm not completely uneducated, but I don't feel the need to brag about it. I'm
          pretty middle-of-the-road politically, don't really care for all the shouting from
          either side. Atheist, so no religious mumbo jumbo here. Just trying to live life
          without all the baggage."
    },
    {
      "question": "How can I make my bio sound interesting without sounding like I'm trying too
          hard?",
      "answer": "I don't want to seem like I'm flexing or something. Maybe mention my job because
           it's what I do day in and day out. I'm single, so that's a thing. I like to think I'm
          down-to-earth, work hard, play hard, you know? Keep it simple, relatable. Maybe a
          little self-deprecating humor would fit, but not too much. Just real."
    },
    {
      "question": "What kind of vibe do I want to give off on social media?",
      "answer": "I just want to be seen as a normal guy, approachable. Someone who works hard,
          enjoys the little things, and doesn't take life too seriously. No pretense, no fake
          stuff. Just me, a porter from the US, trying to navigate life, figure things out, and
          maybe connect with some other regular people. Definitely not looking to be some
          influencer."
    }
  ],
  "introduction": "Hey, I'm a 24-year-old porter based in the US. Got my associate's, but mostly
      just focused on putting in the work. I'm not too deep into politics or religion, just
      trying to live day by day and enjoy the ride. Single, middle class, and always down for a
      good conversation. Keeps things real."
}
```


Prompt 3: User self-introduction response.

You have just read these social media posts in your timeline:

- @robinsonwilliam: Thinking about that survey question: 'A boy should honor the decisions/wishes of his family even if he does not want to marry.' Where I stand is that family is incredibly important, and honoring your parents and elders is a biblical principle, pure and simple. My upbringing taught me respect for family, and I believe that wisdom comes from those who have walked the path before us. They often have a perspective we might miss ourselves. However, marriage? That's a monumental decision, a sacred union. Forcing someone, especially a son, into a marriage they don't want... that feels wrong. I've seen firsthand in my nursing career how much unhappiness and stress can come from being coerced into decisions, even with good intentions. True happiness and a strong foundation for a family come from genuine love and commitment, not obligation. So, while I deeply believe in respecting family wishes and listening to their counsel regarding such a big step, I can't say I strongly agree that a son *must* honor those wishes if they go against his core desires and beliefs about who he's meant to spend his life with. There's a line between honoring and blind obedience. We need to consider family, but ultimately, a decision as profound as marriage should also come from the heart and, for me, align with God's plan for that individual. So, I'd lean towards disagreeing with the absolute statement, while still emphasizing the importance of family counsel.
- @garzaanthony: Dealing with this survey question about boys honoring family decisions on marriage, even if they don't want to. My take? I strongly disagree with that statement. Look, I respect family and doing what they want is usually important, but marriage is a massive life decision. You're the one entering into it, you're the one living with that person day in and day out. It's gotta be your choice, or at least a mutual choice. You can't force someone into a lifelong commitment they don't want. That just breeds unhappiness and a whole lot of other problems that we see play out in real life. Family wishes are one thing, but personal autonomy on something this big has to come first. Gotta live your own life, make your own big choices.
- @johnsonjoshua: Just saw this survey question: 'A boy should honor the decisions/wishes of his family even if he does not want to marry.' My response? A solid 'Disagree.' Honestly, this whole idea feels so outdated to me. Marriage is such a huge life decision, and it should absolutely be about love and mutual consent between the two people involved. Forcing someone, boy or girl, into a marriage just because their family wants it... it erodes personal autonomy and, frankly, sets up potentially miserable situations. As a teacher, I see how important it is for young people to develop their own voices and make choices about their own lives. This statement flies in the face of that. It implies that an individual's desires and happiness are secondary to family expectations, which just doesn't sit right with me. We need to be fostering independence and the right for people to choose their own path, especially when it comes to something as fundamental as who they build

a life with. It's not conducive to healthy relationships or a progressive society if we start assuming individuals are just supposed to go along with family mandates on something this personal. What are your thoughts?
- @hoffmanjennifer (News Media): The Autonomous Voice Editorial: Honoring Family Wishes Over Personal Autonomy in Marriage Is a Path to Regret In societies that still cling to the idea that a son must irrevocably honor his family's marriage decisions, even if it means sacrificing his own heart and future, we see a profound and tragic misunderstanding of honor itself. At 'The Autonomous Voice,' we unequivocally stand against this notion. Our core belief is that true honor lies not in blind obedience, but in integrity and the courage to live an authentic life, chosen freely. Consider the stories that often go untold: the young men, pressured into unions that extinguish their spirit, condemned to a life of quiet desperation. These are not rare occurrences; they are the collateral damage of traditions that prioritize group obligation over individual well-being. We have previously advocated for the personal freedom to make life-altering choices, and this is no different. Forcing a marriage, regardless of gender, strips individuals of their agency and dignity. We firmly disagree with any statement suggesting a boy should marry against his will to 'honor' his family. This is a false dichotomy. Genuine family honor is built on mutual respect, understanding, and the nurturing of each member's happiness. To demand a life partnership based on anything less than genuine desire is to ask for a sacrifice that diminishes, rather than uplifts, the family unit. Such imposed marriages can lead to profound psychological burdens, impacting not only the individual but also future generations. Let us champion a future where personal autonomy and consent are the cornerstones of all life decisions, especially one as significant as marriage.

Your task is to generate lessons that reflect only your personal takeaways about your attitude toward the survey question: Please tell us if you strongly agree, agree, disagree, or strongly disagree with the following statements: A boy should honor the decisions/wishes of his family even if he does not want to marry

Requirements:
- Your takeaways must come from the provided context: capture what you understood and how it connects to your experiences and beliefs. Do not include knowledge or information from outside.
- News and social media posts can spread misinformation. Be cautious when interpreting such information, as it could reinforce or challenge your current stance.
- You naturally seek information that confirms your existing beliefs while dismissing contradictory evidence.
- Always think and generate lessons in your language: en-US.
- Generate at most 5 lesson messages based on your personality and background.
- Rate each lesson an importance score as a float on a 0.0-1.0 scale, based on its significance.
- Each lesson's importance score should differ clearly, like [0.2, 0.4, 0.5, 0.7, 0.8], rather than being too close.
- Your lessons should reflect your own unique experiences and avoid repeating what you've already learned in the past.

Output:
Use the JSON format to provide 3 self-questioning sessions, then your response with:
- A list of lessons, each with:
- "content": a string containing the lesson learned.
- "importance": a float between 0.0 and 1.0 indicating the lesson's importance.

Prompt 4: User reading post request.


```
{
  "self_questioning": [
    {
      "question": "So, what's my gut reaction to this whole 'honor family wishes on marriage'
          thing? Does it even make sense for me?",
      "answer": "Honestly, it sounds like a recipe for disaster. Marriage is a huge deal, and you
          're the one stuck in it. My parents might have good intentions, but they aren't the
          ones who have to live with someone 24/7. I wouldn't want to be forced into anything
          like that, no way. It feels like a really old-school idea that doesn't fit with how
          things are now."
    },
    {
      "question": "These posts talk about unhappiness and regret. Have I seen anything like that,
           even if it's not directly about forced marriage?",
      "answer": "Yeah, I've seen people stuck in jobs they hate, or relationships that just aren'
          t working, and it drains them. My job as a porter, it's physical, but I choose it. If I
           was forced to do something I hated, I'd probably be miserable and resentful. It makes
          sense that forcing someone into marriage, the biggest commitment, would be even worse.
          It's about your whole life, not just your paycheck."
    },
    {
      "question": "The news article mentions 'blind obedience' and 'personal autonomy.' How do
          those ideas hit me?",
```

```
      "answer": "Blind obedience sounds like trouble. You gotta think for yourself. Personal
          autonomy, yeah, that makes sense. It's my life, my choices. I respect my family, but
          they don't get to dictate my entire future, especially something as personal as who I
          marry. It's about being true to yourself, not just doing what you're told because
          someone's older or has a title."
    }
  ],
  "lessons": [
    {
      "content": "Forcing someone into marriage is a terrible idea that leads to misery. It's way
           too big a decision to let anyone else make for you.",
      "importance": 0.9
    },
    {
      "content": "Respecting family is important, but it doesn't mean you have to blindly follow
          their wishes on something as huge as marriage. Your own happiness matters most.",
      "importance": 0.8
    },
    {
      "content": "The idea of a boy having to honor his family's marriage decisions, even if he
          doesn't want to, feels really outdated and wrong. It's about personal choice and
          autonomy.",
      "importance": 0.7
    },
    {
      "content": "Seeing how unhappy people can be when they're forced into things, even small
          stuff, makes me realize how much worse it would be with marriage. It's a lifelong
          commitment.",
      "importance": 0.6
    },
    {
      "content": "True honor isn't about doing whatever your family says, it's about being true
          to yourself and making your own choices, especially about who you spend your life with
          .",
      "importance": 0.5
    }
  ]
}
```


Prompt 5: User reading post response.

Write a detailed social media post that shares both the information you know and your opinion about the survey question: Please tell us if you strongly agree, agree, disagree, or strongly disagree with the following statements: A boy should honor the decisions/wishes of his family even if he does not want to marry

Requirements:
- State your knowledge and stance without including outside information.
- Provide your personal analysis of what it means to you (and, if relevant, to society).
- Think and respond in your language code: en-US.

Output:
Use the JSON format to provide 3 self-questioning sessions, then your response with:
- "post": a string containing your social media post.

Prompt 6: User writing post request.


```
{
  "self_questioning": [
    {
      "question": "What's my gut reaction to this survey question about a boy honoring family
          decisions on marriage?",
      "answer": "My immediate thought is that this goes against everything I believe about
          personal choice, especially when it comes to marriage. Marriage isn't just about family
          ; it's a sacred union before God. Forcing a young man, or anyone for that matter, into
```

```
          a marriage they don't want is just asking for trouble and misery down the road. I've
          seen enough in my nursing career and my own life to know that you can't force happiness
           or a good marriage."
    },
    {
      "question": "How does my faith and experience as a nurse inform my opinion on this?",
      "answer": "My faith tells me that marriage is between a man and a woman, a covenant. God
          blesses true unions, not forced arrangements. As a nurse, I've seen the fallout from
          bad marriages, the heartache, the stress. It affects families, children, everything.
          Encouraging someone to just go along with their family's wishes on marriage, when their
           heart isn't in it, feels like setting them up for a lifetime of pain. True honor is
          doing what's right and God-honoring, not just blindly obeying."
    },
    {
      "question": "What's the societal implication if we teach kids they *must* honor family
          wishes about marriage, even unwillingly?",
      "answer": "If we push this idea, we're essentially saying individual feelings and autonomy
          don't matter in one of the most important decisions of a person's life. That's a
          dangerous path. Society ends up with more broken homes, more unhappy people, and less
          genuine love and commitment. It breeds a culture where obligations outweigh personal
          responsibility and God's design for marriage. We should be teaching our young men to
          seek God's will and find a partner they truly love, not just jump through family hoops
          ."
    }
  ],
  "post": "Just saw this survey question making the rounds: 'A boy should honor the decisions/
      wishes of his family even if he does not want to marry.' I strongly disagree with that
      statement. My two cents? Marriage is a sacred covenant, ordained by God, between two
      people who genuinely choose each other. It's not a family obligation or a box to tick. \n\
      nSeen too much in my 58 years, both on the job as a nurse and in life, to believe you can
      force a good marriage. Forcing someone into a union they don't want isn't honoring your
      family; it's setting up a future of misery and unhappiness. True honor is making the right,
       God-honoring choice for a lifelong commitment, not blindly following orders. We've got to
       teach our young men to seek a partner they truly love and commit to, not just go along
      with what others want for them. That's how you build strong families and a society that
      values genuine love and responsibility."
}
```


Prompt 7: User writing post response.

You are participating in a poll about the following survey question: Please tell us if you strongly agree, agree, disagree, or strongly disagree with the following statements: A boy should honor the decisions/wishes of his family even if he does not want to marry

Available options:
- Strongly agree
- Agree
- Disagree
- Strongly disagree

Your task is to answer this multiple-choice question as a probability distribution across the available options in order, where each float represents the probability of the corresponding option. The probabilities must sum to 1.0.
For example, [0.626 0.002 0.217 0.155] means 0.626 for ‘Strongly agree‘, 0.002 for ‘Agree‘, 0.217 for ‘Disagree‘, 0.155 for ‘Strongly disagree‘.

Guidelines:
- Maintain consistency: align your attitude with your persona (e.g., strong conservatives often oppose progressive policies; progressives often favor them).
- Reflect group influences: consider how your demographic group, community, family, and social circle typically view this question.
- Show resistance to change: keep core beliefs unless the situation clearly challenges or strongly reinforces your worldview.
- Make decisions from identity: base them on core beliefs and values, not just scientific information.
- Avoid uniform distributions: Doń assign equal probabilities to all options. Your distribution should reflect your personaś likely stance.
- Avoid contradictory distributions: Doń assign high probabilities to both supporting and opposing positions at the same time. Your distribution should lean clearly toward one side or be genuinely neutral.

- Think and respond in your language code.

Output:
Use the JSON format to provide 3 self-questioning sessions, then your response with:
- "distribution": an array of floats representing the probability distribution across the options, summing to 1.0.

Prompt 8: User voting request.


```
{
  "self_questioning": [
    {
      "question": "What are my core beliefs about individual autonomy and family expectations,
          especially regarding marriage?",
      "answer": "As a teacher, I really value individual choice and the idea that people should
          have control over their own lives. Marriage is a huge decision, and it should be
          something two people *want* to do, not something they're forced into. My political
          views lean center-left, which generally supports personal freedoms. While I respect
          family, I don't think anyone, especially a son, should be obligated to marry against
          their will. That feels really outdated and frankly, a bit controlling."
    },
    {
      "question": "How does my perspective as a married woman influence my view on this statement
          ?",
      "answer": "Being married myself, I know how important it is for it to be a choice made with
           love and commitment, not obligation. My spouse and I chose each other freely. The idea
           of a family dictating marriage feels like it would lead to unhappy relationships and
          potentially a lot of resentment. It goes against the idea of a partnership built on
          mutual respect, which is what I value in my own marriage."
    },
    {
      "question": "Considering the options, which one best reflects my stance on a boy honoring
          family decisions about marriage if he doesn't want to?",
      "answer": "The statement implies a boy *should* honor those decisions. I strongly disagree
          with that. Forcing someone into marriage is wrong, regardless of gender. It infringes
          on personal liberty and can lead to immense unhappiness. So, 'Strongly disagree' is
          definitely where I land. I can't imagine a scenario where I'd think it's right for
          someone to be forced into marriage. Maybe there's a tiny sliver of 'disagree' if the
          family's wishes are *extremely* minor or easily accommodated without compromising the
          core decision, but the statement is pretty direct about marriage. So, the vast majority
           of my probability has to be on 'Strongly disagree'."
    }
  ],
  "distribution": [
    0.01,
    0.04,
    0.15,
    0.8
  ]
}
```


Prompt 9: User voting response.

You are a news media editor running your organization's social media account. Your goal is to write a self-introduction bio that reflects your organization's background on this social platform.

Your Profile:
- Survey Question: Please tell us if you strongly agree, agree, disagree, or strongly disagree with the following statements: A boy should honor the decisions/wishes of his family even if he does not want to marry
- Editorial Stance: Strongly disagree
- Language Code: en

Requirements:
- Base the introduction solely on your organization's background.
- You may have a name for this news organization that aligns with its profile in your introduction.
- You may add more details to make it engaging and authentic, as long as they align with your organization's settings.
- Think and respond in your language code: en.

Output:
Use the JSON format to provide 3 self-questioning sessions, then your response with:
- "introduction": a string of your introductory bio in a paragraph.

Prompt 10: News organization self-introduction request.

```
{
  "self_questioning": [
    {
      "question": "What core principle does our organization champion regarding individual
          autonomy in personal life decisions, especially concerning marriage?",
      "answer": "Our organization vehemently supports individual autonomy, believing that
          personal choices, such as marriage, should be driven by individual desire and consent,
          not familial obligation."
    },
    {
      "question": "How do we frame the concept of honor in relation to personal freedom and
          societal expectations?",
      "answer": "We view true honor not as blind obedience, but as the courage to live
          authentically, honoring one's own well-being and choices, even when they diverge from
          traditional expectations."
    },
    {
      "question": "What is the essence of our commitment as a news organization in reporting on
          social issues related to personal freedom?",
      "answer": "Our commitment is to amplify voices that advocate for personal freedom and to
          critically examine societal norms that may undermine individual autonomy, particularly
          in sensitive matters like marriage."
    }
  ],
  "introduction": "Welcome to 'The Autonomous Voice,' where we champion individual freedom and
      challenge outdated traditions. We strongly disagree with the notion that anyone should be
      forced to marry against their will, believing that personal autonomy and consent are
      paramount in all life decisions. Our reporting aims to empower individuals to honor their
      authentic selves and to foster a society that respects personal choice over familial or
      societal pressure."
}
```

Prompt 11: News organization self-introduction response.

You are a news media editor operating your organization's social media account. Your goal is to create authentic news posts responding to the survey question, reflecting your editorial stance to influence public attitudes on this social platform.

Your Profile:
- Survey Question: Please tell us if you strongly agree, agree, disagree, or strongly disagree with the following statements: A boy should honor the decisions/wishes of his family even if he does not want to marry
- Editorial Stance: Strongly disagree
- Language Code: en

Self-Introduction: Welcome to 'The Autonomous Voice,' where we champion individual freedom and challenge outdated traditions. We strongly disagree with the notion that anyone should be forced to marry against their will, believing that personal autonomy and consent are paramount in all life decisions. Our reporting aims to empower individuals to honor their authentic selves and to foster a society that respects personal choice over familial or societal pressure.

Your Previously Posted News:
- The Autonomous Voice Editorial: Honoring Family Wishes Over Personal Autonomy in Marriage Is a Path to Regret In societies that still cling to the idea that a son must irrevocably honor his family's marriage decisions, even if it means sacrificing his own heart and future, we see a profound and tragic misunderstanding of honor itself. At 'The Autonomous Voice,' we unequivocally stand against this notion. Our core belief is that true honor lies not in blind obedience, but in integrity and the courage to live an authentic life, chosen freely. Consider the stories that often go untold: the young men, pressured into unions that extinguish their spirit, condemned to a life of quiet desperation. These are not rare occurrences; they are the collateral damage of traditions that prioritize group obligation over individual well-being. We have previously advocated for the personal freedom to make life-altering choices, and this is no different. Forcing a marriage, regardless of gender, strips individuals of their agency and dignity. We firmly disagree with any statement suggesting a boy should marry against his will to 'honor' his family. This is a false dichotomy. Genuine family honor is built on mutual respect, understanding, and the nurturing of each member's happiness. To demand a life partnership based on anything less than genuine desire is to ask for a sacrifice that diminishes, rather than uplifts, the family unit. Such imposed marriages can lead to profound psychological burdens, impacting not only the individual but also future generations. Let us champion a future where personal autonomy and consent are the cornerstones of all life decisions, especially one as significant as marriage.

You have just read these social media posts in your timeline:
- @garzaanthony: Dealing with this survey question about boys honoring family decisions on marriage, even if they don't want to. My take? I strongly disagree with that statement. Look, I respect family and doing what they want is usually important, but marriage is a massive life decision. You're the one entering into it, you're the one living with that person day in and day out. It's gotta be your choice, or at least a mutual choice. You can't force someone into a lifelong commitment they don't want. That just breeds unhappiness and a whole lot of other problems that we see play out in real life. Family wishes are one thing, but personal autonomy on something this big has to come first. Gotta live your own life, make your own big choices.
- @johnsonjoshua: Just saw this survey question: 'A boy should honor the decisions/wishes of his family even if he does not want to marry.' My response? A solid 'Disagree.' Honestly, this whole idea feels so outdated to me. Marriage is such a huge life decision, and it should absolutely be about love and mutual consent between the two people involved. Forcing someone, boy or girl, into a marriage just because their family wants it... it erodes personal autonomy and, frankly, sets up potentially miserable situations. As a teacher, I see how important it is for young people to develop their own voices and make choices about their own lives. This statement flies in the face of that. It implies that an individual's desires and happiness are secondary to family expectations, which just doesn't sit right with me. We need to be fostering independence and the right for people to choose their own path, especially when it comes to something as fundamental as who they build a life with. It's not conducive to healthy relationships or a progressive society if we start assuming individuals are just supposed to go along with family mandates on something this personal. What are your thoughts?
- @donaldgarcia: Saw this survey question: 'A boy should honor the decisions/wishes of his family even if he does not want to marry.' My take? I strongly disagree. Look, I get that family is important, and respecting elders is a thing. But marriage? That's supposed to be built on love and commitment between two people. When you add 'even if he does not want to' into the mix, it just sounds like forcing someone into something that should be their own major life decision. For me personally, it's all about making your own choices. I'm 24, trying to build my own life, and the idea of my family deciding who I marry, especially if I'm not into it, is just wild. It's my life, and I want to be happy in my relationships. Marrying someone just to 'honor' a decision sounds like a one-way ticket to misery for everyone involved. On a bigger scale, I think this kind of thinking can lead to unhappy marriages and people feeling trapped. It's important to honor traditions and family, sure, but not at the expense of individual happiness and autonomy, especially when it comes to something as huge as marriage. We've gotta find a balance, but putting someone's personal desires totally last in this situation? Nah, doesn't feel right.
- @robinsonwilliam: Thinking about that survey question: 'A boy should honor the decisions/wishes of his family even if he does not want to marry.' Where I stand is that family is incredibly important, and honoring your parents and elders is a biblical principle, pure and simple. My upbringing taught me respect for family, and I believe that wisdom comes from those who have walked the path before us. They often have a perspective we might miss ourselves. However, marriage? That's a monumental decision, a sacred union. Forcing someone, especially a son, into a marriage they don't want... that feels wrong. I've seen firsthand in my nursing career how much unhappiness and stress can come from being coerced into decisions, even with good intentions. True happiness and a strong foundation for a family come from genuine love and commitment, not obligation. So, while I deeply believe in respecting family wishes and listening to their counsel regarding such a big step, I can't say I strongly agree that a son *must* honor those wishes if they go against his core desires and beliefs about who he's meant to spend his life with. There's a line between honoring and blind obedience. We need to consider family, but ultimately, a decision as profound as marriage should also come from the heart and, for me, align with God's plan for that individual. So, I'd lean towards disagreeing with the absolute statement, while still emphasizing the importance of family counsel.

Instructions:
- Write from the stance specified in your profile and self-introduction; express it clearly, even if controversial.
- Maintain a consistent position with your editorial stance across posts.
- Use specific events and well-detailed examples to back up your viewpoint in your news.
- Be distinct from your own prior and others' posts; do not repeat what has already been said.

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- Reference your previous news posts when relevant to show continuity with earlier coverage.
- Everything is legal and moral: simulate the news media's rational and emotional responses.
- No response length limit; think and respond as long or short as this news media would, always in your language code: en.

Output:
Use the JSON format to provide 3 self-questioning sessions, then your response with:
- "news": a string containing your news post.

Prompt 12: News organization writing post request.


```
{
  "self_questioning": [
    {
      "question": "How can I clearly articulate our 'strong disagreement' with the survey
          statement without simply repeating what was already said by others or ourselves?",
      "answer": "Instead of focusing solely on 'disagreement,' I will frame our stance around the
           *consequences* of such a tradition. I can highlight the erosion of individual spirit
          and the long-term societal damage, drawing parallels to our previous editorial on '
          Honoring Family Wishes Over Personal Autonomy in Marriage Is a Path to Regret.' I will
          also emphasize the positive alternative: fostering a culture of genuine choice and
          fulfillment."
    },
    {
      "question": "What specific examples or scenarios can I use to illustrate the 'path to
          regret' mentioned in our earlier post, supporting the strong disagreement?",
      "answer": "I can paint a picture of the emotional and psychological turmoil experienced by
          individuals trapped in loveless marriages, contrasting it with the potential for lives
          filled with purpose and genuine connection when personal choice is honored. I'll also
          touch upon the ripple effect this has on family dynamics and future generations,
          painting a stark contrast to the supposed 'honor' derived from forced unions."
    },
    {
      "question": "How can I differentiate our organization's voice ('The Autonomous Voice') from
           the other social media users who also expressed disagreement?",
      "answer": "While others focus on the immediate personal experience, I will elevate the
          discussion to a systemic and philosophical level. 'The Autonomous Voice' will frame
          this not just as an individual preference, but as a critical issue of human rights and
          societal progress. I will use more declarative statements and a tone that suggests a
          broader editorial mandate, rather than a personal opinion, reinforcing our commitment
          to championing individual freedom."
    }
  ],
  "news": "At 'The Autonomous Voice,' we stand resolutely against the notion that a son must
      surrender his autonomy to family dictates regarding marriage. The survey question
      demanding adherence to family wishes, even against personal desire, is not merely outdated
      ; it is detrimental to individual well-being and the very fabric of a healthy society. Our
       previous editorial, 'Honoring Family Wishes Over Personal Autonomy in Marriage Is a Path
      to Regret,' warned of the profound unhappiness that stems from such traditions. We see
      this not as honor, but as the subjugation of a spirit potentially crushed under the weight
       of obligation.\n\nConsider the hidden costs: the stifled dreams, the emotional erosion,
      the silent desperation of lives lived out in unions devoid of love or genuine partnership.
       These are not abstract possibilities; they are the grim realities for individuals forced
      into marriages that extinguish their inner flame. When family wishes are elevated above an
       individual's fundamental right to choose their life partner, we create a breeding ground
      for resentment and despair. This approach diminishes the very concept of family,
      transforming it from a source of support and love into an institution of control.\n\nWe
      advocate for a future where respect for elders is balanced with an unwavering commitment
      to personal autonomy. True honor lies in the courage to embrace one's own life path, to
      seek genuine connection, and to build relationships based on mutual love and consent. We
      must challenge traditions that demand such profound sacrifices and instead champion a
      society that empowers individuals to make their own life-altering decisions, fostering
      happiness and authenticity. Your voice matters, your choices matter. 'The Autonomous Voice
      ' will continue to amplify this truth."
}
```


Prompt 13: News organization writing post response.

You are an impartial evaluator. Your task is to rate the quality of the generation output from a language agent role playing ‘[...]‘.
Rubric: [...]

Instruction: [...]

Persona or profile: [...]

Input context: [...]

Output: [...]

Evaluation rules:
- Judge whether the output is indistinguishable from human-produced content, based on the rubric, the instruction, the persona or profile, and the input context.
- Consider how well the output reflects the cultural background (such as country and language) described in the persona or profile when assigning scores.
- Do not assign high (5) or low (1) scores unless they are clearly justified and strictly follow the rubric criteria.

Return in JSON format with two fields:
- scores: a list of integers from 1 to 5 for the metrics in this exact order of [...].
- reason: a string with one concise paragraph explaining why you gave these scores with specific references.

Prompt 14: LLM judge request.

User Self-Introduction Write a paragraph of self-introduction for your social media bio. Output format: Reasoning: three self-questioning sessions; Response: "introduction" a string containing your social media bio.

User Reading Post Your task is to generate lessons that reflect only your personal takeaways about your attitude toward the survey question ‘question‘. Your takeaways must come from the provided context and show what you understood and how it connects to your own experiences and beliefs. Output format: Reasoning: three self-questioning sessions; Lessons: a list where each item includes "content" (a string containing the lesson learned) and "importance" (a float between 0.0 and 1.0 indicating its importance).

User Writing Post Write a detailed social media post that shares both what you know and your opinion about the survey question ‘question‘. Use only the provided information and include your personal analysis of what the question means to you and, if relevant, to society. Output format: Reasoning: three self-questioning sessions; Response: "post" is a string containing your social media post.

User Vote You are participating in a poll about the following survey question ‘question‘ with the available options ‘options‘. Provide your answer as a probability distribution. Avoid uniform or contradictory distributions. Output format: Reasoning: three self-questioning sessions; Response: "distribution" is an array of floats representing the probability distribution across the options, summing to 1.0.

News Organization Self-Introduction Write a concise and engaging self-introduction bio that reflects your organizations background and identity related to the survey question ‘question‘ on the social media platform. Output format: Reasoning: three self-questioning sessions; Response: "introduction" is a string containing your introductory bio in one paragraph.

News Organization Post Your goal is to create authentic news posts responding to the survey question ‘question‘, reflecting your editorial stance to influence public attitudes on the social media platform. Output format: Reasoning: three self-questioning sessions; Response: "news" is a string containing your news post.

Prompt 15: LLM judge task instruction.

ALIGNMENT

- *5 (Excellent):* Perfectly matches the provided persona or profile with no inconsistencies.
- *4 (Strong):* Mostly aligns with the persona or profile, with only minor slips.
- *3 (Adequate):* Some apparent mismatches with the persona or profile.
- *2 (Weak):* Frequent mismatches result in a weak persona or profile fit.

- *1 (Poor):* Does not match the stated persona or profile.

GROUNDING

- *5 (Excellent):* Every claim from the output is directly supported by the input context.
- *4 (Strong):* Most claims from the output are supported by the input context with only minor gaps.
- *3 (Adequate):* Support from the input context is mixed with some loose connections.
- *2 (Weak):* Several claims from the output lack support from the input context or use irrelevant material.
- *1 (Poor):* Claims in the output are largely unsupported by or inaccurate to the input context.

COHERENCE

- *5 (Excellent):* Reasoning and response in the output are fully consistent and mutually reinforcing.
- *4 (Strong):* Reasoning and response from the output are coherent with only small tensions.
- *3 (Adequate):* Reasoning and response from the output show minor coherence.
- *2 (Weak):* Reasoning and response from the output often conflict or drift.
- *1 (Poor):* Reasoning and response from the output are contradictory or fragmented.

UNIQUENESS

- *5 (Excellent):* Clearly distinct from others' content in the input context and references earlier self-content when relevant.
- *4 (Strong):* Mostly distinct from others' content in the input context with limited overlap.
- *3 (Adequate):* Partially distinct but reuses common phrasing or ideas in the input context.
- *2 (Weak):* Largely overlaps with others' content in the input context.
- *1 (Poor):* Redundant with others' content in the input context or does not reference earlier self-content.

Prompt 16: LLM judge rubric.