A Cross-Cultural Analysis of Social Norms in Bollywood and Hollywood Movies

Anonymous ACL submission

Abstract

Understanding how social norms vary across cultures can help us build culturally aligned NLP systems. In this paper, we explore self-conscious emotions, *shame* and *pride*, to identify behavioral phenomena, which, in turn, highlight corresponding social norms. This paper proposes a culture-agnostic approach for norm discovery to analyze cross-cultural variations in social norms. We present the first multicultural self-conscious emotions dataset, obtained from 5.4K Bollywood and Hollywood movies, along with over 10k extracted social norms. We validate our dataset using native speakers and demonstrate how our dataset reveals variations in social norms that align with the cultural dichotomy observed in these nations – e.g., Bollywood movies emphasize shame due to deviation from social roles, and express pride in family honor, while Hollywood shames poverty and incompetence, and takes pride in ethical behavior. Notably, vulnerable groups across both cultures face more social sanctions than benefits based on these norms.

1 Introduction

Social norms[1] (also known as normative expectations) refer to people's beliefs about what others approve of or expect people to do. These norms play a significant role in shaping and regulating social behavior by promoting conformity to the prevailing standards of a group or society. Recent research on norm discovery has either crowd-sourced social norms from QnA style posts on social media platforms or prompted pre-trained LLMs to extract them (Jiang et al., 2021; Nahian et al., 2020; Fung et al., 2022). However, a majority of these situations are posted by English speakers and capture Western social situations. Relatedly, foundational models such as GPT-4 (OpenAI, 2023) and FLAN (Wei et al., 2021) are inherently skewed towards Western interpretation (Havaldar et al., 2023b), and thus the predicted "social norms" will tend to be anglocentric.

In this paper, we pose the question, *How can we extract social norms from different cultures?* Unlike basic emotions such as joy and anger, self-conscious emotions (also known as *moral emotions*) are evoked by self-reflection and self-evaluation. These include shame, guilt, embarrassment, and pride. Examining self-conscious emotions, specifically shame and pride, can reveal unspoken social norms specific to a culture. *Shame* reflects social disapproval and known to facilitate norm acquisition (Goetz and Keltner, 2007; Fessler, 2007; Schaumberg and Skowronek, 2022) whereas *pride* indicates social approval across cultures (Tangney et al., 2007). We present a culture-agnostic approach for norm discovery to analyze cross-cultural variations in social norms in *India* and the *United States of America*. India is predominantly a collectivist society where one's sense of self is interwoven with community beliefs, whereas the USA is predominantly an individualist society that values competency and autonomy (Triandis, 1989, 1988). Cultural differences in the construal of one's self will likely influence the expression of these emotions. It is fair to assume that the underlying causes behind these emotions may also vary. The cultural dichotomy between India and the USA (i.e., *collectivism vs. individualism*) thus presents a rich ground for understanding social norms and their variations in these nations.

Movies are a rich source of culture-specific social situations and are densely populated with social relations illustrating morals, values, and beliefs. Unlike social media posts, the natural conversation style between characters in movies can reveal the social power dynamics (e.g., *boss-employee*, *father-daughter*) and gender roles. We therefore collected

[1] Bicchieri (2005) uses the term *social norms*, Lahti and Weinstein (2005) use *moral norms*, and many social psychologists (Cialdini et al., 1990) use *injunctive norms*. We use the term social norms due to its prevalence in the NLP literature.

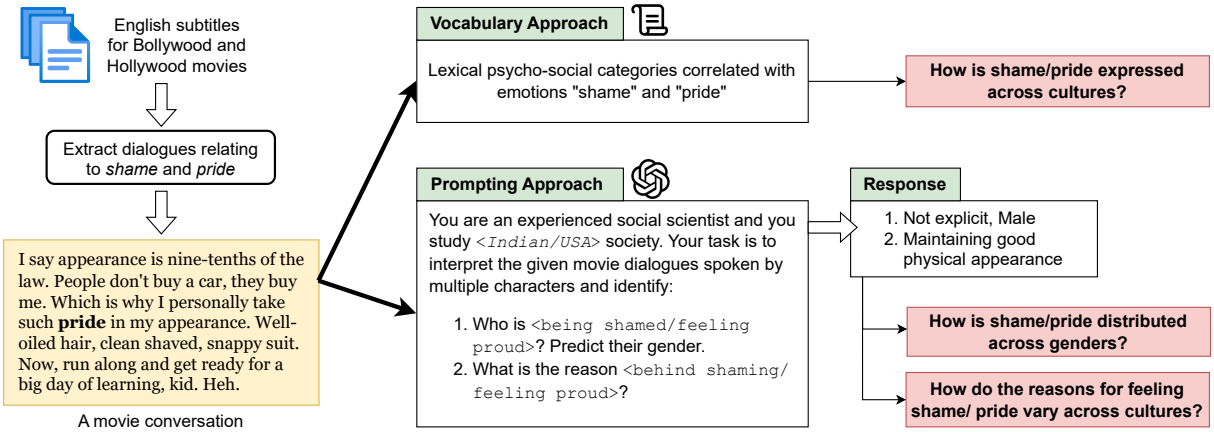

Figure 1: An overview of our approach comprising two key steps (a) Vocabulary approach and (b) Prompting a pre-trained LLM.

over $5.4K$ movie subtitles comprising over 43 million tokens to extract social situations. We use these to contrast social norms in India and the USA and to make the following contributions:

- We analyze cross-cultural linguistic variations in the expression of self-conscious emotions (*shame* and *pride*).
- We present a culture-agnostic approach for norm discovery and investigate how social norms differ between India and the U.S.A.

Fig. 1 illustrates our study comprising two key approaches (a) a vocabulary approach to measure cross-linguistic variations at the word level and (b) prompting pre-trained LLMs to extract latent social norms and themes to examine how they differ between India and the U.S.A.

2 Shame- and Pride-related Discourse

We collected English subtitles for 5,435 movies belonging to Bollywood and Hollywood that were released post-1990 by automatically crawling websites which host or link movie subtitles (See Table 1 for movie distribution). The choice of English language for Bollywood movies was made based on the availability of subtitles. The year of release for movies was verified by either parsing subtitle file names having a release year or checking Wikipedia entries. The year mapping was performed to ensure a similar period for collected movies.

Data Proprocessing We extracted dialogues having the word *shame* or *pride* or their variations (See Appendix A1), along with the previous and the next two lines for situational context (See Table 2). In the case of short dialogues, which could be the case due to monosyllabic responses in spoken conversations, an extra previous and next line was appended in context.

The phrases like "what a shame" or "it's a shame" in Hollywood movies did not reflect *social disapproval*, and therefore such dialogues were excluded. Below is an example of such dialogue.

"*...His music is sad all of the time. It's really* ***a shame****. He'll never be allowed to go up to heaven. But you will, won't you, Johan? Oh yes. I'll get there.*"

Likewise, the phrase "proudly presents" was used in the context of introducing an event or an artist in Hollywood movies. All dialogues with the phrase "proudly presents" were thus removed for further analysis.

We created four sets of dialogues: (a) shame-related dialogues in Bollywood, (b) shame-related dialogues in Hollywood, (c) pride-related dialogues in Bollywood and (d) pride-related dialogues in Hollywood. Additionally, we also formed a control set of dialogues unrelated to *shame* and *pride* for both movie industries (See Table 1).

3 Approach

To the best of our knowledge, there is no empirical study investigating cross-cultural variations in linguistic manifestations of shame and pride emotions or their utility in extracting implicit social norms of society from textual conversations. For our study, we examine (a) the cross-cultural variations in the linguistic manifestation of self-conscious emotions and (b) the underlying social norm associated with these emotions. As illustrated in Fig. 1, we adopt

	Movies	Total Tokens	#shame	#pride	#control
Bollywood	2738	22.62M	5409	2999	8303
Hollywood	2697	20.78M	1221	2805	4385
	5435	43.3M	6583	5804	12688

Table 1: Data Distribution. #shame indicates the number of dialogues with the word "shame" or its derivative form (e.g., ashamed, shameless). Similarly, #pride indicates the number of dialogues with the word pride or its derivative form (e.g., proud). Control is the group of dialogues without words shame, pride, and their derivatives.

Look, Alok is in love with me and I love him too. *Shameless one! Have you lost all your shame?* **What is there to be a*shame*d in this?** Don't sisters love their brothers in this vicinity? *Okay, I am going.*
Some day we'll come back with our kids. And you'll take her in your arms, I know you will, dad. **And you'll be *proud* of me, too.** What do you say, dad? *Jerry... if you marry that girl, I never want to see you again.*

Table 2: Excerpts of dialogues with target search words. These dialogues are extracted from movie subtitles where characters are commonly not mentioned. Nevertheless, the reason behind "shame" or "pride" can be ascertained.

two approaches:

3.1 Vocabulary Approach: LIWC

Linguistic Inquiry of Word Count (LIWC) (Boyd et al., 2022) is a corpus analysis tool widely used in psychology to identify psycho-social categories in a given text. These categories can reveal psychological properties such as "self-focus" (based on 1st person pronoun usage) vs. "other-focus" (based on 2nd person pronoun usage) which are of significance when examining social behaviors such as self-regulation and conformity.

To understand cross-cultural linguistic variations in the manifestation of shame and pride, we extracted the normalized distribution of psycho-social categories from the dialogues (shame+control vs pride+control for both movie industries) and examined their correlation with shame and pride. Please note that search keywords (as in Table A1) were removed from the LIWC dictionary to prevent overestimation of shame- (e.g., negative emotion) and pride-related categories (e.g., achievement).

3.2 Pretrained LLM: GPT-4

Taking into account pre-trained LLMs' tendency to favor an Anglocentric understanding of text (Havaldar et al., 2023b), we designed the prompts to elicit the "reason behind self-conscious emotions" rather than extracting "social norm" to overcome the cultural bias. The prompts were designed to seek the following:

- who is <being shamed/feeling proud> in the given movie discourse, and what is their gender?
- What is the reason behind <the feeling of shame/pride>?

The first question orients the LLM to focus on the subject, i.e., *person experiencing the social sanction or approval* and then identify their gender. The output for the second question serves as the implicit *social norm* in the culture. We performed this task using GPT-4 chat in a two-shot setting. The temperature was set to 0. The prompts with examples (for two-shot setup) are provided in Tables A4 and A5.

Themes in Social Norms We embedded the identified norms using SBERT embeddings (Reimers and Gurevych, 2019) and performed agglomerative clustering to group similar social norms for thematic analysis. The clustering was performed after merging shame-related norms from Bollywood and Hollywood and pride-related norms from Bollywood and Hollywood.

4 Cross-cultural variations in expressions of shame and pride

For the Bollywood set, 23 psycho-social categories were significantly correlated ($p < 0.05$) with shame, whereas 28 psycho-social categories were significantly correlated with pride (See Tables A6 and A7 for correlation and the five most frequent associated with each category). For the Hollywood set, 30 psycho-social categories were

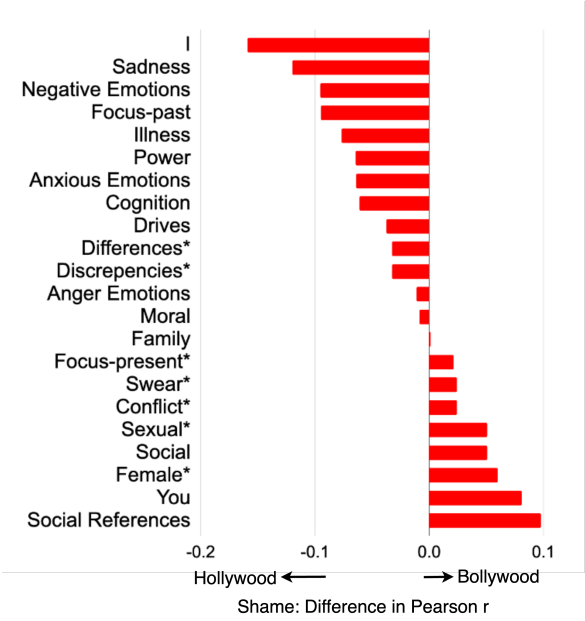

Figure 2: Difference in Pearson r for psychosocial categories significantly correlated ($p < 0.05$) with *shame* for Bollywood and Hollywood datasets. Positive values indicate a stronger correlation with Bollywood, whereas negative values indicate a stronger correlation with Hollywood. * indicates a correlation specific to each movie industry. See Table A6 and A8 for top words associated with the psycho-social categories.

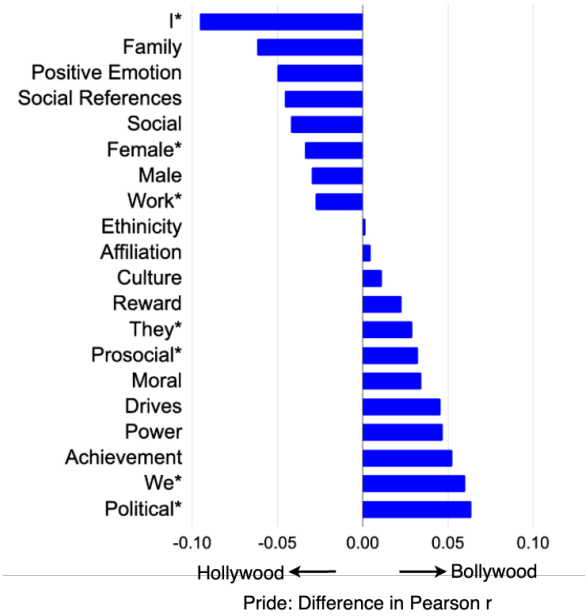

Figure 3: Difference in Pearson r for psychosocial categories significantly correlated ($p < 0.05$) with *pride* for Bollywood and Hollywood datasets. Positive values indicate a stronger correlation with Bollywood, whereas negative values indicate a stronger correlation with Hollywood. * indicates a correlation specific to each movie industry. See Table A7 and A9 for top words associated with the psycho-social categories.

significantly correlated ($p < 0.05$) with shame whereas 28 psycho-social categories were significantly correlated with pride (See Table A8 and A9). The correlation analyses were controlled for culture-specific language markers using the control set, and p-values were corrected using Benjamini Hochberg to control the false discovery rate.

Shame The difference in correlation between Bollywood and Hollywood for categories significantly associated with shame is illustrated in Fig 2. Shame is associated with negative emotions, power, and morality in both industries, affirming that shame is a culture-independent marker of violations of social norms. Concepts such as family, morals, and social disapproval (i.e., anger) are similarly associated in both industries and have negligible differences. However, significant cultural nuances can be observed in its manifestation. In Hollywood, shame is I-focused with remorse (e.g., *sadness, negative emotions, anxiety*), whereas in Bollywood, it is You-focused with more social references (e.g., *you, your, he, her*). Anxiety and fear are unique to Hollywood-shame. Shame is discussed in the past tense in Hollywood, whereas it is present-focused in Bollywood movies. Categories such as *female, sexual*, and *swearing* are exclusively correlated with shame in Bollywood, whereas *illness* is positively correlated in Hollywood only.

Pride As illustrated in Fig 3, pride-related interactions are *family* focused and "I" centered (e.g., I am proud of __) in Hollywood movies whereas it is *achievement/power* focused and "We" centered in Bollywood movies. Pride expressions related to collective society (power, morals, and prosocial behavior) are more common in Bollywood dialogues, whereas pride expressions related to individuals' growth (i.e., social references, male/female, work) are more often seen in Hollywood dialogues. While pride is exclusively correlated with the female category in Hollywood movies, it is still more strongly associated with males in Hollywood movies compared to Bollywood movies.

5 Cross-cultural variations in Social norms

For the Bollywood set, GPT-4 predicted reasons for 5321 (99.2%) shame-related dialogues out of 5363, and 2237 (74.6%) pride-related dialogues out of

Bollywood
eavesdropping on private conversation
expressing love for a man
Incestuous relationship
giving birth to a girl child
Poor academic performance
being characterless and committing crime
disrespecting women and forcing them into marriage
not able to marry off their daughters
inability to provide basic amenities
dancing shamelessly
Hollywood
breaking rules
not living up to someone's expectations
hiding/avoiding confrontation
not returning calls after intimacy
mistreatment of a woman
spreading sensational news to sell newspapers
losing someone's trust
leaving without notice
being poor
offering poor quality goods for sale

Table 3: A subset of reasons extracted from movie dialogues expressing shame. A total of 4604 unique reasons (Bollywood-3660, Hollywood-944) were extracted.

Bollywood
mastering a trick
forgiving sins
educating and raising an innocent child
association with a great artist
fulfilling father's dreams
provide care for old parents
fiancee's physical appearance
his wealth
dying for country's freedom
financial independence
Hollywood
for being a hard worker regardless of the task
being a brilliant student
winning olympic gold
achievements and growth
marrying a specific girl
finding an addiction-free painkiller
being part of creating a unique individual
coming out as queer
following a leader into battle and home in protest
getting a promotion

Table 4: A subset of reasons extracted from movie dialogues expressing pride. A total of 3163 unique reasons (Bollywood-1589, Hollywood-1574) were extracted.

2999 were assigned a reason in the Bollywood set. For the Hollywood set, GPT-4 predicted a reason for 1156 (94.6%) shame-related dialogues out of 1221 and 1731 (61.7%) pride-related dialogues out of 2805. The manual analysis showed that pride can be expressed without an explicit reason, specifically with family. GPT-4 predicted 10,445 reasons or social norms (See Table A2). A sample of ten reasons extracted for shame and pride is provided in Tables 3 and 4.

For the Bollywood set, GPT-4 predicted 1632 targets as female and 4361 as male. For the Hollywood set, GPT-4 predicted 482 targets as female and 1367 as male. Across all combinations (shame vs pride x Bollywood vs. Hollywood in Table A2), there are more male targets than females. This aligns with Geena Davis Inclusion Quotient (2016) findings that male characters get more screen time and speak more than female characters.

5.1 Manual Evaluation

Two volunteers manually verified the predicted gender for "the person experiencing the self-conscious emotions (shame and pride)" and the reason behind self-conscious emotions in a randomly sampled set of 100 Hollywood and Bollywood dialogues. We only considered the cases where the gender was predicted to be either male or female. The annotator who labeled the Bollywood set is an Indian, aware of social roles and expectations in Indian society. Likewise, the annotator for the Hollywood set is an American with a nuanced understanding of the social norms of the U.S.A.

Only eight samples were mislabeled for gender in the Bollywood set and 5 in the Hollywood set. For samples where gender was not evident from the conversation, GPT-4 still predicted a gender for 15 (3 predicted as Female, rest as male) samples in Bollywood and 10 (3 Female) samples in Hollywood. One such example is provided below:

e.g. *We're proud of Bristol's decision to have her baby... and even prouder to become grandparents? We're not proud that... our teenage daughter*

is pregnant, Maria. And I don't want to send a message that teen pregnancy... is something to be proud of. I want that line out. Of course, Governor.

Here, the gender is predicted as "Male" for Governor.

Twenty predicted reasons behind self-conscious emotion in Bollywood set and three in Hollywood were labeled incorrect. From this set, the reason was not explicit for nine samples in the Bollywood set and one sample in Hollywood. Nevertheless, GPT-4 predicted a reason that may not be entirely incorrect, but the evaluators could not establish their correctness. One such example is provided below:

e.g., *That's the way to hold your place in the town, Ephraim. And the people love you for it, Jenny. And I do want my husband and son to be proud of me. Well I wanted to see how you spend your days. Thanks for showing me.*

In the above case, the predicted reason for shame is "holding her place in the town"; however, the reason is not evident from the text. We also noted duplicate norms in our manual analysis; however, movies are expected to have similar situations multiple times.

GPT-4, returned more incorrect reasons for the Bollywood set. We noted that GPT-4 tends to pick noisy signals from the conversation when the reason is not evident. Below is one such example.

"*...Even if it deals with the whiz kids playing on computers or mere toys. Down with the Police Commissioner! Commissioner of Police... Shame! Shame! Down with the Commissioner! How can you remain silent after listening to the din outside?...*"

Here, the predicted reason is "Incompetence in maintaining law and order", connecting the "din outside" with the police commissioner's incompetency to maintain law and order.

5.2 Self-conscious Emotions and Gender

Using target gender as predicted by GPT-4 (See Table A2 for distribution), we computed the gender-wise relative association with emotions "shame" and "pride" using eq. 1. A positive score indicates a higher association of gender groups with pride, whereas a negative score reflects a higher association with shame. A null score indicates no preference.

$$\vec{\Delta}_g = \forall_{g \in \{male, female\}} \frac{\mathcal{D}_{pride_g} - \mathcal{D}_{shame_g}}{\mathcal{D}_g} \quad (1)$$

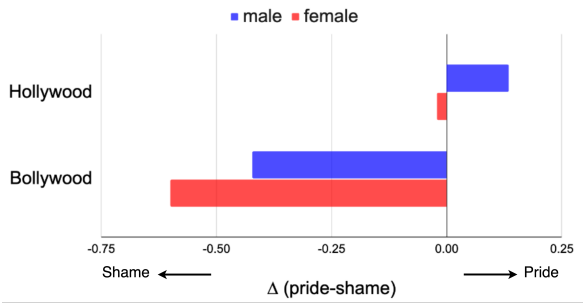

Figure 4: Relative association (Δ) of emotions *pride* and *shame* gender-wise in Hollywood and Bollywood dialogues. A higher positive score indicates a stronger association of gender with pride.

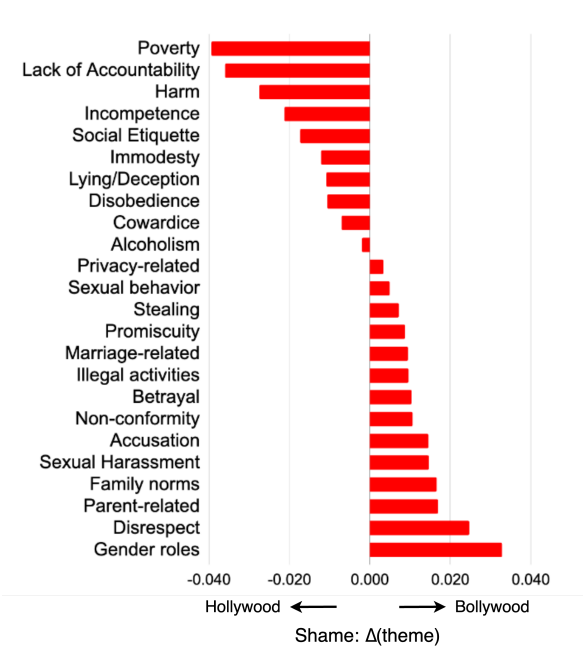

Figure 5: Relative association (Δ_{theme}) of Bollywood and Hollywood to themes obtained from agglomerative clustering performed on shame-related norms.

As depicted in Fig. 4, Hollywood movies are pride-oriented, whereas Bollywood movies are shame-oriented. Females are attributed more shame, and the difference (male-female) in the expression of pride and shame is similar (0.16 for Hollywood and 0.18 for Bollywood) irrespective of the movie industry.

5.3 Cross-cultural Variations in Themes of Social Norms

We found twenty-four clusters for shame-related norms and fourteen for pride-related norms using agglomerative clustering. The distribution for Bollywood and Hollywood norms for these clusters are provided in Tables A10 and A11. The clusters

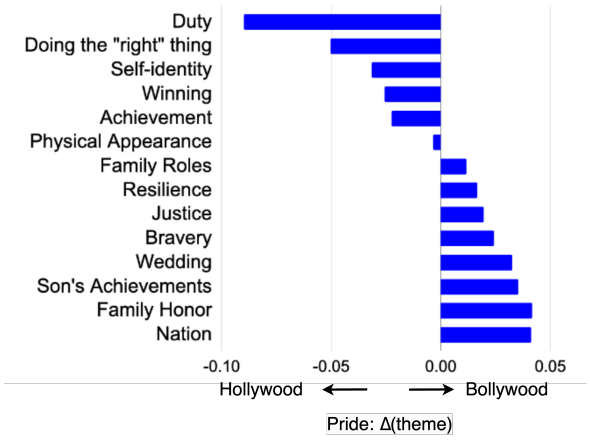

Figure 6: Relative association (Δ_{theme}) of Bollywood and Hollywood to themes obtained from agglomerative clustering performed on pride-related norms.

were manually assigned a label after analyzing 10 samples within the cluster.

$$\vec{\Delta}_{theme} = \forall_{c_i \in clusters} \frac{\mathcal{D}_{bolly_{c_i}}}{\mathcal{D}_{bolly}} - \frac{\mathcal{D}_{holly_{c_i}}}{\mathcal{D}_{holly}} \quad (2)$$

We computed the relative association for each cluster with Bollywood and Hollywood using eq. 2. As illustrated in Fig. 5, poverty and lack of accountability are more strongly associated with shame in Hollywood whereas gender roles and conformity-related concerns are more strongly associated with shame in Bollywood. The themes in the middle including *cowardice, alcoholism, privacy, sexual* have similar associations with shame for both industries and, as a result, have negligible differences in correlation. In Fig. 6, duty and self-identity have a stronger association with pride in Hollywood whereas family honor and achievements are associated with pride in Bollywood. Physical appearance and family roles are similarly discussed in both industries in pride-related expressions.

6 Discussion

Cross-cultural differences in Shame vs Pride The entailment of shame tells us about undesired behavior, whereas pride reveals desired behaviors in a society. We used these emotions to elicit social norms in Indian and American societies using movie subtitles. While self-conscious emotions are considered culture-agnostic markers of unspoken social rules, the manifestation of these emotions varies across cultures. Shame is a highly undesirable self-focused emotion in the U.S. emphasizing incompetency and failures and is rarely used (Cohen, 2003; Boiger et al., 2013). Notably, we also observe infrequent shame in Hollywood movies as depicted in Table 1. In contrast, shame is "interdependent" focused, employed to enforce conformity and the larger goal of self-improvement in collectivist cultures (Wong and Tsai, 2007). Consequently, we observe a correlation of shame with categories such as *sexual, female, conflict, swear* exclusively in Bollywood, likely due to a more conservative setup in Indian society. Pride-related discourse in Hollywood is duty and achievement-focused, in line with prior findings underlining the increasing significance of "success" with growing individualism (Cohen, 2003), whereas in Bollywood, pride is centered around collective achievement (*We, Achievement, prosocial*).

Tangney et al. (2007) distinguished shame ("I" did a bad thing.) from guilt (I did a "bad thing.") due to its I-focus. Interestingly, our empirical analyses reveal that "I" is unrelated to shame-related discourse in Indian movies (See Fig. 2 and Table A6). We also note contrasting tenses, i.e., past vs. present in Hollywood and Bollywood movies in shame-related discourse, reflecting their varying goals, i.e., discussing failures/losses vs enforcing conformity.

Self-conscious Emotion based Prompting Self-conscious emotion-based prompting could help mitigate cultural bias in LLMs and potential stereotyping during norm discovery. Tables 3 and 4 illustrate the specificity of the norms extracted using our approach. More importantly, these norms reflect the cultural subtleties (e.g., desire for a son, parents' duty to marry off their daughter vs. honesty in business, returning calls after date night as shown in Table 3) revealing the differences in socially expected behaviors in Indian society and the U.S. society. In this paper, we used the excerpts from movie subtitles explicitly expressing shame and pride for norm discovery. Perhaps, this led to the over-representation of certain social situations (e.g., son's achievement and daughter's wedding in India vs duty and competence in America). A natural next step would be to capture situations expressing implicit shame and pride. The pipeline in Fig. 1 could be adapted to determine the presence of a self-conscious emotion and then identify the reason. For this purpose, our dataset of shame/pride-related situations can be used.

Gender Bias in Social Sanctions In line with (Sap et al., 2017) that underlined the lack of high agency women in films, we found that shame, a negative valence self-conscious emotion expressing devaluation, is targeted towards women more than men, whereas pride, a positive valence emotion expressing value, is experienced by more men than women in movies. Surprisingly, the gender gap in pride- and shame-related dialogues is similar across both societies, revealing the omnipresent gender bias in social sanctions and benefits.

Themes of Social Norms We extracted over 7k unique norms from Bollywood and Hollywood movie subtitles. For thematic analysis of norms, we first considered mapping social norms to Schwartz's Theory of Values (Schwartz, 2012). However, we observed that a social norm can have contrasting values depending on the culture. Consider "refusing to marry", this is an instance of non-conformity in Indian society, whereas it is an instance of self-direction in a Western context. Of course, society is evolving and we acknowledge that urbanized regions of India may also consider this an instance of self-direction. However, the diachronic shift in the underlying values of social norms is out of the scope of this paper. We aimed to understand the cross-cultural variations in the conception of social norms. We thus performed hierarchical clustering and empirically picked the distance after manually analyzing the quality and granularity of clusters. The self-focused shame (i.e. poverty, lack of accountability) in U.S. society vs inter-dependent shame (i.e. disrespect, family norms) in Indian society is evident in Fig 5. Likewise, pride is strongly associated with self-achievement in Hollywood whereas with collective achievement in Bollywood. It should be noted that clusters were formed from the reasons predicted by GPT-4 from the movie conversation. Nevertheless, the clusters reflect the patterns seen during LIWC analysis, validating the use of self-conscious emotions in extracting culture-specific social behaviors.

Morality and LLMs Lastly, it is worth noting again that morality is not objective and can vary drastically across cultures. Which "morals" should an LLM acquire? - is another debate. However, the thematic analysis of social norms does reveal that vulnerable groups of society including women and economically weaker sections of society face more social sanctions. It is thus worth characterizing the source and acquired social norms before their use for finetuning LLMs.

7 Background

The vision of safe and accountable AI is centered on LLMs' moral and value alignment. SOCIAL-CHEM-101 (Forbes et al., 2020), SCRUPLES (Lourie et al., 2021), SOCIAL BIAS FRAMES (Sap et al., 2019), MORAL INTEGRITY CORPUS (Ziems et al., 2022), and VALUE PRISM (Sorensen et al., 2023) are a few datasets developed to teach socially aligned interactions to LLMs. The dominant approach for norm discovery involves prompting LLMs, sometimes coupled with a verification step such as an entailment test or underlying emotion (negative emotion $\rightarrow$ norm violation) (Jiang et al., 2021; Fung et al., 2022; CH-Wang et al., 2023). However, most of the social situations in these datasets and the human annotators employed to label those situations reflect English beliefs and ethics. Additionally, language models prompted to identify "social norms" are known to reflect the values and beliefs of WEIRD nations (Western, Educated, Industrialized, Rich, and Democratic) (Havaldar et al., 2023b; Atari et al., 2023). Capturing diversity in morality is thus a research question of great significance (Talat et al., 2021).

Amidst the ongoing race for value alignment, it is worth examining which social norms we are learning from corpora, such as movie dialogues and social media interactions. In this paper, we study the manifestation of self-conscious emotions known to indicate social sanctions and benefits across cultures, their utility for norm discovery, and, more importantly, the cross-cultural variation in the values and beliefs they enforce.

8 Conclusion

We introduced an emotion-based approach to elicit social norms to overcome cultural bias while prompting LLMs. We created and will release the largest known multi-cultural dataset of self-conscious emotions and the underlying norms. Our post hoc analysis of social norms demonstrated (a) cross-cultural linguistic differences in self-conscious emotions (shame and pride), (b) more "social sanctions" and fewer "social benefits" to the female gender in movies, and (c) cultural dichotomy in normative expectations in India and the U.S.A.

Social Impact and Ethics Statement

Social norms discovery is a crucial component in programs[2] designed for social and behavioral change to promote equity, social justice, and well-being (Mauduy et al., 2022; Bonan et al., 2020). Further work explores style as a product of norm differences (Havaldar et al., 2023a). Social psychology investigates social norms (descriptive vs injunctive) to design experiments for understanding behaviors such as self-regulation, persuasion (Cialdini et al., 1990) and decision-making (Gavrilets, 2020; Bhanot, 2021) to promote collective-level change in societies.

Relatedly, Kimbrough and Vostroknutov (2023) showed people's tendency to choose self-serving social norms using a dictator-recipient setup, emphasizing the need for dedicated research efforts to understand morality and belief distortion in different contexts. The norms and cultural preferences learned from movies that often showcase stereotypical behaviors of society may induce pluralistic ignorance and, more importantly, lead to discrimination and biases in LLMs when used for training. We hope that this paper will encourage scrutiny of source corpora and derived norms before their use for fine-tuning LLMs.

Limitations

Social norms mutate as society evolves. We acknowledge that our dataset of movies (released post-1990) may reflect social norms that are less characteristic of contemporary society. Moreover, countries like India and America contain a mix of cultures. The captured norms may not reflect the cultural variations, for example, between regions (e.g., East Coast vs West Coast in the U.S.A or North India vs South India). Movies also exaggeratedly depict the world around us (e.g., weddings, criminal activities, sexual abuse, etc.), and we caution against stereotyping cultures based on movie-based norms.

The dominant language in Bollywood movies is Hindi and our analysis is based on their English translations which may not always be accurate, especially when the discourse is about concepts native to a culture. Relatedly, the LIWC may not have high coverage for such concepts. Despite the context, GPT-4 tends to predict more incorrect reasons for shame/pride-evoking situations from Bollywood compared to Hollywood, likely due to a lack of cultural understanding of situations. We did not compare the movie genre and acknowledge that situational/unrealistic norms (e.g., science fiction, comedy, etc.) could exist. Regardless, social norms associated with shame and pride are still relatable and reflect the target audience's beliefs.

[2] ALIGN-https://www.alignplatform.org/learning-collaborative

References

Mohammad Atari, Mona J Xue, Peter S Park, Damián Blasi, and Joseph Henrich. 2023. Which humans?

Syon P Bhanot. 2021. Isolating the effect of injunctive norms on conservation behavior: New evidence from a field experiment in california. *Organizational Behavior and Human Decision Processes*, 163:30–42.

Cristina Bicchieri. 2005. *The grammar of society: The nature and dynamics of social norms*. Cambridge University Press.

Michael Boiger, Simon De Deyne, and Batja Mesquita. 2013. Emotions in "the world": cultural practices, products, and meanings of anger and shame in two individualist cultures. *Frontiers in psychology*, 4:867.

Jacopo Bonan, Cristina Cattaneo, Giovanna d'Adda, and Massimo Tavoni. 2020. The interaction of descriptive and injunctive social norms in promoting energy conservation. *Nature Energy*, 5(11):900–909.

Ryan L Boyd, Ashwini Ashokkumar, Sarah Seraj, and James W Pennebaker. 2022. The development and psychometric properties of liwc-22. *Austin, TX: University of Texas at Austin*, pages 1–47.

Sky CH-Wang, Arkadiy Saakyan, Oliver Li, Zhou Yu, and Smaranda Muresan. 2023. Sociocultural norm similarities and differences via situational alignment and explainable textual entailment. *arXiv preprint arXiv:2305.14492*.

Robert B Cialdini, Raymond R Reno, and Carl A Kallgren. 1990. A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of personality and social psychology*, 58(6):1015.

Dov Cohen. 2003. The american national conversation about (everything but) shame. *Social Research: An International Quarterly*, 70(4):1075–1108.

D Fessler. 2007. From appeasement to conformity. *Self-conscious emotions: Theory and research*, pages 174–193.

Maxwell Forbes, Jena D Hwang, Vered Shwartz, Maarten Sap, and Yejin Choi. 2020. Social chemistry 101: Learning to reason about social and moral norms. *arXiv preprint arXiv:2011.00620*.

Yi R Fung, Tuhin Chakraborty, Hao Guo, Owen Rambow, Smaranda Muresan, and Heng Ji. 2022. Normsage: Multi-lingual multi-cultural norm discovery from conversations on-the-fly. *arXiv preprint arXiv:2210.08604*.

Sergey Gavrilets. 2020. The dynamics of injunctive social norms. *Evolutionary Human Sciences*, 2:e60.

Jennifer L Goetz and Dacher Keltner. 2007. Shifting meanings of self-conscious emotions across cultures. *The self-conscious emotions: Theory and research*, pages 153–173.

Shreya Havaldar, Matthew Pressimone, Eric Wong, and Lyle Ungar. 2023a. Comparing styles across languages.

Shreya Havaldar, Sunny Rai, Bhumika Singhal, Langchen Liu, Sharath Chandra Guntuku, and Lyle Ungar. 2023b. Multilingual language models are not multicultural: A case study in emotion. In *WASSA'2023, ACL*.

Liwei Jiang, Jena D Hwang, Chandra Bhagavatula, Ronan Le Bras, Maxwell Forbes, Jon Borchardt, Jenny Liang, Oren Etzioni, Maarten Sap, and Yejin Choi. 2021. Delphi: Towards machine ethics and norms. *arXiv preprint arXiv:2110.07574*.

Erik O Kimbrough and Alexander Vostroknutov. 2023. A theory of injunctive norms. *Available at SSRN 3566589*.

David C Lahti and Bret S Weinstein. 2005. The better angels of our nature: Group stability and the evolution of moral tension. *Evolution and Human Behavior*, 26(1):47–63.

Nicholas Lourie, Ronan Le Bras, and Yejin Choi. 2021. Scruples: A corpus of community ethical judgments on 32,000 real-life anecdotes. In *Proceedings of the AAAI Conference on Artificial Intelligence*, volume 35, pages 13470–13479.

Maxime Mauduy, Daniel Priolo, Nicolas Margas, and Cécile Sénémeaud. 2022. When combining injunctive and descriptive norms strengthens the hypocrisy effect: A test in the field of discrimination. *Frontiers in Psychology*, 13:989599.

Md Sultan Al Nahian, Spencer Frazier, Mark Riedl, and Brent Harrison. 2020. Learning norms from stories: A prior for value aligned agents. In *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society*, pages 124–130.

OpenAI. 2023. Gpt-4 is openai's most advanced system, producing safer and more useful responses.

Nils Reimers and Iryna Gurevych. 2019. Sentence-bert: Sentence embeddings using siamese bert-networks. In *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing (EMNLP-IJCNLP)*, pages 3982–3992.

Maarten Sap, Saadia Gabriel, Lianhui Qin, Dan Jurafsky, Noah A Smith, and Yejin Choi. 2019. Social bias frames: Reasoning about social and power implications of language. *arXiv preprint arXiv:1911.03891*.

Maarten Sap, Marcella Cindy Prasettio, Ari Holtzman, Hannah Rashkin, and Yejin Choi. 2017. Connotation frames of power and agency in modern films. In *Proceedings of the 2017 conference on empirical methods in natural language processing*, pages 2329–2334.

Rebecca L Schaumberg and Samuel E Skowronek. 2022. Shame broadcasts social norms: The positive social effects of shame on norm acquisition and normative behavior. *Psychological Science*, 33(8):1257–1277.

Shalom H Schwartz. 2012. An overview of the schwartz theory of basic values. *Online readings in Psychology and Culture*, 2(1):11.

Taylor Sorensen, Liwei Jiang, Jena Hwang, Sydney Levine, Valentina Pyatkin, Peter West, Nouha Dziri, Ximing Lu, Kavel Rao, Chandra Bhagavatula, Maarten Sap, John Tasioulas, and Yejin Choi. 2023. Value kaleidoscope: Engaging ai with pluralistic human values, rights, and duties.

Zeerak Talat, Hagen Blix, Josef Valvoda, Maya Indira Ganesh, Ryan Cotterell, and Adina Williams. 2021. A word on machine ethics: A response to jiang et al.(2021). *arXiv preprint arXiv:2111.04158*.

June Price Tangney, Jeff Stuewig, and Debra J Mashek. 2007. Moral emotions and moral behavior. *Annu. Rev. Psychol.*, 58:345–372.

Harry Triandis. 1988. Collectivism v. individualism: A reconceptualisation of a basic concept in cross-cultural social psychology. In *Cross-cultural studies of personality, attitudes and cognition*, pages 60–95. Springer.

Harry C Triandis. 1989. The self and social behavior in differing cultural contexts. *Psychological review*, 96(3):506.

Jason Wei, Maarten Bosma, Vincent Y Zhao, Kelvin Guu, Adams Wei Yu, Brian Lester, Nan Du, Andrew M Dai, and Quoc V Le. 2021. Finetuned language models are zero-shot learners. *arXiv preprint arXiv:2109.01652*.

Ying Wong and Jeanne Tsai. 2007. Cultural models of shame and guilt. *The self-conscious emotions: Theory and research*, 209:223.

Caleb Ziems, Jane A Yu, Yi-Chia Wang, Alon Halevy, and Diyi Yang. 2022. The moral integrity corpus: A benchmark for ethical dialogue systems. *arXiv preprint arXiv:2204.03021*.

A Appendix

A.1 Search Keywords

Search keywords defined in Table A1 were used to extract shame- and pride-related dialogues from Bollywood and Hollywood movie subtitles.

Lemma	Word forms
`shame`	shame, shamed, shameful, ashamed
`pride`	proud, prouder, proudly, pride

Table A1: List of search keywords for extracting dialogues.

A.2 Norms Distributions

Over 10k reasons (or norms) were extracted using GPT-4. The distribution of norms and gender of targets is provided in Table A2.

	Bollywood		Hollywood	
Gender	shame	pride	shame	pride
male	3102	1259	591	776
female	1306	326	246	236
not known	913	652	319	719
total	5321	2237	1156	1731

Table A2: Norm and Gender distribution (with duplicates) for dialogues for which GPT-4 predicted *male* or *female*. The duplicate norms are not removed as their frequency reflect their prevalence and is useful for estimating gender association.

A.3 Annotation

The annotation guidelines to verify the gender predicted by GPT-4 and the correctness of the reason is provided in Table A3. The annotators for Bollywood set and Hollywood set were Indian and American respectively. Both annotators were female, proficient in English language and well-versed with social norms. During annotation, if the gender or the reason is unclear, the annotators were asked to label "not explicit". The task is objective and inter-annotator agreement was not computed. The annotators volunteered for the task and were not provided monetary compensation.

Guidelines for Manual Evaluation
1. Read the conversation and identify the person feeling ashamed (or being shamed) or proud.
2. Identify the gender. Check gender markers such as Mr/Mrs., s/he, him/her, etc. If the name is provided in the conversation, check if the name is likely to be a male name or female. If not clear, mark "not explicit".
3. Read the reason behind shame/pride. Compare with conversation and determine if the provided reason is the cause for shame/pride.

Table A3: Guidelines for Annotation

A.4 Prompts

The prompts designed to extract the subject experiencing self-cosncious emotions, their gender and the reason behind the emotions are provided in Tables A4 and A5.

Prompts for norm discovery in *Bollywood* movie dialogues
"You are an experienced social scientist and you study Indian society. Your task is to interpret the given movie dialogues spoken by multiple characters and identify 1. Who is **feeling proud?** Provide the gender. If agent or gender is not explicit, use the pronouns, name, and salutations to guess agent and gender. 2. Identify the reason behind feeling proud. If not explicit, return NA. The answer should be short and in below CSV format. <who_proud, gender, reason> Input: Your mother had already given up on me because I was useless hopeless But you were the apple of her eye My child will make me proud look after me He'll support in my old-age But this kid left her all alone. Output: mother, male, provide care for old parents Input: I've heard there's a promising young student in your school What's his name? He's made us proud in long jump, we are here to felicitate him Call him Show yourself, Raju Tempre Output: authority, NA, Sports achievement"
"You are an experienced social scientist and you study Indian society. Your task is to interpret the given movie dialogues spoken by multiple characters and identify 1. Who is **being shamed**? Predict the gender. If gender is not explicit, use the pronouns, name, and salutations to guess gender. 2. Identify the primary reason for shaming The answer should be short and in CSV format. < shamed, gender, reason> Input: And should we bow before others begging....them to marry our daughters? This shall not happen. Neither will the girls be alive here nor shall....we be ashamed of ourselves. You cannot kill the life which God has given. I won't let you commit the sin. Output: girl's parent, NA, not able to marry off their daughters Input: Black marketers are now in the open. And the thieves too Politics is in a great mess Shame on this system. There's no democracy Get rid of these politicians The gong has struck.."Our hearts are swaying to it's beats" Output: System, NA, poor law and regulations"

Table A4: Bollywood: Prompts for norm discovery using GPT-4 Chat.

Prompts for norm discovery in *Hollywood* movie dialogues
"You are an experienced social scientist and you study Western society. Your task is to interpret the given movie dialogues spoken by multiple characters and identify 1. Who is **feeling proud**? Provide the gender. If agent or gender is not explicit, use the pronouns, name, and salutations to guess agent and gender. 2. Identify the reason behind feeling proud? If not explicit, return NA. The answer should be short and in below CSV format. <who_proud, gender, reason> Input: I want to go to Worlds and win gold. I want to go to the 88 Olympics in Seoul and win gold. Good! I'm proud of you. Are you getting the support that you need? What do you mean sir? Output: Sir, male, winning olympic gold Input: Yes. Yes, I did. I promise, this time I really got the promotion. - I'm proud of you, son. - Thank you, sir. Excuse me. Hi, sweetheart. Output: father, male, for getting the promotion"
"You are an experienced social scientist and you study western societies. Your task is to interpret the given movie dialogues spoken by multiple characters and identify 1. Who is **being shamed**? Predict the gender. If gender is not explicit, use the pronouns, name, and salutations to guess gender. 2. Identify the primary reason for shaming. The answer should be short and in CSV format. < shamed, gender, reason, prevalence > Input: You still owe me 100. Remember? You stiffed Donny for 100 bucks? Cheapskate. Shame on you. Pay this man his C-note. Now I know why they call you the Snake. Output: NA, male, not returning borrowed money Input: You prey on your own people. You steal from your own people. Have you no shame!? - Huh? - Well, we're still here. Man: Mr. Markopolos, it's all yours. Output: Snake, male, stealing and preying on people"

Table A5: Hollywood: Prompts for norm discovery using GPT-4 Chat.

A.5 LIWC Correlation Results

Tables A6, A7, A8 and A9 contain the significantly correlated ($p < 0.05$) LIWC categories, the most frequent five words for each category, pearson r and 95% confidence interval.

LIWC Categories	Top-5 words	correlation	95% CI
EMO_NEG	(bad, mad, scared, worry, fear)	0.330	[0.315, 0.344]
TONE_NEG	(lost, kill, wrong, bad, hit)	0.249	[0.233, 0.265]
POWER	(sir, respect, own, kill, poor)	0.198	[0.182, 0.214]
EMOTION	(love, good, bad, happy, crazy)	0.168	[0.152, 0.185]
YOU	(you, your, you're, yourself, you've)	0.161	[0.145, 0.178]
SOCREFS	(you, your, he, her, him)	0.148	[0.132, 0.165]
FEELING	(feel, touch, feeling, felt, hard)	0.133	[0.117, 0.150]
DRIVES	(we, our, us, sir, married)	0.115	[0.098, 0.132]
SOCIAL	(you, your, he, her, him)	0.110	[0.094, 0.127]
MORAL	(wrong, innocent, duty, decent, excuse)	0.102	[0.085, 0.118]
AFFECT	(love, good, keep, respect, well)	0.078	[0.062, 0.095]
NEGATE	(not, don't, no, aren't, won't)	0.065	[0.049, 0.082]
FEMALE	(her, she, girl, she's, mom)	0.060	[0.043, 0.077]
PPRON	(you, i, me, your, my)	0.058	[0.041, 0.075]
FAMILY	(son, married, uncle, dad, mom)	0.055	[0.039, 0.072]
PREP	(to, of, in, for, on)	0.053	[0.037, 0.070]
SEXUAL	(chaste, lust, sex, sexy, pimp)	0.051	[0.034, 0.067]
PRONOUN	(you, i, me, your, my)	0.040	[0.023, 0.057]
AUXVERB	(is, are, have, be, don't)	0.029	[0.013, 0.046]
CONFLICT	(kill, killed, accusing, killing, cruel)	0.024	[0.007, 0.041]
SWEAR	(hell, bloody, idiot, damn, ass)	0.024	[0.007, 0.041]
EMO_ANGER	(mad, angry, hate, cruel, argue)	0.022	[0.005, 0.039]
FOCUSPRESENT	(is, are, don't, i'm, aren't)	0.021	[0.005, 0.038]

Table A6: Psychosocial categories significantly correlated (p<0.05) with *shame* in Bollywood dialogues. p-values were corrected using Benjamini-Hochberg correction. The categories are arranged in decreasing order of correlation.

LIWC Categories	Top-5 words	correlation	95% CI
DRIVES	(we, our, us, sir, work)	0.122	[0.104,0.140]
DET	(the, a, my, your, that)	0.101	[0.082,0.119]
ACHIEVE	(work, better, win, best, try)	0.098	[0.080,0.116]
POWER	(sir, own, respect, kill, power)	0.091	[0.072,0.109]
SOCREFS	(you, your, he, we, our)	0.085	[0.067,0.103]
PREP	(of, to, in, for, with)	0.084	[0.066,0.103]
MORAL	(wrong, duty, brave, arrogant, useless)	0.075	[0.057,0.093]
CONJ	(and, but, so, if, as)	0.075	[0.056,0.093]
REWARD	(win, won, glory, success, successful)	0.071	[0.052,0.089]
TONE _POS	(love, good, thank, well, great)	0.064	[0.046,0.082]
POLITIC	(nation, army, sultan, president, dynasty)	0.064	[0.045,0.082]
WE	(we, our, us, we'll, let's)	0.060	[0.042,0.079]
SOCIAL	(you, your, he, we, our)	0.060	[0.041,0.078]
FAMILY	(son, papa, married, dad, uncle)	0.059	[0.041,0.078]
AFFILIATION	(we, our, us, dear, we'll)	0.059	[0.041,0.077]
FEELING	(feel, feeling, hard, felt, sense)	0.055	[0.036,0.073]
ETHNICITY	(indian, indians, british, hindi, caste)	0.054	[0.036,0.072]
MALE	(he, his, him, son, sir)	0.054	[0.036,0.072]
CULTURE	(indian, nation, army, car, indians)	0.044	[0.026,0.062]
AFFECT	(love, good, thank, well, great)	0.040	[0.021,0.058]
ARTICLE	(the, a, an, tha)	0.039	[0.021,0.058]
PPRON	(you, i, my, your, me)	0.036	[0.017,0.054]
PROSOCIAL	(thank, please, sorry, respect, gift)	0.032	[0.014,0.051]
FUNCTION	(you, the, i, of, to)	0.032	[0.013,0.050]
YOU	(you, your, you're, you've, you'll)	0.030	[0.011,0.048]
THEY	(they, their, them, they're, they'll)	0.029	[0.011,0.048]
CERTITUDE	(really, real, surely, proved, actually)	0.021	[0.002,0.039]
EMO _POS	(love, good, happy, happiness, smile)	0.020	[0.001,0.038]

Table A7: Psychosocial categories significantly correlated (p<0.05) with *pride* in Bollywood dialogues. p-values were corrected using Benjamini-Hochberg correction. The categories are arranged in decreasing order of correlation.

A.6 Clustering Results

Tables A10 and A11 contain the manually annotated Cluster Theme, total number of samples in each cluster and Bollywood vs Hollywood distribution. The distance was set to 5 and the duplicates were removed.

LIWC Categories	Top-5 words	correlation	95% CI
EMO_NEG	(sick, pain, fear, bad, afraid)	0.425	[0.403, 0.446]
TONE_NEG	(lost, wrong, sick, pain, poor)	0.355	[0.331, 0.377]
EMOTION	(good, love, sick, pain, bad)	0.290	[0.266, 0.314]
POWER	(own, sir, poor, killed, war)	0.263	[0.238, 0.287]
AFFECT	(well, good, love, help, damn)	0.168	[0.142, 0.193]
DRIVES	(we, us, our, work, we're)	0.152	[0.127, 0.178]
FUNCTION	(you, i, the, to, of)	0.131	[0.105, 0.157]
PPRON	(you, i, me, i'm, my)	0.111	[0.085, 0.137]
MORAL	(wrong, excuse, decent, honest, duty)	0.110	[0.084, 0.136]
I	(i, me, i'm, my, i'll)	0.102	[0.076, 0.128]
EMO_SAD	(crying, cry, sob, lonely, sad)	0.096	[0.070, 0.122]
NEGATE	(no, not, don't, nothing, never)	0.090	[0.063, 0.116]
PREP	(to, of, in, for, on)	0.089	[0.062, 0.115]
PRONOUN	(you, i, that, it, me)	0.088	[0.062, 0.114]
YOU	(you, your, you're, yourself, you've)	0.080	[0.054, 0.106]
AUXVERB	(be, i'm, is, was, have)	0.077	[0.051, 0.103]
FOCUSPAST	(was, did, were, been, didn't)	0.069	[0.043, 0.096]
SOCIAL	(you, your, we, he, you're)	0.060	[0.033, 0.086]
CONJ	(and, so, but, if, when)	0.056	[0.030, 0.082]
LINGUISTIC	(you, i, the, to, of)	0.056	[0.030, 0.082]
ALLNONE	(no, all, nothing, never, yes)	0.055	[0.029, 0.081]
FAMILY	(son, dad, baby, mom, mama)	0.054	[0.028, 0.081]
SOCREFS	(you, your, we, he, you're)	0.050	[0.024, 0.077]
EMO_ANX	(fear, afraid, worry, terrified, scared)	0.042	[0.015, 0.068]
ILLNESS	(sick, pain, pains, flu, sickly)	0.038	[0.012, 0.064]
FEELING	(feel, felt, pain, feeling, hard)	0.035	[0.008, 0.061]
EMO_ANGER	(hate, hated, mad, angry, hates)	0.033	[0.007, 0.059]
DIFFER	(not, but, if, didn't, or)	0.033	[0.007, 0.059]
DISCREP	(should, can, would, can't, want)	0.032	[0.006, 0.059]
COGNITION	(no, not, all, know, but)	0.032	[0.005, 0.058]

Table A8: Psychosocial categories significantly correlated (p<0.05) with *shame* in Hollywood dialogues. p-values were corrected using Benjamini-Hochberg correction. The categories are arranged in decreasing order of correlation.

LIWC Categories	Words	correlation	95% CI
PPRON	(you, i, i'm, me, my)	0.135	[0.113,0.158]
SOCREFS	(you, your, we, he, you're)	0.131	[0.108,0.154]
FAMILY	(son, dad, baby, mom, mama)	0.121	[0.099,0.144]
CONJ	(and, so, but, as, if)	0.114	[0.091,0.137]
SOCIAL	(you, your, we, he, you're)	0.102	[0.079,0.125]
FUNCTION	(you, i, the, of, to)	0.100	[0.077,0.123]
I	(i, i'm, me, my, i'll)	0.095	[0.072,0.118]
YOU	(you, your, you're, you've, yourself)	0.091	[0.068,0.114]
MALE	(he, his, him, man, son)	0.084	[0.061,0.107]
DRIVES	(we, our, us, we're, dad)	0.076	[0.053,0.099]
TONE _POS	(good, well, thank, great, love)	0.072	[0.049,0.095]
PRONOUN	(you, i, i'm, that, it)	0.072	[0.048,0.095]
AUXVERB	(i'm, be, is, was, have)	0.071	[0.048,0.094]
EMO _POS	(good, love, happy, hope, wonderful)	0.070	[0.047,0.093]
PREP	(of, to, in, for, on)	0.070	[0.047,0.093]
AFFILIATION	(we, our, us, we're, dad)	0.054	[0.031,0.078]
EMOTION	(good, love, happy, hope, bad)	0.052	[0.029,0.075]
ETHNICITY	(american, irish, chinese, german, christian)	0.052	[0.029,0.075]
REWARD	(win, won, winner, successful, earned)	0.048	[0.025,0.071]
ACHIEVE	(work, better, best, trying, try)	0.045	[0.022,0.068]
POWER	(sir, own, war, strong, mighty)	0.044	[0.021,0.067]
AFFECT	(good, well, thank, great, love)	0.041	[0.018,0.064]
MORAL	(wrong, excuse, hero, brave, dignity)	0.040	[0.017,0.064]
FEMALE	(her, she, she's, girl, ladies)	0.034	[0.011,0.057]
CULTURE	(american, car, president, nation, mayor)	0.033	[0.009,0.056]
FOCUSPAST	(was, did, been, were, had)	0.032	[0.009,0.055]
SHEHE	(he, his, him, her, she)	0.031	[0.008,0.054]
WORK	(work, job, school, deal, company)	0.028	[0.005,0.051]

Table A9: Psychosocial categories significantly correlated (p<0.05) with *pride* in Hollywood dialogues with 95% confidence intervals. p-values were corrected using Benjamini-Hochberg correction. The categories are arranged in decreasing order of correlation.

Cluster Theme	Total samples in Cluster	Bollywood Samples	Hollywood Samples
Poverty	329	232	97
Lack of Accountability	668	504	164
Harm	187	128	59
Incompetence	244	178	66
Social Etiquette	312	235	77
Immodesty	175	130	45
Lying/Deception	126	92	34
Disobedience	171	128	43
Cowardice	140	106	34
Alcoholism	56	43	13
Privacy-related	61	51	10
Sexual behavior	101	84	17
Stealing	241	197	44
Promiscuity	388	315	73
Marriage-related	132	112	20
Illegal activities	123	105	18
Betrayal	111	96	15
Non-conformity	107	93	14
Accusation	53	53	0
Sexual Harassment	112	100	12
Family norms	163	142	21
Parent-related	218	186	32
Disrespect	188	168	20
Gender roles	198	182	16
Total	4,604	3,660	944

Table A10: Distribution of reasons (shame) across manually labeled clusters. A total of twenty-six clusters were generated with distance=5. Duplicates were removed for clustering. Two clusters (Lack of accountability) were merged as both had similar reasons. One cluster had generic reasons (indicating lack of shame) which was removed for further analysis. Finally, 24 clusters were considered.

Cluster Theme	Total samples in Cluster	Bollywood Samples	Hollywood Samples
Duty	683	272	411
Doing the "right" thing	79	0	79
Self-identity	219	85	134
Winning	327	144	183
Achievement	290	128	162
Physical Appearance	87	41	46
Family Roles	302	161	141
Resilience	141	84	57
Justice	218	125	93
Bravery	157	98	59
Daughter's Marriage	92	72	20
Son's Achievements	195	126	69
Family Honor	207	137	70
Nation	166	116	50
Total	3163	1,589	1,574

Table A11: Distribution of reasons (pride) across manually labeled clusters. A total of fifteen clusters were generated with distance=5. Duplicates were removed for clustering. One cluster had generic statements (without explicit reason) and was removed for further analysis. Finally, 14 clusters were considered for analysis.