

Justice for the Disadvantaged: A Study of Public Reactions on Indian Supreme Court Judgments

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1 Prompt Structure

Here, we provide details of the prompt structure, as shown in Figure 4 in the main body. We structure the prompt in five segments. **First**, the background segment contains manually crafted factual information regarding the verdict. **Second**, The prompt in our work is structured to expose the LLM to the definition of *only one* class at a time rather than presenting the entire taxonomy. Accordingly, the segment provides the definition of *only* the minority class to be extended at the moment. **Third**, this segment provides examples from the minority class described in the second segment, and accompanying rationales to provide additional guidance to the LLM. *To generate the rationales*, we use LLaMaA 3.1-70B. The generated explanations are further reviewed by our annotators for agreeability with the annotators’ line of argument. As per the annotators, the LLM-generated explanations were adequate requiring only minor alterations. We leverage k-medoids clustering method using an embedding space (detailed in the following section) to select 10 labelled instances as examples. **Fourth**, here provide five nearest unlabelled neighbours as candidate comments to be considered by the LLM for incorporation into the already annotated sets. **Fifth**, finally, the task is described in the last segment of the prompt. The description is prefixed with “considering the background” to emphasize the information provided in the first segment is highly relevant to the task.

2 Generation of Embeddings

To generate the embedding space for extraction of nearest neighbours and training ML models, we experiment with Doc2Vec and Google’s embedding model embedding-004 (hereafter referred to as Google embedding space) and quantitatively capture the performance of the models in terms of its ability to capture the separation among the classes in the annotated datasets. We focus on two standard cluster metrics – Normalized Within-Class Sum of Squares (Normalized WCSS) to show intra-class cohesiveness and Davis-Bouldin Index⁴(DBI).

⁴ DBI score ranges from 0 to $+\infty$, where lower values indicate compact clusters with better separation among different clusters.

that indicates the quality of clusters. We find that Google embedding space captures the annotated datasets better as compared to Doc2Vec. The following table shows that DBI scores are lower for Google embeddings. We therefore utilize Google embedding space whenever required.

	Sabarimala Section 377 Triple Talaq		
Doc2Vec	12.19	23.53	8.77
Google Embedding Space	6.29	5.72	5.58

3 Large Language Model Selection and Configuration

We use **LLaMA-3.1 8B Instruct**, **DeepSeek-R1-Distill-Llama-8B** and **Mistral-7B-Instruct-v0.3** and fine-tune it using **QLoRA (Quantized Low-Rank Adaptation)** for efficiency.

3.1 Quantization Configuration

We apply `bitsandbytes` 4-bit quantization with the following settings:

- `load_in_4bit=True`
- `bnb_4bit_quant_type="nf4"`
- `bnb_4bit_compute_dtype="float16"`

3.2 LoRA Configuration

LoRA adapters are applied to all linear layers except `lm_head`, with:

- `lora_alpha = 16`
- `r = 64`
- `bias = "none"`

3.3 Training Procedure

We fine-tune each model using **Supervised Fine-Tuning (SFT)** via the `SFTTrainer` from `trl`. Each experiment is repeated with **five different random seeds** (101, 456, 789, 42, 10) for robustness.

Training Hyperparameters

- **Batch Size:** 1 (with gradient accumulation steps = 8)
- **Learning Rate:** 2e-4 (AdamW optimizer)
- **Warmup Ratio:** 0.03 (Cosine scheduler)
- **Weight Decay:** 0.001
- **Max Gradient Norm:** 0.3
- **Epochs:** 5
- **Gradient Checkpointing:** Enabled

Evaluation Strategy

- Evaluation performed every **20%** of training steps.
- Metrics reported to **Weights & Biases (wandb)**.

4 Other Models

Following prior literature, we train Support Vector Machine (SVM) and Naive Bayes (NB) on Google embedding space. We consider three BERT models 1. BERT-base-uncased and 2. RoBERTa 3. DistilBERT. The models are loaded from HuggingFace and finetuned in the following manner.

A 70:30 train-test split is done on a set of 10 randomly selected seed values for SVM and NB, and accordingly the models are trained 10 times over the splits. To account for randomness introduced by initial weight configurations in the BERTs we *additionally* select 5 seed points per train-test split, and accordingly fine-tune each BERT model 50 times in total.

5 In the Wild Robustness Check

The low Kullback-Leibler Divergence (KLD) values between Mistral and LLaMA in the wild robustness check suggest that both models interpret and classify real-world comments in a very similar way. This means their predictions overlap significantly, showing neither model introduces major biases or inconsistencies when dealing with spontaneous, in-the-wild data. More importantly, these low divergence values also indicate that the dataset itself is well-labeled, as both models consistently arrive at similar conclusions. If the labels were noisy or ambiguous, we would expect much greater variation in predictions. Ultimately, this confirms that the models we report in the paper are highly robust for analysis, making them reliable for studying and interpreting real-world discourse.

Legal Issue	KLD
Sabarimala	0.000556
Section 377	0.011706
Triple Talaq	0.002679

Table 1: Kullback-Leibler Divergence (KLD) values between Mistral and LLaMA for in the wild robustness check

6 Error Analysis

Table 2 contains references to the figures showing the confusion matrix and heatmap for the best performing two models – LLaMA and Mistral, for each verdict.

	LLaMA	Mistral
<i>Triple Talaq</i>	Figure 1	Figure 2
<i>Section 377</i>	Figure 3	Figure 4
<i>Sabarimala</i>	Figure 5	Figure 6

Table 2: The table contains references to confusion matrices for two models - LLaMA and Mistral

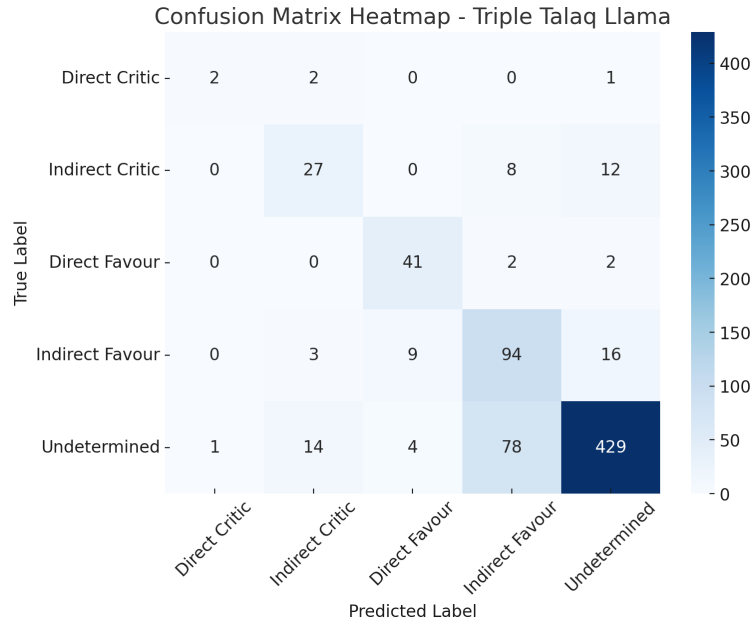


Fig. 1: Confusion matrix Heatmap for Triple Talaq (LLaMa)

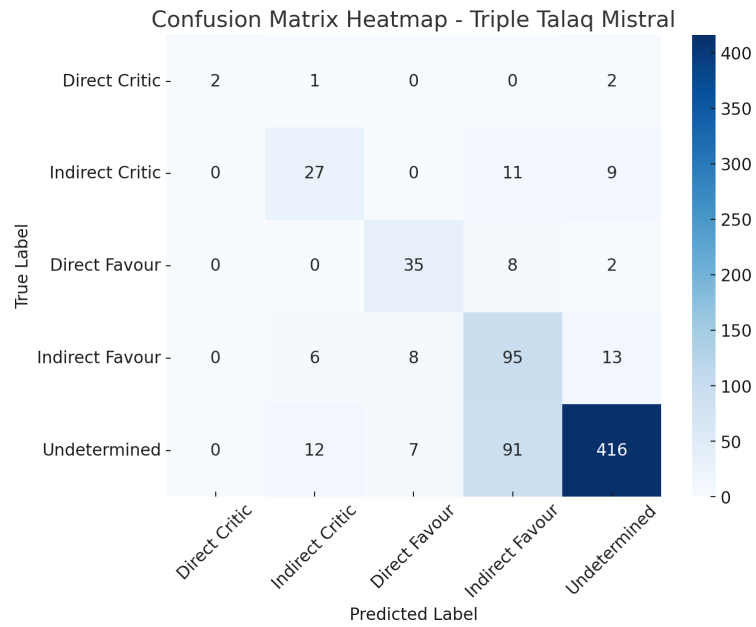


Fig. 2: Confusion matrix Heatmap for Triple Mistral (Mistral)

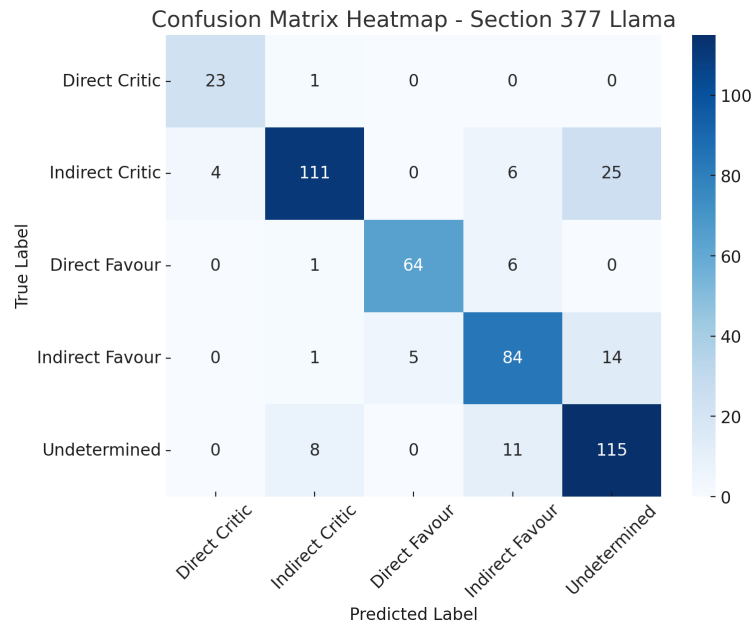


Fig. 3: Confusion matrix Heatmap for Section377 (LLaMa)

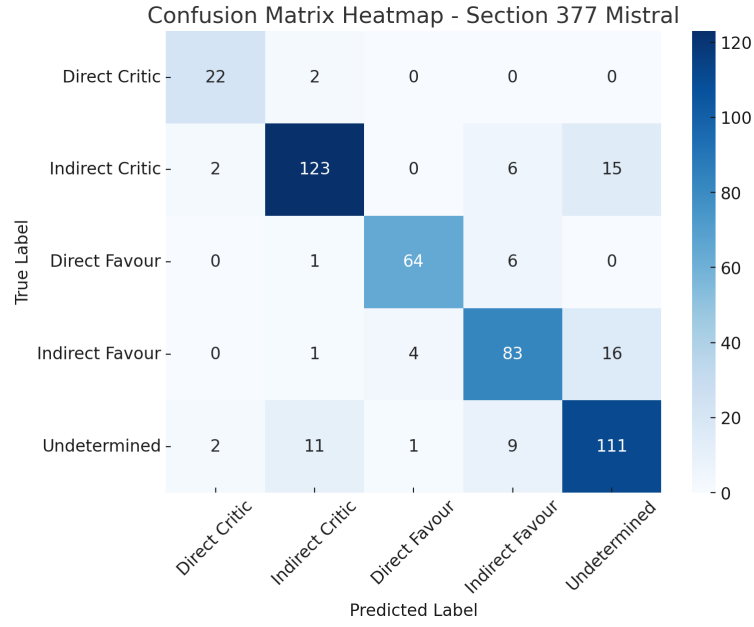


Fig. 4: Confusion matrix Heatmap for Section 377 (Mistral)

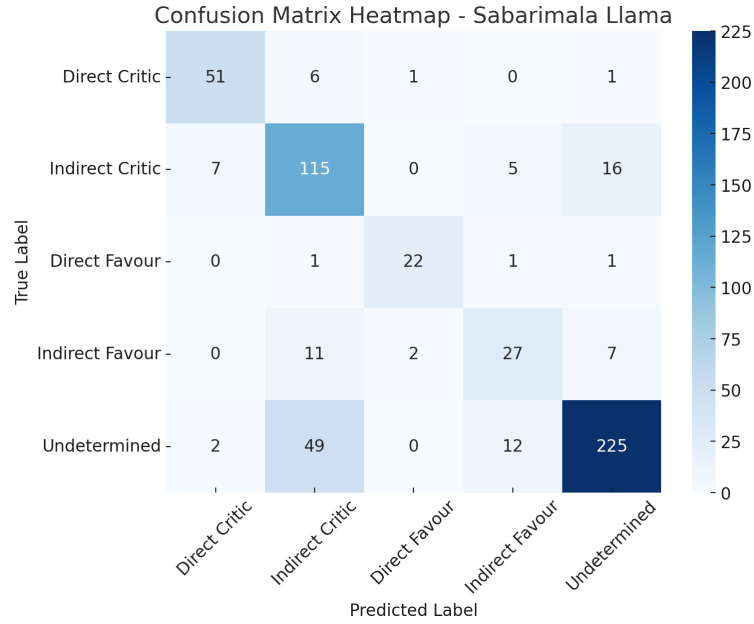


Fig. 5: Confusion matrix Heatmap for Sabaramala (LLaMa)

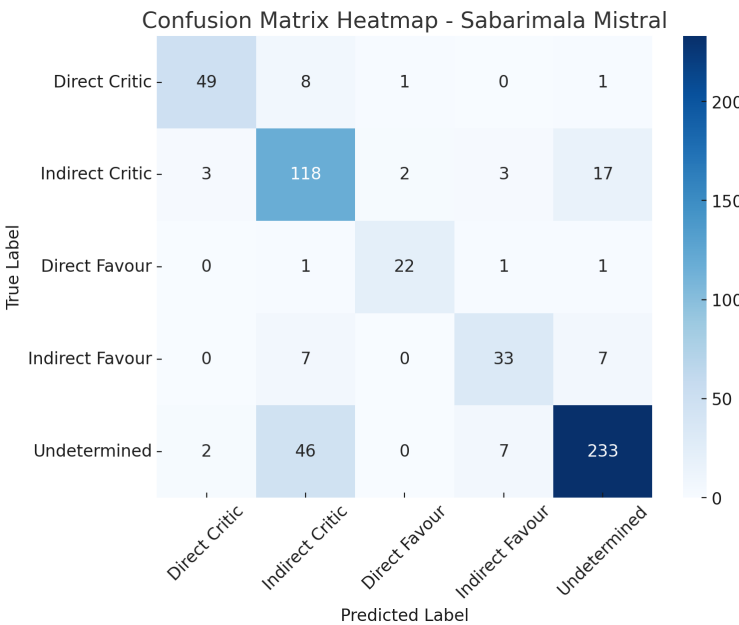


Fig. 6: Confusion matrix Heatmap for Sabaramala (Mistral)

7 Example Comments Found in the Wild

Table 5 shows various comments we encountered in the collection.

Triple Talaq
<p>► Brought tears, even I am also victim of ds bldy triple talaq, I am an well educated gal alhmdlh but cudn't raise my voice against injustice fr which I regrate myself, I just want to be like u strong enough to fight against sch evils (Favour).</p> <p>► triple talaq is not allowed in Islam and it should be banned in all muslim countries. (Favour)</p> <p>► You dont want talaq then??again you want to go that so called husband who doesn't want to stay with you??? so Talaq should not happen even if the person doesnt want to stay with you or love you?? (Critic)</p> <p>► Its a flawed verdict and interference of Supreme court on personal decision of people. (Critic)</p> <p>► Islam doesn't like those men who give triple divorce Few days ago i got my first divorce and same thing happened to me lot of blaming that I did this and that..... but I don't have any intentions of RUJU..... after so much lies and blames who wants to reconnect with that lier (Favour)</p> <p>► Women protesting against Triple Talak is like Chicken demonstrating in support of KFC (Favour)</p> <p>► Proud of you .a woman specially of our community fighting for her rights..and nd look what happened..millions of women are saved today I'm fighting for my rights too today, as an unmarried daughter..God give justice to us all (Favour)</p>

Table 3: Observed comments in the verdicts (Triple Talaq).

Section 377

- ▶ India will be destroyed by the lord almighty ,,if homosexuality is legalized ,,End times are coming Hindu ,Islam ,Christian scriptures strictly prohibit it (**Critic**)
 - ▶ My goodness, we finally got the freedom to live, 24 years of struggle and i cant stop crying (**Favour**)
 - ▶ I love the fact that supreme court said that Constitution is not just a bunch of dead pages...it is not absolute...we have to change it,amend it as the society progresses.... (**Favour**)
 - ▶ If a single judgement of SC court brings smile in face of thousands of those innocent ppl whose expression of feeling nowhere harm anyone...then such a decision is really worth...thank u Dear jury for giving smiles to my Indian brethrens...jai hind (**Favour**)
 - ▶ 150 years back british made this law. Before that can anyone quote one religious law or social law that criminalized homosexuality. Being a Hindu I am against article 377. For me Vedas are supreme and they say prakruti moves ahead with vikruti and the vikruti is the nature of prakriti. Something that is different is just a variant and not a diviant. That is the truth. we like it or not we need to accept. (**Favour**)
 - ▶ this comment section clearly shows the indian mindset! Homophobia is so ingrained in our culture, LGBTQIA+ is normal natural and deserve all the respect and love!! More power to you people!! Love is love (**Favour**)
 - ▶ I was visiting india this summer with my family to visit my relatives, and a few hours before we left we were in the mall, and the song I Kissed a Boy came on and I started freaking out in happiness cause being gay was still illegal at that time (and cause my homophobic parents were there) Congrats India (**Favour**)
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Table 4: Observed comments in the verdicts (Section 377).

Sabarimala

- Thanks fake activist you made me feel shameful and stupid for not following my religion. I was a secular by nature until I saw something like this happening...now I'm a proud Hindu I'll fight for the Dharma and what is right for Hindus. Thanks again for opening eyes of us secular Hindus now we know how to manage things. (**Critic**)
 - Birds cannot fly with one wing. So nation needs women empowerment for nation's development. It is necessary to equal the men and women. All are same neither men nor women weak or high. We all are equal as Humanity. (**Favour**)
 - Although I am not hindu, but I know Ayyapan's story and history. There is a reason why there is such a belief in first place. Respect the beliefs and culture. (**Critic**)
 - Religions, such a cancer for Humanity. Especially for the female half of humanity. Special mention for Hinduism & Islam : little males using religion and traditions to dominate women. (**Favour**)
 - World is discussing about whether next homes should be built in Mars or Venus and We are whether women should be allowed in a 500 year temple for 5 seconds. (**Favour**)
 - I wonder why women are against the entry of women. When practice of Sathi banned for the first time there were 70000 women against that and they needed sathi. After Sathi banned none among them did sathi after their husbands death. Same as here if women starts going to Sabarimala then I am sure that these ladies who are opposing will also go there. Dont try to fool us. (**Favour**)
 - Sati pratha was also a tradition and what if it wasn't stopped then would people still doubt that it is our thousand year old culture and no one has right to interfere? I am completely aware about the tradition and culture with sabarimala as most of my friends are mallu but this is 21st century and suppression of any human being Whether men or women needs to be stopped.. If menstruation is considered to be impure then according to science we wouldn't have been born or brought in this world.. On one hand we worship goddesses durga and on the other hand we are the one of the top ranking nations where women are still considered as men's property rather than human...WHAT AN IRONY ISN'T IT?? (**Favour**)
 - Women should wear Jannuva and perform all rites. Why not. Let the progressive courts introduce more women's empowerment. (**Favour**)
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Table 5: Observed comments in the verdicts (Sabarimala).