

“Sycophancy” or “Empathy”?

DeepReflect – An LLM-based system designed to analyze and generate responses to personal queries

Anonymous ACL submission

Abstract

Large language models (LLMs) are increasingly used for personal queries, recent research has involved analyzing responses under psychosocial framing. This work introduces DeepReflect, a comparative framework for analyzing human and AI generated responses to personal queries across multiple paradigms of values and social behavior. Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

1 Introduction

Large language models (LLMs) are increasingly engaged as conversational partners in personal domains, offering users not only informational guidance but also affective support (Zhang et al., 2025; Phang et al., 2025; Anthropic, 2025). Their appeal lies in features such as anonymity, immediacy, and the absence of social risk—qualities shared with online communities like Reddit. Yet, unlike human interlocutors, LLMs lack grounding in lived social contexts, raising critical questions about how their responses should be evaluated and trusted in a social context.

Emerging research often identifies two contrasting tendencies in LLM outputs in isolation: empathic responses resembling desirable and supportive therapeutic dialogue, and sycophantic ones that uncritically echo a user’s perspective. Whether such responses are judged as empathic or sycophantic can depend on the psychosocial framework applied. This ambiguity underscores a critical gap:

systematic methods are needed to analyze the responses and compare them to human written ones. This project uses the latter as proxies for normative ground truths, providing a measurement of these behaviors and values across the different psychosocial paradigms.

The comparisons made are across Rogerian person-centered therapy (PCT), Goffman’s theory of face (ToF), and Rokeach’s Value Survey (RVS) framework. The framework is designed to be extensible, allowing researchers to incorporate additional paradigms as the field evolves. Additionally, we use the insights from these analyses to inform the generation of customized responses with chain-of-thought control mechanisms.

1.1 Research Questions

The context of queries can substantially shape LLM outputs, influencing not only personal questions posed by consumers but also analytical evaluations conducted by researchers, particularly within the LLM-as-a-judge paradigm. As research increasingly highlights patterns and concerns regarding the impacts of LLMs in personal queries and deliberation, there is a critical need for a framework that can analyze and compare responses across multiple value-based perspectives in contexts without clear normative answers, while also remaining extensible for researchers to incorporate additional paradigms as the field evolves. This motivates the following research questions:

RQ1: How can a technical framework that systematically analyzes and compares responses from humans and LLMs across various psychosocial value paradigms be designed?

RQ2: What inter- and intra-paradigm comparative insights can this framework yield across three different psychosocial frameworks (Goffman’s theory of face, Rogerian PCT and Rokeach Values) and how accurate are these when subjected to man-

ual validation?

RQ3: What are the major observable differences between LLM and human responses to personal questions without clear normative ground-truth answers?

Finally, we examine how the results may influence consumer behavior and broader societal outcomes, and we discuss potential control mechanisms at both the pre-inference and post-inference stages. Our work enables a systematic comparative analysis of potential benefits and risks, and presents a framework for leveraging the analytical insights in the intentional design of response LLM generation.

1.2 Contributions

The key contributions of this work are: (1) the design and implementation of an extensible framework for analyzing and comparing responses to personal queries across three distinct psychosocial paradigms; (2) a comparative analysis under Rogerian Person-Centered Therapy (PCT), Goffman's theory of face and Rokeach's Value Survey (RVS) framework, illustrating how the choice of the paradigm can shape the perception of a response; and (3) insights into the relative strengths and weaknesses of LLM versus human responses, and how these insights can inform the generation of customized responses to personal queries.

2 Prior Literature

Contextualize your work and provide insights into major relevant themes of the literature as a whole. Use each paper (or theme) as a chance to articulate what is special about your paper. Start out broad - social background and theory - Discuss what other frameworks were considered like Virtue ethics and philosophical ones, CBT, Schwartz values etc. but why they were not chosen. Why I Focused on Rogerian psychotherapy as it is person centered - no specific diagnosis needed (or available).

2.1 Theoretical Foundations

2.2 Rogerian Psychotherapy

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2.2.1 Psychosocial use and Empathic LLMs

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2.3 Rokeach Value Survey as an analytical instrument

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2.3.1 Values and Ethics in LLM research

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2.4 Goffman's theory of face

Morbi luctus, wisi viverra faucibus pretium, nibh est placerat odio, nec commodo wisi enim eget quam. Quisque libero justo, consectetur a, feugiat vitae, porttitor eu, libero. Suspendisse sed mauris vitae elit sollicitudin malesuada. Maece-nas ultricies eros sit amet ante. Ut venenatis velit. Maecenas sed mi eget dui varius euismod. Phasel-lus aliquet volutpat odio. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Pellentesque sit amet pede ac sem eleifend consectetur. Nullam elementum, urna vel imperdiet sodales, elit ipsum pharetra ligula, ac pre-tium ante justo a nulla. Curabitur tristique arcu eu metus. Vestibulum lectus. Proin mauris. Proin eu nunc eu urna hendrerit faucibus. Aliquam auctor, pede consequat laoreet varius, eros tellus sceleris-que quam, pellentesque hendrerit ipsum dolor sed

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2.4.1 Social Sycophancy in LLMs

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lectus elementum mauris, eget vulputate ligula tellus eu neque. Vivamus eu dolor.

2.5 Gaps in the Literature and Open Challenges

In sum, as LLM-chatbots have become increasingly human-like and more users seek companionship with them, studies have highlighted both the advantages and disadvantages of their use. While some have raised concerns around “emotional dependence” (Fang et al., 2025), several others have explored empathic perceptions of LLM responses and found them advantageous not only in the field of medical support and mental health but also in everyday personal queries (Lee et al., 2024; Sorin et al., 2024). However, different psychosocial paradigms tend to frame LLM responses in markedly divergent terms. **What may be perceived as ‘empathy’ under a psychotherapeutic paradigm could instead be critiqued as an instance of ‘social sycophancy’** by frameworks informed by Goffman’s Theory of Face (Cheng et al., 2025). Importantly, in the absence of clear normative answers, the same statement may be categorised as ‘face-preserving behaviour’ or ‘unconditional positive regard’.

DeepReflect provides a comparative framework to address this gap by assessing how evaluative judgments are shaped by the psychosocial paradigm through which a response is framed. Moreover, it is designed to be extensible by researchers, enabling the incorporation of both conventional paradigms, such as Rokeach’s values framework, and contemporary discovery-based approaches, such as Anthropic’s Values in the Wild (Huang et al., 2024), whereas prior work has tended to focus on a single paradigm in isolation.

Finally, our investigation of controlling generations avoids replicating prior work that seeks to mitigate sycophancy exclusively (Cheng et al., 2025). Instead of treating sycophancy as a defect to be eliminated in isolation, DeepReflect provides a system to situate response generation within extensible psychosocial frameworks. This ensures that outputs are not merely reactive to user prompts but can be guided by well-established instruments for values and personal-growth.

In practice, this involves chain-of-thought reasoning (Wei et al., 2022) that explicitly incorporates the chosen framework. Unlike approaches that mimic deliberation across hypothetical perspectives (Vijini et al., 2024), this control strategy

extends the contractualist, rule-based tradition of questioning developed in (Jin et al., 2022). Its key distinction lies in embedding the questioning within expert-informed guidelines. While these prior investigations emphasized plurality of viewpoints and normative exception-handling, this work foregrounds the role of pre-existing psychosocial instruments in shaping the ongoing, ever-changing conversations of personal reflection.

3 DeepReflect

3.1 System Design

Introduce. Mention that it has two key components - the analysis and the generation. Your model: Flesh out your own approach, perhaps amplifying themes from the 'Prior lit' section. Mention RQ1 from Section 1.1 and put a figure depicting the system architecture with the 2 potential users (researchers, consumers / participants) here.

3.2 Evaluation Framework

The evaluation framework consists of the following steps in a pipeline architecture (see Figure 1):

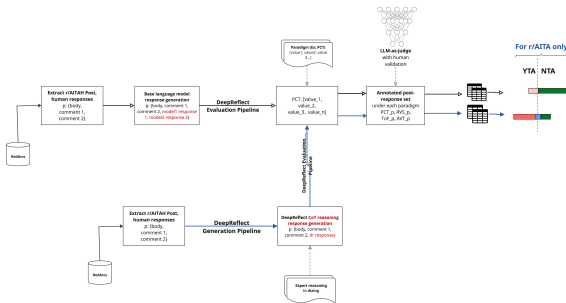


Figure 1: Pipeline architecture for DeepReflect.

- 1. Extract Posts:** Posts are extracted from two subreddits: (1) r/AITAH and (2) r/Anxiety. For each post, three components are considered: the body the original post written by the author (OP), the most upvoted human-written comment, and the comment with which the OP engaged the most. Further details regarding data filtering and text preprocessing are provided in Section 4.
- 2. Language Model Response Generation:** For each post and body, a baseline response is generated using a large language model (LLM) and appended to a table containing: (i) the model-generated responses, (ii) the top upvoted human comment, and (iii) the most en-

gaged human comment (available for approximately half of the posts). The resulting dataset therefore consists of the original post body, paired with both human and AI responses.

- 3. Read psychosocial frameworks and corresponding set of values:** The following psychosocial frameworks are considered: (1) RVS, (2) Rogerian PCT, (3) Goffman’s ToF, and (4) Anthropic’s Value Tree. The frameworks are associated with distinct sets of values and behaviors as described in Section 2. The frameworks are read into the system for annotations in the next step.
- 4. Feature Extraction and Annotation:** The LLM-as-a-judge paradigm (Zheng et al., 2023) is employed to annotate features for both the post body and each response under the 4 selected psychosocial paradigms. In this step, human validation is performed to calculate Cohen’s Kappa and accuracy metrics to gauge the quality of the annotations.

$$\kappa = \frac{p_o - p_e}{1 - p_e},$$

p_o = observed agreement (accuracy)

p_e = expected agreement by chance

See section 4 for further details.

- 5. Save outputs to dataset:** The annotated data is saved to a CSV file.
- 6. Statistical Analysis:** The annotated dataset forms the basis for subsequent analyses (see Section 6), where we analyze the differences in distributions of values in the responses obtained from Reddit compared to the language model produced responses, within and across paradigms, to address RQs 2 and 3.

The standard softmax distribution over a vocabulary of size V for transformer based LLMs is:

$$p_i = \frac{e^{z_i}}{\sum_{j=1}^V e^{z_j}}. \quad (1)$$

Introducing a temperature parameter $T > 0$ rescales the logits before normalization:

$$p_i^{(T)} = \frac{e^{z_i/T}}{\sum_{j=1}^V e^{z_j/T}}. \quad (2)$$

Lower T ($T < 1$) sharpens the distribution, making the model more deterministic, while higher T ($T > 1$) flattens it, encouraging diversity. For evaluation purposes, T is tested first with 0 which corresponds to greedy decoding, ensuring fully reproducible results and then with 0.7 to see how responses vary in realistic, stochastic conditions.

3.2.1 Generations

In this stage of the framework, responses to the post are produced through a chain-of-thought (CoT) reasoning mechanism. Instead of relying on standard language model outputs, the framework generates responses which are explicitly guided by reasoning chains derived from expert human dialog transcripts. For this project, we focus on the Rogerian Person-Centered Therapy (PCT) paradigm 2, using Carl Rogers’ in-session work with Gloria (Rogers, 1989) as a guiding structure.

Chain-of-Thought Reasoning

We formalize the generation process as follows:

$$p_{\theta}(y | x) = \sum_z p_{\theta}(y | x, z) p_{\theta}(z | x)$$

where x is the Reddit query (e.g., a post body), z is the expert-informed reasoning chain derived from expert human dialogs, y is the generated response and θ denotes the parameters of the language model. Here, $p_{\theta}(z | x)$ denotes the probability distribution over reasoning chains given the query, while $p_{\theta}(y | x, z)$ denotes the probability of generating a response conditioned on both the query and reasoning trajectory. The marginalization over z separates reasoning from surface realization, allowing responses to be shaped by expert-informed CoT patterns rather than unconstrained next-token prediction.

The CoT thus captures patterns inherent in the dialog, which are then integrated into the response space. See Figure 2.

Generated outputs can be subsequently passed through the Evaluation Pipeline, where we test whether PCT-informed CoT reasoning shifts verdict distributions (e.g., NTA vs. YTA) and whether responses exhibit statistically significant shifts in values or principles under the selected paradigm.

As in the previous section, for evaluation purposes, T is set to both 0 and 0.7 for the CoT generations as well (see Equation 2).

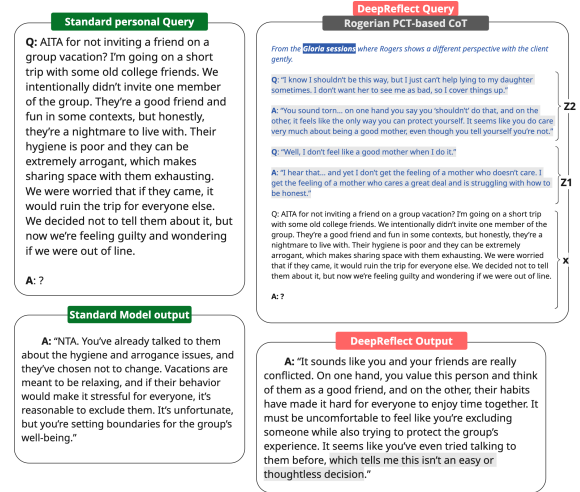


Figure 2: CoT Generation with personal queries embedded in reasoning dialogs retrieved from expert human transcripts.

3.3 Dataset

Two datasets were constructed for this project using the Pushshift Reddit Archives (Baumgartner et al., 2020), originally collected between 2006 and 2023 through the Pushshift API¹. Posts and comments were extracted from two subreddits: (1) r/AITAH and (2) r/Anxiety. For each post, three components were considered: the body of the original post written by the author (OP), the most upvoted human-written comment, and the comment with which the OP engaged the most. Further details regarding data filtering and text preprocessing are provided in Section 4.

3.4 Subreddit Selection

The r/AITAH subreddit (short for “Am I The Asshole”) is a community where users seek judgment on personal dilemmas and social interactions. With over three million members, it covers a wide range of topics, including relationships, family dynamics, workplace conflicts, and ethical questions. Users typically describe their situations in detail and ask the community to determine whether they were in the wrong (the “asshole”) or not. The crowdsourced social judgments captured in these posts makes r/AITAH a valuable source for examining behaviors and values expressed in digital discussions of personal matters especially for the Goffman’s ToF and Rogerian PCT paradigms.

The r/Anxiety subreddit is a community dedicated to individuals experiencing anxiety and re-

¹<https://github.com/pushshift/api>

lated mental health challenges. Membership does not require a formal diagnosis or medical documentation, which enables broad analyses from psychosocial perspectives, particularly within the Rogerian PCT and RVS framework. Posts often center on personal struggles, coping strategies and the impact on daily life.

Demographic information at the subreddit level is not available. However, research indicates that Reddit users overall are predominantly American (49.9%), male (67%), and young (22% aged 18–29 years; 14% aged 30–49 years) (Barthel et al., 2016; Statista, 2025). While this dataset is not representative of the general population, it reflects a demographic more likely to engage with LLMs for personal queries. This demographic is broadly aligned with the WEIRD (Western, Educated, Industrialized, Rich, Democratic) population, and it must therefore be acknowledged that the results of this study are necessarily constrained to this population.

4 Methods

4.1 Data collection and preprocessing

We built a corpus from two public subreddits—AITAH, and Anxiety. For each subreddit, we filtered the top 1,000 most upvoted or most commented posts, excluding weekly megathreads, deleted/removed items, and AutoModerator entries. For every retained post we extracted (i) the most upvoted human-written comment and (ii) the comment that the OP engaged with most; all artifacts were saved to standardized CSVs for downstream analysis.

Text was cleaned with minimal, semantics-preserving preprocessing: we removed non-English items, de-identified obvious personal identifiers (usernames, emails, links), standardized whitespace and Unicode characters, and lightly constrained length (posts 50–500 words; comments 5–300 words) for comparability. We treat each Reddit thread (the post and its comments) as a single analytic unit during sampling, manual checks, and statistic aggregation, so correlated texts don’t inflate results. This preserves thread integrity and prevents dependence-induced bias when comparing human and LLM responses drawn from the same conversation. We also removed exact and near-duplicate texts (specifically, crossposts, copy-pastes and bot repeats) to prevent inflated counts and biased comparisons.

Prompts (provided in the appendices) and model outputs are saved and logged by the codebase for reproducibility.

4.2 Procedures

For each selected post, we first prompt the target language model to generate an open-ended response to the body of the post. This response is appended to a table containing: (i) the model-generated response, (ii) the top upvoted human comment, and (iii) the most engaged human comment (available for approximately half of the posts). The resulting dataset therefore consists of the original post body, paired with both human and AI responses.

Feature Extraction

Features are extracted at the sentence level, consisting of sentences from both the responses and post bodies that map onto psychosocial constructs. Specifically, we operationalize values and behaviors through four distinct paradigms: Rokeach’s Value Survey (RVS), Rogers’s person-centered therapy (PCT), Goffman’s theory of face (ToF), and Anthropic’s Value Tree. Next, we apply the LLM-as-a-judge paradigm (Zheng et al., 2023) to annotate features for both the post body and each response. Each text is evaluated for **a. values exhibited** by the author and **b. values incentivized** by the author.

One of the central research questions (RQ2) investigates how the choice of psychosocial framework shapes the interpretation of an LLM’s response. Specifically, the same feature may be perceived as sycophantic under Goffman’s theory of face, empathic under Rogerian PCT, or as reflecting a terminal or instrumental value under Rokeach’s value framework.

To support this inquiry, the system constructs a structured analytical dataset that records: the original post, the set of extracted features for each of the 4 different types of responses (most-upvoted, most engaging, LLM 1, LLM 2) and the values or behaviors either exhibited or incentivized by each feature within any of the four applicable psychosocial paradigm(s).

This analytical dataset forms the basis for the subsequent analyses (see Section 6), where we analyze the differences in distributions of values in the responses obtained from reddit compared to the language model produced responses, within and across paradigms, to address RQ3.

4.3 Experiments

We conduct a series of experiments to investigate how psychosocial frameworks shape the interpretation of human and model-generated responses to personal queries. Our experimental design spans two dimensions: (i) response type (two forms of human responses and three language model responses) and (ii) domain (two distinct subreddits).

The AITAH dataset provides a natural proxy for “ground truth” in two paradigms: Empathy and Sycophancy. Here, crowd-sourced verdicts and their accompanying justifications offer a binary-valued reference point against which LLM behavior is evaluated.

Experiment 1 evaluates the distributions of values and behaviors across the four response categories (human top-voted, human most-engaged, and two LLMs). We compare both the explicit values expressed by the respondent and the implicit values incentivized by the response under the four psychosocial paradigms - Rogerian PCT, Goffman’s ToF, Anthropic’s Value Tree and RVS.

The focus is on how these models differ in their coverage of values and behaviors relative to human responses. From the analyses obtained, we ascertain the occurrence and co-occurrences of values and behaviours in LLM and human responses to personal queries.

In **Experiment 2**, we evaluate how variations in prompt design influence the breadth of values expressed by the LLM. Specifically, we incorporate prompts that explicitly instruct the model to (i) generate a response most likely to be upvoted, and (ii) generate a response most likely to engage the author.

4.3.1 Generations

A set of targeted experiments are run with DeepReflect’s analyses to investigate the efficacy of control mechanisms to align the values in language model outputs more closely with those observed in human responses. The generation experiments are implemented using the following methods:

1. **Chain-of-thought reasoning** [models: Claude; one of Qwen-3 or LLaMA-3.1; paradigms: Rogers PCT and RVS] Prompt augmentation experiments, where values with low frequency in LLM responses are explicitly introduced and emphasized (e.g., Rogers PCT: Unconditional positive regard,

Psychological freedom; RVS: A comfortable life).

4.4 Construct Validity and Evaluation Metrics

To assess construct validity, one human annotator labeled 100 randomly sampled post-response pairs across all four paradigms for each response type. The PCT framework encompasses 15 behaviors, Goffman’s ToF 5, the RVS 36, and Anthropic’s Value Tree 18.

Inter-rater reliability reached Cohen’s κ above xx for all metrics, with an overall classification accuracy of yy. For the AITAH dataset, verdicts and accompanying statements in responses were used as proxies for Empathy and Sycophancy, each mapped onto five behaviors as defined by their respective theoretical traditions².

For the RVS and Anthropic Value Tree frameworks, which yield categorical distributions rather than binary judgments, pairwise error rates such as False Negative Rate (FNR) and False Positive Rate (FPR) are not directly applicable. To identify significant associations between features annotated under more than one distinct paradigm we construct contingency tables and use chi-square analysis with further details provided in section 6.

5 Results

A no-nonsense report of what happened.

5.1 Subsection

This subsection presents the main results.

Sed gravida lectus ut purus. Morbi laoreet magna. Pellentesque eu wisi. Proin turpis. Integer sollicitudin augue nec dui. Fusce lectus. Vivamus faucibus nulla nec lacus. Integer diam. Pellentesque sodales, enim feugiat cursus volutpat, sem mauris dignissim mauris, quis consequat sem est fermentum ligula. Nullam justo lectus, condimentum sit amet, posuere a, fringilla mollis, felis. Morbi nulla nibh, pellentesque at, nonummy eu, sollicitudin nec, ipsum. Cras neque. Nunc augue. Nullam vitae quam id quam pulvinar blandit. Nunc sit amet orci. Aliquam erat elit, pharetra nec, aliquet a, gravida in, mi. Quisque urna enim, viverra quis, suscipit quis, tincidunt ut, sapien. Cras placerat consequat sem. Curabitur ac diam. Curabitur diam tortor, mollis et, viverra ac, tempus vel, metus.

²This strategy is conceptually aligned with prior work on social sycophancy (Cheng et al., 2025)

727	Curabitur ac lorem. Vivamus non justo in dui	778
728	mattis posuere. Etiam accumsan ligula id pede.	779
729	Maecenas tincidunt diam nec velit. Praesent con-	780
730	vallis sapien ac est. Aliquam ullamcorper euismod	781
731	nulla. Integer mollis enim vel tortor. Nulla soda-	782
732	les placerat nunc. Sed tempus rutrum wisi. Duis	783
733	accumsan gravida purus. Nunc nunc. Etiam faci-	784
734	lisis dui eu sem. Vestibulum semper. Praesent eu	785
735	eros. Vestibulum tellus nisl, dapibus id, vestibulum	
736	sit amet, placerat ac, mauris. Maecenas et elit ut	786
737	erat placerat dictum. Nam feugiat, turpis et sodales	
738	volutpat, wisi quam rhoncus neque, vitae aliquam	787
739	ipsum sapien vel enim. Maecenas suscipit cursus	788
740	mi.	
741	Quisque consectetur. In suscipit mauris a dolor	789
742	pellentesque consectetur. Mauris convallis neque	790
743	non erat. In lacinia. Pellentesque leo eros, sa-	791
744	gittis quis, fermentum quis, tincidunt ut, sapien.	792
745	Maecenas sem. Curabitur eros odio, interdum eu,	793
746	feugiat eu, porta ac, nisl. Curabitur nunc. Etiam fer-	794
747	mentum convallis velit. Pellentesque laoreet lacus.	795
748	Quisque sed elit. Nam quis tellus. Aliquam tellus	796
749	arcu, adipiscing non, tincidunt eleifend, adipiscing	797
750	quis, augue. Vivamus elementum placerat enim.	798
751	Suspendisse ut tortor. Integer faucibus adipiscing	799
752	felis. Aenean consectetur mattis lectus. Morbi	800
753	malesuada faucibus dolor. Nam lacus. Etiam arcu	801
754	libero, malesuada vitae, aliquam vitae, blandit tri-	802
755	stique, nisl.	803
756	Maecenas accumsan dapibus sapien. Duis pre-	804
757	tium iaculis arcu. Curabitur ut lacus. Aliquam	805
758	vulputate. Suspendisse ut purus sed sem tempor	806
759	rhoncus. Ut quam dui, fringilla at, dictum eget,	807
760	ultrices quis, quam. Etiam sem est, pharetra non,	
761	vulputate in, pretium at, ipsum. Nunc semper sagit-	808
762	tis orci. Sed scelerisque suscipit diam. Ut volutpat,	809
763	dolor at ullamcorper tristique, eros purus mollis	810
764	quam, sit amet ornare ante nunc et enim.	811
765	Phasellus fringilla, metus id feugiat consectetur,	812
766	lacus wisi ultrices tellus, quis lobortis nibh lorem	813
767	quis tortor. Donec egestas ornare nulla. Mauris	814
768	mi tellus, porta faucibus, dictum vel, nonummy in,	815
769	est. Aliquam erat volutpat. In tellus magna, port-	816
770	titor lacinia, molestie vitae, pellentesque eu, justo.	817
771	Class aptent taciti sociosqu ad litora torquent per	818
772	conubia nostra, per inceptos hymenaeos. Sed orci	819
773	nibh, scelerisque sit amet, suscipit sed, placerat vel,	
774	diam. Vestibulum nonummy vulputate orci. Do-	820
775	nec et velit ac arcu interdum semper. Morbi pede	821
776	orci, cursus ac, elementum non, vehicula ut, lacus.	822
777	Cras volutpat. Nam vel wisi quis libero venenatis	823
	placerat. Aenean sed odio. Quisque posuere purus	824
	ac orci. Vivamus odio. Vivamus varius, nulla sit	825
	amet semper viverra, odio mauris consequat lacus,	826
	at vestibulum neque arcu eu tortor. Donec iaculis	827
	tincidunt tellus. Aliquam erat volutpat. Curabitur	
	magna lorem, dignissim volutpat, viverra et, adi-	
	piscing nec, dolor. Praesent lacus mauris, dapibus	
	vitae, sollicitudin sit amet, nonummy eget, ligula.	
	5.2 Subsection	
	This subsection presents additional results and anal-	
	ysis.	
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	ut dolor. Fusce vel enim. Pellentesque accumsan	
	ligula et eros. Cras id lacus non tortor facilisis faci-	
	lisis. Etiam nisl elit, cursus sed, fringilla in, congue	
	nec, urna. Cum sociis natoque penatibus et magnis	
	dis parturient montes, nascetur ridiculus mus. In-	
	integer at turpis. Cum sociis natoque penatibus et	
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	scelerisque augue sit amet urna. Nulla volutpat	
	aliquet tortor. Cras aliquam, tellus at aliquet pel-	
	lentesque, justo sapien commodo leo, id rhoncus	
	sapien quam at erat. Nulla commodo, wisi eget sol-	
	licitudin pretium, orci orci aliquam orci, ut cursus	
	turpis justo et lacus. Nulla vel tortor. Quisque erat	
	elit, viverra sit amet, sagittis eget, porta sit amet,	
	lacus.	
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	Curabitur tempus vulputate elit. Pellentesque sem.	
	Praesent eu sapien. Duis elit magna, aliquet at,	
	tempus sed, vehicula non, enim. Morbi viverra	
	arcu nec purus. Vivamus fringilla, enim et com-	
	modo malesuada, tortor metus elementum ligula,	
	nec aliquet est sapien ut lectus. Aliquam mi. Ut	
	nec elit. Fusce euismod luctus tellus. Curabitur	
	scelerisque. Nullam purus. Nam ultricies accum-	
	san magna. Morbi pulvinar lorem sit amet ipsum.	
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	quis diam. Praesent tempus eros ut quam.	
	Donec in nisl. Fusce vitae est. Vivamus ante	
	ante, mattis laoreet, posuere eget, congue vel, nunc.	
	Fusce sem. Nam vel orci eu eros viverra luctus.	
	Pellentesque sit amet augue. Nunc sit amet ipsum	
	et lacus varius nonummy. Integer rutrum sem eget	
	wisi. Aenean eu sapien. Quisque ornare dignis-	
	sim mi. Duis a urna vel risus pharetra imperdiet.	
	Suspendisse potenti.	

Morbi justo. Aenean nec dolor. In hac habitasse platea dictumst. Proin nonummy porttitor velit. Sed sit amet leo nec metus rhoncus varius. Cras ante. Vestibulum commodo sem tincidunt massa. Nam justo. Aenean luctus, felis et condimentum lacinia, lectus enim pulvinar purus, non porta velit nisl sed eros. Suspendisse consequat. Mauris a dui et tortor mattis pretium. Sed nulla metus, volutpat id, aliquam eget, ullamcorper ut, ipsum. Morbi eu nunc. Praesent pretium. Duis aliquam pulvinar ligula. Ut blandit egestas justo. Quisque posuere metus viverra pede.

5.3 Comparative Findings

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Quisque facilisis auctor sapien. Pellentesque gravida hendrerit lectus. Mauris rutrum sodales sapien. Fusce hendrerit sem vel lorem. Integer pellentesque massa vel augue. Integer elit tortor, feugiat quis, sagittis et, ornare non, lacus. Vestibulum posuere pellentesque eros. Quisque venenatis ipsum dictum nulla. Aliquam quis quam non metus eleifend interdum. Nam eget sapien ac mauris malesuada adipiscing. Etiam eleifend neque sed quam. Nulla facilisi. Proin a ligula. Sed id dui eu nibh egestas tincidunt. Suspendisse arcu.

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Donec vitae velit. Suspendisse porta fermentum mauris. Ut vel nunc non mauris pharetra varius. Duis consequat libero quis urna. Maecenas at ante. Vivamus varius, wisi sed egestas tristique, odio wisi

luctus nulla, lobortis dictum dolor ligula in lacus. Vivamus aliquam, urna sed interdum porttitor, metus orci interdum odio, sit amet euismod lectus felis et leo. Praesent ac wisi. Nam suscipit vestibulum sem. Praesent eu ipsum vitae pede cursus venenatis. Duis sed odio. Vestibulum eleifend. Nulla ut massa. Proin rutrum mattis sapien. Curabitur dictum gravida ante.

6 Analysis

Discussion of what the results mean, what they don't mean, where they can be improved, etc. These sections vary a lot depending on the nature of the paper. For papers reporting on experiments with multiple datasets, it can be good to repeat Methods/Results/Analysis in separate (sub)sections for each dataset.

The \LaTeX and Bib \TeX style files provided roughly follow the American Psychological Association format. If your own bib file is named `custom.bib`, then placing the following before any appendices in your \LaTeX file will generate the references section for you:

```
\bibliographystyle{acl_natbib}
\bibliography{custom}
```

6.1 Interpretation of Results

Phasellus placerat vulputate quam. Maecenas at tellus. Pellentesque neque diam, dignissim ac, venenatis vitae, consequat ut, lacus. Nam nibh. Vestibulum fringilla arcu mollis arcu. Sed et turpis. Donec sem tellus, volutpat et, varius eu, commodo sed, lectus. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque enim arcu, suscipit nec, tempus at, imperdiet vel, metus. Morbi volutpat purus at erat. Donec dignissim, sem id semper tempus, nibh massa eleifend turpis, sed pellentesque wisi purus sed libero. Nullam lobortis tortor vel risus. Pellentesque consequat nulla eu tellus. Donec velit. Aliquam fermentum, wisi ac rhoncus iaculis, tellus nunc malesuada orci, quis volutpat dui magna id mi. Nunc vel ante. Duis vitae lacus. Cras nec ipsum.

Morbi nunc. Aliquam consectetuer varius nulla. Phasellus eros. Cras dapibus porttitor risus. Maecenas ultrices mi sed diam. Praesent gravida velit at elit vehicula porttitor. Phasellus nisl mi, sagittis ac, pulvinar id, gravida sit amet, erat. Vestibulum est. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Curabitur id sem elementum leo rutrum hendrerit. Ut at mi. Donec tincidunt faucibus

927	massa. Sed turpis quam, sollicitudin a, hendrerit	977
928	eget, pretium ut, nisl. Duis hendrerit ligula. Nunc	978
929	pulvinar congue urna.	979
930	Nunc velit. Nullam elit sapien, eleifend eu, com-	980
931	modo nec, semper sit amet, elit. Nulla lectus risus,	981
932	condimentum ut, laoreet eget, viverra nec, odio.	982
933	Proin lobortis. Curabitur dictum arcu vel wisi. Cras	983
934	id nulla venenatis tortor congue ultrices. Pellentes-	984
935	que eget pede. Sed eleifend sagittis elit. Nam sed	985
936	tellus sit amet lectus ullamcorper tristique. Mauris	986
937	enim sem, tristique eu, accumsan at, scelerisque	987
938	vulputate, neque. Quisque lacus. Donec et ipsum	
939	sit amet elit nonummy aliquet. Sed viverra nisl at	
940	sem. Nam diam. Mauris ut dolor. Curabitur ornare	
941	tortor cursus velit.	
942	Morbi tincidunt posuere arcu. Cras venenatis est	
943	vitae dolor. Vivamus scelerisque semper mi. Do-	
944	nec ipsum arcu, consequat scelerisque, viverra id,	
945	dictum at, metus. Lorem ipsum dolor sit amet, con-	
946	sectetuer adipiscing elit. Ut pede sem, tempus ut,	
947	porttitor bibendum, molestie eu, elit. Suspendisse	
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949	cula. Praesent sed sem non dui pharetra interdum.	
950	Nam viverra ultrices magna.	
951	6.2 Theoretical Implications	
952	Aenean laoreet aliquam orci. Nunc interdum ele-	
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954	Maecenas velit nibh, scelerisque a, consequat ut,	
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956	tristique et, tincidunt eu, rhoncus ac, nunc. Mauris	
957	malesuada malesuada elit. Etiam lacus mauris, pre-	
958	tium vel, blandit in, ultricies id, libero. Phasellus	
959	bibendum erat ut diam. In congue imperdiet lectus.	
960	Aenean scelerisque. Fusce pretium porttitor lo-	
961	rem. In hac habitasse platea dictumst. Nulla sit	
962	amet nisl at sapien egestas pretium. Nunc non tel-	
963	lus. Vivamus aliquet. Nam adipiscing euismod	
964	dolor. Aliquam erat volutpat. Nulla ut ipsum. Quis-	
965	que tincidunt auctor augue. Nunc imperdiet ipsum	
966	eget elit. Aliquam quam leo, consectetur non, or-	
967	nare sit amet, tristique quis, felis. Vestibulum ante	
968	ipsum primis in faucibus orci luctus et ultrices po-	
969	suere cubilia Curae; Pellentesque interdum quam	
970	sit amet mi. Pellentesque mauris dui, dictum a,	
971	adipiscing ac, fermentum sit amet, lorem.	
972	Ut quis wisi. Praesent quis massa. Vivamus	
973	egestas risus eget lacus. Nunc tincidunt, risus quis	
974	bibendum facilisis, lorem purus rutrum neque, nec	
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	lum aliquet, nibh sed iaculis sagittis, odio dolor	978
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	massa metus, sagittis ut, semper ut, pharetra vel,	982
	erat. Aliquam quam turpis, egestas vel, elementum	983
	in, egestas sit amet, lorem. Duis convallis, wisi	984
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	vitae aliquam arcu turpis ac sem. Aliquam aliquet	986
	dapibus metus.	987
	6.3 Subsection	988
	The framework is capable of producing several	989
	informative plots of research interest. One such	990
	summary plot is a heatmap showcasing the values	991
	exhibited in the OPs post against the responses	992
	to support the investigation of several other po-	993
	tential research questions in this theme of interest	994
	(discussed in the future work section). Vivamus	995
	commodo eros eleifend dui. Vestibulum in leo eu	996
	erat tristique mattis. Cras at elit. Cras pellentesque.	997
	Nullam id lacus sit amet libero aliquet hendrerit.	998
	Proin placerat, mi non elementum laoreet, eros elit	999
	tincidunt magna, a rhoncus sem arcu id odio. Nulla	1000
	eget leo a leo egestas facilisis. Curabitur quis ve-	1001
	lit. Phasellus aliquam, tortor nec ornare rhoncus,	1002
	purus urna posuere velit, et commodo risus tellus	1003
	quis tellus. Vivamus leo turpis, tempus sit amet,	1004
	tristique vitae, laoreet quis, odio. Proin scelerisque	1005
	bibendum ipsum. Etiam nisl. Praesent vel dolor.	1006
	Pellentesque vel magna. Curabitur urna. Vivamus	1007
	congue urna in velit. Etiam ullamcorper elemen-	1008
	tum dui. Praesent non urna. Sed placerat quam	1009
	non mi. Pellentesque diam magna, ultricies eget,	1010
	ultrices placerat, adipiscing rutrum, sem.	1011
	Morbi sem. Nulla facilisi. Vestibulum ante ip-	1012
	sum primis in faucibus orci luctus et ultrices po-	1013
	suere cubilia Curae; Nulla facilisi. Morbi sagittis	1014
	ultrices libero. Praesent eu ligula sed sapien auctor	1015
	sagittis. Class aptent taciti sociosqu ad litora tor-	1016
	quent per conubia nostra, per inceptos hymenaeos.	1017
	Donec vel nunc. Nunc fermentum, lacus id ali-	1018
	quam porta, dui tortor euismod eros, vel molestie	1019
	ipsum purus eu lacus. Vivamus pede arcu, euismod	1020
	ac, tempus id, pretium et, lacus. Curabitur sodales	1021
	dapibus urna. Nunc eu sapien. Donec eget nunc	1022
	a pede dictum pretium. Proin mauris. Vivamus	1023
	luctus libero vel nibh.	1024
	Fusce tristique risus id wisi. Integer molestie	1025
	massa id sem. Vestibulum vel dolor. Pellentesque	1026

1027	vel urna vel risus ultricies elementum. Quisque sapien urna, blandit nec, iaculis ac, viverra in, odio.	1075
1028	In hac habitasse platea dictumst. Morbi neque lacus, convallis vitae, commodo ac, fermentum eu, velit. Sed in orci. In fringilla turpis non arcu. Donec in ante. Phasellus tempor feugiat velit. Aenean varius massa non turpis. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae;	1076
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1036	7 Conclusion	
1037	/textcolorblack!40Quickly summarize what the paper did, and then chart out possible future directions that anyone might pursue. Finish with a strong conclusion. Avoid subjective wording such as "unprecedented", "pioneering", or "groundbreaking".	
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1043	7.1 Summary of Findings	
1044	Aliquam tortor. Morbi ipsum massa, imperdiet non, consectetur vel, feugiat vel, lorem. Quisque eget lorem nec elit malesuada vestibulum. Quisque sollicitudin ipsum vel sem. Nulla enim. Proin nonummy felis vitae felis. Nullam pellentesque. Duis rutrum feugiat felis. Mauris vel pede sed libero tincidunt mollis. Phasellus sed urna rhoncus diam euismod bibendum. Phasellus sed nisl. Integer condimentum justo id orci iaculis varius. Quisque et lacus. Phasellus elementum, justo at dignissim auctor, wisi odio lobortis arcu, sed sollicitudin felis felis eu neque. Praesent at lacus.	
1045	Vivamus sit amet pede. Duis interdum, nunc eget rutrum dignissim, nisl diam luctus leo, et tincidunt velit nisl id tellus. In lorem tellus, aliquet vitae, porta in, aliquet sed, lectus. Phasellus sodales. Ut varius scelerisque erat. In vel nibh eu eros imperdiet rutrum. Donec ac odio nec neque vulputate suscipit. Nam nec magna. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Nullam porta, odio et sagittis iaculis, wisi neque fringilla sapien, vel commodo lorem lorem id elit. Ut sem lectus, scelerisque eget, placerat et, tincidunt scelerisque, ligula. Pellentesque non orci.	
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1069	7.2 Future Directions	
1070	Etiam vel ipsum. Morbi facilisis vestibulum nisl. Praesent cursus laoreet felis. Integer adipiscing pretium orci. Nulla facilisi. Quisque posuere bibendum purus. Nulla quam mauris, cursus eget, convallis ac, molestie non, enim. Aliquam congue.	
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	Quisque sagittis nonummy sapien. Proin molestie sem vitae urna. Maecenas lorem. Vivamus viverra consequat enim.	1078
	Limitations	
	API calls incur costs - funding and time limitations - can broaden DeepReflect to include other models (LLMs) and other psychosocial frameworks - especially frameworks on ethics which have been historically used in personal decision-making on which rich literature exists from historic accounts of deep human philosophical thought such as Kantian ethics, Utilitarianism, and Virtue Ethics, Stoicism, Gita - Vedic Philosoph, Buddhism. The Reddit dataset is rich and can be dissected in ways to aid a more nuanced understanding of the social values and influences that shape our personal lives and interactions. ACL 2023 requires all submissions to have a section titled "Limitations", for discussing the limitations of the paper as a complement to the discussion of strengths in the main text. This section should occur after the conclusion, but before the references. It will not count towards the page limit. The discussion of limitations is mandatory. Papers without a limitation section will be desk-rejected without review. While we are open to different types of limitations, just mentioning that a set of results have been shown for English only probably does not reflect what we expect. Mentioning that the method works mostly for languages with limited morphology, like English, is a much better alternative. In addition, limitations such as low scalability to long text, the requirement of large GPU resources, or other things that inspire crucial further investigation are welcome.	1079
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	8 Ethics Statement	1109
	We encourage all authors to include an explicit ethics statement on the broader impact of the work, or other ethical considerations after the conclusion but before the references.	1110
	The ethics statement will not count toward the page limit (8 pages for long, 4 pages for short papers).	1111
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	Acknowledgements	1117
	The authors would like to thank Santa Claus and Rudolph the red nose reindeer who had a very shiny nose. And if you ever saw it, you would even say it glows. All of the reindeer loved him, as	1118
		1119
		1120
		1121

they shouted out with glee, "Rudolph the red nose reindeer, you'll go down in history!"

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A Example Appendix

This is a section in the appendix.