AISOCRATES: Towards Answering Ethical Quandary Questions

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Abstract

Considerable advancements have been made in various NLP tasks based on the impressive power of large pre-trained language models (LLMs). These results have inspired efforts to understand the limits of LLMs so as to evaluate how far we are from achieving human level general natural language understanding. In this work, we challenge the capability of LLMs with the new task of ethical quandary questions answering (GQA). Ethical quandary questions are more challenging to address because multiple conflicting answers may exist to a single quandary. We propose a system, AISOCRATES, that provides an answer with a deliberative exchange of different perspectives to an ethical quandary, in the approach of Socratic philosophy, instead of providing a closed answer like an oracle. AISOCRATES searches for different ethical principles applicable to the ethical quandary and generates an answer conditioned on the chosen principles through prompt-based few-shot learning. We also address safety concerns by providing a human controllability option in choosing ethical principles. We show that AISOCRATES generates promising answers to ethical quandary questions with multiple perspectives, 6.92% more often than answers written by human philosophers by one measure, but the system still needs improvement to match the coherence of human philosophers fully. We argue that AISOCRATES is a promising step toward developing an NLP system that incorporates human values explicitly by prompt instructions. We are releasing the code for research purposes.

1 Introduction

Large pre-trained language models (LLMs) have brought significant breakthroughs in artificial intelligence (AI), with impressive results approaching human-level in various NLP tasks (Radford et al., 2019; Raffel et al., 2020; Brown et al., 2020). Explorations of their limitations and capabilities have also been made, for instance, by studying their ability to answer open-ended, real-world questions (Tafjord and Clark, 2021; Gu et al., 2021; Jiang et al., 2021; Hendrycks et al., 2020). Ethical quandary questions can be viewed as one of the most challenging forms of questions to address because they have no single definite answer. Instead, a discussion with multiple perspectives (i.e., a manner of debate) is crucial (Talat et al., 2021; Hendrycks et al., 2020) and sophisticated logical reasoning is required to answer such questions. In this work, we challenge the capability of LLMs to provide relevant and nuanced answers to ethical quandary questions in the style of a human ethicist — ethical quandary generative question answering (GQA).

Previously, Jiang et al. (2021) proposed Delphi, a model that learns to reproduce human moral and ethical judgments. However, it provides one simple definite answer to an ethical quandary question without the possibility of future discussion. An ethical quandary is a moral dilemma that posses challenges to humans. For example, Delphi answers “No” to the famous ethical dilemma trolley problem (Thomson, 1976): “Should we kill one person to save five people in danger of being hit by a trolley?”. Although the oracle at Delphi only gave a prophetic, closed answer to the questions posed to it, there can be multiple perspectives on this problem depending on the underlying ethical principle. From the deontological perspective, the answer would be “No” because killing is never acceptable. From the utilitarian perspective, by contrast, the answer would be “Yes” because the principle dictates that the most appropriate action is the one that results in the greatest good for the greatest number of people. As Talat et al. (2021) criticized, one-sided normative ethical judgment answer makes
it cannot represent incommensurable and diverse ethical judgments. Therefore, we aim to build a system that can deal with ethical quandary questions with different ethical principles and also with the possibility of explaining the reasons for its pronouncements. Instead of handing over our ethical responsibility to the AI system by seeking a definite answer, we build an AI interlocutor with which we think through the ethical issues.\footnote{Here, our aim is not to generate the most “ethical” answers but to explore LLMs’ ability to provide distinct answers to a single quandary depending on varying ethical principles.}

We approach Ethical Quandary QQA task with the aim of achieving an AI system that can enhance humans’ moral decision-making through the deliberative exchange of different perspectives to an ethical quandary, which is in the approach of Socratic philosophy. As suggested by moral philosophers, AI systems can be used to aid humans in having reflective equilibrium by suggesting different aspects that individuals could not take into consideration due to personal biases and prejudices, which ultimately prompt to one’s own further reflection (Savulescu and Maslen, 2015; Lara and Deckers, 2020; Giubilini and Savulescu, 2018). We propose AiSocrates, which answers ethical quandary questions from multiple perspectives. AiSocrates is composed of two modules: 1) Principle Provider provides relevant ethical principles to a quandary, which can be done either by a human or a model. The human principle provider option makes our system to be controllable – i.e., it allows a way for humans to provide explicit ethical principles to guide the system in generating answers. 2) Principle-Grounded Answer Generator, which adopts prompt-based few-shot learning to generate an answer based on the provided ethical principles. The main experimental result shows that AiSocrates could achieve a promising performance of prompt-based few-shot learned principle-grounded answer generation for the task.

Our contribution is two-fold: First, we propose the Ethical Quandary QQA task, which does not entail a single definite answer for each ethical question; instead, distinct answers exist depending on underlying ethical principles. Secondly, we introduce AiSocrates, which uses the prompt-based few-shot learning approach with two-step prompting to answer ethical quandary questions with multiple ethical perspectives.

2 Ethical Quandary QQA

Task Setup We investigate a model’s ability to answer ethical quandaries with multiple perspectives based on different underlying ethical principles. Given the ethical quandary question $Q$ in context, the model is expected to generate a free-form text answer(s) $A$ in a paragraph(s). In this task, the ethical quandary question consists of context (c) and a question sentence (q). The context includes details of the situation (e.g., narrator details, a specific event, involved parties, a particular condition) from the perspective of a narrator in the form of text paragraphs.

Ethical quandary refers to a perplexity arisen by a situation in which it is hard to decide what to do morally, and, in a more strict sense, an ethical dilemma where neither of possible choices unambiguously acceptable. Thus, ethics takes a role to provide grounds for resolving the perplexity or make a decision in such situation, as conceived of as moral rules or principles (Pincoffs, 1971). There is no single “correct” answer to such an ethical quandary question, like other open-ended questions. Instead, depending on the ethical principles leveraged to address the quandary, multiple conflicting valid answers exist. Thus, a clear-cut answer that everyone agrees with is difficult to formulate (i.e., yes/no or right/wrong).

Dataset New York Times Ethicist Columns (NYT-Ethicist) is a set of weekly columns on ethical quandaries written by professional philosophers. Each quandary is sent from a reader, describing a complex situation and a question arising from it. A corresponding answer to the quandary is written by a philosopher based on an ethical principle(s) (not always explicitly mentioned) and usually provides multiple perspectives for the situation to address the question. Since NYT-Ethicist provides philosopher-written answers, this dataset is useful for comparing machine-generated answers against human answers. We collected 1,295 pairs of [quandary, answer from a philosopher] from the NYT website. The more details for data is available in Appendix.

3 Methodology

3.1 AiSocrates

Principles in ethics are statements expressing reasons for or against an action. Different principles focus on different aspects of the same situation to
judge what is ethical and correct (Bass et al., 1999; Forsyth and Pope, 1984). Thus, different ethical principles result in distinct and even contradictory answers to the same ethical quandary question.

Inspired by the characteristics of the ethical quandaries, we propose AISOCRATES, which can explicitly i) retrieve or generate all ethical principles that are relevant to the given ethical quandary and ii) generate principle-guided multi-perspective answers.

### 3.2 Principle Provider

**The principle pool** for addressing ethical quandaries is composed of ethical principles from western/eastern ethical theories and rules-of-thumb (RoT). The ethical principles are theoretical and broadly described so as to apply to various contexts and situations. In contrast, the RoTs, which can be considered as informal principles, are based on practical experience and describe an approximate judgment on the action in a specific context or situation. For the RoTs, we utilize the SOCIALCHEMISTRY (Forbes et al., 2020) and MORAL-STORY (Emelin et al., 2020) datasets, which have a short real-life context and corresponding annotated RoTs. To illustrate with an example, for the situation “Running the blender at 5am will wake up my neighbors, but I need it for my breakfast,” one of the possible relevant ethical principles is “The morality of an action depends on the action’s outcome or result” (consequentialism), while one of the possible RoTs is “You have the right to prepare food when you need to,” which is more context-specific. By combining both in the pool, we have access to the different granularities of ethical principles.

**Choice of Principle Provider – Human or Model** The principle(s) can be provided by a human or a model as illustrated in Figure 1. For the model choice of human provider, humans can freely provide relevant ethical principles or RoTs for answering the target ethical quandary question. This option is a safety measure to ensure the existence of an agent for the machine generation (i.e., the person liable for any potential risk or harm derived from the model generation) and to provide human-in-the-loop moderation of model behavior.

For the model-based principle provider, we first form principle candidates pool using both retrieval and generative techniques to maximize the recall of relevant principles. This principle “candidates” pool is a set of the shortlisted relevant principles out of the principle pool mentioned in the beginning of this subsection. Then, two most relevant and contrasting principles are automatically selected out of the pool, utilizing relevance scorers, which will be explained later in details. First, the principle candidates pool is formed as follow:

- The retrieval method selects the top-10 RoTs by calculating semantic textual similarity between the contexts from SOCIALCHEMISTRY and MORAL-STORY and the

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2 The example is from (Forbes et al., 2020)
**Question:** Should we kill one person to save five people in danger of being hit by a trolley?

**Model Selected Principles:**

<p1> It is ethical to cause the death of one person to save five others (an example of utilitarianism, later developed by Jeremy Bentham).

<p2> You should always try to save other people.

**Automatic Answer from AIsocrates:** You’d have to say yes. Even though the target person is not one of your group, the net benefit is greater because of Pareto optimality, which rewards the greater good for all parties.

You’d have to say yes to this one, too. These hypothetical moral dilemmas, which are notoriously difficult to answer, are a good starting point for discussion about a person’s underlying moral framework. Once those frameworks are clarified, then it’s easier to see how these rules/values should apply to a given situation.

On the other hand, according to the principle of “You should always try to save other people”, true believers, or Persons of Religious Faith, the Catholic Church says one must Never, Ever Save Another Person By Killing One, because it involves murder and a sin. Therefore, any priest or sister or Catholic, upon being told to Choose One Person To Be Killed And Save Another Five People, would be required to answer no, so they wouldn’t break the Ninth Commandment, “Thou Shalt Not Kill.” (They might even be able to get out of being a member of the Milwaukee Archdiocese for breaking this major commandment of God.)

**Table 1:** Illustration of model selected principles and a corresponding automatic answer generated by AIsocrates to the trolley problem introduced in introduction. The <p1> and <p2> are principles selected by automatic module of Principle Provider of AIsocrates, described in Section 3.2. Then, the final automatic answer is generated with a guidance of those two principles as explained in Section 3.3.

The generative method makes the candidate pool using the fine-tuned RoT generator model from Forbes et al. (2020) and prompt-based few-shot learning. The RoT generator takes the context as an input and generates RoTs based on different moral foundations. We input the ethical quandary of the test sample to the model and include the generated RoTs in the pool. With prompt-based few-shot learning, we generate principles by asking for relevant ethical principles to answer the question with two-shot samples with the prompt “Context: {<ethical quandary>} Q: What are the ethical principles to consider in the situation of Context? \n A: This case illustrates several ethical principles.\n1. ” We adopt the model generation pattern of answering with “This case illustrates several ethical principles” as a part of the prompt so that the model can be encouraged to perform the task. Then the generated ethical principles are processed to be added into the pool of principle candidates. Compared to the retrieval method, the generative method enables us to have more context-specific ethical principles or RoTs as the models take the context as input while the retrieval method retrieves the most approximated principles from comparison with the existing context.

Next, all the retrieved and generated principle candidates are then included in the principle candidates pool. Out of these relevant candidates, we select two principles for LLM answer grounding to encourage the generation to contain multiple-perspectives. To select these two opposing principles, we conduct the following final step: the highest-ranking principle is selected by the voting result from a suite of off-the-shelf scorers – TF-IDF, Sentence-BERT and T0 model (Sanh et al., 2021) – which calculate the relevance score between the ethical quandary and candidate principles. The top-ranking principle is denoted as p1. To obtain one more principle, we select the most semantically distinct principle from p1 out of the top-10 candidate principles and denote it as p2. In this way, we expect to have relevant to context but contrasting principles. As illustrated in Table 1, the most relevant principle <p1> to the trolley problem introduced in introduction is selected to be “It is ethical to cause the death of one person to save five others (an example of utilitarianism, later developed by Jeremy Bentham)” and the contrasting ethical principle <p2> is “You should always try to save other people.”

In detail, using the TF-IDF and Sentence-BERT scorers, we extract features of the candidate principles and the context of the testing sample and calculate the cosine-similarity between them. Then, each of the principles is ranked in descending or-
3.3 Principle-Guided Answer Generator

Given relevant principles from the first step, we adopt prompt-based few-shot learning for principle-guided answer generation. The prompt-based few-shot learning teaches the model with only a few input-output pair samples as a natural language prompt concatenated with the input of the test sample. The prompt-based learning does not involve any parameter tuning and is a good way to test the in-nature ability of pre-trained LLMs with a minimum guidance about the task. Specifically, we utilize two-shots from the training sample for learning so as to avoid the model learning one specific principle.

Each ethical quandary test sample has ethical quandary <Q> and two relevant contrasting ethical principles (<p1>, <p2>), which are provided from the previous procedure. We have several elements in the input to get the output A. Instead of simply concatenating the input-output, We manually craft prefix prompts utilizing templates to format the input for the prompt learning. Since there is more than one ethical principle, we propose to do multistep prompting of the LLM to incorporate two principles in the final generated answer A addressing the ethical quandary, as illustrated in Figure 1.

For the first answer with <p1>, we utilize PROMPT1, defined as “Question: <Q> \n Principle: <p1> \n Answer: According to the Principle.”. Given the two-shot examples (2-Shot) and the test ethical quandary sample with the first template, the model generates the output sequence A1 by sampling from

\[
P(A_1 | \text{PROMPT1, 2-Shot}),
\]

where 2-Shot is prepared using the first template PROMPT1 with the corresponding human-written answer concatenated.

Then, we continue answer generation with the second step, prompting with the second ethical principle <p2> to obtain the second answer A2 using the second template PROMPT2 “On the other hand, according to the principle of <p2>”. Given two-shot training samples (2-Shot), the ethical quandary sample (PROMPT1) and the first generated answer (A1), the model generates the second answer A2 by sampling from

\[
P(A_2 | \text{PROMPT2, A1, PROMPT1, 2-Shot}).
\]

We expect this consecutive prompting to allow the model to incorporate the previous answer A1 when generating A2 so that the overall answer will be more coherent. In the end, the final answer A is obtained by concatenating generations A1 and A2. For instance, in Table 1, the automatic answer from A1SOCRATES to the trolley problem is illustrated. The first two paragraphs are A1 and the last paragraph is A2.

4 Preliminary Case Study

4.1 Distinct Answers Grounded on Different Principles

This preliminary exploration evaluates the model’s ability to generate distinct output answers based on the input principle and context. If irrelevant ethical principles are provided, the answer cannot be correctly generated – for example, the principle “You should avoid telling lies,” is not applicable to the trolley problem. Therefore, to ensure the provided principle is noise-free and context-relevant, principles for this experiment are carefully written and provided by a human.

We select five ethical quandaries available online. For each ethical quandary test sample, two ethical principles (p1, p2) are manually selected and corresponding answers (Ap1, Ap2) are generated with the PROMPT1 described in Section 3.3. Then, the two generated answers for each ethical quandary sample are separately evaluated by a professional philosopher with the following criteria mainly: 1) distinct output answers are based on input principle and context and 2) answers are consistent with the principle inputs.

4.2 Analysis with Philosophical Reference

Based on the analysis with the philosophical reference, the model with few-shot prompt-based learn-
ing can generate different answers based on the ethical principles. Here, we evaluate whether the model generates the expected output based on the provided principle. For instance, given a context, the question “Is XYZ behavior ethical?” can be answered “Yes” and/or “No” depending on the specific ethical principle. The model showed different behaviors most of the time depending on the ethical principles and correctly answers according to the provided principles. On the other hand, we also note cases where the generated answer does not provide a clear yes-or-no answer. Instead, it provides an explanation to address the question of the ethical quandary.

In terms of consistency, most of the answers showed consistency to the input principle. The generated answers show that the model understands the ethical quandary context and links the ethical principle. For instance, for an ethical principle, “A smaller sacrifice is morally justifiable for the greater good,” the corresponding generated answer attempts to elaborate with numerical reasoning to quantify the verbal input “small risk.” Another illustration of the model-generated answer’s consistency is the answer that sticks with its “freedom-first” input principle. It is stated negatively as government should “avoid placing excessive restrictions on their personal freedom”. However, it is noted that the model doesn’t always achieve consistency. Although it can answer based on the input, it sometimes fails when elaborating the rationale/logic based on the input. The answer sometimes discusses the divergent points of concern that the ethical quandary question seeks to resolve, resulting in that the question, the principle, and the answer becoming muddled.

Although the model can generate a distinct answer with some consistency, some weaknesses are investigated. The generated answer begins as being grounded on the input principle but strays further from the topic paragraph-by-paragraph. It is not surprising that the longer the model performs generation, the less relevant its answer gets (losing attention). The model-generated answers sometimes lack relevance and attention to detail. Also, extra information (not necessarily factually wrong) and re-asking and re-answering the question make the generated output redundant in paragraph/writing organization. Understanding the model’s ability in distinct answer generation alongside its weakness in a consistency and logical generation, we investigate the model’s ability to answer ethical quandaries from multiple perspectives with our proposed method in the following experiment.

5 Experiments

We conduct our main experiment to evaluate the ability of AISOCRATES to answer ethical quandary questions from multiple perspectives. We assess the fully automated pipeline version of AISOCRATES by automating the principle provider.

5.1 Experimental Setup

For the experiment, we first split the dataset into train/dev/test (ratio of 80:10:10) sets. Although our method only needs a few samples for learning, we still make it into a full split, so fine-tuning small/medium-sized model methods could also be explored for ETHICAL QUANDARY GQA in the future. We only take two samples from the train split for few-shot learning with our methodology. We then obtain an answer for each of the 130 test samples from AISOCRATES, which is backboned by one of the largest publicly available pre-trained LLMs – Jurassic-1 Jumbo (Lieber et al., 2021) with 178 billion parameters.3

We mainly evaluate the model performance with a human evaluation due to the one-to-many nature of generation tasks. The automatic metric with a reference is often limited in evaluating the desired quality in generations. Moreover, as explained earlier, the ethical quandary question has multiple valid answers depending on the relevant ethical principles. This makes our evaluation more challenging with the automatic metrics. Thus, we need human judgment in the performance evaluation. For completeness, however, we also perform evaluation using the standard automatic metric (ROUGE) and show in Section 6 how there is a poor correlation with human judgment.

Evaluation Criteria

We evaluate the model’s ETHICAL QUANDARY GQA ability with two most relevant metric for assessing the success of the Socratic answer generation:

- Multi-perspective: Answering an ethical quandary question from multiple perspectives is the main aim of our work. The ability to provide more than one point of view to the ethical quandary can be interpreted as the model’s

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3Note that our methodology is model-agnostic although we conducted experiment with Jurassic-1 Jumbo.
Table 2: Win-tie-loss rates (%) for comparison between AISocrates (model-generated) and NYT-Ethicist (philosopher-written) answers for evaluation criteria. Rates are in regard to the model performance against human-written answer. For instance, AISocrates wins 25.38%, ties 44.62%, and loses 18.46% of the time versus the NYT-Ethicist answer while 11.54% of the time neither of them is chosen to have multiple perspectives in the answer.

| Criteria              | Win  | Tie  | Loss | None |
|-----------------------|------|------|------|------|
| Multi-perspective     | 25.38| 44.62| 18.46| 11.54|
| Coherence             | 20.00| 22.31| 50.00| 7.692|

Q2: Can AISocrates compose coherent answers? Not surprisingly, the NYT-Ethicist answers, which are written by moral philosophers, are selected to be more coherent than those from AISocrates half of the time (50.00%). About 42% of the time, the AISocrates answers are still considered coherent – more coherent (18.18%) or as coherent (21.21%) compared to the expert-written answer. This weakness in coherency compared to the multi-perspective criterion can be explained by several factors. As pointed out in the preliminary analysis, the machine generated answers show the weakness of the model losing attention or containing irrelevant or redundant content while building the arguments, even though the answer starts by aligning with the provided principle in the beginning. There is no explicit guidance or learning for improving coherence in the current methodology of AISocrates, except for the provision of coherent examples in the few-shot samples and the consecutive two-step generation rather than two separate generations. This points to potential research on enhancing the reasoning capability of the model.
6 Analysis and Discussion

6.1 Automatic Metric and Model Performance

Besides the human evaluation, we score the generated answer with the automatic metric ROUGE (Lin, 2004) (Table 4) in reference to expert-written NYT-Ethicist answers. We mainly investigate F1-scores to understand how much content of the NYT-Ethicist answers and how much distinct content exists in AISOCRATES’s answers. However, like other open-ended generation tasks (e.g., story generation), the reference-based metric cannot always be the absolute evaluation standard because of its one-to-many nature. Moreover, given that an ethical quandary can be answered with different ethical principles, if the answers from AISOCRATES and NYT-Ethicist do not share the same underlying ethical principles, they would still have low n-gram overlapping while containing multiple perspectives and being coherent.

**ROUGE Scores** It is shown that the ROUGE-2 scores are low, F1-Score of 3.56. This means the generated answers do not contain many bi-gram phrases that overlapping with the human-written reference. Despite the low ROUGE scores, it is hard to conclude that the model-generated answer performs poorly for the task. We further discuss the model performance with human evaluation results in the following. To understand the quality of generated answers, we analyze the generated answers with a low ($\sigma$ ROUGE-1 F1 $-\sigma$) and high ($\sigma$ ROUGE-1 F1 $+\sigma$) ROUGE scores.

**ROUGE and Multi-Perspective** We investigate the relationship between ROUGE scores and the ability to provide multiple perspectives by checking how often the AISOCRATES answers are evaluated to have multiple perspectives. For both generated answers with a low ROUGE and a high ROUGE, 75% of the answers contain multiple perspectives. This shows that ROUGE does not reflect the model’s ability to provide multiple perspectives. We can also investigate that AISOCRATES answers with a low ROUGE provides multi-perspective while NYT-Ethicist answer is single-sided. For instance, in Table 3, the AISOCRATES provides a well-rounded answer with the perspectives “it is okay to do so out of love” and “you should vote for the candidate whom you believe to be better.” It even suggests another way of showing appreciation to the narrator’s mom on her birthday. In contrast, the NYT-Ethicist only suggests “it is okay to do so”. This examines that a low ROUGE score (less overlap with human-written answers) does not necessarily indicate poor performance of the model in answering the ethical quandary. Thus, we cannot gain meaningful performance insights from ROUGE scores for ETHICAL QUANDARY GQA.

6.2 Ethical Quandaries and Multiple Perspectives

Ethical quandary refers to a perplexing situation and or dilemma in the strict sense. An ethical
dilemma is a situation in which any choice involves violating some widely held moral principle. Among various possible desired virtues for “ideal answer” to ethical quandary questions, we seek the virtue of providing multiple perspectives for AiSocrates. This is because we believe discussing the quandary from distinct perspectives is the most robust and safest way to deal with questions involving ethics; ethical judgment is dynamic (Bicchieri, 2005) where what is considered to be “norm” or “right” shifts through time or differs by cultures. By allowing humans to state ethical principles explicitly we also enable controllability and human agency in this task.

However, there may be some quandaries that are not dilemmas in a strict sense – cases where there is some initial puzzlement or doubt but where, upon further analysis, it turns out that there can be one viable answer. Given that ethical quandary test samples from NYT are from the general public, it may be that some of the questions being offered to NYT Ethicist only merits a single responsible answer from an ethicist, regardless of differences in principles one embraces. This may have caused NYT-Ethicist answers to have lower scores than our AiSocrates did, as shown in Table 3.

6.3 Remaining Challenges and Future Work in Ethical Quandary GQA

Strictly speaking, the virtues that are deemed in answers for ethical quandary questions involve more extended criteria other than multiple perspective and coherence. They may include, but not limited to, understanding of context, complex moral common sense reasoning over the context, choices of relevant ethical concepts, deliberation from multiple perspectives, justification of the stances it take and, even more strictly, the style of writing (e.g. composition of paragraphs). In this work, we prioritize on choices of relevant ethical concepts and deliberation from multiple perspectives as our chosen criteria.

Although we weighed multiple perspective and coherence criteria more in this work, other virtues might be sought to answer the ethical quandary. Other challenges are left to address involve better justification and reasoning for Ethical Quandary GQA. Deep common sense moral reasoning is crucial to reach a sound judgment about the complex ethical issues. Furthermore, reasoning capability brings about comprehensibility about the model’s verdict which is a valuable commodity as the model can not be trusted when its decision making process is not transparent. We also have found that the generated answers sometimes seem to have a weak argument with no clear and sound backup. However, improving reasoning and justification in the answers is not trivial because it involves sensible organization and presentation of ideas and the internal relevance of content. It is a nevertheless important research direction.

In discussing ethical quandary, context-specific consideration may be another virtue to be deemed for better Ethical Quandary GQA. The context of the ethical quandary is described in one or multiple paragraphs and hence not simple. We indirectly evaluated the model understanding of the input ethical quandary questions with “multi-perspective” and “coherence” criteria from the preliminary investigation (Section 4) and main experiment (Section 5). Although the overall generated answers are consistent with context and question, it remains unclear if the model understood the context in depth because some generated answers are generic without the details of what is under discussion. Generally speaking, many end-to-end NLP tasks today lack the explicit evaluation of the “understanding” component.

7 Related Work

Machine Ethics and Ethical Question Answering Machine or AI ethics is an important emerging area of research (Hendrycks et al., 2020; Prabhumoye et al., 2020; Schramowski et al., 2021). One line of current work focuses on improving machine understanding of human values and morality (e.g., social norms, ethical judgment) through classification tasks (Forbes et al., 2020; Emelin et al., 2020; Lourie et al., 2021). Delphi (Jiang et al., 2021) is a research prototype to emulate human moral judgments based on training with the large dataset Commonsense Norm Bank, which includes the works mentioned above and other social norm understanding tasks (Sap et al., 2019). Delphi is trained to select “less contentious” choices in dealing with ethical questions or dilemmas. However, Talat et al. (2021) criticized that the model prediction of Delphi is based on average human values or skewed ethical values (western-centric), which is not necessarily the ideal approach and may be dangerous and misleading.
Meanwhile, Hendrycks et al. (2020) proposes classifiers that explicitly provide the ethical perspective to be grounded against moral judgments (e.g., utilitarianism, deontology, etc.). Their work focuses on clear-cut situations instead of ambiguous moral dilemmas. Another line of work studies the reasoning capability with a “mental model” (Gu et al., 2021), but it again concludes with a yes-or-no judgment. In contrast, we attempt to understand the models’ ability to provide an answer in a manner of debate with explanations. This approach can be seen as a Socratic way of dealing with the ethical issues in a deliberative manner, instead of being an oracle to give moral answers based on specific theories as to how traditional philosophers like Plato and Aristotle (Pincoffs, 1971).

Besides NLP and ML communities, the AI system involvement in the human moral decision-making process in an ethical quandary situation has been actively discussed among moral philosophers. Some moral philosophers have suggested a direction where AI systems can be utilized positively and practically in such ethical quandary situations (Savulescu and Maslen, 2015; Giubilini and Savulescu, 2018; Lara and Deckers, 2020; Lara, 2021). They suggest the direction is where the AI system serves as a moral advisor that enhances an individual’s reflective process, so that humans can make better decision-making with a broader perspective while retaining the autonomy of their actions. This aligns with our proposed vision on ethical quandary question answering through AiSocrates, which focuses on providing a multi-perspective for an ethical quandary.

Prompt-based Few-shot Learning with LLMs

LLMs have shown their impressive ability as few-shot learners and enabled much simpler learning through prompt-based few-shot learning even in text-generation tasks (i.e., text summarization and machine translation) (Radford et al., 2019; Brown et al., 2020; Petroni et al., 2019). Explorations in various tasks have been made, including dialogue generation (Madotto et al., 2020), fact-checking (Lee et al., 2021), question answering (Jiang et al., 2020) and others (Reif et al., 2021; Schick and Schütze, 2020; Winata et al., 2021). The prompt-based learning has several advantages, such as SOTA few-shot learning performance and no parameter tuning, but it also has disadvantages, such as the challenge of prompt engineering and its instability (Liu et al., 2021; Schick and Schütze, 2020). The weaknesses of prompt-based learning are addressed in the literature, such as Kumar and Talukdar (2021); Shin et al. (2020); Zhao et al. (2021), which includes potential unsafe or unethical content generation. So far, no prior work has shown that few shot learning can incorporate explicit human values at the instruction level.

8 Conclusion

In conclusion, we proposed AiSocrates for the task of Ethical Quandary GQA, which answers ethical quandary questions from multiple perspectives based on different ethical principles. We first show LLMs’ ability to provide distinct answers to ethical quandary questions through analysis with philosophical reference. According to a philosophical analysis, the model generates distinct answers based on ethical principles in paragraphs, although it sometimes lacks consistency in a generation. Moreover, the full-automatic pipeline (with a model-based principle provider) is studied to understand the upper bound for research purposes, while the design choice of the human intervened model exists to guarantee the existence of agency for the generation. The main experimental result shows that the full-automatic AiSocrates provided multiple-perspective answers for 6.92% more often than answers written by philosophers. Furthermore, the results illustrate that the answers generated from our system still lack coherence and safety compared with philosopher-written answers, which highlights the need for more advanced methods for Ethical Quandary GQA.

9 Ethical Consideration

Since the task of this work involves the topic of machine ethics and machine answers to the human ethical quandary, we pay extra attention to ethical responsibility and the impact of this work. We want to clarify that experiment with full-automatic mode (with automatic principle selection) was an attempt to understand the model’s upper bound for research purposes but was not considered to be deployed for actual application without human agency (i.e., principle provider). Here, our aim is not to generate the most “ethical” answers but to explore LLMs’ ability to provide distinct answers to a single quandary depending on varying ethical principles. It is worth highlighting that AiSocrates should not be considered as an oracle providing a definite answer but as a tool for providing multiple perspectives...
on ethical quandary questions. At the same time, humans still hold autonomy in their actions.

Nevertheless, when using AI technology to deal with ethical issues, it is essential to consider the safety and ethical implications. Letting an AI system answer ethical questions without a human agent can be controversial because it is unclear who takes responsibility for the action or output of the system (Anderson and Anderson, 2007; Cave et al., 2018). Therefore, we design our system to be controllable by humans – i.e., it allows a way for humans to provide explicit ethical principles to guide the system in generating answers. In this way, the principle-provider (human) will be responsible for any potentially unsafe generated output. However, this would be based upon the assumption that the system is infallible in applying the principle(s).

Although our proposed model is not deployed for any real application, it is still worth discussing about the potential user’s responsibility with such a system like AiSocrates. If such application is deployed, at this stage of development, we believe it should be clearly stated that the potential user still has to assess the machine outputs for truth, soundness, and moral acceptability. The user is responsible for what he/she/they chooses to do with the models’ output although the user may not be responsible for the model output itself (in case of fully automated mode). This is because, in case of AiSocrates, it is not intended to give a prophetic answer but challenge user’s thought process with providing multiple perspectives to a quandary situation. This is in line with our Socrates motto: Philosophers today do not read Socrates as an infallible guide, rather read him as someone to challenge and prompt thinking further.

From the preliminary analysis of model generated answer, it is found that the model generated answer contains medical-practical information along with the redundancy or evaluation of the ethical quandary from a legal perspective. Although this setup was with the existence of a human agent (principle provider), there is still ethical consideration we need to take when the final generation involves advice on such sensitive topics. The factually wrong advice on sensitive topics such as medical/legal issues is not acceptable because it can result in severe impacts such as harm to the real users’ physical or mental health or legally unlawful decisions made by the users. An actual potential application of our methodology for handling such safety concerns and the existence of human agency is to provide multiple angles regarding the ethical quandary, allowing the narrator to view their dilemma from different points of view.

Moreover, our assumption throughout the work was that the principles provided in our methodology are ethical principles or rule-of-thumbs that can lead to ethical/non-controversial/non-harmful advice while providing multiple perspectives. However, it should not be overlooked that the model’s ability to generate distinct answers based on different principles has a potential risk. When the “controversial/harmful” principles are intentionally provided to the system, there is a risk of generating corresponding harmful answers. Thus, the deployment of the system for an actual application should be thoroughly reviewed. When we maintain human agency of such a system, humans need to be held responsible for their input.

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A Trolley Problem – Human Principle and Automatic Answer Generation

We provide the answer generated by AISOCRATES with human selected principles answer to the trolley problem – Should we kill one person to save five people in danger of being hit by a trolley?. The two principles are contrasting: one is based on deontological perspective (“Killing is never acceptable.”) and another is based on utilitarianism (“The most appropriate action is the one that achieves the greatest good for the greatest number.”). The answer is provided in Table 6.

B Data Details

We crawled data ranging from 7 May 2006 to 2 November 2021 from NYT Ethicist columns (https://www.nytimes.com/column/the-ethicist), using BeautifulSoup software (https://www.crummy.com/software/BeautifulSoup/). A column page from a date contains two to three pairs of {quandary, answer}. We processed each page to separate those pairs into each sample. The statistics for text length for Quandary and Answer is shown in Table 5.

Table 5: NYT-Ethicist data statistics

|                        | Quandary | Answer         |
|------------------------|----------|----------------|
| # of words / sample    | 120.0 ± 76.0 | 205.8 ± 83.0  |
| # of sentences / sample| 7.1 ± 3.9  | 11.2 ± 4.6     |
| # of data samples      |          | 1,295          |

C Preliminary Case Study – Model Generations

We conducted preliminary exploration to evaluate the model’s ability to generate distinct output answers based on different ethical principles. The relevant ethical principles for each of ethical quandaries are selected by human. The example model generated answers for the case study can be found in Table 7 ~ Table 9.

D Example Generated Answers from AISOCRATES with Automated Principle Provider

We share some of example generated answers from AISOCRATES to test ethical quandary questions.
**Question:** Should we kill one person to save five people in danger of being hit by a trolley?

**Human Selected Principles:**
<p1> Killing is never acceptable.
<p2> The most appropriate action is the one that achieves the greatest good for the greatest number.

**Automatic Answer from AIOCRADES:** You must not. If you have no good reasons to justify killing, you must not. In this case, the attractive features of your proposal — saving the five — don’t outweigh the unattractive features of killing.

On the other hand, according to the principle of “On the other hand, according to the principle of “You should always try to save other people”, You must. Breaking Bad, Season 2, Episode 4: That’s an easy one. Infrequent as trolley problems are, the Principle is a paragon of philosophical clarity when compared to “utilitarianism.” Utilitarianism, the ethical system invented by Jeremy Bentham, is based on a simple premise: good for you, good for me. So if five lives can be saved at the price of one, it is better to save five.

But the Principle prefers self-sacrifice (if you must sacrifice anyone, why not yourself?). It insists that you must always maximize your good for the greatest number of people. That makes killing one person to save five a viable option if the economist’s greatest good for the greatest number test favors it.

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Table 6: Illustration of human selected principles and a corresponding automatic answer generated by AIOCRADES to the trolley problem introduced in introduction. The <p1> and <p2> are principles selected by human. Then, the final automatic answer is generated with a guidance of those two principles as explained in Section 3.3.

Here, the ethical principles are automatically selected by our system and corresponding principle-guided answer is generated. The examples can be found in Table 10 and Table 11.

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E  Model Details

Regarding the two-shots for the prompt-based learning, we use randomly selected samples from the train split. We need to extract the underlying principle of the NYT-Ethicist answer because the original data does not have a written principle on which the answer is based. 2-Shot can be found in Table 12. For model in all experiments in this paper, we choose one of the largest publicly available pre-trained LLMs – Jurassic-1 Jumbo (Lieber et al., 2021) with 178 billion parameters, which is based on the decoder module of the Transformer architecture (Vaswani et al., 2017). We process paragraphs with paragraph tags < p > and </p > at the beginning and end of the paragraph, respectively, so the model can also learn paragraph writing.
I have a question about receiving the Covid-19 vaccine. I work for a hospital, but in an administrative job. I do not interact with patients. I have worked from home since March. I am not at high risk for contracting Covid-19 based on my age, occupation and lack of health issues. I practice social distancing, I wear my mask in the limited situations in which I go out. I live alone and mostly keep to myself and stay home. Because I work for a hospital, I am eligible to receive the vaccine along with people who are 65 and older, medically vulnerable people and corrections officers. If I worked for any other employer, I wouldn’t be eligible to receive the vaccine until the second-to-last or last group of the population, probably not for several months. Is it ethical for me to get the vaccine now?

Principle 1: You should place your own self-interest above the collective interest

Answer based on Principle 1: Yes, it is ethical for you to take the vaccine. It would be unethical for you to be selfish and refuse it.

The question is not whether you “deserve” the vaccine. After all, you work in a hospital, which is on the front lines of this pandemic. The question is whether your personal circumstances, including your age, your work and your isolation, make you so vulnerable that you’d be better off if you got sick. Of course, you might get sick anyway.

That’s why it’s ethical for you to take your chances and to put yourself first. The collective interest is perfectly served by your taking the vaccine. In fact, if you are offered the vaccine, you should accept. Don’t see yourself as taking advantage or being selfish. Instead, think of yourself as helping others. By accepting the vaccine, you will reduce the chances that you’ll become a contagion risk, and thus, you’ll be helping to protect others.

You seem to have internalized the ethic of selflessness. But there is no virtue in letting yourself become a risk to people whose life and well-being depend on you. Take the vaccine.

Principle 2: It is ethical to accept what you are entitled to.

Answer based on Principle 2: It’s fair for you to take what’s offered, assuming you are medically fit.

You’re probably breaking no rules in accepting a vaccine that your employer offers to employees at this early stage of the pandemic. The vaccine is going into production now, and manufacturers may ration it in order to match the limited supply with the demand for it. But hospitals are ramping up production of the vaccine, and it seems likely that others will adopt your hospital’s practice. The vaccine isn’t without risk, but statistically, it’s much safer than the virus itself. (The side effects aren’t trivial, but the risk of those discomforts is far outweighed by the risk of contracting Covid-19.)

In addition, your willingness to take vaccines as they become available may encourage your employer to vaccinate other staff members, making your workplace safer. (Some hospitals are already delaying vaccinations for health-care workers until later in the pandemic.) I expect that many people in your demographic group will volunteer to receive the vaccine in advance of its wider distribution, if they can get it. It’s fair for you to do the same.

Table 7: Illustration of distinct model-generated answers to distinct principles provided.
Along with this ongoing pandemic, mask wearing has been suggested as one of the ways to prevent the spread of virus. In some countries, the mask wearing has been mandatory with strict regulations. But, in some other countries, there is no clear law mandating mass making. However, these different regulations make me confused. I personally think I am healthy enough so I will not in a high-risk even if I get covid. Currently, it is not mandatory to wear mask in where I live. Here is my question. Should I wear a mask?

| Principle 1: Action should be in the best interest of others rather than in one’s self-interest. | Principle 2: Decisions should be based on a person’s rights. |
|---|---|
| **Answer based on Principle 1:** It’s impossible to know whether you have the virus or will become infected, but we do know the virus is highly contagious. Since we don’t know who will get sick, we must act in everyone’s best interest. That means limiting your exposure to the virus, including wearing a mask. Yes, the masks are uncomfortable and inconvenient, but so are sneezing and coughing. It’s not ideal, but it’s what we have to do. In your country, make mask wearing as routine as wearing a seat belt. You may also ask whether wearing a mask will be effective in slowing the spread of the virus. It may, and it certainly can’t hurt. Finally, you ask whether you should be wearing one. You might be wise to wear one. We don’t know what the future will bring, and this virus could mutate, becoming resistant to some protections. Wearing a “good” mask, a respirator, which is much more expensive than a standard mask, is your best protection. If that is cost prohibitive, then wearing a standard mask, and washing your hands frequently, is your next-best option. | **Answer based on Principle 2:** Wearing a mask should be an individual decision, not a collective one. The Value doesn’t provide a moral or practical basis for making public health decisions for other people. Consider the rules that New York City established for masks. The city required face masks for everyone on public transit. It also required some stores to close, some businesses to limit their hours, some employees to stay home, and other employees to wear masks. Many people objected to these regulations. They argued that masks weren’t necessary, and that even if masks did provide some protection, that might have a dire economic effect on the city. Many people also argued that even if wearing a mask was a good idea, it wasn’t necessary for everyone in the city. The Value doesn’t contradict any of these objections. Instead, it says, “Decisions should be based on a person’s rights and on the assumption that each person acts rationally.” That’s why, according to the Value, wearing masks should be an individual decision, not a collective one. The Value doesn’t provide a moral or practical basis for making public health decisions for other people. For example, someone might think that the Value allows them to be selfish. That’s certainly true. A person who believes that masks are unnecessary can choose to not wear one. Others might believe that masks are a good idea. That’s also true. A person who believes a mask will help prevent infection can choose to wear a mask. |

Table 8: Illustration of distinct model-generated answers to distinct principles provided.
In many countries and regions across the world, the initial response to the massive health risks posed by COVID-19 has been the institution of lockdown measures. Although they vary from place to place, these measures all involve trade-offs between ethical goods and imperatives, imposing significant restrictions on central human capabilities—including citizens’ ability to work, socialize, and access education—in the name of protecting population health. Is this measure ethical?

**Principle 1:** A smaller sacrifice is morally justifiable for the greater good.

**Answer based on Principle 1:** Ethically speaking, there’s only one choice here. Yes, it’s justifiable, even admirable as an emergency measure. This pandemic is spreading so rapidly that it’s creating suffering on a vast scale, and that suffering is among the most abhorrent of all possible harms. Hence, we must balance the imperative of saving lives now (the ethical good) against the pain and inconvenience that lockdown measures inflict on people who have to work, socialize, exercise democratic rights, and so on (the ethical impact), and use the most severe measures available to spare more lives. If that means imposing hardships on some people for the greater good of protecting millions of others, there’s no moral issue. Leaving aside any questions about democratic rights, there simply aren’t any moral issues here. (It is important to note, however, that these measures should be temporary. We shouldn’t impose this degree of hardship on any people indefinitely.)

I’ve discussed these questions with people in many countries, and I’ve noticed that people tend to regard the measures taken by their governments as the most stringent and intrusive—even cruel—relative to what others elsewhere are forced to endure. Whatever one thinks of them, though, the most stringent measures are justified and ethically acceptable.

**Principle 2:** Individual’s freedom should be considered as the top priority.

**Answer based on Principle 2:** It’s not; but let’s not grade on a curve. Anticipatory lockdowns, imposed before the virus’s spread is in full view, are notoriously tricky. But the ethics of such measures aren’t made any easier by two factors: First, the countries imposing the lockdowns—mostly democratic, in the developed world—have endured decades of ideological warfare against the state’s capacity to protect population health, in the name of individual freedom. And second, the restrictions are imposed initially in those countries’ poorest neighborhoods and least-educated communities.

The U.S. government has enacted a federal moratorium on evictions, mortgage foreclosures, and utility disconnections, and many states and cities have followed. The aim is to prevent evictions of those with low incomes, many of whom are also nonwhite. (For what it’s worth, it also targets the provision and dissemination of medical care.) But notice that, in addressing the needs of those already afflicted, the measures can pit the population’s well-being against its material interests.

Are these trade-offs justified? It’s unclear. But it’s telling that, in order to justify them, the government must stress the coercive nature of its authority.

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Table 9: Illustration of distinct model-generated answers to distinct principles provided.
**[Ethical Quandary]** My stepson is married with two young children. In the last few years, he has become addicted to opiates and lost his job. We have tried to help with an intervention and rehab, but he chose not to take it seriously, and relations have become strained. He and his family receive help from his mother to keep their home. His father and I pay only for certain expenses for the children that can be paid directly by us and cannot be cashed in by their parents. Through all of this, our daughter-in-law has not told her parents about the situation. She says it won’t do any good. My guess is that she feels that they will judge her for making poor life decisions, complicating relations between them and her husband. My husband and I waffle on whether we should tell them ourselves. We barely know them, and I have no sense of how they will react. We all have the shared concern for the grandchildren’s well-being, and I feel they have a right to know that it is in jeopardy. However, I can also see the argument that it is not our story to tell. Beyond that, I am also trying to decide if the fallout from making this kind of revelation without permission would be worth it.

Automatically Selected Principles by AIsocrates:

1. It is good to try to help family members who have drug problems.
2. It is unethical to break confidentiality without the permission of the other.

**AIsocrates (Model Generated Answer):** You are right that this concerns the whole family. You also seem right that you should not invade others’ privacy without their consent. (Your stepson’s mother-in-law’s preference for secrecy is at least understandable.)

However, there is a principle at stake here, one that applies in many families: Beyond the parents’ responsibility to provide for the children, they also have the obligation to act as a unit. This means the parents, as a unit, should address a serious problem in either the parents’ or the older children’s lives, for which one of them is responsible. They have the obligation to help, not just as individuals, but as a unit, so that as many people as possible can solve the problem (or at least offer their support). This would be true even if the parents were fundamentally opposed to the other’s behavior.

You should address the issue to your daughter-in-law if she feels the need, but she is not obliged to tell you anything. On the other hand, we can look into the situation with an ethical principle of “It is unethical to break confidentiality without the permission of the other.” In this situation, you would have to violate both principles. Bringing the problem to the attention of the parents without first discussing it with your daughter-in-law would violate the ethical value. And even you still need to ask, not assume, that she would wish her parents to know.

In such cases, it is rarely possible to respect both (and it’s rare that both principles would apply). You should probably keep your actions within the acceptable limits, which means discussing the issue with the daughter-in-law first, and only if that seems ineffective, then contacting her parents. (You might want to ask your own parents for advice. Should they ever find themselves in this kind of position, they will likely want to tell you.)

**NYT Ethicist (Human Philosopher-written Answer):** Because you’re not close to your in-laws, they’re not entitled to expect you to tell them things your stepson and his wife don’t want them to hear. If he is a drug abuser and she is enabling him, though, neither may be a very good judge of the situation. Let your concern for your grandchildren be your guide. Suppose, after further discussion with your daughter-in-law, you decide that your stepson’s best chances for dealing with his addiction depend on concerted action by the in-laws as well as by you and your husband. Then you might want to go ahead and inform the in-laws, for the sake of your stepson and of his wife and children. When people’s judgment is addled by addiction, their right to control information can be trumped by their best interests.

Table 10: An illustration of the generated answer by AIsocrates with automatically selected principles to an ethical quandary question test sample and its corresponding answer from NYT Ethicist (human-philosopher).
I’m a social worker in the adoption field. A woman who surrendered her infant decades ago asked me for information about the child, and I gave her as much as I legally could, which is not very much. (New York is a closed-records state.) Two days later, I picked up a magazine with an article about someone I recognized as this woman’s child; the article mentioned the birth name, which was given by the woman I spoke to. What can I do? The birth mother knows what she named her child but may never read this particular article. I would never reveal confidential identities, but does pointing her toward a published piece carry the same weight?

Automatically Selected Principles by AI Socrates:

1. The social worker should consider what would happen to the noncustodial birth parents and the children if this information was made public.
2. It is immoral to withhold the truth from your clients.

AI Socrates (Model Generated Answer): You’re correct in identifying a (admittedly) gray area in the ethical code. In your situation, divulging this identity would be a breach of confidentiality, but not illegal. Imagine how the birth mother might feel if inadvertently she came across this article. In such a case, you might explain to her that you were trying to help, that you were aware of the article and hoped she’d be able to maintain contact with her birth child.

From a different point, you should inform her immediately about the article. Though she may not be as upset as you think she’d be, it would be her right to know. Neither this woman nor her child should ever feel they have been misled by the adoption or by the adoption agency.

You may worry that telling the woman about this article is a breach of confidentiality and even of trust, and because this woman entrusted you with her child many years ago, that is a valid concern. But secretly violating the only ethical rule you were taught is dangerous; it may lead to others. And it will likely take a personal crisis to force you to confront whether your commitment to your profession has outweighed its requirements. This woman must not go on living with the painful possibility that something terrible has happened to her child simply because you didn’t want to violate an arbitrary rule.

NYT Ethicist (Human Philosopher-written Answer): I don’t see an ethical problem with calling this woman and saying: “As a social worker, I am restricted by the state of New York in terms of what I can do to help. As a citizen of the world, however, I advise you find the most recent issue of XYZ magazine. There is an article on Page XYZ that may be of interest to you.” I haven’t seen the article in question, but I assume the adopted party is an adult who’s open to learning about his or her biological parents. (Otherwise, why mention the detail of the birth name to a reporter?) The situation would be more complicated if you saw this article as an extension of your job (if this were a trade publication for adoption specialists, say), as that would bring professional ethics into play. But it sounds as if you happened to read this magazine as a regular media consumer. You would not be helping this woman as a social worker; you would be helping her as an informed person who coincidentally learned something she wants to know.

What I see here is an aging mother who wants to find her biological offspring and an adult child who has publicly expressed interest about where he or she came from. You are in the unique position to make that happen, using information that’s in the public record.

Table 11: An illustration of the generated answer by AI Socrates with automatically selected principles to an ethical quandary question test sample and its corresponding answer from NYT Ethicist (human-philosopher).
Question: Our small community of perhaps 60 homes lacks adequate fire protection. Equipment could arrive within 45 minutes, so some feel we should purchase our own. Only 15 homeowners have agreed to this. Should the need arise, must we provide this equipment to those who did not share in its purchase? Principle: You have to share facilities with others to ensure the safety of a greater number of people. Answer: According to the Principle, you must. You would accept help from people 45 minutes away. How can you deny it to your neighbors? If you turn your fancy new hose on a nonpaying neighbor’s burning house, he is a free rider, exploiting your prudence. If you refuse, you are coldhearted. Either way, this privatized approach to mutual hazard will end in tears. That’s why much of the world has abandoned it in favor of community-wide solutions. For example, in London after the Great Fire of 1666, insurance companies formed private fire brigades to protect the property of paid subscribers, who marked their buildings with that company’s ensign. The results were predictably grim, and London moved toward publicly financed municipal fire brigades. Even if you were indifferent to a neighbor’s misfortune, you should recognize that his flames can threaten your roof. (And his cries of anguish can disturb your sleep.) If there is no political structure in place to allow a binding vote in your community and assuming your neighbors can afford to pay their share, try this temporary fix: After extinguishing a noncontributor’s conflagration, bill him “heavily” for your services. In fact, if he’s around when his place bursts into flames, demand payment in advance, before you uncoil your hoses, as a civics lesson for the entire community.

Question: My husband and I have been together for many years and have a teenage daughter; he also has a daughter from a prior relationship, who is a grown woman. He is a wonderful father to both. He has covered all my stepdaughter’s expenses from childhood, and her education, including living expenses and vacations. We are not rich but have a good income. He is the main breadwinner. I have no assets or savings myself. Our house was his property when we met, and it remains his main asset. His will stipulates that I can live in the house until my own death if he dies first, but only his daughters actually inherit it. I hope my husband will live another 100 years, but should he die tomorrow, our daughter would have to sell her half of the house to afford the excellent, carefree education her sister is still receiving. My pension would be insufficient, and I wouldn’t be able to find a job that would allow me to support her. In addition, selling the house to provide for our daughter’s education would leave me homeless. When I try to discuss this with my husband, he gets extremely angry. He has even said that for our daughter to have to sell her part of the house would be O.K. I disagree. I would like to create a trust fund or something similar so that if anything happens to him before our daughter reaches full independence, she can have an excellent education while preserving her inheritance. Am I missing something, or would this be the fair thing to do? Principle: It is important to have contingency plans which consider each family member’s welfare. Answer: According to the Principle, preparing for your own death can be unappealing, and your husband’s response, though unhelpful, isn’t unusual. Still, it’s irresponsible not to plan for these contingencies, whether with life-insurance policies or trusts or other arrangements. It’s also a good idea to have a clear understanding with the children as to what the arrangements are. You certainly shouldn’t be placed in a situation where you must choose between your daughter’s welfare and your own. Ask your husband to come with you to discuss these issues with a competent lawyer, and try to reach some consensus on how to plan for this situation. You might even propose couples counseling if he continues to resist. This will, no doubt, make him angry, too. But it will show that you’re serious about settling this properly. Though facing mortality is hard, we don’t buy time by making our deaths especially inconvenient to our loved ones.

Table 12: Illustration of Shot2 used for prompt-based few-shot learning. The training samples are all from New York Times Ethicist columns. The principle is manually selected by human. We process paragraphs with paragraph tags \(<p>\) and \(</p>\) at the beginning and end of the paragraph, respectively, so the model can also learn paragraph writing.