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# Reasons-based moral judgment and the erotetic theory

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## 1 Introduction

Many parents of small children understand that, at bedtime, it is unwise to ask, “Do you want to brush your teeth?” The common refrain is, “No!” It is better to ask, “Which do you want to do first: brush your teeth or put on your pajamas?” This is because questions determine a set of possible answers. The first question provides the pair {yes, no}, whereas the second question provides the pair {brush teeth, put on pajamas}. The child may fail to process reasons not to engage in either suggested bedtime activity if the latter question is seriously taken on board. Instead, the child is more likely to only consider reasons that support one of the suggested options.

Of course, the second question could be answered obliquely: “Neither. I want to keep playing.” That sort of response is surely familiar to parents. Note, however, that producing it requires the child to recognize that a given decision question does not exhaustively capture a given choice scenario (“making a fuss” is always an additional available choice). In other words, it requires a certain kind of inquisitiveness (wondering what other known possible actions are implicated) and a certain kind of creativity (recalling such possibilities). Fatigue probably inhibits both, which may be why parents find that the question-ploy sometimes works.

This way of modeling how people decide, centered on questions of *what to do* and on practical reasons used to answer those questions, differs from a traditional model in the social sciences, according to which all outcomes are assigned a value in some common currency, for example, utility, attractiveness, or repulsiveness, and the agent then enacts whatever action is expected to result in the outcome with the highest value. Such a “numerical optimization” model of practical decision-making can be normative or descriptive, both in non-moral and moral domains (von Neumann & Morgenstern 1947, Kahneman & Tversky 1979, Greene 2013). Either way, according to numerical models, practical decision-making is a matter of maximizing some variable, not of deliberating about practical reasons.

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Our contention in this paper is that we are not all that different from the children in our opening paragraph. Adults, too, typically make practical decisions by considering a finite set of alternatives delineated by a practical question that neither represents all options known to be available nor all known consequences of those options. They then consult practical reasons that count in favor of or against the alternatives as they happen to be conceived in the decision question. Furthermore, in their deliberations, people tend to process only those reasons that directly answer the question at hand. This may make people ignore the extent to which reasons can indirectly bear on their decision. For example, a reason to *avoid* something is not directly relevant to a question as to *what to do*, but may well become relevant if there remains only one option we do not have reason to avoid. While it is possible to reframe a practical question to take these factors into account, doing so may require inquisitiveness and creativity, and in many instances people do not exercise these intellectual capacities. We will focus specifically on deontic moral judgments about practical dilemmas, showing that the moral question people are prompted to ask (“What’s obligatory?” versus “What’s impermissible?”) interacts with the availability of reasons that directly answer that question to produce characteristic patterns of moral judgment. On a view on which we assign numerical “goodness” values to outcomes and treat moral judgment as an optimization over such values (a moral “alarm bell” attaching to bad outcomes being a simple version of such a view), such patterns are hard to explain. Yet, these patterns are not surprising if we take a reasons- and questions-based view of moral judgment.

We will extend to the moral domain empirical arguments for the claim that decision-making is reasons-based (Shafir 1993; Shafir, Simonson, & Tversky 1993). We will then extend to the moral domain a particular reasons-based decision framework that focuses on the idea that we encounter decisions as questions to be answered and that we process reasons to the extent that we can see them as putative answers to those questions (Koralus and Mascarenhas 2013, Parrott and Koralus 2015). The core of this framework applies to reasoning and decision-making more generally, so we find ourselves in agreement with Cushman & Young (2011), who argue that moral judgment is not *sui generis*, but of a piece with non-moral judgment.

Discourse about morality in terms of reasons is standard in philosophy (Parfit 2011, Smith 1992, Scanlon 2014). Of course, the fact that reflective discourse about decisions is couched in terms of reasons does not show that actual decisions are made based on reasons. Indeed, verbally reported reasons are often a poor guide to behavior, both in moral and non-moral domains (Nisbett & Wilson, 1977; Haidt, Bjorklund, & Murphy 2000). Results of this nature have contributed to pessimism about reasons as an explanatory framework. We contend that this pessimism is exaggerated. For comparison, consider sentence structure and grammaticality. A native speaker of a language has intuitive notions of how various parts of a sentence structurally relate to each other. Naturally, those intuitive notions will not amount to a robust predictive theory even of this speaker’s own grammaticality judgments, but this fact is not a good reason to conclude that syntax does not underlie those judgments.

## **2 Choices with reasons *pro* and *contra***

There are strong *prima facie* reasons not to abandon reasons. We intuitively think and talk about reasons when we are facing difficult decisions, and it seems that the reasons offered to us can make a systematic difference to our actions. Otherwise, it would be hard to make sense of the workings of courts and various other complex institutions, including science and philosophy. We may have to give up the idea that a reason that is governing an agent's choice has to be easily articulable by that agent, but that does not force us to give up on reasons altogether. Shafir, Simonson, and Tversky (1993) argue that we can study reasons through scenarios that might cause decision-makers to call-up different sets of reasons depending on how a choice is presented, while keeping the objective choice scenario the same.

For example, suppose you are on a jury considering a sole-custody case between two parents following a divorce. In this case, awarding sole custody to parent A and denying sole custody to parent B amount to the same objective choice. If our choice is directly driven by our intuitive reactions to the parents A and B (e.g. "Yay!" or "Boo!"), it should not matter whether we are asked to consider which parent to *award* custody versus which parent to *deny* custody (since awarding to A is tantamount to denying B, and vice versa). On the other hand, Shafir et al. argue, if we make decisions based on reasons, asking us which parent to award custody might lead us to make a decision based on a different set of reasons than we would have considered if we had been asked which parent to deny custody.

Shafir (1993) presented two groups of participants with the following vignette, where one group only saw the "award" question and one group only saw the "deny" question.

Imagine that you serve on the jury of an only-child sole-custody case following a relatively messy divorce. The facts of the case are complicated by ambiguous economic, social, and emotional considerations, and you decide to base your decision entirely on the following few observations. [To which parent would you award sole custody of the child?/Which parent would you deny sole custody of the child?]

Parent A:        average income  
                     average health  
                     average working hours  
                     reasonable rapport with the child  
                     relatively stable social life

Parent B:        above-average income  
                     very close relationship with the child  
                     extremely active social life  
                     lots of work-related travel  
                     minor health problems

In the *award* condition, 64% of participants awarded custody to parent B (36% to parent A), while in the *deny* condition, 55% denied custody to parent B (45% to parent A). In terms of objective outcomes, the proportions of award and deny decisions for parent B should sum to 100%. But they do not ( $64\% + 55\% = 119\%$ ). Shafir (1993) replicated the

same pattern with various economic and political choices. He proposes that what explains this pattern is that parent B offers both good reasons to award custody (higher income, close relationship) and good reasons to deny custody (extremely active social life and lots of work-related travel). By contrast, parent A offers no compelling reasons to award or to deny custody. Shafir argues that this tendency can be explained if we assume that the decision process is driven by reasons, since the *award* and *deny* conditions plausibly let different reasons be operative on our decision (we will discuss further below why this might be the case).

### **3 Experiment 1: Moral judgment with reasons pro- and contra**

We investigated whether the pattern of decision-making just discussed would also apply to moral judgment. Intuitively, if you are presented with a pair of exclusive and exhaustive options for action, as in the scenarios below, then you are *morally committed* to one of those options if and only if you either hold it to be morally obligatory to perform that action or you evaluate the sole alternative as morally impermissible. We examined the extent to which there is a discrepancy in moral commitment in this sense, depending on whether the decision-question concerns what is morally obligatory or what is morally impermissible.

#### *3.1 Methods*

Procedure: 812 mTurkers (average age 33, 474 male, 295 female, 3 other, 6 decline to state) were randomly assigned to one four conditions. They received \$0.25 for their participation and were given as much time as they needed to complete the experiment.

Materials: In the *obligatory 1* condition, participants were shown the following vignette:

Imagine that enemy soldiers have taken over Jane's village. They have orders, under threat of execution from their officer, to kill all remaining civilians. Jane and some other townspeople have fled to the hidden cellar of a large house. Outside, they hear the voices of soldiers who have come to search the house. Jane's baby begins to cry loudly, threatening to alert the soldiers. She covers his mouth to block the sound. Imagine that only two courses of action are available to Jane. There are various ambiguous social and emotional considerations, but you want to decide which course of action is **morally obligatory** for Jane to do, based on the information you have. Please select what it is **morally obligatory** for Jane to do.

- It is **morally obligatory** for Jane to do the following. Keep her hand on the baby's mouth:
- Saving the townspeople hiding in the basement from certain death
  - Preventing the soldiers from having to carry out their terrible orders
  - Using her child as a mere means for the benefit of others
  - Smothering her own child to death
- It is **morally obligatory** for Jane to do the following. Remove her hand from the baby's mouth:
- Allowing Jane to feel she is not personally physically harming anyone
  - Jane is respecting the baby's bodily integrity
  - The baby will continue making noise
  - The soldiers will carry out their orders

In the *obligatory 2* condition, participants were shown the same vignette, except with the order of the two options reversed. The *impermissible 1* and *impermissible 2* conditions used the same material as the *obligatory 1* and *obligatory 2* conditions respectively, except with all occurrences of “morally obligatory” replaced by “morally impermissible”. This was followed by a question about their age and gender, as well as the free-form question “Do you have any thoughts about the question we posed that you would like us to know about (optional)?”

### 3.2 Results

We wanted to make sure that whatever effect was observed would not be due to people judging that both courses of action from a pair of exclusive and exhaustive possibilities were obligatory or that both were impermissible. Similarly, we wanted to exclude effects due to people who might think that neither of the actions was impermissible or obligatory. Six participants who selected “morally impermissible” for neither action and 18 participants who selected both actions as “morally impermissible” were excluded from further analysis, as were 10 who selected both actions as “morally obligatory”. Next, each free-form response immediately following the main question in the experiment was coded for whether it contained evidence that the participant thought other courses of action were open to the protagonist, or that the participant thought that the options were not jointly exclusive and exhaustive. Such answers are indicative of the kind of moral curiosity and creativity described above. Only 22 responses of this kind (2.7%) were found and excluded from the main analysis.

In the obligatory condition, ~73.8% (averaged presentation order conditions) of participants took keeping the hand on the baby’s mouth to be morally obligatory, while only ~53.2% of participants in the impermissible condition evaluated removing the hand

to be morally impermissible. In other words, there was a ~20.6% discrepancy between conditions concerning the number of participants who were morally committed to smothering the baby. The difference in moral commitment to smothering the baby was significant both for the order of *obligatory 1* displayed above (Mann-Whitney U Test,  $Z=3.9027$ ,  $p < 0.0001$ ) and for the reversed order ( $Z=3.118$ ,  $p < 0.002$ ). There was no significant order effect within obligatory and impermissible conditions.

	Morally obligatory?	Morally Impermissible?
Keep hand on mouth	<b>73.8%</b>	46.8%
Remove hand from mouth	26.2%	<b>53.2%</b>

Table 1: Experiment 1 Results (averaged for both action orders)

We then compared these results with the raw data set, including those participants who selected both options or neither option in their respective conditions, as well as those participants who had written comments suggesting that they thought Jane had a third option or that they found the response categories too restrictive in some way. There was no significant difference for either condition between the raw and the more restrictive datasets.

### 3.3 Discussion

We found that moral judgments about obligatory and impermissible action follow a similar pattern of reasons-based choice as that documented in Shafir (1993). There was no evidence that this was due to some indirect effect based on unintended interpretations of the scenario, as there was no significant difference in response patterns depending on whether participants who thought that there were “third” options or thought that both actions could be impermissible/obligatory were included in the analysis.

## 4 Experiment 2: Moral judgment with modulated reasons pro- and contra

In experiment 2, we wanted to determine whether the intuitive strength or emotional salience of the reasons listed under a particular course of action would affect people’s moral judgments of them. Prominent “dual-process” frameworks for moral decision making suggest that people will typically not choose an option associated with negative emotional content, which functions as a kind of moral “alarm bell” (Greene 2008; see also Haidt & Bjorklund 2008; Greene 2013). By contrast, according to the reasons-based model we propose, even strongly negative emotional content will often not be processed if it does not serve as a direct answer to the moral question at hand. As a result, the discrepancy effect observed in experiment 1 should not depend on which option is described in more emotionally salient terms.

### 4.1 Methods

We used the same “crying baby” moral dilemma, leaving the extensional facts of the case essentially the same, but now highlighting weaker reasons for and against the “keep hand on baby’s mouth” option and more strongly worded reasons associated with the “remove

hand from baby’s mouth” option. 814 participants completed the survey on mTurk. As in experiment 1, there was an *obligatory* and an *impermissible* condition, each with two orders (each participant only seeing one order in one condition). The new vignette was as in the below example.

Imagine that enemy soldiers have taken over Jane's village. They have orders, under threat of execution from their officer, to kill all remaining civilians. Jane and some other townspeople have fled to the hidden cellar of a large house. Outside, they hear the voices of soldiers who have come to search the house. Jane's baby begins to cry loudly, threatening to alert the soldiers. She covers his mouth to block the sound. Imagine that only two courses of action are available to Jane. There are various ambiguous social and emotional considerations, but you want to decide which course of action is **morally obligatory** for Jane to do, based on the information you have. Please select what it is **morally obligatory** for Jane to do.

- It is **morally obligatory** for Jane to do the following. Keep her hand on the baby's mouth:
  - The baby will stop breathing
  - The townspeople will remain in the cellar
  - The soldiers will not enter the house
  - The baby will not make noise
- It is **morally obligatory** for Jane to do the following. Remove her hand from the baby's mouth:
  - Protecting her baby's right to breathe
  - Refusing to smother her own baby to death
  - The townspeople will be murdered
  - The soldiers will commit a war crime

#### 4.2 Analysis

44 participants who either selected no option, more than one option as impermissible or obligatory, or who wrote that they thought a third option would be available or wrote in some way indicating that they refused the terms of the vignette, were excluded from further analysis. This left 770 participants for the main analysis.

Aggregating both presentation orders, in the *obligatory* condition, 70% of participants judged keeping the hand on the baby’s mouth to be obligatory, while only 57.2% of participants judged removing the hand to be impermissible, yielding a discrepancy of 12.8% (Mann-Whitney,  $Z=3.12041$ ,  $p<0.00181$ ). We compared “obligatory to keep hand on mouth” and “impermissible to remove hand” judgments between experiment 1 and 2 and found no significant difference.

	Morally obligatory?	Morally Impermissible?
Keep hand on mouth	<b>70%</b>	42.8%
Remove hand from mouth	30%	<b>57.2%</b>

Table 2: Experiment 2 Results (averaged for both action orders)

### 4.3 Discussion

Experiment 2 showed the same effect as experiment 1. The vignette in experiment 1 described the option of keeping the hand on the baby's mouth in emotionally salient terms ("Certain death," "terrible orders," "mere means," "death"), and the option to remove the hand in fairly neutral terms ("physical harm," "bodily integrity," "making noise," "orders"). Experiment 2 reversed this pattern, describing the option to keep the hand on the baby's mouth in emotionally salient terms ("stop breathing," "remain in cellar," "not enter," "not make noise") than the option to remove the hand ("right to breathe," "smother own baby to death," "murder," "war crime"). However, the discrepancy effect stayed virtually the same. This suggests that merely making a course of action more salient by highlighting more emotionally salient *pro*- and *contra*-reasons does not drive the discrepancy in judgment.

## 5 Experiment 3: Beyond harm

In experiment 3, we sought to address two questions. First, we wanted to see whether the pattern we observed with the "crying baby" case would generalize to other moral dilemmas with different sources of moral considerations. Previous work has shown that moral judgment may not be a unified cognitive phenomenon once we distinguish different sources of moral violations, such as physical harm, dishonesty, or moralized disgust (Parkinson, Sinnott-Armstrong, Koralus, Mendelovici, McGeer, & Wheatley 2011). Second, we wanted to see whether the discrepancy effect depended on providing reasons for the options as well as questions. Could asking participants to judge whether an action in a moral dilemma case is obligatory or impermissible itself be enough to generate a discrepancy, or does the effect depend on an interaction between questions and reasons offered as putative answers?

### 5.1 Methods

Taking this into account, we used six moral dilemma cases involving different sources of moral concern:

- 1) "Plea for pardon," involving a dilemma between overly harsh punishment and no punishment for a crime;
- 2) "rescue cheat," involving a dilemma about helping a friend avoid unfair expulsion by cheating;
- 3) "medical infidelity," involving a dilemma about sleeping with a bureaucrat to obtain an organ transplant for a spouse;
- 4) a "crying baby" dilemma similar to the previous two experiments;
- 5) "disruptive child," involving a dilemma about inflicting pain to stop disruption; and
- 6) "ultimatum," involving a dilemma about accepting an unfair offer in the ultimatum game.

1541 participants completed the survey on Amazon mTurk. Each participant was given six dilemma cases in one of the following four conditions, illustrated with the "plea for

pardon” case. The order of presentation of the options was randomized and balanced across the experiment. The rest of the protocol was as in experiment 1.

#### Condition 1: Obligatory with reasons

Governor Cooper is presented with a plea for pardon concerning an 18-year old delinquent, Mary. She is about to be sent to prison for a crime that deserves a five-year prison term, but she was sentenced to a 30-year prison term, and has exhausted all of her rights of appeal. Cooper can either grant a pardon, which means that Mary goes Scot free, or deny the pardon, which means that Mary will go to prison for 30 years. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Governor Cooper to follow, based on the information you have. Please select what it is morally obligatory for Governor Cooper to do.

It is **morally obligatory** for Cooper to grant the pardon:

- Making Mary’s family happy
- Being involved in what is happening in his State
- Being lenient
- Making the prison less crowded

It is **morally obligatory** for Cooper to deny the pardon:

- Ensuring that crime does not go unpunished
- Respecting the judgment of the court
- Destroying a young woman’s life
- Allowing the justice system to appear unduly harsh

#### Condition 2: Impermissible with reasons

Same as condition 1, except substituting “morally impermissible” for “morally obligatory.”

#### Condition 3: Obligatory no reasons

Same as condition 1, except without the four lines of “reasons” under each option.

#### Condition 4: Impermissible no reasons

Same as condition 2, except without the four lines of “reasons” under each option.

The exact wording of the other vignettes is provided in an appendix.

### *5.2 Analysis*

Using the same exclusion criteria as in experiment 1, 212 participants were excluded from the main analysis, leaving 1329. As expected, the number of excluded participants

was somewhat larger as before, since a greater number of vignettes provided a greater number of opportunities to give responses that would lead to exclusion. Discrepancy data comparing conditions 1 and 2 is summarized in Table 3. Four out of the six vignettes yielded a discrepancy that was significant.

	Option 1 morally obligatory	Option 2 morally impermissible	Discrepancy
Plea for pardon	75.4%	56.3%	19.1%*
Rescue cheat	14.9%	37.2%	22.3%*
Medical infidelity	32.5%	39.2%	6.7%
Crying baby	61.7%	52.4%	9.3%*
Disruptive child	70.2%	56.3%	13.9%*
Ultimatum game	50.6%	51.5%	0.9%

Table 3: Conditions 1 and 2 compared (\*denotes discrepancy significant at least at  $p < 0.05$ )

Interestingly, there was almost no discrepancy between conditions 3 and 4. None of the discrepancies were significant (the “crying baby” case discrepancy was closest with  $p < 0.08$ ). The data are summarized in Table 4.

	Option 1 morally obligatory	Option 2 morally impermissible	Discrepancy
Plea for pardon	71.3%	74.8%	3.5%
Rescue cheat	14.6%	15.8%	1.2%
Medical infidelity	23.9%	28.3%	4.4%
Crying baby	63.2%	55.3%	7.9%
Disruptive child	63.8%	62.1%	1.7%
Ultimatum game	53.4%	55.9%	2.5%

Table 4: Comparing conditions 3 and 4

### 5.3 Discussion

The results of experiment 3 show that the pattern of experiments 1 and 2 is visible in a broad range of types of moral dilemmas, including dilemmas related to justice, cheating and friendship, killing, and disciplining a child. Interestingly, there was no significant discrepancy if no reasons were provided alongside the questions, as in conditions 3 and 4.

## 6 Toward an explanation of reasons-based judgment patterns

In order to explain the patterns of judgment observed in these three studies via reasons-based decision making, we need some hypothesis about how “choosing” versus “rejecting,” or finding something “impermissible” versus “obligatory,” affects the process. Shafir, Simonson, and Tversky (1993) suggest a number of turns of phrase to try to make sense of this, which we can use as a starting point. One suggestion from Shafir et al. is the following:

We propose that the positive features of options (their pros) will loom larger when choosing, whereas the negative features of options (their cons) will be weighted more heavily when rejecting.

Taken flat-footedly, being “weighted more heavily” could just be taken to mean “having a bigger impact” on the decision-making process at hand. However, this would not obviously be an advance beyond restating the empirical results. On another way of taking it, people modulate the priorities that they assign to features of actions, such as smothering children or saving innocent villagers from certain death. If this were the case, one should be able to find evidence of a shift in priorities on some other independent measure. Perhaps one could ask people a pop-up question regarding how relatively bad they find smothering or failing to save innocents. However, we find it implausible that such a shift takes place.

Shafir et al. also offer another turn of phrase that might point toward an alternative explanation of how different decision-questions matter:

To the extent that people base their decisions on reasons for and against the options under consideration, they are likely to focus on reasons for choosing an option when deciding which to choose, and to focus on reasons for rejecting an option when deciding which to reject.

The idea here seems to be that the decision question shapes what reasons we focus on. On one way of construing that notion, we would say that, for example, asking whether some course of action is impermissible (as opposed to obligatory) changes which reasons are attentionally salient to us in deliberation. The salient reasons then have a comparatively greater chance of impacting our decision.

In the case of the experiments we report in this paper, the attentional salience account seems inadequate. Between experiment 1 and 2, we varied which option was described in strongly emotionally arousing ways. Emotionally arousing, particularly unpleasant, stimuli attract attention (Schimmack et al. 2004), so we would expect that the option with a more emotionally arousing description would have an independent effect on the extent to which participants are attracted to it. However, there was no significant difference (see the analysis of experiment 2) in judgments depending on whether salient words like “murder” were attached to the first option or the second option. This suggests that what is responsible is not an attentional salience effect. The results of experiment 3 suggest that being in an “obligatory” versus an “impermissible” frame is also not enough to drive the effect. After all, if no reasons were provided, there was no significant discrepancy.

It appears that what is required is both a difference in questions (obligatory? / impermissible?) and the presence of suggested reasons that might serve as answers to those questions. Depending on the question that is being asked, some reasons simply are not processed as putative answers, regardless of how strongly those reasons may be at attracting focus or eliciting emotion. If we are asking what we *should* do, a reason *not* to do something is not a direct answer. Recognizing that a reason not to do something is obliquely relevant to answering the question of what to do may require further processing that some participants fail to engage in. We will turn to a proposal along these lines in the next section, the erotetic, or question-based theory. On the erotetic theory, the discrepancy observed in our experiment could be generated by failing to process reasons

concerning what is obligatory as partial answers to questions concerning what is impermissible (and vice versa), since answers like “this is obligatory! We should do this!” are only obliquely relevant to questions like “What is impermissible?” or “What shouldn’t we do?”. On the erotetic theory, to which we will now turn in more detail, the observed discrepancy is to be understood as more akin to a failure to recognize certain deductive inferences as valid than as an effect of attention or priority shifts.

## 7 The erotetic theory

According to the erotetic theory, reasoning and decision-making involve raising questions and trying to answer them as directly as possible, using available information and subjective reasons. (Koralus and Mascarenhas 2013; Parrott and Koralus 2015). Questions here are not sentences (i.e., not interrogatives in a natural language) but sets of alternatives whose mental representations are not necessarily linguistic. We can of course often externalize questions via uttering interrogative sentences. If we are reasoning, we might ask, “am I in a such-and-such situation, or in a such-and-other situation?” Alternatively, if we are making decisions, we might ask ourselves, for example, “wine or beer?” What we look to as a source of answers depends on the nature of the inquiry. If we want to know what is the case, we look to information. If we want to make a practical decision, we ultimately look to practical reasons.

The erotetic theory has two important properties: on the one hand, it predicts systematic fallacies, including both a large battery of fallacies documented in the literature and several new ones (Koralus and Mascarenhas 2013). In other words, the erotetic theory can make sense of various ways in which our rational capacities fail us. On the other hand, the erotetic theory can also make sense of the fact that we are not irretrievably lost to irrational thought patterns. If we raise enough questions in our thinking processes, the erotetic theory allows that we can reason validly (Koralus and Mascarenhas 2013). We will briefly describe the key elements of the erotetic theory and then explain how they can be applied to the pattern of judgment in the experiments presented above.

A key claim of the erotetic theory is that, when we reason with premises like disjunctions, we in fact treat them as questions. So, if we take onboard as a premise the disjunction “there is an ace or there is a queen,” we would do this in the form of a question akin to “am I in an ace situation or in a queen situation.” This is formally regimented in a way that does not lose information relative to a classical interpretation of “or”. For formal details and results, see Koralus and Mascarenhas (2013).

The erotetic theory holds that we try to treat further information (in the case of reasoning) as maximally strong answers to our current question. Since we normally do not represent all the alternatives compatible with our information, this can generate fallacious inferences. For example, consider the following problem:

There is an ace and a queen or there is a king.  
There is an ace.  
What if anything follows?

Around 90% of participants fallaciously answer that there has to be an ace and a queen, neglecting the alternative possibility that there is an ace and a king, but no queen (Walsh and Johnson-Laird 2004, Koralus and Mascarenhas 2013).

The erotetic theory proposes the following explanation for this pattern of responses: The first premise yields the question, “Am I in an ace and queen situation or in a king situation?” The second premise is then taken as a maximally strong answer to this question: “There is an ace!” This in turn yields the fallacious conclusion, “Ah, so I’m in an ace and queen situation!”. However, we are not irretrievably lost to this fallacious conclusion. If we had raised further questions in our reasoning process, we would have uncovered a neglected alternative that would have blocked us from jumping to the wrong conclusion. In fact, all fallacious conclusions in propositional reasoning are provably blocked in the erotetic theory if enough questions are raised (Koralus and Mascarenhas 2013). In sum, an attraction of the erotetic theory is that it can allow both for the fact that we are subject to systematic fallacies and for the fact that we can reason correctly.

We will now briefly sketch how a suitably extended erotetic theory could make sense of the pattern of judgments in the experiments reported above. To use a concrete example from one of the vignettes in our study, participants had to decide whether it is impermissible/obligatory to keep the hand on the baby’s mouth or impermissible/obligatory to remove the hand from the baby’s mouth. The key problem is to explain the discrepancy between judgments that it is obligatory to keep the hand and judgments that it is impermissible to remove the hand. The participants are further provided with a list of reasons to treat as putative answers. In condition 1, we are asking whether keeping the hand or removing the hand is obligatory and consulting the presented list of putative reasons as answers. Intuitively, “saving” lots of people is a reason to take it that the answer is that keeping the hand is obligatory. Moreover, in the minds of participants, that might be a stronger reason than “respecting the baby’s bodily integrity” provides for removing the hand to be obligatory. Let’s say, as before, that our question-answering process is only sensitive to what is explicitly represented in our question, and that we take reasons narrowly as answers to our questions. In that case, if I’m asking “which of these actions is obligatory?”, answering “here’s a reason why one of them might be impermissible: it involves using the baby as a means” is only obliquely relevant. Such an answer is only relevant if we realize that we could home in indirectly on what is obligatory by ruling out what is impermissible. However, this requires an extra elimination inference like disjunctive syllogism or *modus tollens* and it has been shown empirically that participants often fail to make such inferences (Rips 1994; Evans et al. 1993), a result captured by the erotetic theory of reasoning (Koralus and Mascarenhas, 2013). If we are instead asking, “which of these actions is morally impermissible?,” putative answers like “here’s a reason why this one might be obligatory: it involves saving lots of people” is correspondingly only obliquely relevant. Again, it would require a further cognitive step to make it relevant. However, a putative answer like “here’s a reason why this one might be impermissible: it involves smothering your baby to death,” is more directly relevant. As a result, if participants fail to make the relevant inferential steps to make obligating-reasons relevant to impermissibility-questions (and vice versa), it would be possible to end up with a discrepancy regarding the course of action to which we end up being committed, even though all reasons are understood and even though the relative weight of those reasons has not changed. The discrepancy would not involve a

shift in fundamental priorities assigned to reasons or a shift in focus, any more than failures in non-moral reasoning would.

On the erotetic theory, this discrepancy could be generated by simply failing to process reasons concerning what is obligatory as partial answers to questions concerning what is impermissible. This failure could then be seen as akin to the failure to make a disjunctive syllogism inference. Interestingly, we found in experiment 3 that there was no significant discrepancy in judgment between conditions if no explicit reasons were offered beyond what is implicit in the main vignettes before the questions. If we analyze the underlying problem as being akin to difficulties with elimination inferences like *modus tollens*, this may be expected. It has been found that participants are less likely to fail to make *modus tollens* inferences if the minor premise (which, on the erotetic theory would be the “answer” in those reasoning problems similarly to how reasons would function as answers in decision problems) is found in background information rather than provided explicitly with the major premise (García-Madruga et al. 2001).

## **8 Moral inquisitiveness and creativity: Rethinking the Milgram studies**

In Stanley Milgram’s (1974) infamous studies in obedience, participants thought that they were in a learning experiment where they had been assigned the role of “teacher” and the other participant (actually a confederate) had been assigned the role of “learner.” When the learner answered a question incorrectly or failed to answer at all, participants were instructed to give him an electrical shock. The voltage of the shocks increased incrementally with further wrong answers, going as high as 450 volts. All the while, the experimenter monitored the participant and instructed him or her what to do next. When participants resisted, the experimenter used a series of four escalating “prods”:

Prod 1: Please continue, *or*, Please go on.

Prod 2: The experiment requires that you continue.

Prod 3: It is absolutely essential that you continue.

Prod 4: You have no other choice, you *must* go on.

If resistance continued after the first prod, the second was used, then the third, then the fourth. If the participant continued to resist after the fourth prod, the experiment was terminated. Across a range of variations in the experimental setup, the majority of participants failed to resist effectively, driving them to put what they thought was 450 volts through a seemingly unconscious victim. This result has been replicated multiple times around the world (Blass 1999).

Psychologists and philosophers have spent the bulk of their efforts on the Milgram paradigm trying to explain what leads so many people to obey. After all, the situation does not seem coercive (participants were told at the beginning of the study that they would be paid whether they completed the experiment or not), and there is no reason to think that the majority of the participants were psychopathic murderers outside the lab. It would also be helpful to understand what processes led the minority of participants to successfully resist the experimenter’s orders. One tantalizing possibility relates to the erotetic theory as discussed above: exercising moral inquisitiveness and creativity may have been part of the mechanism that facilitated resistance. Naturally, this hypothesis

must remain speculative because it is based on the small number of transcripts that Milgram included in his (1974) book, *Obedience to Authority*. However, it is remarkable how many of these transcripts show the participants either questioning which actions were actually available to them or excusing themselves for shocking the learner by saying that it was not their role to ask questions.

The action-options presented as available were extremely constrained. Unless a participant asked herself, “What concrete action can I take *other* than shocking the learner?” she could feel all the negative emotions she liked but would not have an opportunity to use those emotions and related reasons as putative answers to a decision question. In other words, without some creativity and inquisitiveness, the erotetic theory would hold that there is no opportunity to resist.

Multiple transcripts from Milgram’s experiments and debriefings point in this direction. For instance, one participant who had trouble resisting said, “But go ahead, you ask me questions. I’m not here to question you” (1974, p. 48). Another, when facing prod 4, responded, “I *do* have a choice. Why don’t I have a choice,” thereby terminating the experiment (p. 51). During debriefing, a participant who had displayed maximal obedience described the experience as follows:

My reactions were awfully peculiar. I don’t know if you were watching me, but my reactions were giggly, and trying to stifle laughter. This isn’t how I usually am. This was a sheer reaction to a totally impossible situation. And my reaction was to the situation of having to hurt somebody. And being totally helpless and caught up in a set of circumstances where I just couldn’t deviate and I couldn’t try to get help.  
(p. 54)

This participant describes the situation as “impossible” because he felt certain that the action-options available to him all involved shocking the learner. He “just couldn’t deviate” from the circumstances. Had he asked himself what other action-options were available, perhaps he would have resisted successfully. Like the participant described on p. 48, however, he seems to have felt that it was not his place to ask questions.

Yet another participant also characterized the experience this way, comparing it to her day job as a nurse (p. 78). She told the experimenters during the debriefing that the experience felt like an encounter with a doctor who has prescribed what the nurse feels might be an overdose of a drug. She can ask him to double-check the amount, to confirm that he did not misspeak, but she cannot question his judgment in a deeper sense. Creative questions that would open up new possibilities for action are foreclosed.

In sum, on the erotetic theory, acting in a way that systematically reflects our priorities as moral agents, across different contexts like Milgram’s setup, may require a certain kind of inquisitiveness, which is in fact also required to perform well in inference tasks.

## 9 Conclusion

In this paper, we showed that a striking result Shafir (1993) offered in support of a reasons-based model of decision-making generalizes to moral judgment. We then argued

that a particularly promising reasons-based theory of decision-making in the moral domain and elsewhere is the erotetic (or “questions-based”) theory (Koralus and Mascarenhas 2013, Parrott and Koralus 2015). On this view, we encounter decisions as questions to be answered and we consult practical reasons as putative answers to those questions. Our questions may not represent all known available actions and their known consequences explicitly, requiring inquisitiveness and creativity to avoid jumping to conclusions.

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**Appendix: Instruction and Vignettes for Experiment 3.**

Obligatory/Impermissible - multiple vignettes

Intro Introduction: You are being invited to participate in a research study of values and morality. You were selected as a possible participant because you have an mTurk worker and are at least 18 years old. We ask that you read this form and ask any questions you may have before agreeing to participate in the study. Purpose of the Study: The purpose of this study is to assess your moral values, commitments, principles, and reasons. Description of the Study Procedures: If you agree to participate in this study, we would ask you to read and respond to a series of survey questions. Completion of the survey should take no longer than 10 minutes total. Risks/Discomforts of Being in the Study: There are no expected substantive risks for participating in this study. Because some of the questions in the survey will be about moral values, you may feel uncomfortable thinking about or answering some of the questions. However, you will be free not to answer any questions, and to stop participating at any time. Benefits of Being in the Study: By participating in this study, you will be contributing to knowledge about how different people think about moral issues and values. You may enjoy thinking about some of these issues as you answer the questions in the survey. Payments: For participating in this study, you will receive the mTurk market rate compensation for tasks of this length. Costs: You will not be charged any money to participate in this research study. Confidentiality: The records of this study will be kept confidential using several protections. We may use the data from this study to publish reports or give presentations (for example, to other researchers at research conferences). In any sort of report we may publish, we will never associate your name with any of your responses. Your anonymity is very important to us. Paper research records will be kept in a locked file. All electronic information will be coded and secured using a password-protected file. Access to your responses as they were will be limited to the researchers; however, please note that regulatory agencies, the Institutional Review Board, and internal University of Oregon auditors may review the research records. In the future, we might release anonymized versions of the data from this study for other researchers to use. Voluntary Participation/Withdrawal: Your participation is voluntary. You are free to withdraw at any time, for any reason or no reason at all. There is no penalty or loss of benefits for not taking part or for stopping your participation. Withdrawing from the study will in no way affect your compensation or risk loss of present or future faculty, school, or university relationships. Dismissal from the Study: The investigator may withdraw you from the study at any time for the following reasons: (1) withdrawal is in your best interests, or (2) you have failed to follow the study requirements. Contacts and Questions: The researcher conducting this study is Mark Alfano. For questions or more information concerning this research you may contact him at [alfano@uoregon.edu](mailto:alfano@uoregon.edu). If you believe you have suffered a research-related injury, please contact Mark Alfano at [alfano@uoregon.edu](mailto:alfano@uoregon.edu). If you have any questions about your rights as a research subject, you may contact Research Compliance Services, University of Oregon, at (541) 346-2510 or [ResearchCompliance@uoregon.edu](mailto:ResearchCompliance@uoregon.edu). Copy of Consent Form: You may print a copy of this form to keep for your records and future reference.

I consent (4)

I do not consent (5)

Oblivious Governor Cooper is presented with a plea for pardon concerning an 18-year old delinquent, Mary. She is about to be sent to prison for a crime that deserves a five-year prison term, but she was sentenced to a 30-year prison term, and has exhausted all of her rights of appeal. Cooper can either grant a pardon, which means that Mary goes free, or deny the pardon, which means that Mary will go to prison for 30 years. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Governor Cooper to follow, based on the information you have. Please select what it is morally obligatory for Governor Cooper to do.

- It is morally obligatory for Cooper to grant the pardon: Making Mary's family happy  
Being involved in what is happening in his State Being lenient Making the prison less crowded (1)
- It is morally obligatory for Cooper to deny the pardon: Ensuring that crime does not go unpunished Respecting the judgment of the court Destroying a young woman's life Allowing the justice system to appear unduly harsh (2)

Oblivious Jimmy goes to his friend Melissa. He tells her that he will be expelled from school if he fails to get a particularly high grade on the upcoming exam, but that he has been too worried about personal problems to study enough for it. An unusually strict teacher has refused to grant him an extension. He asks Melissa to sit next to him during the exam so he can use her answers to check against his, just in case. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Melissa to follow, based on the information you have. Please select what it is morally obligatory for Melissa to do.

- It is morally obligatory for Melissa to sit next to Jimmy during the exam:  
Demonstrating loyalty Helping her friend without judging him Undermining the standards of her school Becoming a cheater (1)
- It is morally obligatory for Melissa to sit away from Jimmy during the exam: Not getting involved in Jimmy's issues Giving Jimmy the opportunity to learn from his mistakes Sitting with her girlfriends for emotional support during the exam Remaining in her usual seat (2)

Oblisleep Mackenzie's husband, Kurt, badly needs a kidney transplant, but he is at the bottom of the waiting list. A bureaucrat at the local hospital tells Mackenzie that he can bump Kurt's name to the top of the list, but only if Mackenzie sleeps with him and tells nobody about it, including her husband. Mackenzie can either accept the bureaucrat's offer, cheating on her husband to help him get a kidney sooner, or refuse, forcing him to wait. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Mackenzie to follow, based on the information you have. Please select what it is morally obligatory for Mackenzie to do.

- It is morally obligatory for Mackenzie to sleep with the bureaucrat: Potentially saving her husband's life Greatly reducing her husband's suffering Cheating another patient out of a much-needed transplant Betraying her husband's trust (1)
- It is morally obligatory for Mackenzie not to sleep with the bureaucrat: Allowing Mackenzie to feel righteous Making the bureaucrat sad Enabling Mackenzie to brag to her husband about her choice Making Mackenzie feel extra desirable (2)

Obligate Imagine that enemy soldiers have taken over Jane's village. They have orders, under threat of execution from their officer, to kill all remaining civilians. Jane and some other townspeople have fled to the hidden cellar of a large house. Outside, they hear the voices of soldiers who have come to search the house. Jane's baby begins to cry loudly, which might alert the soldiers. She covers his mouth to block the sound but this also stops his breath. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Jane to do, based on the information you have. Please select what it is morally obligatory for Jane to do.

- It is morally obligatory for Jane to keep her hand on the baby's mouth: Saving the townspeople hiding in the basement from increased threat of death Making it less likely that the soldiers have to carry out their terrible orders Using her child as a mere means for the benefit of others Giving her own child a painful death by smothering (1)
- It is morally obligatory for Jane to remove her hand from the baby's mouth: Allowing Jane to feel she is not personally physically harming anyone. Jane is respecting the baby's bodily integrity The baby will continue making noise The soldiers are more likely to carry out their orders (2)

Obli-pull Laura is in a library with her young daughter, Mandy, who has only been brought along because she promised to be quiet. After a short period of time, Mandy becomes very disruptive. Laura tries to reason with Mandy and warns her several times, but Mandy keeps making noise. When a librarian tells them to leave, Mandy grabs hold of a table leg and holds on as hard as she can. Removing her would lightly injure her fingers. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Jane to do, based on the information you have. Please select what it is morally obligatory for Laura to do.

- It is morally obligatory for Laura to pull Mandy away from the table leg: Making sure that the students in the library can continue studying Holding Mandy to her promise that she can only be in the library if quiet Hurting Mandy's fingers Making Mandy cry pitifully (1)
- It is morally obligatory for Laura not to pull Mandy away from the table leg: Ensuring that Mandy will not get annoyed at her Following the path of least resistance Giving Mandy space Avoiding conflict with her daughter (2)

Obligation game John and Mike have been invited to play a game. In this game, John has been randomly assigned the opportunity to decide how a pot of money containing \$10,000 provided by the game masters is to be split between Mike and himself. John has to offer an amount of this money, between \$0 and \$10,000, to Mike. If Mike accepts the offer, John gets what remains of the pot minus what he offered to Mike. However, if Mike refuses the offer made by John, nobody gets anything and the entire pot of money reverts to the game masters. As it happens, John offers \$250. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Mike to follow, based on the information you have. Please select what it is morally obligatory for Mike to do.

- It is morally obligatory for Mike to accept the \$250 offer: It is nice to have a few extra dollars Accepting the offer would please John The game might otherwise seem dissatisfying to the game masters It was John who was given the role of making an offer (1)
- It is morally obligatory for Mike to refuse the \$250 offer: The offer is grossly unfair A small amount of money does not make up for being exploited Refusing money for both of them in a mere game is being a killjoy Refusing the offer would be vindictive (2)

Imp-pardon Governor Cooper is presented with a plea for pardon concerning an 18-year old delinquent, Mary. She is about to be sent to prison for a crime that deserves a five-year prison term, but she was sentenced to a 30-year prison term, and has exhausted all of her rights of appeal. Cooper can either grant a pardon, which means that Mary goes Scot free, or deny the pardon, which means that Mary will go to prison for 30 years. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Governor Cooper to follow, based on the information you have. Please select what it is morally impermissible for Governor Cooper to do.

- It is morally impermissible for Cooper to grant the pardon: Making Mary's family happy Being involved in what is happening in his State Being lenient Making the prison less crowded (1)
- It is morally impermissible for Cooper to deny the pardon: Ensuring that crime does not go unpunished Respecting the judgment of the court Destroying a young woman's life Allowing the justice system to appear unduly harsh (2)

Imp-sit Jimmy goes to his friend Melissa. He tells her that he will be expelled from school if he fails to get a particularly high grade on the upcoming exam, but that he has been too worried about personal problems to study enough for it. An unusually strict teacher has refused to grant him an extension. He asks Melissa to sit next to him during the exam so he can use her answers to check against his, just in case. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Melissa to follow, based on the information you have. Please select what it is morally impermissible for Melissa to do.

- It is morally impermissible for Melissa to sit next to Jimmy during the exam:  
Demonstrating loyalty Helping her friend without judging him Undermining the standards of her school Becoming a cheater (1)
- It is morally impermissible for Melissa to sit away from Jimmy during the exam: Not getting involved in Jimmy's issues Giving Jimmy the opportunity to learn from his mistakes Sitting with her girlfriends for emotional support during the exam Remaining in her usual seat (2)

Imp-sleep Mackenzie's husband, Kurt, badly needs a kidney transplant, but he is at the bottom of the waiting list. A bureaucrat at the local hospital tells Mackenzie that he can bump Kurt's name to the top of the list, but only if Mackenzie sleeps with him and tells nobody about it, including her husband. Mackenzie can either accept the bureaucrat's offer, cheating on her husband to help him get a kidney sooner, or refuse, forcing him to wait. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Mackenzie to follow, based on the information you have. Please select what it is morally impermissible for Mackenzie to do.

- It is morally impermissible for Mackenzie to sleep with the bureaucrat: Potentially saving her husband's life Greatly reducing her husband's suffering Cheating another patient out of a much-needed transplant Betraying her husband's trust (1)
- It is morally impermissible for Mackenzie not to sleep with the bureaucrat: Allowing Mackenzie to feel righteous Making the bureaucrat sad Enabling Mackenzie to brag to her husband about her choice Making Mackenzie feel extra desirable (2)

Imp-keep Imagine that enemy soldiers have taken over Jane's village. They have orders, under threat of execution from their officer, to kill all remaining civilians. Jane and some other townspeople have fled to the hidden cellar of a large house. Outside, they hear the voices of soldiers who have come to search the house. Jane's baby begins to cry loudly, which might alert the soldiers. She covers his mouth to block the sound but this also stops his breath. Imagine that only two courses of action are available to Jane. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Jane to do, based on the information you have. Please select what it is morally impermissible for Jane to do.

- It is morally impermissible for Jane to keep her hand on the baby's mouth: Saving the townspeople hiding in the basement from increased threat of death Making it less likely that the soldiers have to carry out their terrible orders Using her child as a mere means for the benefit of others Giving her own child a painful death by smothering (1)
- It is morally impermissible for Jane to remove her hand from the baby's mouth: Allowing Jane to feel she is not personally physically harming anyone. Jane is respecting the baby's bodily integrity The baby will continue making noise The soldiers are more likely to carry out their orders (2)

Imp-pull Laura is in a library with her young daughter, Mandy, who has only been brought along because she promised to be quiet. After a short period of time, Mandy becomes very disruptive. Laura tries to reason with Mandy and warns her several times, but Mandy keeps making noise. When a librarian tells them to leave, Mandy grabs hold of a table leg and holds on as hard as she can. Removing her would lightly injure her fingers. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Jane to do, based on the information you have. Please select what it is morally impermissible for Laura to do.

- It is morally impermissible for Laura to pull Mandy away from the table leg: Making sure that the students in the library can continue studying Holding Mandy to her promise that she can only be in the library if quiet Hurting Mandy's fingers Making Mandy cry pitifully (1)
- It is morally impermissible for Laura not to pull Mandy away from the table leg: Ensuring that Mandy will not get annoyed at her Following the path of least resistance Giving Mandy space Avoiding conflict with her daughter (2)

Imp-game John and Mike have been invited to play a game. In this game, John has been randomly assigned the opportunity to decide how a pot of money containing \$10,000 provided by the game masters is to be split between Mike and himself. John has to offer an amount of this money, between \$0 and \$10,000, to Mike. If Mike accepts the offer, John gets what remains of the pot minus what he offered to Mike. However, if Mike refuses the offer made by John, nobody gets anything and the entire pot of money reverts to the game masters. As it happens, John offers \$250. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Mike to follow, based on the information you have. Please select what it is morally impermissible for Mike to do.

- It is morally impermissible for Mike to accept the \$250 offer: It is nice to have a few extra dollars Accepting the offer would please John The game might otherwise seem dissatisfying to the game masters It was John who was given the role of making an offer (1)
- It is morally impermissible for Mike to refuse the \$250 offer: The offer is grossly unfair A small amount of money does not make up for being exploited Refusing money for both of them in a mere game is being a killjoy Refusing the offer would be vindictive (2)

Obl-pard Governor Cooper is presented with a plea for pardon concerning an 18-year old delinquent, Mary. She is about to be sent to prison for a crime that deserves a five-year prison term, but she was sentenced to a 30-year prison term, and has exhausted all of her rights of appeal. Cooper can either grant a pardon, which means that Mary goes Scot free, or deny the pardon, which means that Mary will go to prison for 30 years. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Governor Cooper to follow, based on the information you have. Please select what it is morally obligatory for Governor Cooper to do.

- It is morally obligatory for Cooper to grant the pardon. (1)
- It is morally obligatory for Cooper to deny the pardon. (2)

Obpl-sit Jimmy goes to his friend Melissa. He tells her that he will be expelled from school if he fails to get a particularly high grade on the upcoming exam, but that he has been too worried about personal problems to study enough for it. An unusually strict teacher has refused to grant him an extension. He asks Melissa to sit next to him during the exam so he can use her answers to check against his, just in case. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Melissa to follow, based on the information you have. Please select what it is morally obligatory for Melissa to do.

- It is morally obligatory for Melissa to sit next to Jimmy during the exam. (1)
- It is morally obligatory for Melissa to sit away from Jimmy during the exam. (2)

Obpl-Sleep Mackenzie's husband, Kurt, badly needs a kidney transplant, but he is at the bottom of the waiting list. A bureaucrat at the local hospital tells Mackenzie that he can bump Kurt's name to the top of the list, but only if Mackenzie sleeps with him and tells nobody about it, including her husband. Mackenzie can either accept the bureaucrat's offer, cheating on her husband to help him get a kidney sooner, or refuse, forcing him to wait. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Mackenzie to follow, based on the information you have. Please select what it is morally obligatory for Mackenzie to do.

- It is morally obligatory for Mackenzie to sleep with the bureaucrat. (1)
- It is morally obligatory for Mackenzie not to sleep with the bureaucrat. (2)

Obpl-Keep Imagine that enemy soldiers have taken over Jane's village. They have orders, under threat of execution from their officer, to kill all remaining civilians. Jane and some other townspeople have fled to the hidden cellar of a large house. Outside, they hear the voices of soldiers who have come to search the house. Jane's baby begins to cry loudly, which might alert the soldiers. She covers his mouth to block the sound but this also stops his breath. Imagine that only two courses of action are available to Jane. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Jane to do, based on the information you have. Please select what it is morally obligatory for Jane to do.

- It is morally obligatory for Jane to keep her hand on the baby's mouth. (1)
- It is morally obligatory for Jane to remove her hand from the baby's mouth. (2)

Obpl-pull Laura is in a library with her young daughter, Mandy, who has only been brought along because she promised to be quiet. After a short period of time, Mandy becomes very disruptive. Laura tries to reason with Mandy and warns her several times, but Mandy keeps making noise. When a librarian tells them to leave, Mandy grabs hold of a table leg and holds on as hard as she can. Removing her would lightly injure her fingers. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Jane to do, based on the information you have. Please select what it is morally obligatory for Laura to do.

- It is morally obligatory for Laura to pull Mandy away from the table leg. (1)
- It is morally obligatory for Laura not to pull Mandy away from the table leg. (2)

Obpl-game John and Mike have been invited to play a game. In this game, John has been randomly assigned the opportunity to decide how a pot of money containing \$10,000 provided by the game masters is to be split between Mike and himself. John has to offer an amount of this money, between \$0 and \$10,000, to Mike. If Mike accepts the offer, John gets what remains of the pot minus what he offered to Mike. However, if Mike refuses the offer made by John, nobody gets anything and the entire pot of money reverts to the game masters. As it happens, John offers \$250. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally obligatory for Mike to follow, based on the information you have. Please select what it is morally obligatory for Mike to do.

- It is morally obligatory for Mike to accept the \$250 offer. (1)
- It is morally obligatory for Mike to refuse the \$250 offer. (2)

Impl-pard Governor Cooper is presented with a plea for pardon concerning an 18-year old delinquent, Mary. She is about to be sent to prison for a crime that deserves a five-year prison term, but she was sentenced to a 30-year prison term, and has exhausted all of her rights of appeal. Cooper can either grant a pardon, which means that Mary goes Scot free, or deny the pardon, which means that Mary will go to prison for 30 years. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Governor Cooper to follow, based on the information you have. Please select what it is morally impermissible for Governor Cooper to do.

- It is morally impermissible for Cooper to grant the pardon. (1)
- It is morally impermissible for Cooper to deny the pardon. (2)

Imppl-sit Jimmy goes to his friend Melissa. He tells her that he will be expelled from school if he fails to get a particularly high grade on the upcoming exam, but that he has been too worried about personal problems to study enough for it. An unusually strict teacher has refused to grant him an extension. He asks Melissa to sit next to him during the exam so he can use her answers to check against his, just in case. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Melissa to follow, based on the information you have. Please select what it is morally impermissible for Melissa to do.

- It is morally impermissible for Melissa to sit next to Jimmy during the exam. (1)
- It is morally impermissible for Melissa to sit away from Jimmy during the exam. (2)

Impl-slee Mackenzie's husband, Kurt, badly needs a kidney transplant, but he is at the bottom of the waiting list. A bureaucrat at the local hospital tells Mackenzie that he can bump Kurt's name to the top of the list, but only if Mackenzie sleeps with him and tells nobody about it, including her husband. Mackenzie can either accept the bureaucrat's offer, cheating on her husband to help him get a kidney sooner, or refuse, forcing him to wait. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Mackenzie to follow, based on the information you have. Please select what it is morally impermissible for Mackenzie to do.

- It is morally impermissible for Mackenzie to sleep with the bureaucrat. (1)
- It is morally impermissible for Mackenzie not to sleep with the bureaucrat. (2)

Impl-Keep Imagine that enemy soldiers have taken over Jane's village. They have orders, under threat of execution from their officer, to kill all remaining civilians. Jane and some other townspeople have fled to the hidden cellar of a large house. Outside, they hear the voices of soldiers who have come to search the house. Jane's baby begins to cry loudly, which might alert the soldiers. She covers his mouth to block the sound but this also stops his breath. Imagine that only two courses of action are available to Jane. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Jane to do, based on the information you have. Please select what it is morally impermissible for Jane to do.

- It is morally impermissible for Jane to keep her hand on the baby's mouth. (1)
- It is morally impermissible for Jane to remove her hand from the baby's mouth. (2)

Impl-pull Laura is in a library with her young daughter, Mandy, who has only been brought along because she promised to be quiet. After a short period of time, Mandy becomes very disruptive. Laura tries to reason with Mandy and warns her several times, but Mandy keeps making noise. When a librarian tells them to leave, Mandy grabs hold of a table leg and holds on as hard as she can. Removing her would lightly injure her fingers. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Jane to do, based on the information you have. Please select what it is morally impermissible for Laura to do.

- It is morally impermissible for Laura to pull Mandy away from the table leg. (1)
- It is morally impermissible for Laura not to pull Mandy away from the table leg. (2)

Impl-game John and Mike have been invited to play a game. In this game, John has been randomly assigned the opportunity to decide how a pot of money containing \$10,000 provided by the game masters is to be split between Mike and himself. John has to offer an amount of this money, between \$0 and \$10,000, to Mike. If Mike accepts the offer, John gets what remains of the pot minus what he offered to Mike. However, if Mike refuses the offer made by John, nobody gets anything and the entire pot of money reverts to the game masters. As it happens, John offers \$250. There are various ambiguous social and emotional considerations, but you want to decide which course of action is morally impermissible for Mike to follow, based on the information you have. Please select what it is morally impermissible for Mike to do.

- It is morally impermissible for Mike to accept the \$250 offer. (1)
- It is morally impermissible for Mike to refuse the \$250 offer. (2)

Q11 Gender

- Male (1)
- Female (2)
- Other (3)
- Prefer not to state (4)

Q16 What is your age in years?

\_\_\_\_\_ Years (1)

Q17 Do you have any thoughts about the questions we posed that you would like us to know about (Optional)?