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Zhou, Yi

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Is It Good to be Good? Individuals' Judgments about the
Congruence between Moral Actions and Self-Interest

By

Yi Zhou

A dissertation submitted in partial satisfaction of the
requirements for the degree of

Doctor of Philosophy

in

Education

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Elliot Turiel, Chair
Professor Laura Sterponi
Professor Jan Engelmann

Spring 2026

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Abstract

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Doctor of Philosophy in Education

University of California, Berkeley

Professor Elliot Turiel, Chair

What is morally right or wrong is independent of self-interest: one does not need to consult their self-interest to tell right from wrong. Acts motivated by self-interested reasons do not have a strictly moral character. However, from little inconveniences to considerable personal cost and large sacrifice, moral actions often have direct impact on the agent's self-interest. Thus, it can be asked, "Is acting morally good for oneself?", "Are moral actions congruent with the agent's self-interest?"

This study examined children's and adults' general judgments about the relations between moral actions and self-interest, as well as their concrete judgments about how moral actions are related to the agent's own good or interest in hypothetical contextualized situations. One hundred and eleven participants from three age groups (children 11-14 years old, young adults 18-24 years old, older adults 34-67 years old) were either individually interviewed or responded to an online survey (which has the same structure and questions as the interview) about general questions regarding the relation between moral action and self-interest, and contextualized hypothetical situations describing a protagonist who faces a conflict between a moral choice and self-interest. The hypothetical situations consisted of two positively valenced (Helping and Intervention) and two negatively valenced situations (Stealing and Bribing), with each situation having a low cost/gain and a high cost/gain condition. Participants made three types of evaluations about each hypothetical situation: moral decision judgment (i.e., about what the protagonist should do), moral permissibility or obligation judgment (i.e., about whether it is permissible for the protagonist to prioritize self-interest over a moral end), and moral congruence judgment (i.e., about whether acting morally is good for the protagonist him- or herself).

The results indicate that the majority of participants believed acting morally aligns with self-interest ("good for oneself"), often justifying this belief by citing the emotional, psychological, and social benefits of acting morally. Children were more likely than older participants to judge moral actions as personally beneficial and as having a direct impact on their life outcomes. Judgments regarding specific hypothetical situations revealed more variation and complexity. Across all age groups, judgments of moral congruence were highly sensitive to the magnitude of personal cost or gain, irrespective of the situation's valence. When personal stakes were substantial, the majority of participants judged the moral choice to be "not good" for the

protagonist or, conversely, deemed the immoral choice “good”. Notably, participants varied in their approach to these “good-for” judgments: some offered practical or normative suggestions, while others appeared to be making simple psychological predictions. In positive situations—such as helping or intervening—judging a moral action to be “not good” for the protagonist was strongly associated with both the judgment that the agent was permitted to prioritize their personal interest and the decision that they should do so. By contrast, this pattern did not hold in negative situations, such as refraining from stealing or rejecting a bribe. In these instances, participants overwhelmingly judged that it was not permissible to act immorally for personal gain, and that the agent should not engage in these acts, even when they simultaneously judged that the immoral acts would be “good” for the agent.

Together, these findings highlight the nuanced ways individuals judge the relationship between morality and self-interest, showing that these judgments function as an active framework shaping both moral judgment and the underlying motivation to act.

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Chapter 1: Introduction

“Is the just life better than the unjust life for the one who lives it?”

— Plato, *Republic*

In both everyday conversations and scholarly discourse, the word “moral” is often used interchangeably with “good”. Moral actions are thought to be “good”, and moral individuals are referred to as “good people”. But in what sense is being moral or acting morally “good”? Perhaps most obviously, moral acts are good for their recipients, that is, they benefit other people. This other-regarding character is central to the everyday understanding of morality. Additionally, acting morally seems to be also “good” for society as a whole, for acts that prioritize collective interests over private ones are generally considered a hallmark of virtue. Moral actions may be valued in themselves, independently of any external benefits they produce for individuals or groups. Their goodness, in this sense, lies not in their consequences but in their perceived intrinsic worth.

But is acting morally good for the person who so acts? On the one hand, it does not seem so. Moral actions are typically not motivated by self-interest; rather, they are undertaken to promote the well-being of others or guided by a sense of justice that treats others’ interests as equally important as one’s own. Moreover, moral actions often entail personal costs—from minor inconveniences to significant sacrifices. On the other hand, acting morally appears to be good for the agent. People sometimes choose the moral course of action for self-interested reasons, suggesting that moral duty and self-interest may sometimes align. In fact, it is precisely this possibility of alignment that makes truly moral actions noteworthy: when doing the right thing also benefits oneself, what makes the act moral is not the benefit received, but the reason for acting. Truly moral or virtuous actions are those done for the sake of morality itself, not because they serve one’s own interests—even when they do.

The relationship between morality and self-interest has long been a central topic in philosophical discourse. One of the most influential debates on this issue appears in Plato’s *Republic*, where Socrates is challenged to prove that living a just and moral life is better in every respect than living unjustly. This challenge arises in response to a widespread view in ancient Greek society—that the ideal life is one in which a person is unjust at heart but maintains the appearance of morality for personal gain. Among Socrates’ interlocutors are ambitious young men of noble birth, future political leaders, who are not only eager to see injustice refuted but also genuinely concerned with discovering the truth, as it may shape how they themselves choose to live and govern. Since Plato, many philosophers have followed Socrates’ lead in trying to show that morality and self-interest are ultimately aligned—often as part of a broader effort to defend the authority or appeal of morality itself.

The question of whether acting morally aligns with self-interest is important not only for its theoretical significance in philosophy, but also because of its practical implications for individuals’ moral lives and decision-making. People’s beliefs about the congruence between morality and self-interest can influence two key domains: moral motivation and conceptions of moral obligation. First, such beliefs, at least to some degree, affect moral motivation. If a person believes that doing what morality requires comes at a personal cost or harms their self-interest, they may be less inclined to act morally. Conversely, if they view moral behavior as consistent with—or even beneficial to—their goals and well-being, they are more likely to feel motivated to do what is right. Second, these beliefs may also shape our understanding of the scope of moral

obligation. While it is often praised as morally admirable to act selflessly or to prioritize others' well-being over one's own, such acts are rarely seen as morally required. Moral obligations typically stop short of demanding self-sacrifice. Indeed, many conceptions of justice or fairness assume that one's own interests count equally alongside the interests of others. Thus, one's perception of whether moral action is good for the self can influence how demanding one believes morality should be.

This study investigated how individuals think about the relationship between acting morally and pursuing their own good or self-interest, and how these judgments relate to their moral judgments and decisions. Like philosophers, ordinary individuals also construct beliefs and frameworks for making sense of the moral world (Kohlberg, 1969; Piaget, 1932; Turiel, 1983). Since individuals construct their social and moral understandings through lived experience and interaction, it is reasonable to assume that many are familiar with tensions between moral demands and personal interests. Such tensions offer a rich experiential basis for forming understandings about how morality and self-interest relate. This study thus aimed to explore individuals' understandings or judgments about how moral actions are related to the actor's own good or interest, and how this kind of judgments may be connected to or in part explain individuals' substantive moral judgments and decisions in particular contexts or situations.

Chapter 2: Literature Review

Philosophical positions

There is a wide range of philosophical positions about the relations between morality and self-interest, ranging from the immoralist position that views morality as detrimental to self-interest, to the skeptical view that questions the rationality of conforming with moral requirements insofar as they conflict with the agent's interest, and to psychological and ethical egoism that conceive of doing what is moral and pursuing self-interest as essentially congruent. My review does not aim to cover all these differing positions and views, but instead only focuses on those that are representative of the influential philosophical views on this topic.

1. The immoralist position

Critiques of morality often take the form of immoralist arguments, which basically challenge the rationality of adhering to moral norms by claiming that morality conflicts with self-interest—that to be moral is bad for oneself. A classic version of this critique appears in Plato's dialogues, particularly through the characters Callicles in *Gorgias* and Thrasymachus in *Republic*. Both “denounce the virtue of justice...as an artificial brake on self-interest, a fraud to be seen through by intelligent people” (Barney, 2025). However, adequately assessing such views requires attention to the underlying conceptions of morality they presuppose. For instance, Thrasymachus claims that “justice is the advantage of the stronger,” meaning that what is called “justice” simply reflects the interests of those in power—laws and norms that serve rulers, not universal moral truths. This attack rests on a conventionalist understanding of morality: that morality is socially constructed and serves merely particular interests. But it also points to an ideal conception of justice or morality which the immoralist might actually endorse.

Indeed, many so-called “immoralist” or “amoralist” critiques do not reject morality outright but target specific forms of it. In this sense, the label “immoralist” can be misleading. For example, Nietzsche (1887/2006) rejects Christian morality, which he sees as life-denying and rooted in resentment, but he does not oppose all moral values—only those he views as hostile to human flourishing. Similarly, Ayn Rand (1964) critiques altruistic or sacrificial moralities while advocating an egoistic ethics grounded in rational self-interest. David Gauthier (1986), in a different vein, seeks to justify moral norms not by appealing to altruism but on grounds of rational self-interest and mutually beneficial cooperation. In each case, while a certain moral system or orientation is criticized, alternative moralities are often proposed. Thus, when evaluating claims that morality is “bad for us”, it is essential to ask which morality is being critiqued. Such claims have usually been made against certain moral values and systems seen as incompatible with self-interest or well-being.

2. Psychological egoism and ethical egoism

In response to the immoralist critique, philosophers have long felt compelled to defend morality by offering nonmoral or prudential justifications for why individuals should comply with moral requirements—in other words, to demonstrate that morality aligns with self-interest (Crisp, 2019; Frankena, 1983). This challenge is notably addressed by Socrates (or Plato) in reply to figures like Thrasymachus and Callicles, who argued that morality is a constraint on the strong and pursuit of self-interest. Before turning to Plato’s defense of morality—which can be interpreted as a form of virtue ethics grounded in ethical egoism—it is useful to briefly consider a related position known as psychological egoism.

Psychological egoism (Frankena, 1963; LaFollette, 1988; Slote, 1964) holds that any voluntary moral act necessarily benefits the agent in a self-interested or egoistic sense, insofar as the agent desires or chooses to perform it. On this view, whenever we act in ways we genuinely want to—such as helping others because we care to—we are, by definition, satisfying our psychological needs or interests. Importantly, psychological egoism is typically not presented as a defense of morality, but rather as a form of moral skepticism, suggesting that no act is truly moral because all actions ultimately reduce to selfish motivation. Critics of psychological egoism (e.g., Feinberg, 2013; May, 2011) have pointed out a key distinction: between 1) performing moral acts as a means to achieve personal gratification, and 2) experiencing psychological benefits—such as satisfaction, pride, or emotional well-being—as a byproduct of acting on genuine moral motives, such as justice or altruism. The fact that people often experience emotional and psychological rewards as a consequence of moral behavior does not imply that those rewards are the primary motive. But it does suggest that acting morally can, at least in a psychological sense, be good for the agent, without reducing moral motivation to mere self-interest.

While psychological egoism is a descriptive theory, ethical egoism makes the normative claim that one morally ought to act in his or her self-interest, or that self-interest should be the only principle that guides our actions or choices. Though this seems paradoxical—since morality is often associated with concern for others—it’s important to note that “self-interest” in ethical egoism can differ significantly from its everyday meaning.

Virtue ethics is often seen as a form of ethical egoism. In *Republic*, Plato argues that the just life is superior to the unjust life, relying on a distinctive conception of self-interest. He differentiates between what is truly good—the harmonious order of the soul’s parts—and what

only appears good, such as bodily pleasures, wealth, or power. Justice, for Plato, consists in the rule of reason over appetite and spirit, and achieving this psychic harmony is both necessary and sufficient for genuine happiness. In this view, external rewards or pleasures are illusory goods, and even intense suffering does not undermine true happiness, leading to Plato's provocative claim that the just person is happy even "on the rack" (Annas, 1981; Mohr, 1987). A less extreme version of this view appears in Aristotle, who grounds virtue in his function argument: just as sharpness is the virtue of a knife, enabling it to perform its function well, human virtues enable us to live well by fulfilling our function—rational activity in accordance with reason. For Aristotle, virtuous actions—doing the right thing, at the right time, for the right reason—are themselves expressions of human flourishing. Thus, moral virtue is not a sacrifice but a form of natural excellence that constitutes the individual's true good. As Roger Crisp (2000) wrote in his introduction to Aristotle's ethical theory:

there is nothing in Aristotelian ethics inconsistent with the idea that all your reasons for action, or for living a certain kind of life or for being a certain kind of person, ultimately rest on the advancement of your own good. Nowhere in Aristotle is there a recommendation of any kind of genuine self-sacrifice (Aristotle, 2000, p. x-xi).

It is also to be noted that Aristotle's view on the relationship between virtue and self-interest is less extreme than Plato's. For while Aristotle believed that having a good moral character is most essential to living a good life, he also acknowledged the role of "external goods"—such as wealth, honor, and social standing—as contributing to happiness.

Virtue ethics takes the form of ethical egoism because it justifies justice and other virtues on self-interested grounds by holding that moral virtues are constitutive of and conducive to self-interest (Anscombe, 1958; Kristjánsson, 2015). Yet it needs to be stressed that the kind of "self-interest" it envisions is not about satisfying bodily desires or material needs, but about engaging in virtuous activity. The alignment of morality and self-interest in virtue ethics thus depends on this nontraditional conception of self-interest—one rooted in virtues or moral excellence.

By contrast, other forms of ethical egoism may adopt a more conventional understanding of self-interest—typically grounded in personal advantage, material benefit, or strategic gain. According to such views, the only reason to act justly or help others is that doing so promotes one's own well-being by securing cooperative, reciprocal, and mutually beneficial social relationships (Hobbes, 1651; Gauthier, 1986). The logic is straightforward: if I give no weight to others' interests, they will not cooperate with me; if I harm others, they may retaliate. Therefore, it is in my best interest to treat others well—not because their interests have intrinsic moral weight, but because doing so serves my own. In this model, the alignment between morality and self-interest does not depend on any moralized conception of the self or the good, as it does in virtue ethics.

However, this alignment is achieved basically by reducing moral obligation to self-interest. If the only reason I have to be moral is that doing so benefits me, then I would have no reason to act morally in situations where no personal gain is anticipated; if someone lacks the capacity to engage in reciprocal benefit—due to vulnerability or lack of social standing—I would, on this view, have no moral duty toward them and might even be justified in exploiting them, so long as I can do so without fear of retaliation. But this conclusion is deeply at odds with ordinary conception of morality, which typically treats our moral obligation as not conditional on the other's ability to reciprocate or benefit us (Shaver, 2023; Turiel, 1983).

3. Morality and self-interest in utilitarianism

Utilitarian theories are marked by an interesting combination: a hedonistic view of self-interest and a demanding conception of moral duty. On the one hand, utilitarians define self-interest primarily in terms of pleasure and pain: to pursue one's own good is to maximize pleasure and minimize suffering. When one's actions affect no one else, this view permits—indeed, prescribes—egoistic hedonism, the idea that individuals ought to act in ways that best promote their own well-being. On the other hand, utilitarianism holds that moral duty consists in the impartial maximization of overall happiness, across all individuals—or more broadly, all sentient beings. This commitment to universal hedonism requires treating everyone's interests equally, following the principle that “everybody to count for one, nobody for more than one”(Bentham, 2007; Mill, 2003; Sidgwick, 1981). As a result, morality in the utilitarian framework can be highly exacting, demanding that individuals set aside personal interests when doing so would produce greater net balance of pleasure over pain.

A striking example of this moral demandingness can be found in the work of Peter Singer, an influential contemporary moral philosopher who argues that individuals in affluent societies have a moral obligation to donate a substantial portion of their income to alleviate suffering in poorer regions (Singer, 1972, 2009). As long as these contributions significantly improve others' well-being without comparably diminishing one's own, they are, on utilitarian grounds, morally required. This approach underlies Singer's (2015) broader program of effective altruism, which seeks to direct moral action toward interventions that maximize global well-being in the most cost-effective ways.

If moral duty is so demanding, why should we be moral? Consistent with their hedonist approach to understanding welfare (i.e., emphasizing pleasure or subjective positive experience), utilitarian philosophers have attempted to show that acting morally can contribute to our emotional or psychological fulfillment. For example, Henry Sidgwick (1981) argued that the selfish individual often fails to achieve true happiness. In his view, excessive focus on personal pleasure leads one to miss out on the richer satisfactions that come from concern for others:

the excessive concentration of attention on the individual's own happiness which renders it impossible for him to feel any strong interest in the pleasures and pains of others...the selfish man misses the sense of elevation and enlargement given by wide interests; he misses the more secure and serene satisfaction that attends continually on activities directed towards ends more stable in prospect than an individuals' happiness can be; he misses the peculiar rich sweetness, depending upon a sort of complex reverberation of sympathy (p. 501).

Similarly, Peter Singer (2011) drew on findings from positive psychology, suggesting that individuals who give to charity or engage in community service tend to report higher levels of happiness than those who do not. He also references Maslow's hierarchy of needs to argue that ethical living contributes to self-actualization, and is thus part of what makes a life fulfilling.

Still, many utilitarians remain cautious about claiming that morality always serves self-interest, especially given the exacting nature of utilitarian duty. Sidgwick, in particular, was deeply aware of this tension. He maintained that even the fullest development of sympathetic concern “would not cause a perfect coincidence between utilitarian duty and self-interest” (1981, p. 502). While he believes that in most cases the “what is recognized as duty is in harmony with self-interest properly understood”, he thinks that in “the rarer cases of a recognized conflict between self-interest and duty”, practical reason would “be divided against itself and “would crease to be a motive on either side” (p. 508). In other words, neither self-interest nor moral duty

would have rational supremacy in such cases of conflict. This is referred to as the “dualism of practical reason” in Sidgwick’s ethical thoughts (Frankena, 1974; Scanlon, 2015; Sidgwick, 1981).

4. The separation of morality from self-interest in Kantian ethics

Not all moral philosophers hold that the rational authority of morality depends on whether it is good for the agent. Immanuel Kant (1785), for example, proposed that morality is a requirement of reason—a categorical imperative—such that the moral rightness or justice of an action is immediately recognized by rational agents, and not contingent upon whether the action promotes personal happiness or produces favorable outcomes. For Kant, a truly moral action is one done solely from the motive of duty—that is, because it is right—not from concern for its consequences, whether those consequences are framed in terms of the common good (as in utilitarianism) or personal well-being (as in ethical egoism, including virtue ethics).

The Kantian position implies a sharp distinction between morality and self-interest, both in terms of the source of moral judgment and the motivation for moral action. First, with regard to moral judgment, we do not need to consult our self-interest or happiness to determine whether an action is just or morally right. In other words, the rightness or justice of an act is not derived from, nor dependent on, its contribution to our own good. Second, with respect to moral motivation, for an action to have genuine moral worth, it must be done from a sense of duty—that is, out of recognition of what is right—rather than from prudential motives or a concern for personal happiness, regardless of how happiness is defined.

On this basis, the philosopher H.A. Prichard (1912, 2002) maintained that the branch of moral philosophy concerned with justifying morality by appealing to self-interest rests on a fundamental mistake. According to Prichard, attempts to answer the question, “Why should I do what is moral?” by appealing to nonmoral or prudential reasons (e.g., “Because it is in our best interest to be moral”) fail to recognize the irreducible and distinct nature of moral reasons.

However, Prichard’s position on this issue has been widely contested. Critics have stated that posing the question “Why should one do what is moral?” or “Is the morally right action good for oneself?” does not necessarily reduce morality to self-interest or imply that one is seeking a purely prudential reason to act morally. As David Schmidtz (2008) points out, “Even if we grant that being moral involves following a categorical imperative (regardless of self-interest), we remain free to ask whether we are better off following a categorical imperative” (p. 84). In this view, such questions are not attempts to conflate morality with self-interest, but rather legitimate inquiries into whether and to what extent the two normative domains coincide. They seek to understand the potential harmony or conflict between moral duty and self-interest, without denying that each constitutes a distinct and autonomous source of practical reason.

The above review offers only a broad overview of representative positions in major moral theories and does not fully capture the complexity and richness of philosophical debates on the relationship between morality and self-interest. Nonetheless, it is fair to say that more philosophers have sought to defend the idea that acting morally is good for the agent than those who have denied such congruence or rejected the project altogether (such as Prichard). Importantly, the specific positions philosophers take on this topic often depend on how they define or interpret the notions of “morality” and “self-interest.” In many cases, their views are

shaped by a prescriptive understanding of one or both concepts. For example, a philosopher may reject certain forms of morality as overly self-denying while maintaining that “true” morality aligns with personal good, particularly when reframed through the lens of “enlightened self-interest,” as in some forms of ethical egoism. Yet this strategy raises concerns, as it can blur the conceptual boundaries between morality and self-interest. As Frankena (1971) warned, “prudentialism or living wholly by the principle of enlightened self-love just is not a kind of morality.” While such distinctions may pose challenges for philosophical theory, they are less problematic for moral psychology, which generally treats morality as involving impartial concern for others’ interests or altruistic motivation.

Psychological and developmental theories and research

1. Behaviorism and Freudian theory

Both behaviorist and Freudian approaches understand moral functioning and development not as the product of conscious reasoning or deliberate belief, but as the outcome of unconscious psychological processes or social conditioning. For behaviorists, moral behavior is learned through reinforcement—rewarded by praise, social approval, or the avoidance of punishment (Skinner, 1971). Likewise, Freudian theory holds that moral conduct is regulated by the *superego*, an internalized authority formed through parental and societal influence, which enforces morality via feelings of guilt and anxiety (Freud, 1930). In both perspectives, the motivation to act morally arises not from rational reflection, but from the pursuit of psychological equilibrium—the satisfaction of self-regarding desires through the management of inner tensions and the maintenance of emotional and social stability.

While behaviorists emphasize external reinforcement histories and Freudian theory focuses on internal psychic conflict, both acknowledge that moral behavior can align with self-interest by helping individuals avoid external sanctions (e.g., punishment, disapproval) and internal discomfort (e.g., guilt, anxiety). At the same time, both perspectives recognize that moral demands can impose psychological costs, especially when moral norms conflict with instinctual desires or drives—whether through lost gratification or repression. This is particularly explicit in Freud’s view, where moral norms are often experienced as external impositions, curbing natural instincts of aggression or sexuality. Despite these propositions, neither approach seriously engages with how individuals reflect on or make sense of the relationship between morality and self-interest in their own thinking. Such reflective processes are generally dismissed—by behaviorists as epiphenomenal (not causally relevant to behavior), and by Freudians as rationalizations or coping mechanisms aimed at preserving internal stability.

2. Piaget’s and Kohlberg’s cognitive-developmental theories

The cognitive-developmental approach, as advanced by Piaget (1932) and Kohlberg (1969, 1971), critiqued both behaviorist and psychoanalytic theories, particularly their socialization models of morality. Rather than viewing moral development as passive internalization of external rules, they proposed that individuals actively construct moral understandings through social experience. Their focus was primarily on moral cognition, especially the criteria by which individuals judge actions as right or wrong, just or unjust. A central concern in this tradition was whether, and at what point in development, moral judgments become differentiated from mere conformity to social conventions or authority dictates. Both

Piaget and Kohlberg identified early stages in which moral rightness is conflated with obedience to rules, but they also emphasized a developmental shift toward autonomous, principled moral reasoning.

While their work did not focus explicitly on the relationship between morality and self-interest—partly due to their Kantian commitments—some elements are relevant. For instance, Piaget (1932) distinguished between a “morality of obligation” and a “morality of goodness”¹. The former reflects a heteronomous stance, where rules are experienced as external impositions; the latter characterizes autonomy, where moral rules are seen as rational, desirable, and intrinsically good. This suggests that moral compliance, when fully understood, can be subjectively experienced as aligned with one’s own values and interests. Moreover, Piaget’s account of genuine (autonomous) morality is rooted in reciprocal social relationships which involve mutual respect and cooperation. Moral norms arising from such reciprocity appear to accommodate the interests of all parties involved, suggesting that following them is not merely dutiful but also beneficial to the individual.

In Kohlberg’s theory of moral development, there appears to be an alignment between morality and self-interest at two distinct stages. First, at the preconventional (premoral) level, moral behavior is guided by external rewards and punishments—thus aligning moral rightness with self-interest in a rudimentary sense. Second, at the highest (postconventional) stages, Kohlberg suggests a more integrated unity of morality and rational selfhood. He maintained that “a mature belief in moral principles in itself engenders a sacrifice of the rational ego” (Kohlberg, 1971, p. 232), indicating that genuine moral understanding involves seeing moral action as rational, even when it entails personal costs. In his later work, Kohlberg introduced the notion of “soft stages” to supplement the formal “hard stages” of moral reasoning. These soft stages involve existential reflection and the development of an ethical or religious worldview—a broader philosophical outlook encompassing conceptions of human nature, society, and ultimate reality (Kohlberg et al., 1984). Unlike the first-order moral reasoning of hard stages, these second-order reflections concern questions such as “Why should I be moral?” or “Is it good for the self to do what is right?”, suggesting that mature moral agents not only reason about right and wrong but also engage in deeper reflection on the relationship between morality and selfhood.

It is important to note, however, that these aspects of Kohlberg’s theory are often overlooked. His work is primarily remembered for the “hard stages” of moral reasoning, which focus on the criteria used to determine what is morally right or wrong.

3. The integration of morality and self-interest in post-Kohlbergian theories

Critics of Kohlberg’s theory have long expressed dissatisfaction with its emphasis on moral cognition, arguing that while moral reasoning is a crucial component of moral development, it is insufficient on its own to motivate moral action (Blasi, 1980; Kristjánsson & Fowers, 2024; Nunner-Winkler, 1998; Power, 2005; Walker, 2004). This concern is often framed

¹ In *The Moral Judgment of the Child*, Piaget (1932) repeatedly distinguishes between a “morality of duty” and a “morality of goodness.” For example, he notes that “alongside of the sense of duty we must... distinguish a sense of goodness, a consciousness of something attractive and not merely obligatory, a consciousness that is fully autonomous” (p. 106). Later, he observes that “[t]here is no room in such an ethic for what moralists have called the good, in contrast to the right or pure duty, since the good is a more spontaneous ideal and one that attracts rather than coerces the mind.... The good is a product of cooperation. But the relation of moral constraint which begets duty can of itself lead to nothing but heteronomy. In its extreme forms it leads to moral realism” (p. 195).

as the judgment-action gap or the problem of moral motivation, and various scholars have proposed additional psychological constructs—such as moral emotion, moral identity, purpose, and more recently the Aristotelian concept *phronesis*—to help bridge this gap.

Notably, these constructs all purport to enhance moral motivation by linking moral action to psychological aspects of personal well-being. Moral emotions, for instance, are considered to be more directly tied to one's psychological well-being than moral reasoning. While failing to act on moral knowledge may have no immediate personal consequence, ignoring strong emotional cues—such as empathy, guilt, shame, or pride—can cause psychological discomfort and thus serve as powerful motivators for moral action (e.g., Batson et al., 1981; Hoffman, 2000; Nussbaum, 2001). Another influential construct is “moral identity”, which refers to the extent to which individuals incorporate moral values into their self-concept (Bergman, 2004; Blasi, 1984; S. A. Hardy & Carlo, 2005; Hertz & Krettenauer, 2016; Walker, 2014). It is maintained that when morality becomes central to one's identity, acting immorally can threaten one's sense of self and thus generate internal conflict. Similarly, the construct of “purpose” (Colby et al., 2023; Damon, 2009) highlights how individuals who frame their personal goals in terms of morally meaningful projects are more likely to act morally. In such cases, morality is not merely an obligation but a source of meaning and personal enrichment. Finally, the Aristotelian notion of *phronesis* (practical wisdom) also reflects this alignment, integrating moral judgment with a vision of the good life in which virtuous action is essential to personal fulfillment (e.g., Darnell et al., 2019).

4. Evidence of various benefits of prosocial or altruistic behaviors

In recent decades, a growing body of empirical research—often grounded in evolutionary theory—has investigated the personal benefits of prosocial or altruistic behavior. These behaviors, typically defined as acts intended to benefit others at some cost to oneself (e.g., helping, sharing, donating), have long posed an explanatory challenge for evolutionary theorists: if such behaviors incur costs, why would natural selection favor them? (e.g., Hamilton, 1964; Trivers, 1971) This has motivated researchers to explore the proximate psychological and biological mechanisms that sustain altruistic behavior and to examine whether such behaviors confer any benefits to the agent, despite their apparent cost. Research has generally identified three main types of benefits associated with engaging in prosocial behavior: psychological or emotional benefits, physiological health benefits, and social benefits.

Psychological or emotional benefits: Numerous studies have shown that prosocial behavior is closely associated with increased psychological well-being. Individuals (including young children and even nonhuman primates) tend to experience “warm glow” after helping others—an immediate positive affective response that reinforces altruistic behavior (Aknin et al., 2012; de Waal et al., 2008; Yang, 2025). Acts of helping have been found to improve mood (Yinon & Landau, 1987), reduce stress and anxiety (Lazar & Eisenberger, 2022; Raposa et al., 2016), and foster a greater sense of meaning in life (Klein, 2017). These findings suggest that prosocial acts can serve as a natural emotion regulator, enhancing personal well-being even in the absence of external rewards.

Physical and physiological benefits: Beyond psychological effects, prosocial behavior has also been linked to better physical health and increased longevity (Brown & Brown, 2015; Post, 2005). For instance, Brown and Brown (2015) suggested that perceiving others in need activates caregiving systems in the brain, particularly the medial preoptic area of the hypothalamus, which interacts with stress-regulating hormones like oxytocin and progesterone.

These hormones help buffer stress and promote recovery, potentially explaining the health benefits of helping others.

Social benefits: Finally, prosocial behavior yields important social advantages. Acts of kindness and generosity contribute to a positive reputation, enhance social bonds, and increase the likelihood of reciprocal help in the future (Engelmann & Rapp, 2018; Kawamura et al., 2021). From an evolutionary standpoint, such social benefits improve one's standing in a community and can facilitate long-term success within cooperative networks (e.g., Hardy & Van Vugt, 2006; Trivers, 1971).

Taken together, this research suggests that prosocial or altruistic behaviors, far from being purely sacrificial, are deeply intertwined with different aspects of individual well-being.

5. Social domain theory and the coordination model of decision-making

Unlike Kohlberg (1969), who proposed that young children (at his second stage) conflate moral right and wrong with self-interest, Turiel and colleagues have maintained that morality constitutes a distinct domain of social knowledge from early childhood (e.g., Killen & Smetana, 2015; Nucci, 2001; Turiel, 1983, 2015a). According to social domain theory, moral reasoning emerges as conceptually separate from other domains of thought, including social conventions, personal preferences, and prudential concerns. A large body of research has suggested that across cultures and age groups, moral transgressions are judged to be more serious, more generalizable, and not dependent on external authority, and such (moral) judgments are typically justified on grounds of harm or welfare, fairness or justice and rights. More pertinent to the relation between morality and self-interest, moral judgments are treated as impersonal and impartial—valid regardless of the agent's personal desires, inclinations and interests. This emphasis on universality and autonomy in moral reasoning reflects key features of Kantian ethics, particularly the idea that morality is conceptually and motivationally distinct from self-interest.

Building on these findings, Turiel and colleagues (Nucci et al., 2017; Turiel, 2015b, 2022; Turiel & Gino, 2017) proposed that these domain distinctions have significant implications for understanding the relationship between moral judgment and action. In contrast to approaches that attribute moral inaction to deficits in motivation, social domain theorists propose that moral decision-making involves the coordination of multiple, often competing, types of judgment—including moral, conventional, personal, and prudential considerations. This process of “coordination” entails weighing and integrating these considerations in light of the particularities of the situation (Nucci et al., 2017; Turiel, 2023). From this perspective, apparent gaps between moral judgment and behavior do not necessarily indicate motivational failure; rather, they may reflect the complexity of reasoning across domains. Individuals may judge an act to be morally wrong but still choose it after considering other relevant, nonmoral factors. Thus, moral action cannot be understood without taking into account the whole landscape of judgments involved in deciding what to do in a particular situation—not merely moral judgment.

Rationale for the present study

1. Two dimensions of understanding about the relation between morality and self-interest

Just as philosophers and psychologists reflect on whether being moral is good for the self, ordinary individuals engage in similar reflective thinking. As rational agents, people construct

informal or “folk” theories of morality grounded in experiences, which are likely to involve understandings of the relation between moral duty and self-interest. These reflections, unlike spontaneous moral judgments, are second-order thoughts—what Frankena (Frankena, 1980, p. 198) called “thinking about morality” rather than first-order moral reasoning (e.g., judging that stealing is wrong).

This understanding unfolds in two interconnected dimensions: abstract and concrete. On the abstract level, individuals may contemplate questions about the nature of morality, its authority, and its relation to concepts like happiness and self-interest. While such reflections lack the rigor and systematicity of philosophical theories, they are nonetheless meaningful and worth of investigation as everyday expressions of moral understandings. On the concrete level, people often consider whether a particular moral action—especially one involving personal cost—is good for themselves from a prudential standpoint. This kind of judgment about the congruence between moral action and what is good for oneself, is distinct from both moral judgment and subjective motivation. One might judge an action to be morally right but not personally beneficial, or act from altruistic desire without believing the act serves one’s own well-being. For example, someone may take joy in helping others yet believe they neglect their own interests in doing so. Similarly, just because research shows that prosocial behavior leads to psychological benefits doesn’t mean individuals consciously judge such acts as good for themselves. The present research focused on these self-reflective judgments—an aspect often overlooked in empirical work.

Importantly, abstract beliefs and concrete judgments may not align (Helwig, 1998; Turiel, 2023; van den Berg et al., 2022). Individuals might hold general views about morality being good or not good for the self but reach different conclusions in specific situations involving moral conflict. This disconnect warrants close empirical attention to both levels of understanding.

2. The role of moral congruence judgment in decision-making

This study hypothesized that individuals’ judgments about whether a moral course of action aligns with their own good or self-interest may play a meaningful role in their moral deliberation and ultimate decision-making. Much empirical research on moral action tends to neglect the internal reasoning process, focusing instead on external behavior (i.e., what participants choose to do) and inferring motives from behavioral outcomes in conjunction with situational variables. This is especially true in studies of moral decision-making under conflict, where choices are often interpreted as the outcome of a struggle between opposing motivational tendencies: moral (altruistic) versus egoistic (e.g., Black et al., 1974; Khan et al., 2020; Tasimi et al., 2017). While deliberation is acknowledged, it is typically not regarded as causally determinative of the final decision.

In contrast, this study adopted the view—aligned with Turiel’s coordination model of decision-making—that individuals are reflective agents who reason through competing considerations. Moral decisions are understood not as simple outputs of dominant impulses but as conclusions reached through weighing and balancing diverse concerns. For instance, one might prioritize preventing harm over honesty, accept social exclusion to achieve a group goal, or tolerate deception and harm in pursuit of a scientific enterprise (Nucci et al., 2017; Turiel, 2015a, 2023; Turiel & Gingo, 2017).

While researchers have explored the coordination of these different moral and nonmoral concerns or reasons, little attention has been paid to how individuals coordinate moral considerations with self-interest. Although moral judgments are conceptually distinct from self-interest, individuals may still reason about their alignment without reducing one to the other. Importantly, the presence of material cost does not necessarily lead one to judge a moral action as “bad for oneself,” just as personal gain does not automatically render an immoral action “good for oneself.” Conceptions of self-interest are multidimensional, encompassing not just material outcomes but also emotional, psychological, and social well-being.

Thus, concrete judgments about whether a moral action is good for the self in a given context can be understood as a distinct and influential element of moral reasoning. These judgments are likely to correlate with moral choices and may help explain why individuals sometimes choose to act morally despite personal cost—or reject moral action even when aware of its moral goodness.

3. Variables that possibly influence judgments of moral congruence

How one perceives a moral act in relation to one’s own interest is presumably affected by several factors. One is, obviously, the magnitude of direct costs (or loss of benefits) incurred by the moral choice. It is reasonable to expect, for instance, that moral actions involving substantial sacrifices—such as heroic or supererogatory acts—are less likely to be judged as “good for” the agent. Numerous prior studies have examined how variations in personal cost influence moral judgments and decisions (Eisenberg & Shell, 1986; Green et al., 2018; Kahn, 1992; Kawamura et al., 2021). Additionally, while low-cost moral acts are often performed spontaneously and unreflectively, high-cost situations are more likely to activate more self-reflexive thinking and deliberation about what to do, prompting the agent to consciously weigh morality against self-interest (Sobesky, 1983). In such cases, one may more naturally engage in thinking about the problem of moral congruence in deliberation.

A second factor likely to influence judgments of moral congruence is the perceived moral significance or weight of the situation. Some empirical studies have drawn broad conclusions about moral judgment and decision-making based on relatively trivial behaviors—for example, whether participants help pick up dropped papers—without considering the moral weight or seriousness of the action involved (e.g., Isen & Levin, 1972). Such low-stakes scenarios may not adequately capture the reflective processes that occur in more consequential moral contexts. Perceived moral significance appears to be an important factor in shaping both deliberation about what one ought to do and judgments about whether acting morally aligns with one’s own good. Situations viewed as morally significant are more likely to prompt conscious and reflective thought. In such contexts, individuals may also experience a heightened sense of fulfillment or emotional reward, knowing that their actions have a great impact on others (Colby et al., 2023; Colby & Damon, 1993).

The third variable hypothesized to influence moral decisions and judgments of moral congruence is the valence of the moral act—that is, whether the act is positive (e.g., helping, sharing) or negative (e.g., refraining from stealing or harming). This distinction aligns with well-established classifications in moral philosophy, such as the difference between beneficence and justice (Ross, 1930; Sidgwick, 1981), or between positive (imperfect) and negative (perfect) duties (Kant, 1785; Pogge, 2002). In general terms, negative moral acts involve refraining from causing harm or violating others’ rights and are often viewed as strict obligations or duties.

Positive moral acts, by contrast, involve actively promoting others' well-being and are more often seen as praiseworthy but non-obligatory. This distinction is echoed in moral developmental research. Some scholars understand morality in terms of a sense of rightness, justice and duty, and their research primarily focus on how individuals judge right and wrong in response to moral transgressions (e.g., Nucci et al., 2017; Tisak & Turiel, 1988; Turiel, 1983). Others consider beneficence and altruism to be more central to morality, and have explored prosocial behaviors and altruistic motivations.

Empirical findings also reveal asymmetries in how people evaluate these two types of acts. For example, Kahn (1992) found that children tend to regard negative moral acts (e.g., stealing) as obligatory to avoid, while they view positive moral acts (e.g., donating money or food) as discretionary—admirable but not required. Similarly, other research shows that judgments of moral blame for harmful actions are often stronger or more clear-cut than judgments of moral praise for helpful ones. These asymmetries suggest that the valence of a moral act may play a role in how individuals assess whether such actions are aligned with their own well-being, and that coordination of morality and self-interest may take on different forms for positive versus negative moral acts or situations.

Taken together, these three factors—magnitude of personal cost, moral significance, and valence of the moral act—are proposed as relevant to how individuals judge the relationship between moral action and personal good in specific situations. Exploring these variables will also provide insight into the deliberation process where moral concerns and self-interest are to be coordinated. The present study thus investigates whether and to what extent these variables influence individuals' moral congruence judgments (judgments about the relation between moral action and personal good) as well as their decisions (about what one should do) in particular hypothetical situations.

Chapter 3: Methods

Participants

The study included 111 participants (50 males, 61 females) across three age groups: children ($N = 32$), young adults ($N = 39$), and older adults ($N = 40$). Recruitment aimed to ensure demographic diversity across age, race/ethnicity, and religious affiliation, though the study did not systematically examine the effects of these variables.

Children (ages 11–14, $M = 13.0$, $SD = 1.20$) were recruited primarily through parent networks in the San Francisco Bay Area, including the Berkeley Parents Network, Facebook parent groups, and Nextdoor. Some participants were also referred by families whose children had already taken part. The group was racially and ethnically diverse: 37.5% White, 25% mixed race, 18.8% Black, 15.6% Asian, and 3.1% Hispanic or Latino. In terms of religious identification, 46.9% reported being religious and 53.1% not religious. Young adults (ages 18–24, $M = 20.6$, $SD = 1.40$) were recruited from UC Berkeley through the Psychology Department's research participation program and the Haas School of Business Xlab participant pool. The sample was 56.4% Asian, 20.5% White, 17.9% Hispanic or Latino, and 5.2% mixed race. A majority (59%) identified as religious, while 41% did not. Older adults (ages 34–67, $M = 44.0$, $SD = 8.20$) were recruited via Prolific, an online research platform with U.S.-based verification. Two participants were excluded due to incomplete or uncodable data, resulting in a

final sample of 40. This group was predominantly White (87.5%), with smaller proportions identifying as Hispanic or Latino (7.5%) and Asian (5%). Religiously, 57.5% identified as religious and 42.5% as not religious. While race, ethnicity, and gender were recorded, these variables were not the focus of analysis. Preliminary checks indicated no significant effects of these demographic factors on the main outcomes, and they were therefore not included in subsequent statistical analyses.

Because the present study was exploratory and involved multiple categorical outcome measures and comparisons across age groups and scenarios, no a priori power analysis was conducted. Instead, a post-hoc sensitivity analysis was performed for the chi-square tests of independence that constituted the primary inferential analyses. With a total sample size of $N = 111$ and $\alpha = .05$, the study had adequate power ($\approx .80$) to detect medium-to-large effects for 2×2 and 2×3 contingency tables (i.e., Cohen's $w \approx .27 - .30$ or larger, corresponding to $df = 1$ or $df = 2$). For sub age groups with smaller sample sizes, the analyses were primarily sensitive to large effects. Fisher's exact tests were used when expected cell counts were small, and nonsignificant results in these cases are interpreted cautiously in light of limited power.

Design and Procedures

Participants were comprised of three age groups: children, young adults, and older adults. The two younger groups participated in approximately 30-minute individual interviews conducted via Zoom with the researcher. Older adults completed an online survey administered through the platform Prolific. The survey was created using Qualtrics and was directly adapted from the structured interview format, containing the exact same questions. The average completion time for the survey was 15.6 minutes.

The interview or survey consisted of two parts. In the first part, participants responded to four general questions, presented in a fixed order:

- 1) People often say that acting morally is “good”. This generally means that moral acts are good for their recipients and society. But do you think that acting morally is good for the person himself (or herself)? Why or why not?
- 2) Do you think there are occasions where doing what is moral is not good for oneself? Please provide an example(s).
- 3) Do you believe that good things will happen to people who have done morally good things? Why or why not?
- 4) Do you believe that bad things will happen to those who have done morally bad things? Why or why not?

Participants were asked to provide reasons or justifications for most of their responses. These general questions were exploratory in nature and were not designed to test specific hypotheses. Instead, they served as warm-up questions to orient participants to the central theme of the study: how individuals understand the relationship between moral action and the well-being or self-interest of the moral agent.

In the second part, participants were presented with four contextualized hypothetical moral situations. Each situation belonged to one of the four main story types: Helping, Intervening, Stealing, and Bribing. For each situation, participants received either a low-

cost/gain or high-cost/gain version, resulting in a total of four situations per participant. In addition to the cost/gain manipulation, the situations varied along two other conceptual dimensions: the valence of the moral act (positive vs. negative) and the degree of moral seriousness or moral stake (low vs. high). These two dimensions were embedded in the structure of the situations but were not made explicit in their presentation. Nonetheless, it was expected that participants would be sensitive to these differences and that such factors would be reflected in their responses and judgments.

Participants were first presented with two positive moral situations. The first was the Helping situation, in which the protagonist, John, must decide whether to help a young boy pick up dropped stationery. The cost of helping varied: in the low-cost version, John would miss his bus and wait an additional 15 minutes; in the high-cost version, he would miss soccer tryouts and lose the opportunity to join the team. The second was the Intervening situation, in which the protagonist, Daniel, must decide whether to intervene to stop a school-aged boy from being bullied. In the low-cost version, intervention would cause Daniel to miss his bus and wait 15 minutes; in the high-cost version, intervention posed a risk of Daniel being bullied or physically harmed himself.

Assignment to the low- or high-cost version of each situation was randomized; however, the design ensured that each participant received one low-cost and one high-cost version across the two positive situations. For example, if a participant received the low-cost version of the Helping situation, they would receive the high-cost version of the Intervening situation, and vice versa.

After the positive situations, participants were presented with two negative moral situations. The third situation was Stealing, in which the protagonist, Judy, encounters a ten-dollar bill dropped by another girl at the playground. In the low-gain version, Judy is described as coming from a wealthy family and already having sufficient cash, making the money unnecessary for her. In the high-gain version, Judy is saving money for a concert ticket and is just ten dollars short, increasing the temptation to keep the money. The fourth and final situation was Bribing, in which the protagonist, Mr. Smith, a high school principal, must decide whether to award a fellowship to an unqualified student in exchange for a personal benefit. In the low-gain version, the bribe is a fancy dinner; in the high-gain version, it is a large sum of money. As with the positive situation, assignment to low- or high-gain versions of the negative situations was randomized, but participants received one low-gain and one high-gain version across the two. This counterbalanced design ensured approximately equal distribution of participants across all cost and gain conditions for each situation. Table 1 provides an overview of all eight hypothetical situations and the number of responses to each situation by age group.

Table 1 Number of responses to each situation by age group

	Children	Young adults	Older adults	Subtotal
Helping-Low Cost	16	19	20	55
Helping-High Cost	16	20	20	56
Intervention-Low Cost	16	20	20	56
Intervention-High Cost	16	19	20	55
Stealing-Low Gain	16	20	20	56
Stealing-High Gain	16	19	20	55
Bribing-Low Gain	16	19	20	55
Bribing-High Gain	16	20	20	56

After the situation was read aloud, the interviewer invited participants to ask any questions or express confusion to ensure they fully understood the situation. The participant was then asked three major follow-up questions with regard to the relevant hypothetical situation.

The first question was: “What should the protagonist do? Why?” This question concerned practical decision-making. It prompted participants to make a conclusive judgment about what the protagonist ought to do in the given situation. Such a judgment was assumed to be a normative, all-things-considered assessment of what action is rational or appropriate, taking into account both moral and non-moral (mainly self-interested) considerations. Importantly, judgments about what one “should” do may express different normative weights: they may reflect a recommendation or ideal (i.e., what would be good to do), or a stronger sense of obligation or duty (i.e., what one must do, or what it would be wrong not to do). Participants were required to provide reasons or justifications for their moral decision judgments.

The second question was: “Would it be alright if the protagonist does not do [M] but instead does [S]?” Here, [M] refers to the morally right or good course of action, and [S] refers to the alternative course of action that prioritizes personal interest. This question aimed to elicit participants’ judgments of moral permissibility specifically—that is, whether the protagonist is morally obligated to choose [M], or whether it is permissible to forgo [M] in favor of [S]. This is distinct from the first question, which concerns what should be done. One might judge that the protagonist should do M, yet still regard doing S as morally permissible. Across all situations, [M] and [S] were framed in neutral language (e.g., “help the boy” rather than “do the right thing”) to avoid influencing participants’ judgments by explicitly labeling certain choices as moral or self-interested. Participants were not required to provide reasons or justifications for their moral permissibility judgments.

The third question, directly tied to the central theme of the study, was: “Is doing [M] good for the protagonist himself? Why?” This question sought to elicit participants’ moral congruence judgments—specifically, whether doing the morally good action is also good for the agent, or aligns with their own well-being. The question was posed regardless of the participant’s responses to the earlier questions. In some cases, following this question participants were further probed: “Would it still be good for the protagonist if they didn’t want to do [M]?” This

was designed to test if the participant regarded the congruence judgment (“good-for” judgment) as contingent upon the protagonist’s subjective attitude toward the action. That is, did participants view the goodness of the moral act for the agent as dependent upon the agent’s subjective desires or not? This question was not asked if the participant already made their earlier moral congruence judgment contingent upon the protagonist’s subjective concerns, motives and desires. Participants were required to provide reasons or justifications for their moral congruence judgments (but not for their answers to the probing question).

Table 2 summarizes these follow-up questions for contextualized hypothetical situations, including what each question was meant to measure and the corresponding judgments they were supposed to elicit from participants.

Table 2 Follow-up questions for hypothetical situations

Name	Question	Measure
Moral decision judgment	What should [the protagonist] do in this particular situation? Why?	Participant’s judgment about what the protagonist should do, all things considered.
Moral permissibility judgment	Would it be alright or not alright for [the protagonist] to not act morally and instead prioritize his or her personal interest?	Participant’s judgment about whether the moral act or choice is obligatory (or the self-interested act is permissible).
Moral congruence judgment	a. Would acting morally be good for the protagonist him- or herself? Why? b. Would acting morally be good for the protagonist if he/she were unwilling to do it?	Participant’s judgment about the congruence between morality (what would be morally good to do) and self-interest (what would be good for oneself to do), and whether the congruence judgment is dependent upon the subjective motivations or desires of the agent/protagonist.

Coding and reliability

Responses to most of the interview questions consisted of two components: an evaluation (or judgment) and a corresponding justification (or reason). The evaluation refers to the participant’s direct answer to the interview question—for example, whether an action was considered good or not good for the agent. The justification refers to the participant’s explanation or reasoning in response to the “why” portion of the question.

Because most interview questions were designed to elicit affirmative or negative judgments—such as “yes” or “no”—evaluations were coded using a dichotomous framework

(e.g., yes–no, alright–not alright, good–not good, morality–self-interest), with an additional category for responses expressing uncertainty, ambivalence, or indecision. These latter responses were coded as “depends/unsure”. Although the moral decision question (“What should the protagonist do?”) might appear open-ended, participants’ responses typically aligned with one of three positions: (1) the protagonist should do what is morally right or good, (2) the protagonist should prioritize personal interest, or (3) the participant expressed uncertainty or qualified their answer. Thus, these responses were also categorized using the same tripartite coding scheme: “moral”, “self-interest”, or “depends/unsure”.

The coding schemes for participants’ justifications were developed with reference to established frameworks in research on social and moral reasoning, particularly those grounded in the social-cognitive domain theory (e.g., Davidson, Turiel, & Black, 1983; Kahn, 1992). Initial justification categories were generated inductively from approximately 40% of the full dataset (N = 111), with transcripts selected to ensure balanced representation across conditions and age groups. These preliminary categories were then applied to the remaining transcripts, with minor revisions made throughout the coding process. Revisions included the addition, removal, merging, and reorganization of justification categories in response to emergent patterns in the data.

The finalized coding system comprised two distinct justification coding schemes: one for responses to moral decision questions and another for responses to moral congruence questions, named as “Justification categories for moral decision judgments”, and “Justification categories for moral congruence judgments”, respectively (see Appendix B for a detailed description of the justification categories). Because participants often provided multiple reasons within a single response, up to three distinct justifications were coded per response in order to capture the full range of their reasoning.

Table 3 List of question types and their corresponding coding schemes

Question type	Evaluation categories	Justification categories
General questions	Yes; No; Depends/unsure	See “Justification categories for moral congruence judgments” in Appendix B
Moral decision questions	Moral; Self-Interest; Depends/unsure	See “Justification categories for moral decision judgments” in Appendix B
Moral permissibility questions	Alright; Not alright; Depends/unsure	No justification requested
Moral congruence questions	Good; Not good; Depends/unsure	See “Justification categories for moral congruence judgments” in Appendix B

An independent coder, who was trained in the application of the coding scheme and blind to participants' age, sex, and ethnicity, scored 15% of the interview transcripts. This subset included 18 interviews: 5 from the child group, 6 from the young adult group, and 7 from the older adult group. The independently coded data comprised 248 evaluation responses and 198 justification responses. For the evaluation responses, inter-rater agreement was high, with Cohen's Kappa calculated at $\kappa = .94$.

Given the nature of the justification responses (i.e., many of which were coded with multiple categories drawn from a large and diverse coding scheme), Cohen's Kappa was not an appropriate measure of inter-rater reliability. Cohen's Kappa assumes that each coding unit is assigned a single, mutually exclusive category, and it does not account for partial overlap when multiple codes are applied to the same response. In contrast, percent agreement provides a more straightforward and transparent measure of reliability under these conditions. Using this approach, the two coders achieved an exact agreement of 81% for justification of moral decision questions and 86% for justification of moral congruence questions.

Chapter 4: Results

Responses to general questions

The general questions formed the opening section of the interview. Designed to be broad, these questions aimed to capture participants' general, non-contextual beliefs about the relationship between morality and self-interest. This focus was guided by the premise that moral understanding inherently involves such a relationship, given the persistent tension—whether of congruence or conflict—between moral considerations and self-interest in everyday life. The four questions (see [Design and Procedures](#) or [Appendix A](#) for the complete list) each explored this relationship from slightly different angles. Beyond eliciting non-contextual beliefs, these questions also served as a thematic “warm-up”, familiarizing participants with the study's focus. Due to their exploratory and open-ended nature, as well as this priming function, the responses were not subjected to statistical analysis (e.g., chi-square tests). Instead, only descriptive frequencies and percentages are reported (displayed in Table 4).

When asked whether acting morally is generally good for the individual, a large majority (86%, 95 out of 111) answered affirmatively. This view was consistently held across age groups: 84% of children, 90% of young adults, and 83% of older adults responded positively. Among those who endorsed this view, reasons centered primarily on emotional-psychological benefits (50%) and social benefits (36%). The most frequently cited reason—across all ages—was the positive emotional state that follows moral action (e.g., “Acting morally makes people feel good!”). Others explained that moral behavior supports mental health by preventing guilt and fostering peace of mind. Several participants also tied morality to identity, noting that moral actions reinforce self-respect, whereas immoral behavior damages self-worth.

In contrast, those who answered “No” or “Depends” (7% each) often acknowledged potential personal benefits of moral action but questioned whether these typically outweigh the costs, inconveniences, or personal sacrifices involved.

Responses to the second question—whether moral action can sometimes be not good for the individual—also showed consensus: 87% believed such situations exist, and most provided

examples. However, children (78%) were less likely than young adults (95%) or older adults (90%) to recognize this possibility. Children also gave the highest percentage of “No” responses (16%), denying that moral acts could ever be detrimental, compared to young adults (3%) and older adults (10%). In the examples offered, participants largely framed the “harm” from moral acts in tangible, material, or social terms—such as significant personal loss or social costs—contrasting sharply with the psychological and emotional benefits most often cited as reasons why acting morally is beneficial.

Table 4 Percentages of participants' responses to general questions

	G1		G2		G3		G4	
	“Acting morally is good for oneself in general.”		“There are situations in which acting morally is not good for oneself”.		“Good things will happen to those who have done morally good things.”		“Bad things will happen to those who have done morally bad things.”	
	Yes	No	Yes	No	Yes	No	Yes	No
Children	84	9	78	16	72	22	69	25
Young adults	90	5	95	3	62	26	67	31
Older adults	83	8	90	10	58	33	48	50
Average	86	7	87	9	64	27	61	35

The fourth and fifth questions (“Do you believe that good/bad things will happen to people who have done morally good/bad things? Why or why not?”) explored the perceived link between an agent’s moral (or immoral) actions and their subsequent personal outcomes, framed as “good” or “bad” events and circumstances. These questions probe a belief in a kind of moral causality, which aligns conceptually with notions of karma or the Just World Belief (e.g., Furnham, 2003; Lerner & Miller, 1978), the idea that an individual’s life circumstances are, at least in part, a consequence of their past moral conduct. In contrast to previous questions, participant responses here were more divided. Several key patterns emerged from their replies:

- 1) On average, a higher proportion of children (71%) than young adults (65%) or older adults (60%) answered “yes” to both questions. This pattern may suggest a developmental decline in agreement with moral congruence, with older participants less likely to endorse a connection between a person’s moral actions and the occurrence of corresponding good or bad life events.
- 2) Among those who did answer “yes”, less than one-third (31%) cited Karma or other supernatural justice as an explanation. The majority (69%) of these participants offered naturalistic accounts, attributing outcomes primarily to the social and emotional consequences of moral actions. Notably, 14% of these participants explicitly rejected karmic justice while still affirming a link.
- 3) An average of 32% of participants across all ages answered “no” to both questions, expressing skepticism or outright denial of karmic congruence, often supported by counterexamples. The following excerpts illustrate this reasoning from both adult and child participants:

I don’t believe in karma. I don’t think that if you do moral things, it will come back to you. I do not believe this because the people with the most power, money, and influence did not get there most of the time by making moral decisions (38 years old, male)

Let’s say Abraham Lincoln, for example, he was assassinated after getting rid of slavery because even though slavery isn’t a moral thing, and he got rid of it, which was a moral thing [to do]. Some people didn’t like it. So they...so he got assassinated, which wasn’t very much...wasn’t a very good thing [that happened to him] (11 years old, female).

- 4) Many participants who rejected a factual belief in karmic congruence simultaneously expressed a normative preference for it, using phrases such as “I wish karma were true”, or “I would like to believe so”. This points to a distinction between their descriptive judgment of how the world operates and their prescriptive view of how it *should* operate: specifically, that well-being ought to be distributed according to moral desert. This aligns with what philosophers like David Ross (1930) have described as an intrinsic goodness that a correspondence exists between happiness and moral virtues.

Taken as a whole, these general questions examined participants’ general beliefs about the relation between morality and self-interest or personal well-being. Across three different age groups, most individuals agreed with the statement that acting morally in general is good for the agent (i.e., conducive to the agent’s emotional-psychological well-being, bringing desirable

social consequences such as material reciprocity, approval and reputation, network and friendship, etc.), while the same time believing that moral action can be “bad” for the agent himself, as the costs they incur may diminish the agent’s overall well-being. While participants believe in the general alignment between morality and well-being, the vast majority of them rejected the Karmic explanation that views a person’s interests or well-being (how a person fares in life, socially and economically) as reflecting or matching the virtues or vices of his past moral choices and actions, favoring naturalistic explanations involving certain views about how human psychology (e.g., the tendency to reciprocate, to feel guilt for wrongdoing) and human society (e.g., social approval and disapproval, institutionalized sanctions) typically works, while admitting that the relation of only a matter of likelihood, emphasizing that a person’s well-being is to a great extent determined by luck or other morally arbitrary factors.

Responses to moral decision questions

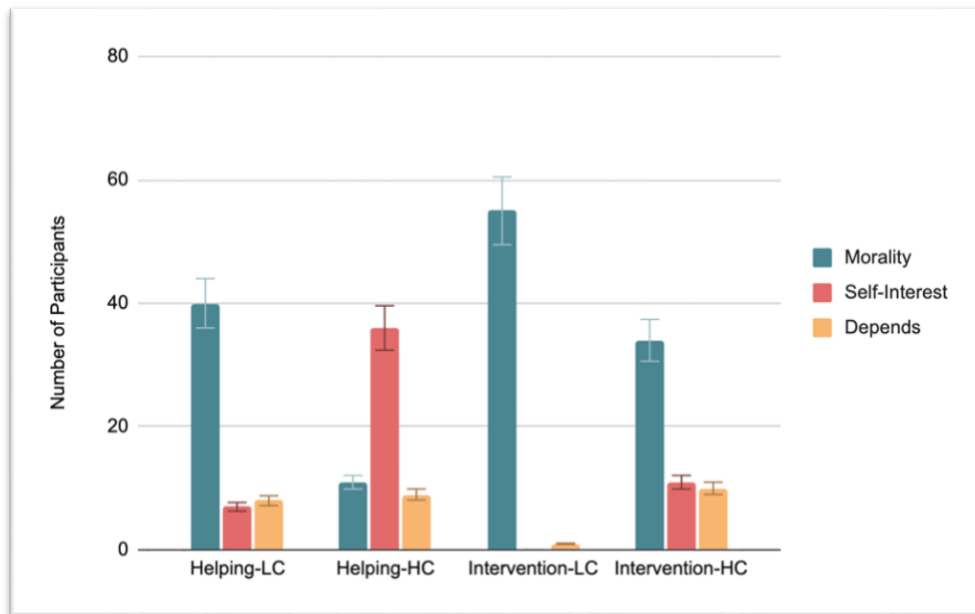
Participants’ responses to the moral decision questions consisted of two parts: evaluation (or judgment) and justification. Evaluations were the direct answers to the question “What should the protagonist do?”, and they were coded into three categories: Morality, Self-interest, Depends. Justifications were the reasons participants provided for the evaluations they gave, and the whole list of justification categories (i.e., coding scheme for justifications) can be found in [Appendix B](#). Findings about evaluations are presented first, followed by findings about justifications.

Evaluations

Positive situations

As shown in Figure 1, participants’ responses to the moral decision questions—specifically their judgments about what the protagonist should do—comprised of three categories: Morality, Self-interest, and Depends. The chart tracks the frequency of these responses across four positive situations, each containing either 55 or 56 data points.

Figure 1 Frequency distribution of moral decision judgments (positive situations)



Effect of personal cost: A Chi-square test of independence revealed a highly significant difference in the distribution of moral decision judgments between the low-cost and high-cost *Helping* situations, $\chi^2(2, N = 111) = 35.37, p < .001$. Participants were significantly more likely to endorse “Morality” in the low-cost than in the high-cost situations. The influence of personal cost nearly reversed the majority of responses. When helping required only a 15-minute wait (low cost), most participants (73%, 40 out of 55) judged that the protagonist should stop to help the young boy pick up his stationery; by contrast, when helping meant missing soccer tryouts and being unable to make the team (high cost), the majority prioritized personal goals, with only 20% (11 out of 56) endorsing the moral choice.

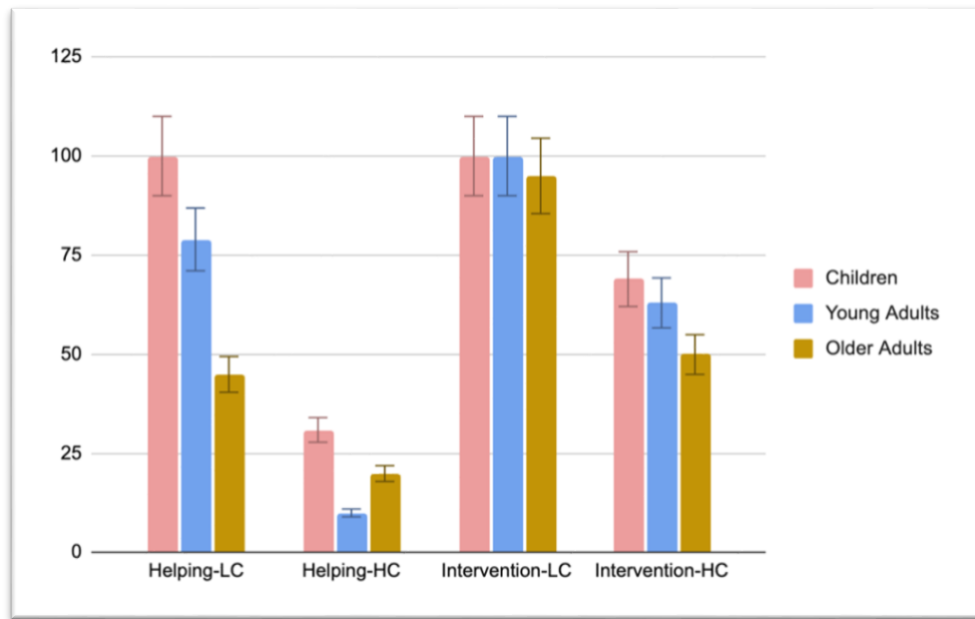
Regarding *Intervention* situations, where acting morally involves intervening to save someone from being bullied, there was also a highly significant effect of personal cost on moral decision judgments, $\chi^2(1, N = 111) = 24.67, p < .001$. Participants were much more likely to judge that the protagonist should intervene when the cost was merely missing one’s bus and having to wait another 15 minutes (98%, 55 out of 56 chose “Morality”), compared to when the cost was high and involved physical injury to oneself (60%, 33 out of 55 chose “Morality”). Notably, the odds of endorsing the moral action (i.e., intervention) were 35 times higher in the low-cost condition than in the high-cost condition.

Effect of moral significance: Participants’ moral decision judgments differed significantly between the Helping (lower moral significance) and Intervention (higher moral significance) situations. Participants were significantly more likely to judge that the protagonist should act morally in Intervention-LC (where intervening would cause a 15-minute delay) than in Helping-LC (where helping involved a similar cost). Specifically, 98% participants chose the moral

option (i.e., to intervene) in Intervention-LC compared to 73% in Helping-LC. This difference was statistically significant, $p = .00012$ (Fisher's Exact Test).

The contrast appeared more pronounced under high-cost conditions. In the Helping-HC condition (where helping meant missing soccer tryouts and being unable to make the team), less than 20% participants judged that the protagonist should act morally, whereas 60% did so in Intervention-HC (where intervening meant incurring physical harm to stop someone from being bullied). This difference was also statistically significant, $p < .001$ (Fisher's Exact Test). However, this comparison should be interpreted with caution. While the cost was held constant in the low-cost conditions (a 15-minute delay), the high-cost conditions involved qualitatively different types of personal costs—one tied to personal goals, the other involving physical injury—making it a less controlled comparison. Thus, the contrast between the two low-cost conditions offers a more reliable basis for interpreting the role of moral significance in participants' moral decisions.

Figure 2 Percentage of participants endorsing morality (positive situations)



Effect of age: Within each age group, the pattern of moral decision judgments and their sensitivity to both personal cost and moral significance closely mirrored the overall results reported above (see Figure 2). Across all three age groups, participants were significantly less likely to judge that the protagonist should act morally in high-cost situations compared to low-cost ones. When personal cost was held constant (as in the comparison between Helping-LC and Intervention-LC), the morally more significant situation (Intervention) elicited notably higher endorsement of the moral action—specifically, 21% more young adults and 50% more older adults believed the protagonist should prioritize the moral goal. Among children, the proportion choosing “morality” did not increase in the two low-cost situations (remaining at 100%), but showed a substantial increase in the high-cost versions (from 31% to 69%).

Notable age differences also emerged. Across all situations, younger participants were more likely to judge that the protagonist should act morally. For three positive situations (Helping-LC, Intervention-LC, and Intervention-HC), children had the highest rate of moral endorsement (90%), followed by young adults (81%) and older adults (63%). The only situation that did not conform to this general pattern was Helping-HC. In this situation, children still had the highest percentage prioritizing morality (31%), followed by older adults (20%) this time, while only 10% of young adults judged that the protagonist should act morally when the cost involved missing tryouts and the chance to make the soccer team.

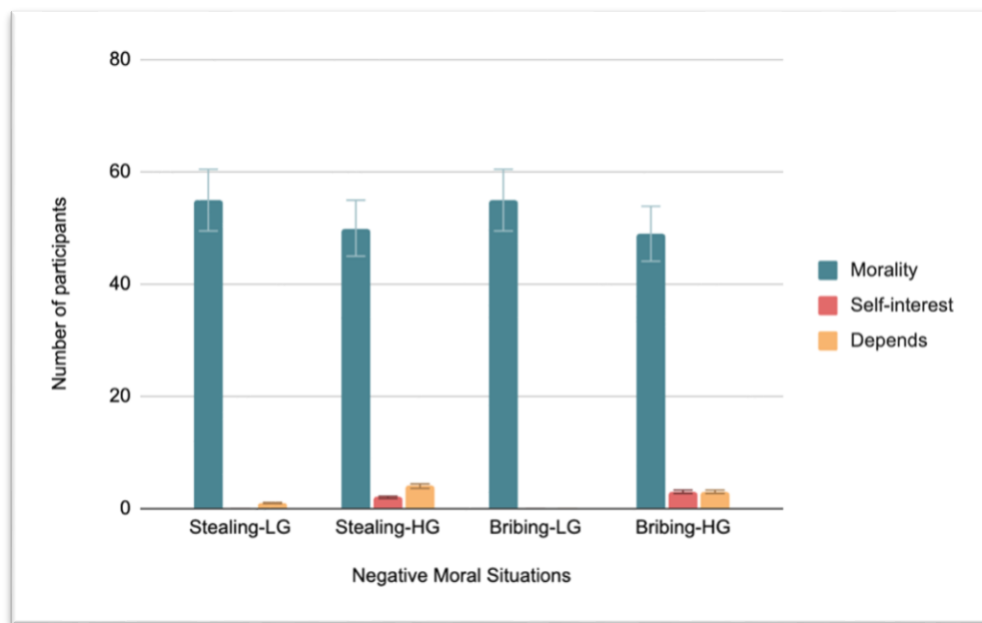
A logistic regression analysis was conducted to examine the effects of age group, personal cost, and moral significance on the likelihood that participants judged the protagonist should act morally. The analysis revealed significant effects of personal cost and moral significance. Participants were substantially more likely to endorse the moral action in low-cost situations than in high-cost situations ($\beta = 2.86$, $SE = 0.42$, $p < .001$), and were more likely to endorse moral action in Intervention situations than in Helping situations ($\beta = 2.22$, $SE = 0.41$, $p < .001$). Age group also had a significant effect: older adults were significantly less likely than

children to endorse the moral action ($\beta = -1.60$, $SE = 0.48$, $p < .001$), while young adults showed a similar but weaker trend ($\beta = -0.91$, $SE = 0.48$, $p = .057$).

Negative situations

Responses to all four negative moral situations showed a dramatically different pattern than those to the positive situations. As shown in Figure 3, nearly all participants judged the protagonist ought to take the moral course of actions (i.e., The protagonist should return the dropped money to the girl in Stealing situations and reject the bribing offer in Bribing situations).

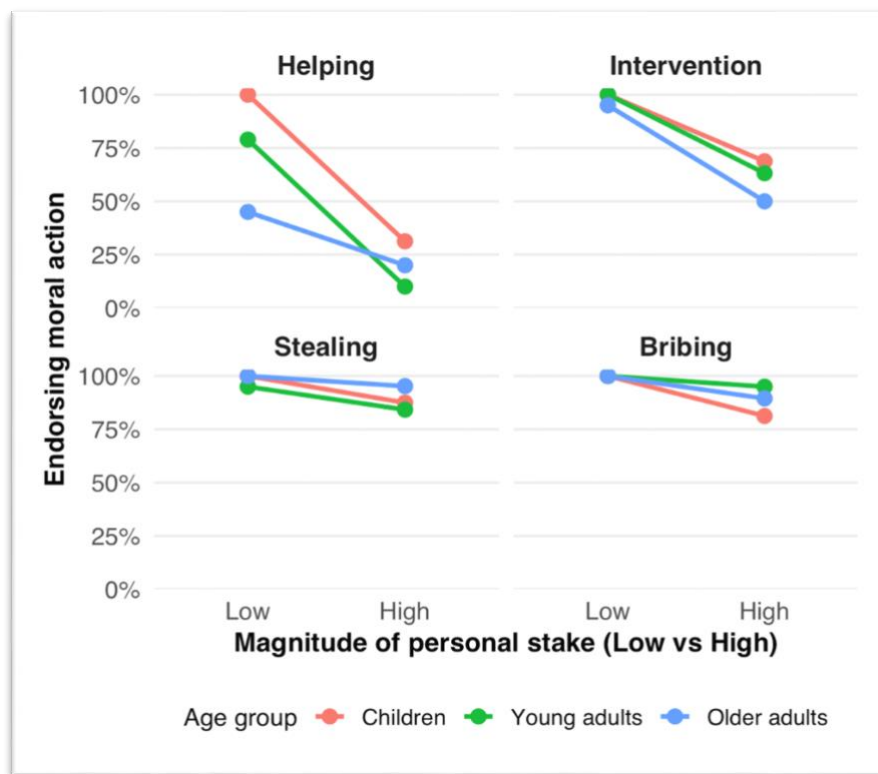
Figure 3 Frequency distribution of moral decision judgments (negative situations)



Effects of personal gain: Because some response categories (“Self-interest” and “Depends”) had very few or zero counts, a Chi-square test was not appropriate. Instead, Fisher’s exact test was used, and the test indicated no significant difference in the distribution of responses between Low-Gain and High-Gain conditions of Stealing ($p = .13$), but a significant difference for Bribing ($p = .034$, $< .05$), with more participants opting for “Self-interest” or “Depends” when the material gain was higher. To further address the low counts, responses were also dichotomized into “Morality” versus “Non-morality” (combining “Self-interest” and “Depends”), and the test was repeated. The results remained the same: no significant difference for Stealing ($p = .11$), but a significant difference for Bribing ($p < .05$, Fisher’s Exact Test). Notably, all 55 participants in the Bribing-LG judged that the protagonist should act morally, this number dropped to 49 in Bribing-HG, with a few participants choosing self-interest ($n=3$) or expressing uncertainty ($n=3$). These findings suggest that the amount of personal gain may have an effect on people’s decision-making in some situations.

A logistic regression analysis was conducted to examine whether age group, magnitude of personal gain, and moral significance predicted the likelihood that participants judged the protagonist should refrain from wrongdoing. The analysis revealed a significant effect of personal gain, such that participants were more likely to endorse the moral action when the potential personal gain was low rather than high ($\beta = 2.60$, $SE = 1.05$, $p = .013$). However, neither age group nor moral stake significantly predicted moral judgments (age: $\chi^2(2) = 1.18$, $p = .55$; situation: $\chi^2(1) = 0.08$, $p = .78$). Across all age groups, participants overwhelmingly judged that the protagonists should refrain from both stealing and bribery regardless of the potential personal gain.

Figure 4 Percentage of participants endorsing morality by personal stake and age group (all situations)



Summary of moral decision judgments

Figure 4 summarizes participants' moral decision judgments across all situations, levels of personal stake, and age groups. A clear contrast emerges between the positive situations (Helping and Intervention) and the negative situations (Stealing and Bribing). In the positive situations, endorsement of the moral action declined substantially as the personal cost increased. This pattern was especially pronounced in the Helping situation, where support for helping dropped sharply from the low-cost to the high-cost condition across all age groups. By contrast, responses in the negative situations were highly stable across levels of personal gain. Across all age groups, the large majority of participants judged that the protagonist should refrain from

wrongdoing regardless of the magnitude of the potential gain. Overall, the figure highlights an asymmetry between positive and negative moral contexts: participants were much more sensitive to variations in personal cost when evaluating prosocial actions than to variations in personal gain when evaluating acts involving wrongdoing.

Justifications

In addition to evaluating what they believed the protagonist should do, participants were also prompted to give reasons for their evaluations, which were referred to as “justifications”. As previously discussed, moral decisions typically involve weighing both moral and nonmoral considerations relevant to the situation. Because the hypothetical situations were designed to create varying degrees of conflict between morality and personal interest, most participants’ justifications were expected to fall into two main categories: “moral” and “prudential” (or self-interest). An additional category (“other”) was included for responses that did not clearly fit either group. There were multiple justification codes under each of the main categories. The complete list of justification categories can be found in [Appendix B](#).

Because the analysis of justifications was exploratory, no specific hypotheses were formulated regarding differences in the distribution of justification types across situations or response categories. Moreover, the justification coding scheme included numerous subcategories, many of which occurred infrequently, resulting in small cell counts that would render inferential statistical tests unreliable and difficult to interpret. For these reasons, the analysis focuses on descriptive patterns in the data, reporting counts and percentages of justification types alongside illustrative excerpts from participants’ responses. This approach allows for a more transparent characterization of the kinds of considerations participants invoked when explaining their moral decisions.

Positive situations

Justifications for the ***Helping*** situations are shown in Table 5. In the low-cost condition of Helping, the majority (73%) judged the protagonist should help the young boy pick up his stationery. As shown in Table 5, justifications invoked to endorse helping consisted of 78% prudential reasons and 22% moral ones. The most prevalent reason in favor of helping pertained to the low cost of helping, which was mentioned by 80% of participants who believed the protagonist should help. They referred to the cost (i.e., 15-minute wait) as “a minor inconvenience” or “not a big deal”, thus dismissing it as a valid reason for not helping. One quarter of participants who endorsed helping mentioned non-immediate prudential considerations, including the positive emotional benefits (“it will make him feel good about himself”) and social gains (“that kid might help him out in the future if something comes to that”, or “they might be friends”) that are likely to follow the helping behavior. Moral reasons accounted for 12 out of 54 of all the reasons provided in favor of helping; of these, roughly half were “assertion or categorical”, the other half was a combination of utilitarian reasoning (i.e., “it will make a world a better place”), virtue consideration (i.e., “that is what a good person would do”) and concern for other’s welfare.

Justifications provided by participants who judged that the protagonist should not help (13%; 7 out of 55) or who chose “Depends” (15%; 8 out of 55) centered on two primary reasons:

1) concern regarding the cost of helping², and 2) the perception of the situation as having low moral stakes, given that the young boy was not injured. Additionally, four participants noted that the protagonist lacked a responsibility to assist because he did not cause the boy to fall or the pencil case to drop. Consequently, these participants felt the protagonist should not help, or that the decision should be entirely at his discretion (e.g., “if he feels like stopping” or “whether he is willing to wait for the bus in order to help”).

² This reason/justification was coded as “Material consequences”. It should be noted that this code does not specify the perceived magnitude of material consequences, nor does it indicate endorsement of prioritizing material consequences in decision-making. Participants may refer to “material consequence” as a reason in favor of a self-interested decision (i.e., the cost is too high to help), or in favor of a moral decision (i.e., the cost is so low that one should help). All justificatory codes are essentially of this nature in that the same code can be used to support differing positions.

Table 5 Frequency distribution of moral decision justifications (Helping)

Justifications		Helping-Low Cost			Helping-High Cost		
		To help (40)	Not to help (7)	Depends (8)	To help (11)	Not to help (35)	Depends (10)
Moral	Assertion	6	-	-	3	1	-
	Common good	3	-	-	-	1	-
	Character or integrity	1	-	-	-	-	-
	Welfare	2	-	-	1	-	-
	Moral seriousness	-	4	1	-	15	2
Prudential	Material conseqs	32	4	1	-	16	-
	Social conseqs	5	-	-	-	-	-
	Emotional conseqs	5	-	-	1	-	-
Other	Responsibility	-	2	2	-	5	-
	Agent-contingency	-	-	2	-	-	4
	Pragmatic reasons	-	-	2	10	7	4

In the high-cost Helping situation, 63% of participants (35 out of 56) judged that the protagonist should prioritize personal interest, specifically attending soccer tryouts, over the moral goal of helping the boy. The justifications for this majority view primarily centered on two themes, similar to those found in the low-cost condition:

- *High cost of helping*: cited by 43% of those prioritizing personal interest (15 out of 35).
- *Low moral significance of helping*: cited by 46% of those prioritizing personal interest (16 out of 35), often noting the boy was merely inconvenienced rather than injured.

While some participants focused on only one factor, these two reasons frequently worked together to support the judgment that helping was not required. Qualitative data reflects this kind of weighing characteristic of the reasoning of participants who did not endorse helping:

If the boy was hurt, that would be one thing, but the boy is clearly not hurt and just inconvenienced. Therefore, it is best to continue to not miss the tryouts as it is of importance to you (53 years old, male).

I would probably just keep going to the tryouts because really like the magnitude of both situations, like the person that fell and me going to my tryout, it's just like, they're so different that they don't compare. So like I might say like Sorry, I'm gonna rush as I walked by, because like, trying out like trying out for the soccer team and like, like being on a soccer team is going to have a lot of impact on my life. If I continue to play soccer, that's really gonna be like very important. Yeah. And this kid who has like fallen and dropped his things like, yeah, that is, that sucks. But like, it's not going to have a major impact on his life. I would...I would prioritize my situation over his (14 years old, male).

Approximately 38% of participants either judged that the protagonist should stop to help (20%; 11 out of 56) or selected the “Depends” option (18%; 10 out of 56). Among those who endorsed the moral action, approximately two-thirds provided pragmatic justifications aimed at reconciling the moral choice with the personal goal. For instance, some suggested the protagonist could explain the delay to an understanding coach, others argued that helping would take only a minute, allowing him to arrive on time regardless. These responses suggests that even those inclined toward moral action may have viewed the personal cost as a significant deterrent, potentially choosing differently if the sacrifice were truly unavoidable. Among the participants who chose “Depends,” justifications were split: 40% offered pragmatic reasons, 20% cited the moral triviality of the situation, and 40% based their judgment on the agent’s internal motivations—such as his personal values, potential for guilt, or individual priorities. For these participants, the decision about what to do in this situation hinged on the protagonist’s subjective contingencies rather than objective moral rule or duty.

Justifications for the *Intervention* situations are shown in Table 6. Compared to the Helping situations, the Intervention situations (i.e., where acting morally involves saving someone from being bullied) are supposed to be of higher moral stake. In the low-cost condition, the protagonist is described as more than physically capable of stopping a bully from hurting a young boy without risking getting himself hurt (and the only cost is to wait 15 minutes for the next bus). Participants were asked what the protagonist should do and why.

Table 6 Frequency distribution of moral decision justifications (Intervention)

Justification		Intervention-Low Cost			Intervention-High Cost		
		To intervene (55)	Not to intervene (0)	Depends (1)	To intervene (33)	Not to intervene (11)	Depends (11)
Moral	Assertion	3	-	-	8	-	-
	Common good	-	-	-	1	-	-
	Justice or fairness	1	-	-	-	-	-
	Welfare	26	-	-	16	-	-
	Moral seriousness	10	-	-	2	-	-
Prudential	Material conseqs	48	-	-	-	10	5
	Social conseqs	1	-	-	-	-	-
	Emotional conseqs	1	-	-	2	-	1
Other	Responsibility	-	-	-	-	1	-
	Agent-contingency	-	-	-	-	-	1
	Pragmatic reasons	3	-	2	16	4	8

With the exception of one participant who chose “Depends”, all others judged that the protagonist in the low-cost condition should intervene. Participants’ justifications primarily fell into three categories: (1) the low cost of intervening (coded as “material consequences,” mentioned by 48 out of 55 participants, or 86%), (2) the fact that the boy is being harmed (26 out of 55, 46%), and (3) the moral seriousness of the situation (10 out of 55, 18%). Many responses reflected a clear weighing of personal cost against the stakes for the person in need, suggesting a comparative assessment of interests. Typical responses from different age groups include:

“He would only have to wait 15 minutes. But the boy could end up seriously injured or worse” (37 years old, male).

“Daniel should intervene because it will have no negative effect, except for missing a bus which is only another 15 minute wait... It seems like a very minimal negative effect and minimal downside in contrast with the negative effect of someone about to get hurt” (24 years old, male).

“I think Daniel should intervene because That's a pretty serious situation. And he is only going to have to wait 15 minutes, so I think he should intervene.” (14 years old, female).

It is worth noting that many participants justified their judgments solely by referencing the low personal cost, without explicitly mentioning other considerations. Nonetheless, it is plausible that the perceived moral seriousness of the situation served as the implicit standard against which the cost was evaluated. Thus, even when the choice appeared obvious and the conflict between moral duty and self-interest was minimal, participants’ reasoning still reflected a form of weighing the relative importance of the particular demands of morality and personal interest.

In the high-cost condition, the protagonist is described as not physically strong and likely to be injured if he intervenes—creating a clear conflict between moral obligation and self-interest. Despite the risk, 60% of participants (33 out of 55) judged that the protagonist should intervene, while 20% (11 out of 55) prioritized the agent’s safety, and another 20% chose “Depends”. Those who endorsed intervention based their judgments on three main types of reasoning: 1) unelaborated assertion—simple endorsements without explicit justification (18%), 2) concern for the victim’s welfare (36%), and 3) pragmatic reasoning (36%)—efforts to resolve the conflict between morality and self-preservation by suggesting alternative forms of action (e.g., calling a teacher or police officer) that avoid personal risk while still addressing the situation.

The relatively high frequency of pragmatic justifications among those supporting intervention in the high cost condition suggested that, even when endorsing the moral action, many participants did not believe one is obligated to incur personal harm in doing what is right. This is further supported by the prevalence of pragmatic reasoning among those who judged the protagonist should not intervene (27%) or chose “Depends” (53%). Among these non-intervention participants, about two-thirds cited the excessive personal cost of helping as their primary reason.

Taken together, participants’ judgments and justifications about moral decisions in these positive situations reveal an ongoing effort to coordinate moral concern with self-interest in deciding what the protagonist should do—even in situations where the morally appropriate choice appears obvious and the conflict is minimal (e.g., Helping–Low Cost and Intervention–Low Cost conditions). Setting aside pragmatic reasoning, participants’ justifications tended to fall into two broad categories: moral and prudential. Moral reasons typically reflected a concern

for the welfare of others and an assessment of the moral seriousness of the situation. Prudential reasons, by contrast, focused on the immediate, situational costs—often material or physical—that the agent would incur by acting morally. These considerations were especially prominent in high-conflict scenarios, such as the Intervention–High Cost condition, where acting morally required a notable personal sacrifice.

Overall, participants’ reasoning suggests that concern for the protagonist’s own well-being remained salient, even in morally serious situations. Rather than endorsing moral action at all costs, most participants preferred pragmatic resolutions—ways of fulfilling moral aims without incurring undue harm or compromising personal goals. While self-sacrifice may be seen as morally admirable, participants generally approached these dilemmas from a perspective of rational balance, seeking to reduce the tension between morality and self-interest wherever possible.

Negative situations

The negative situations focused on whether participants would prioritize moral restraint over personal gain. This involved choosing to return money accidentally dropped by another person in the Stealing situations or rejecting a bribe in the Bribing situations, despite the potential for material or financial advantage.

Justifications for the ***Stealing*** situations are shown in Table 7. In the low-gain condition, all but one participant judged that the actor should not take the money, or that she should return it to its rightful owner. This cohort provided a total of 92 justificatory reasons for their responses. The distribution of these justifications was as follows:

- *Material consequences* (32%; 29 out of 92): These justifications referred to the minimal nature of the personal gain, noting that Judy did not objectively need the ten dollars. Participants emphasized that the low benefit made the immoral action unjustifiable (e.g., “Because Judy already has enough money and does not need the money”).
- *Property rights* (23%; 21 out of 92): These responses focused on ownership, underscoring that the money did not belong to the protagonist (e.g., “It is not her money”).
- *Welfare of others* (22%; 20 out of 92): These justifications cited concern for the interests of the person who lost the money, often highlighting the protagonist’s lack of knowledge regarding the other girl’s circumstances (e.g., “She doesn’t know the situation of the other girl”).
- *Assertions* (13%; 12 out of 92): These consisted of moral judgments offered without explicit further justification, such as “She should return it” or “It is wrong to take the money”.

These findings suggest that participants’ moral reasoning draws on a combination of prudential and moral considerations, resulting in the overall decision to refrain from stealing for personal gain.

Table 7 Frequency distribution of moral decision justifications (Stealing)

Justification		Stealing-Low Gain			Stealing-Hight Gain		
		To steal (0)	Not to steal (55)	Depends (1)	To steal (2)	Not to steal (49)	Depends (4)
Moral	Assertion	-	12	-	-	12	-
	Character and integrity	-	5	-	-	2	-
	Karmic justice	-	-	-	-	1	-
	Welfare	-	20	-	1	9	2
	Property rights	-	21	-	1	32	-
Prudential	Material conseqs	-	29	-	2	3	2
	Social conseqs	-	2	-	-	5	-
	Emotional conseqs	-	2	-	-	3	1
Other	Responsibility	-	-	-	1	-	-
	Agent-contingency	-	-	1	-	-	2
	Pragmatic reasons	-	-	-	-	5	-

In the high-gain condition, the vast majority of participants (89%; 49 out of 54) still judged that the actor should return the money. For these participants, moral justifications were most prevalent: 38% pertained to ownership or property rights, followed by assertions (14%) and welfare considerations (11%). Prudential concerns were cited less frequently as reasons against taking the money, including social consequences (10%) and emotional-psychological consequences (4%).

Two participants judged that the protagonist should take the money, while four selected “Depends”. Notably, the justifications provided by these individuals were not limited to material gain; they also reflected significant moral awareness. This is illustrated in the following exchange with a 20-year-old female participant who judged that Judy should keep the money:

Participant: I would say that Judy should pick it up.

Interviewer: Okay, why?

Participant: I know this is bad, but I feel like if this is something she really wants, and no one's looking, she has the opportunity to do so.

Interviewer: But why did you say it's bad? In what sense?

Participant: In the sense that it wasn't her money originally. She's taking it from a girl who doesn't know. And we don't know—like, if that girl needs it for the bus or to buy lunch, she might go without.

Interviewer: Okay, but you still think Judy should pick up the money to use it to buy the concert ticket?

Participant: Yes, I would say so.

This example is notable because the decision to keep the money is accompanied by an explicit recognition of the act's moral “badness”. The participant acknowledges both that the money “wasn't her money originally” (property rights) and that the other girl might “need it for the bus or to buy lunch” (welfare concern). Nonetheless, the choice to take the money is viewed as overall justifiable on prudential grounds: because the protagonist “really wants” it and can take it without consequence since “no one is looking”.

Justifications for the *Bribing* situations are presented in Table 8. These situations described a high school principal, Mr. Smith, who must decide whether to accept a parent's bribe—awarding a fellowship to an unqualified student in exchange for either a fancy meal (low-gain) or a large sum of money (high-gain). Across both conditions, the vast majority of participants judged that the principal should decline the offer: 100% in the low-gain condition and 89% in the high-gain condition. Moral considerations formed the basis of most justifications in both conditions:

- *Justice and fairness* (42–43%): Participants emphasized that awarding a fellowship to an unqualified student is inherently unjust.
- *Moral assertions* (27–28%): Responses frequently centered on the perception that the act constitutes “bribery” and is simply “wrong”, “inappropriate”, and “illegal”, without further elaboration.

Participants also used prudential reasoning when justifying their moral decisions. In the low-gain condition, 18% of participants (10 out of 55) mentioned potential negative consequences, such as being caught or losing one’s job. The personal gain—“a fancy meal”—was perceived as a low reward given the magnitude of the moral violation and the risks involved, such that even solely from the point of view of the principal’s self-interest, he “should not” accept the bribe. The response below is an example of moral and prudential reasoning working together to lead to the moral decision of many participants:

It’s the right thing for Mr. Smith to not give her the fellowship, because she’s...not qualified for it. Or maybe there’s someone else who might deserve it. And I also don't think that like just a random fancy dinner is worth enough of an incentive for him to give that much money...to a student, so I don't think Mr. Smith should listen to the parents and go to the fancy dinner (22 years old, male).

In the high-gain condition, participants who endorsed the bribe (3 out of 56) cited prudential reasons that consisted exclusively of the material gain described—specifically, receiving a sum equivalent to the principal’s three-year income. Among the participants who rejected the bribe (50 out of 56), the prudential reasoning was more complex; they considered not only the material gain but also the non-material social and psychological consequences of the act. These participants ultimately concluded that the immediate financial benefit was outweighed by both these negative consequences and the inherent moral objections to bribery.

Table 8 Frequency distribution of moral decision justifications (Bribing)

Justification		Bribing-Low Gain			Bribing-High Gain		
		To accept (0)	Not to accept (55)	Depends (0)	To accept (3)	Not to accept (50)	Depends (3)
Moral	Assertion	-	22	-	-	22	-
	Character and integrity	-	2	-	-	1	-
	Professional morality	-	2	-	-	2	-
	Welfare	-	3	-	-	-	-
	Justice or fairness	-	34	-	-	34	-
	Moral seriousness	-	2	-	-	3	-
	Common good	-	-	-	-	2	-
Prudential	Material conseqs	-	1	-	3	5	-
	Social conseqs	-	10	-	-	5	-
	Emotional conseqs	-	3	-	-	2	-
Other	Agent-contingency	-	-	-	-	-	2
	Pragmatic reasons	-	-	-	-	5	1

Summary of justifications for moral decision judgments

In positive situations, participants' decisions reflected an effort to coordinate moral goals with personal interests. Judgments about what one should do were sensitive both to the perceived moral significance of the action and to the magnitude of the personal cost involved. When the cost of doing the morally right thing was low, many participants found that alone to be a sufficient reason to act. However, as the cost increased, prudential considerations—such as inconvenience, effort, or risk—became more prominent in participants' reasoning.

In contrast, in negative situations, where acting morally involved refraining from immoral behavior for personal gain, judgments were predominantly moral in nature. Participants typically appealed to reasons grounded in welfare, fairness, justice, or respect for property rights, treating these as presumptive constraints—that is, as moral boundaries that should not be overridden by considerations of personal benefit. For most, the magnitude of potential gain from immoral action was not treated as relevant to what one ought to do.

Nonetheless, prudential considerations were not entirely absent from participants' reasoning in negative situations. Anticipated emotional, psychological, or social consequences—such as guilt, shame, or fear of being caught—often aligned with moral prescription and provided agents with reasons for acting morally. In this way, participants suggested that one should act morally not only because it is the right thing to do, but also because, in the long run, it is in one's best interest to do so.

Responses to moral permissibility questions

After making the moral decision judgment, participants were asked to judge whether it is alright for the protagonist to *not* act morally, which is referred to as the moral permissibility judgment. For positive moral situations, “not acting morally” means not helping the boy pick up stationery in the Helping situations, and not intervening to save the boy from getting bullied in the Intervention situations. For negative situations, “not acting morally” means acting immorally for personal gains: specifically, it means taking someone else’s money in the Stealing situations, and accepting bribery in the Bribing situations.

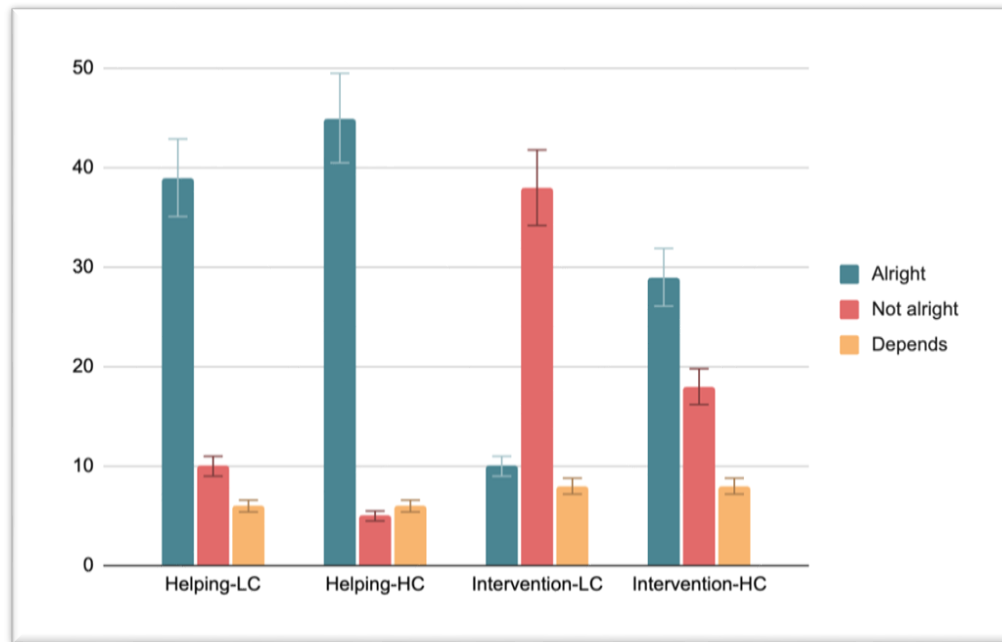
It should be stressed that moral permissibility judgments are not the same as moral decision judgments. A moral decision judgment concerns what the protagonist ought to do in a given moral situation, reflecting a coordination of multiple, sometimes competing, reasons or considerations. By contrast, a moral permissibility judgment addresses whether the protagonist is allowed to act in a way that either fails to prioritize, or directly conflicts with, the moral value at stake in that situation. Thus, even if one judges that the protagonist should take the morally right or good course of action, it does not necessarily follow that one believes it would be not alright for the protagonist to do otherwise. In this sense, moral permissibility judgments can be understood as answering the question: “Is the agent required to take the moral course of action in this situation?” They are intended to capture the sense of moral obligation or requiredness that characterizes some moral contexts but not others. It was hypothesized that factors such as the cost to the agent, the moral significance of the situation, and whether the moral act involves a positive or negative duty all play important roles in shaping judgments about whether an agent is obligated to act morally or is permitted to act otherwise.

Positive situations

Effect of cost: For the Helping situations, the majority of participants (73% in the low-cost version, 80% in the high-cost version) judged that it would be alright for the protagonist to not act morally. A Chi-square test of independence indicated no significant difference in permissibility judgments between the low- and high-cost Helping situations, $\chi^2(1, N = 111) = 0.90, p = .34$.

For the Intervention situations, Figure 5 shows a notable difference between the low-cost and high-cost versions in terms of the composition of responses to the moral permissibility question. In its low-cost version—where intervention merely involves missing a bus and waiting 15 minutes—only 18% judged it alright to ignore the bullying, and 68% believed the protagonist was morally required to intervene. By contrast, in the high-cost version of this situation—where the protagonist risks getting physically hurt for intervening—more than half (53%) judged it alright to not intervene. A Chi-square test confirmed a significant difference in permissibility judgments between low- and high-cost Intervention situations, $\chi^2(1, N = 111) = 14.80, p < .001$. Participants were significantly more likely to judge it alright not to intervene in the high-cost condition.

Figure 5 Frequency distribution of moral permissibility judgments (positive situations)



Effect of moral stake: A Chi-square test of independence also revealed a significant difference in permissibility judgments between the low-cost Helping and low-cost Intervention situations, $\chi^2(1, N = 111) = 33.75, p < .001$. Participants were substantially more likely to judge the protagonist's non-moral action as "Alright" in the Helping-LC situation than in the Intervention-LC situation. This finding suggests that, all else being equal, the perceived moral seriousness of the situation strongly influences permissibility judgments: when the moral stakes are higher, people are more likely to view the agent as obligated to act.

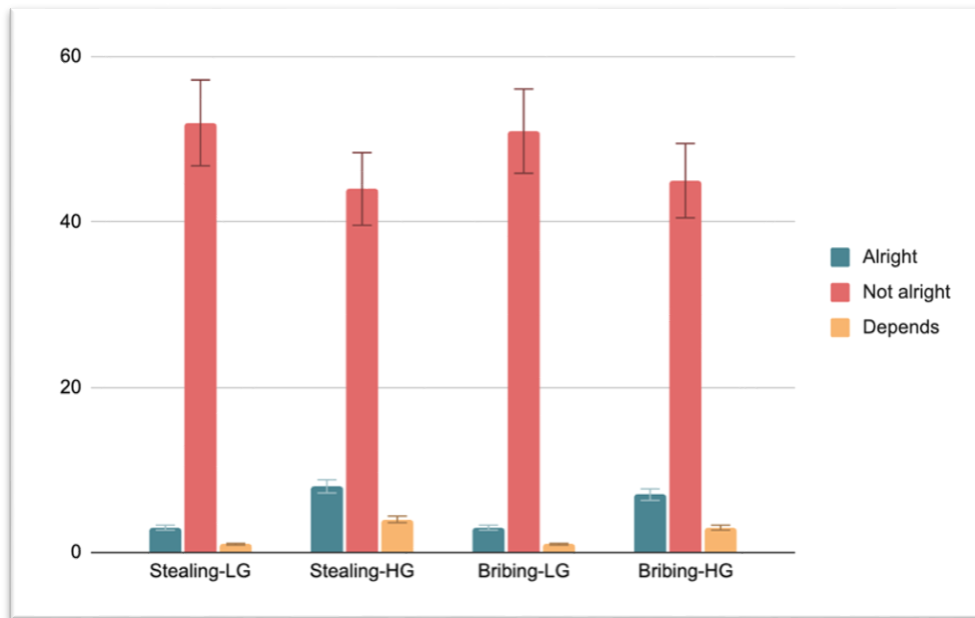
Age differences: A binomial logistic regression analysis examined whether moral permissibility judgments differed across age groups, controlling for personal cost and situation (moral stake). Age group significantly predicted permissibility judgments, $\chi^2(2) = 13.08, p = .001$. Young adults were significantly more likely than children to judge the action as permissible ($\beta = 1.23, p = .003$), whereas older adults did not differ significantly from children ($\beta = -0.27, p = .49$). The model also indicated significant effects of personal cost, $\chi^2(1) = 11.29, p < .001$, and situation, $\chi^2(1) = 45.16, p < .001$: actions were more likely to be judged permissible when the personal cost of acting morally was high, and failing to intervene was judged significantly less permissible than failing to help.

Negative situations

An overview of participants' moral permissibility judgments across negative situations is presented in Figure 6. In the two low-gain situations (Stealing-LG and Bribing-LG), the vast majority of participants judged it "Not alright" for the protagonist to act (91% and 89%, respectively), while only 5% in each situation judged it "Alright," and 2% chose "Depends." This pattern remained similar but slightly less pronounced in the high-gain situations: in Stealing-HG and Bribing-HG, "Not alright" remained the most common response (77% and

79%, respectively), but the percentage of participants judging the action “Alright” increased to 14% and 12%, and “Depends” to 7% and 5%. Overall, most participants did not view the actions as morally permissible, regardless of the amount of personal gain.

Figure 6 Frequency distribution of moral permissibility judgments (negative situations)



When “Alright” and “Depends” responses were collapsed, statistical tests indicated marginal evidence for a difference between low and high gain Stealing situations: the Chi-square test was significant ($p = .031$), while Fisher’s exact test approached significance ($p = .056$). By contrast, no significant difference was found between low and high gain Bribing situations (Fisher’s $p = .15$, Chi-square $p = .09$).

Age differences: Moral permissibility judgments within each age group closely mirrored the overall pattern. Across negative situations, the vast majority of participants judged it “not alright” for the protagonist to take someone else’s money or accept a bribe. The highest percentage of “Alright” responses within any group was 25%. For both young adults and older adults, Fisher’s exact tests revealed no significant differences in permissibility judgments between low-gain and high-gain conditions for either the Stealing (young adults: $p = 1.00$; older adults: $p = 0.23$) or Bribing (young adults: $p = 0.49$; older adults: $p = 0.66$) situation. Children, however, appeared more sensitive to the magnitude of personal gain than adults.

A binomial logistic regression analysis examined whether moral permissibility judgments differed across age groups while controlling for personal gain and situation. Age group significantly predicted permissibility judgments, $\chi^2(2) = 6.19$, $p = .045$. Overall, children were more likely than the older age groups to judge the actions as permissible, whereas older adults were least likely to do so, with young adults falling in between.

Summary of moral permissibility judgments

In the positive situations, participants were generally willing to regard the omission of a moral action as permissible. In the Helping situations, most judged it “alright” not to help in both the low-cost and high-cost conditions. For Intervention, however, moral permissibility judgments were more sensitive to cost: while over half of participants judged non-intervention permissible when the cost was high, only a small minority did so when the cost was low, with most judging non-intervention as “not alright”. Age differences were also observed, with young adults somewhat more likely than children and older adults to judge the omission of a moral action as permissible.

In the negative situations, permissibility judgments were much more restrictive. Across both stealing and bribing situations, the vast majority of participants judged the self-serving immoral actions as “not alright”, regardless of the level of personal gain. Age differences were again apparent, but in the opposite direction: children were somewhat more likely than the older age groups to judge these actions as permissible.

Overall, participants were far more permissive about failing to perform positive moral actions than about committing immoral acts for personal benefit. Judgments in positive situations were sensitive to contextual factors such as personal cost and the type of moral action involved, whereas judgments in negative situations were comparatively stable and largely unaffected by variations in personal gain.

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Responses to moral congruence questions

Following moral permissibility judgments, participants were asked to make a judgment about whether doing what is moral is also good for the protagonist in the hypothetical situations. The specific question asked was “In this situation, helping the boy pick up stationary in (or intervening to save the boy from being bullied) is generally seen as morally good. Do you think doing what is morally good in this situation is also good for the protagonist himself?”

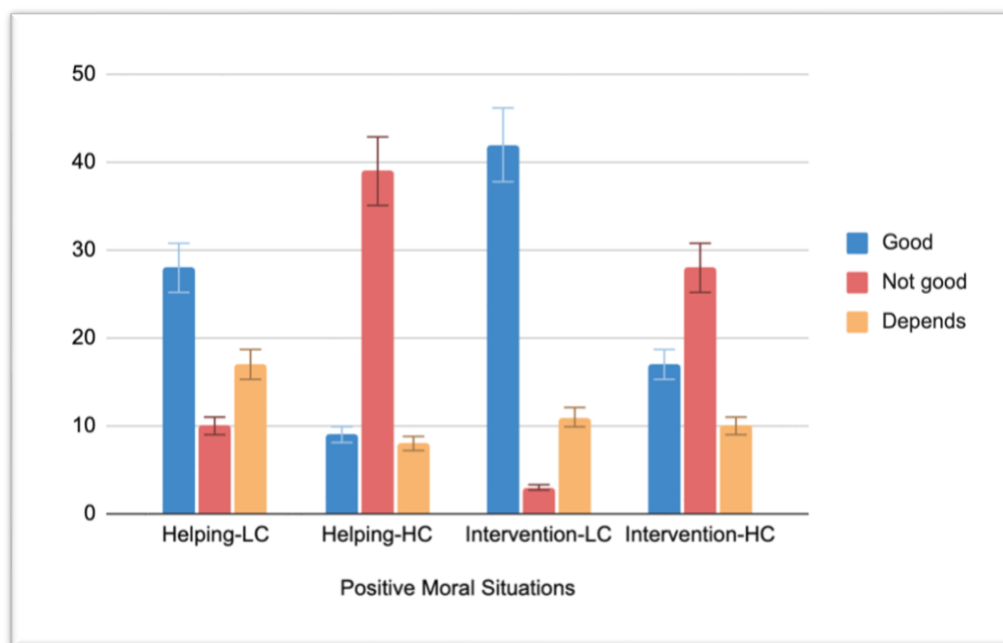
Participants answers are coded in two parts, judgments and justifications. Judgments consisted of three response categories (“Good”, “Not good”, “Depends”). For positive situations, the response “Good” indicated congruence, that is, the participant judged it “good for the agent/protagonist him- or herself” to do what is moral (i.e., helping or intervening); for negative situations, by contrast, the response “Good” suggested incongruence, that is, the participant judged it “good for the agent/protagonist him- or herself” to do what is immoral (i.e., stealing and bribing).

Evaluations

Positive situations

The overall pattern of moral congruence judgments about positive situations can be observed in Figure 7, which describes the frequencies of each type of responses from all participants to the moral congruence question across four positive situations.

Figure 7 Frequency distribution of moral congruence judgments (positive situations)



Effects of personal cost: Congruence judgments in positive situations were influenced by the magnitude of personal cost. In both Helping and Intervention, participants in the high-cost conditions were more likely to judge non-congruence—70% in Helping-HC and 51% in Intervention-HC—compared with only 18% in Helping-LC and 5% in Intervention-LC. These

differences were statistically significant (Helping: $\chi^2(2, N = 112) = 30.15, p < .001$; Intervention: $\chi^2(2, N = 111) = 30.80, p < .001$).

Effects of moral significance: A Chi-square test of independence showed a significant difference in congruence judgments between the two low-cost conditions of positive situations (Helping-LC and Intervention-LC), $\chi^2(2, N = 111) = 7.85, p = .020$. Participants were more likely to view the action as “Good” in the Intervention situation than in the Helping situation when the cost was low. However, no significant difference was found between the two high-cost conditions, $\chi^2(2, N = 111) = 4.48, p = .11$.

Age differences: Children showed the strongest sensitivity to personal cost. In both Helping and Intervention situations, children’s moral congruence judgments varied greatly between the low- and high-cost conditions. Regarding the Helping situation, 81% judged the action to be “good for the protagonist” in the low-cost condition, and only 25% did so in the high-cost condition. For the Intervention situation, 88% child participants judged the act of intervening to be “good for the protagonist” in the low-cost condition, while only 36% did so in the high-cost condition. The effects of personal cost on moral congruence judgments were statistically significant for both Helping, $\chi^2(1, N = 32) = 10.17, p = .001$, and Intervention, $\chi^2(1, N = 30) = 10.49, p = .001$. Young adults’ moral congruence judgments were significantly affected by personal cost in the Intervention situations but not in the Helping situations. In Helping-LC, 42% young adults judged it good for the protagonist to help, and 15% believed so in Helping-HC. But this difference did not reach statistical significance. By contrast, In Intervention situations, the effect was significant: 85% judged intervention as “good” when the cost was low compared to only 39% when the cost was high, $\chi^2(1, N = 38) = 9.55, p = .002$. Older adults’ congruence judgments displayed the weakest cost sensitivity. Although there were higher percentages of those judging it “good” in the low-cost than in the high-cost conditions, the differences did not reach statistical significance.

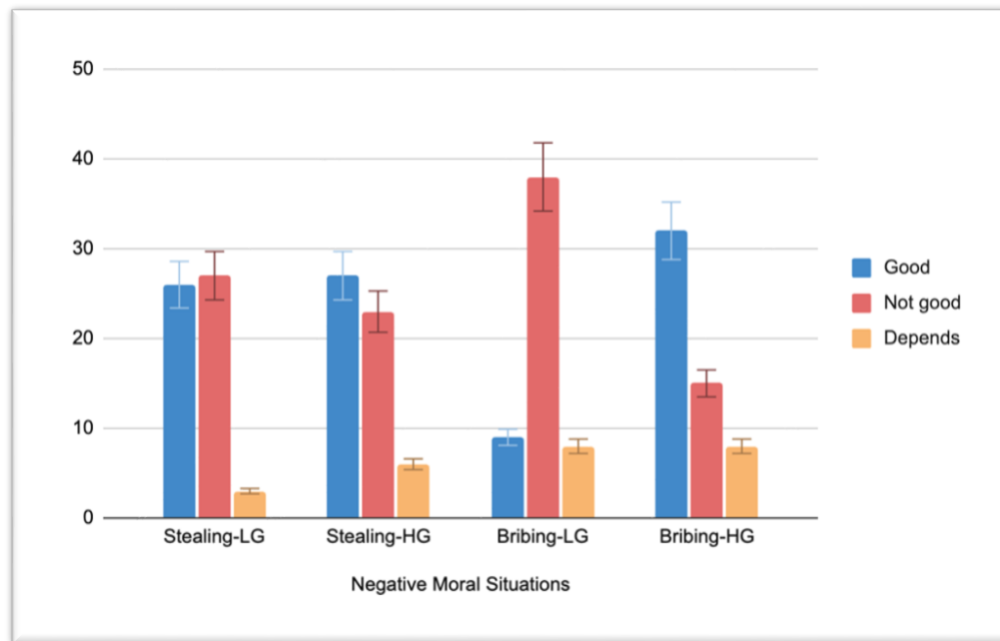
Children showed no significant differences between Helping and Intervention when personal cost was held constant. That is, whether the situation involved a mundane helping act or a more serious act like intervening to save someone from being bullied, children’s moral congruence judgments were similar. Young adults’ judgments of congruence, by contrast, were significantly influenced by moral stake in the low-cost conditions, but not when the costs were high. In Intervention-LC, 85% judged the action as “good” for the protagonist, compared to only 42% in Helping-LC (fisher’s exact test $p = .008$). In the high-cost conditions, the difference between Intervention-HC (39% “Good”) and Helping-HC (15% “Good”) did not reach statistical significance ($p = .16$). Older adults showed no significant situation effects under either cost condition ($p = .34$ and $.41$). Their congruence judgments were stable across both Helping and Intervention situations.

A logistic regression predicting moral congruence judgments (Good vs. Non-good) from personal cost, moral stake, and age group revealed significant main effects of cost and age. Across situations, participants were significantly less likely to judge moral action as good for the protagonist under high-cost conditions compared to low-cost conditions ($B = -2.56, SE = 0.86, p = .003$). In addition, both young adults ($B = -1.78, SE = 0.79, p = .024$) and older adults ($B = -2.09, SE = 0.79, p = .009$) were less likely than children to judge moral action as good for the protagonist. Children consistently showed the highest likelihood of endorsing moral action as “good” for the hypothetical moral agents, with probabilities well above those of young and older adults.

Negative situations

The overall pattern of moral congruence judgments about negative situations can be observed in Figure 11 describing the percentages of each type of response from all participants to the moral congruence question across four negative situations (Stealing-LG, Stealing-HG, Bribing-LG, and Bribing-HG).

Figure 8 Frequency distribution of moral congruence judgments (negative situations)



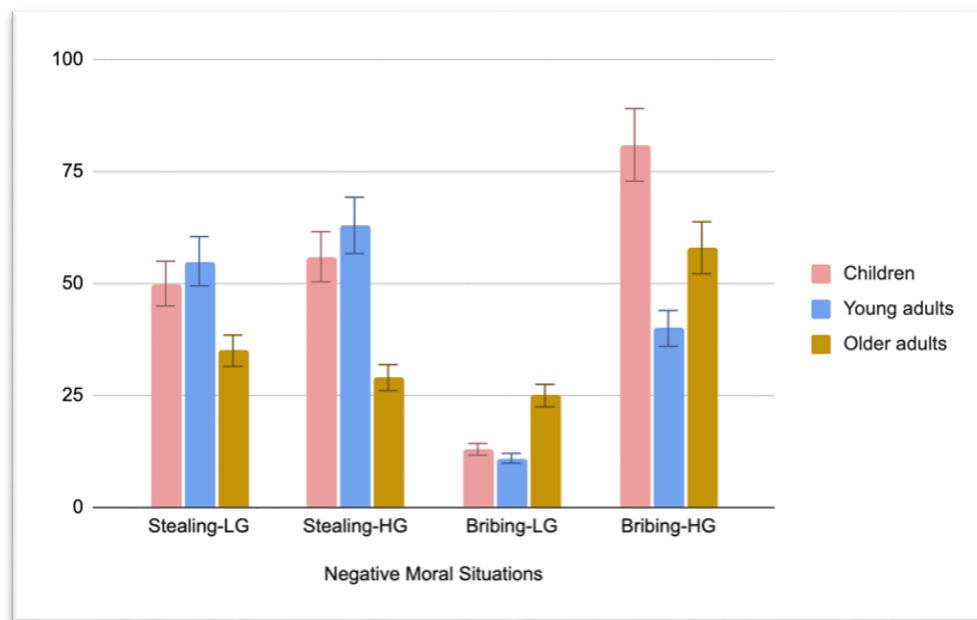
Effects of personal gain: As can be seen in Figure 8, participants' moral congruence judgments did not vary between the two conditions of the Stealing situation. Those who judged "good for the protagonist" to steal and those who judged "not good" were roughly the same in both the low-gain and high-gain conditions. By contrast, in the Bribing situation, responses to the low-gain condition were different from those to the high-gain condition in terms of congruence judgments. Based on the responses of all participants, a Chi-square test of independence showed no significant difference in congruence judgments between low- and high-gain Stealing situations, $\chi^2(1, N = 111) = 0.04, p = .85$. Participants were about equally likely to judge the immoral choice (i.e., to steal) as "good for the agent" across two gain levels. By contrast, there was a highly significant difference in the Bribing situations, $\chi^2(1, N = 111) = 20.57, p < .001$: Whereas only 16% of participants in the low-gain condition judged acting immorally for personal gain as "good for the agent", 58% did so in the high-gain condition.

Age differences: Figure 9 shows the percentages of participants who regarded the immoral choice to be "good for the protagonist" within each age group. Children's congruence judgments about negative situations showed a pattern that most resembled that of all participants. In particular, while no statistically significant effect of personal gain was found for the Stealing situations (Fisher's exact $p = 1.00$), children showed a sensitivity to level of personal gain in the Bribing situations, with 81% judging accepting the bribe as "good for the agent" when the gain

was three years' income, compared to only 13% when the gain was merely a fancy meal (Fisher's exact $p < .001$).

For young adults, still no statistically significant effect of personal gain was found for the Stealing situations, $\chi^2(1, N = 37) = 0.27, p = .60$. For the Bribing situations, however, there is a significant difference in congruence judgments between the low- versus high-gain conditions, $\chi^2(1, N = 36) = 4.44, p = .035$. Additionally, young adults were more likely to judge stealing as "good for the protagonist" compared to children.

Figure 9 Percentages of participants who judged the immoral choice to be "good for the protagonist" (negative situations)



For older adults, no significant effect of personal gain was found for the Stealing situations (Fisher's exact $p = .74$). But they were much less likely to judge stealing as "good for the protagonist" (32%) than both younger adults (59%) and children (53%). For the Bribing situations, the results are mixed. Fisher's test indicates a marginal effect (not conventionally significant at .05), while the Chi-square test suggests a significant difference. The pattern shows that older adults were more likely to judge acting immorally as "good for the agent" in the high-gain Bribing condition (58%) than in the low-gain condition (25%).

Summary of moral congruence judgments

Participants' moral congruence judgments—whether taking the moral course of action is "good for" the protagonist—reflect how they understood the relations between moral action and self-interest in concrete contextualized moral situations. Data suggested that moral congruence judgments were sensitive to the magnitude of the immediate cost or benefit incurred by moral decision in all situations except one (i.e., Stealing). Specifically, for positive situations, the higher the cost of taking the morally good course of action, the less likely participants were to judge the moral act as "good for the protagonist" or congruent with self-interest. For negative

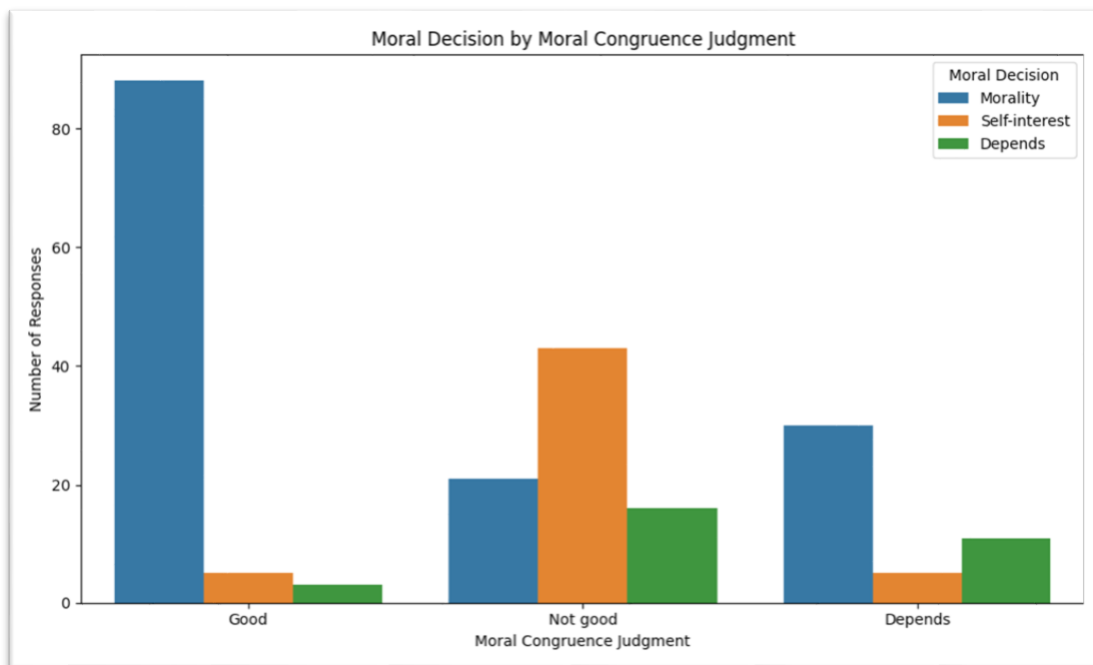
situations, the higher the gain of the immoral choice, the more likely participants were to perceive the immoral choice as “good for the protagonist”.

Relation of moral congruence judgments to moral decision judgments

It was hypothesized that individuals’ judgments of moral congruence may affect their moral decision-making: specifically, judging a morally good or right act to be also good from the perspective of the agent’s own interest may provide a reason (of a prudential kind) in favor of taking the moral course of action, while a judgment of incongruence (i.e., the moral course of action judged as “bad for the agent”) may serve as a reason against doing what is moral. It is thus of interest to examine the relationship between participants’ moral congruence judgments and their moral decision judgments.

There appeared to be a clear contrast between positive and negative moral situations regarding the relationship between the two types of judgments (or between the responses to the moral congruence and moral decision questions). In the positive situations, participants’ moral decisions were closely associated with their judgments of moral congruence. Judging the moral act to be aligned with the protagonist’s self-interest (i.e., “good for the protagonist”) was strongly associated with choosing the moral course of action. Conversely, when participants viewed the moral act as not beneficial to the protagonist, they were more likely to choose self-interest over morality in their decisions. Figure 10 illustrates the distribution of moral decision responses (“Morality,” “Self-interest,” “Depends”) across levels of moral congruence judgment (“Good,” “Not good,” “Depends”). For example, the first column (dark blue) shows the number of responses (n=88) in which participants judged the protagonist should act morally and also believed that doing so would be good for the protagonist.

Figure 10 Moral decision judgments by moral congruence judgments (positive situations)



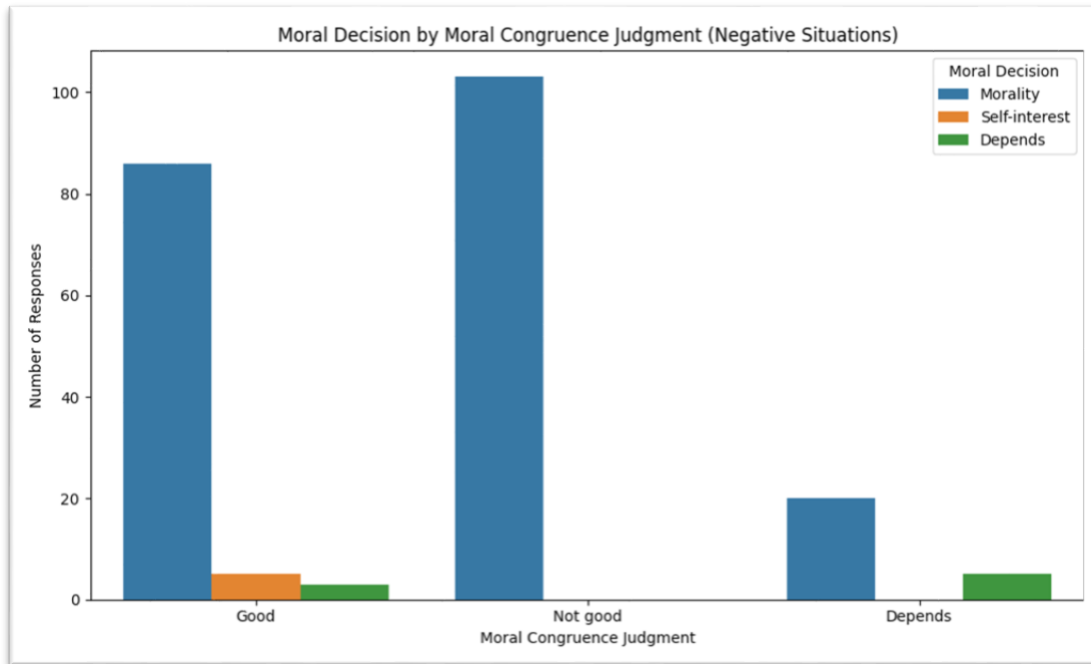
Note. The Figure describes frequency of moral decision responses (Morality, Self-interest, Depends) as a function of participants’ moral congruence judgments (Good, Not good,

Depends). Bars represent counts of responses from the contingency table.

Among the responses in which participants judged the moral act to be “good” for the protagonist ($n = 106$), 88 (91.7%) also selected the moral course of action in the decision judgment. In contrast, among those who judged the moral act to be “not good,” only 26% chose the moral option, while 54% prioritized self-interest in their moral decision responses. A Chi-Square test of independence was conducted to examine whether participants’ moral decision judgments (e.g., choosing “morality,” “self-interest,” or “depends”) were associated with their moral congruence judgments (i.e., whether acting morally is “good,” “not good,” or “depends” for the agent). Based on 222 paired judgments provided by 111 participants (each responding to two scenarios), the test revealed a highly significant association between the two types of judgments, $\chi^2(4, N = 222) = 90.90, p < .001$. Participants who judged moral actions as “good” were far more likely to choose the moral option, while those who judged them as “not good” tended to choose self-interest.

Responses to the negative moral situations presented a markedly different pattern from those observed in the positive situations (shown in Figure 11). Although nearly all participants judged that the protagonists should refrain from engaging in immoral actions such as stealing or accepting a bribe, their judgments regarding whether these immoral acts were “good for the protagonists” were sharply divided. Among responses that endorsed the moral course of action (i.e., choosing “morality” in the decision judgment), 41% judged the immoral act to be “good” for the protagonists, whereas 49% judged it to be “not good.” Thus, even among participants who rejected the immoral behavior, assessments of moral congruence varied substantially. Interestingly, within the negative situations all responses that prioritized “self-interest” in the moral decision judgment ($n = 5$) were paired with judgments that the immoral act was “good” for the protagonist, indicating a consistent alignment between perceived self-interest and self-interested choice, albeit in a very small subset of cases.

Figure 11 Moral decision judgments by moral congruence judgments (negative situations)



Note. The Figure describes frequency of moral decision responses (Morality, Self-interest, Depends) as a function of participants' moral congruence judgments (Good, Not good, Depends). Bars represent counts of responses from the contingency table.

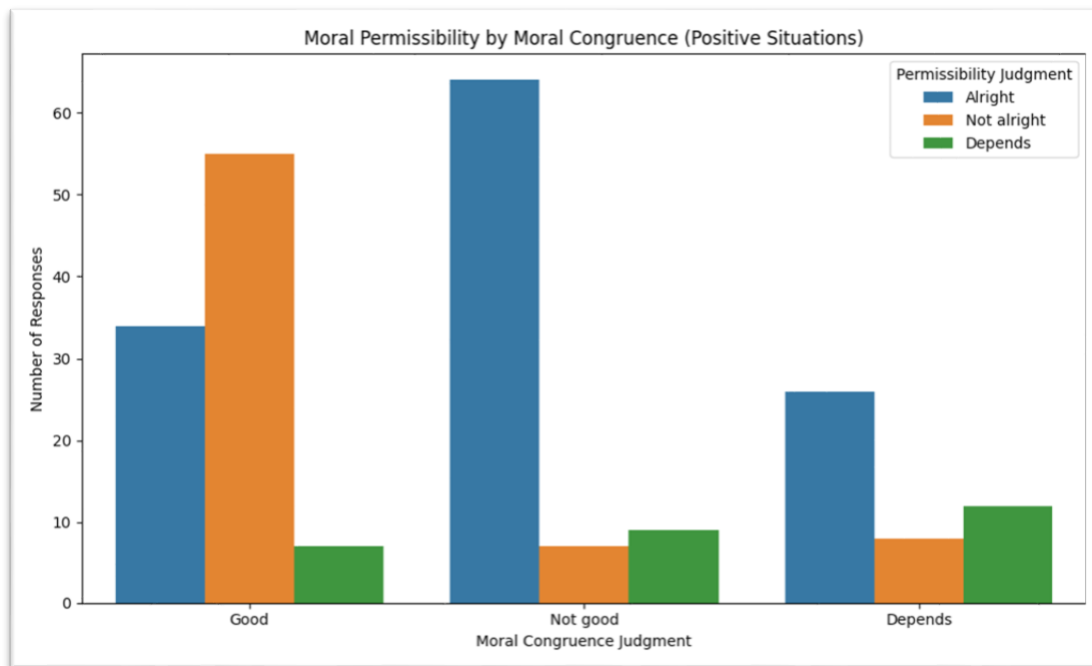
A Fisher's Exact Test was conducted to examine the association between moral decision judgments and moral congruence judgments in negative situations. The test revealed a statistically significant relationship between the two variables, $p = 2.76 \times 10^{-5}$, indicating that patterns of moral decision-making were not independent of participants' assessments of whether the immoral action benefited the agent. Although Fisher's Exact Test indicated a significant association between moral decision judgments and moral congruence judgments in negative situations, the pattern of association differed qualitatively from that observed in positive situations. Among responses endorsing the moral course of action, congruence judgments were sharply divided, with substantial proportions judging the immoral act to be both "good" and "not good" for the protagonist. This suggests that moral decisions in negative situations were often made independently of perceived self-interest. However, responses prioritizing self-interest occurred exclusively when the immoral act was judged to be good for the agent, contributing to the overall statistical dependence between the two judgments.

It is interesting to note that negative situations were characterized by a notable dissociation: many participants who believed the immoral act was good for the agent nevertheless judged that the protagonist should not engage in it. This suggests that participants often endorsed moral constraints even when such constraints conflicted with perceived self-interest. To further understand this apparent tension, the following section examines participants' justifications for their moral congruence judgments.

Relation of moral congruence judgments to moral permissibility judgments

The relationship or correlation between moral congruence judgments and moral permissibility judgments was also examined. Figure 12 illustrates the distribution of moral permissibility judgments (“Alright”, “Not alright,” “Depends”) across types of moral congruence judgments (“Good,” “Not good,” “Depends”). For example, the first column (dark blue) shows the number of responses (n=34) in which participants judged the moral action to be “good for the protagonist” while also judging that it would be alright for the protagonist to prioritize his personal interest without taking the moral course of action.

Figure 12 Moral permissibility judgments by moral congruence judgments (positive situations)



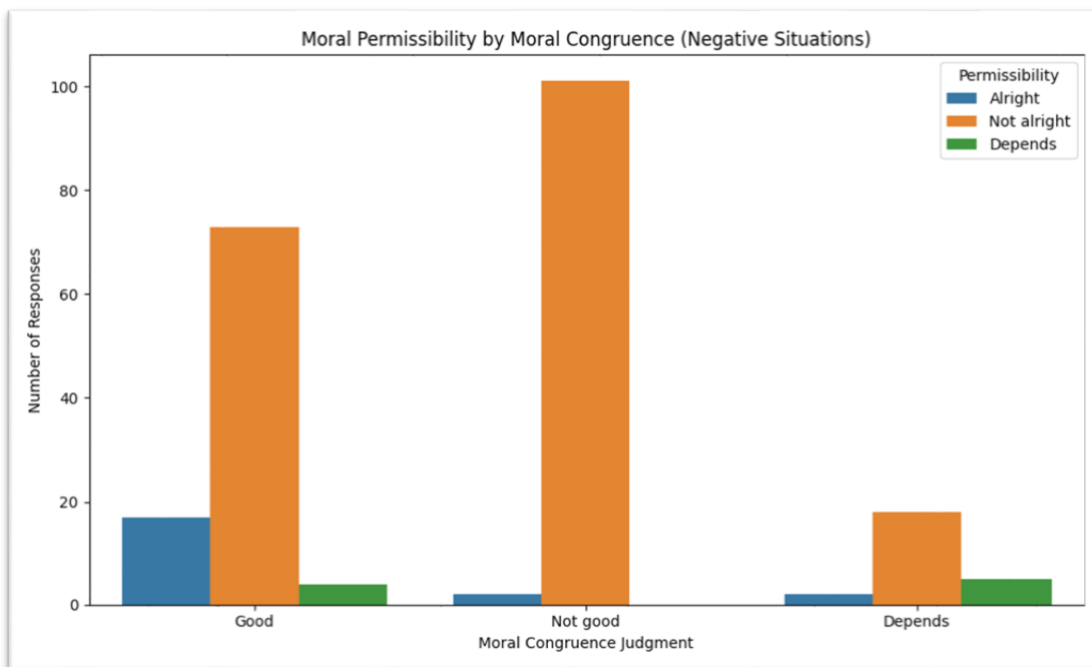
Note. The Figure describes frequency of moral permissibility judgments (Alright, Not alright, Depends) as a function of participants’ moral congruence judgments (Good, Not good, Depends). Bars represent counts of responses from the contingency table.

A Chi-square test of independence was conducted to examine the relationship between these two types of judgments in positive situations. The test revealed a highly significant association between the two variables, $\chi^2(4) = 60.72$, $p < .001$. This result indicates that participants’ judgments about whether moral action benefits the agent are strongly related to their views about whether it is permissible to act in self-interest. In particular, responses judging the moral act as “good” were more frequently associated with judging self-interested action as “not alright,” whereas responses judging the moral act as “not good” were more often associated with judging self-interested action as “alright”.

In negative situations, the vast majority of participants judged it “not alright” for protagonists to act immorally for personal gain (e.g., stealing or accepting a bribe). As a result, the number of responses permitting immoral actions was too low to meet the assumptions of a Chi-square test. Instead, a Fisher’s Exact Test was conducted to examine the association between

moral congruence judgments (i.e., whether acting morally is “good,” “not good,” or “depends” for the protagonist) and moral permissibility judgments (i.e., whether it is “alright,” “not alright,” or “depends” to prioritize self-interest). The test revealed a statistically significant association between the two variables, $p < .001$ (two-sided)³.

Figure 13 Moral permissibility judgments by moral congruence judgments (negative situations)



Note. The Figure describes frequency of moral permissibility judgments (Alright, Not alright, Depends) as a function of participants’ moral congruence judgments (Good, Not good, Depends). Bars represent counts of responses from the contingency table.

Despite this significant association, the overall pattern of responses was highly asymmetric. As illustrated in Figure 13, across all levels of congruence judgment, participants overwhelmingly judged self-interested action to be “not alright.” Even when participants believed that acting morally was “not good” for the protagonist, they largely rejected the permissibility of prioritizing self-interest. This pattern suggests that, in negative situations, permissibility judgments are relatively insensitive to considerations of self-interest and instead reflect a strong commitment to moral prohibitions.

³ Although the Fisher’s Exact Test indicated a statistically significant association between moral congruence and permissibility judgments, this result should be interpreted with caution. The distribution of responses was highly skewed, with the vast majority of participants judging self-interested action in these negative situations to be “not alright” across all levels of congruence. As a result, the statistical significance primarily reflects the extreme imbalance in response patterns rather than meaningful variation across conditions. Substantively, the data suggest that permissibility judgments in negative situations are largely invariant and do not systematically track participants’ evaluations of moral congruence.

Justifications

To explain their moral congruence judgments, participants justified why a chosen course of action was “good for the protagonist”. Most justifications centered on prudential considerations—such as personal welfare and interests—and were coded into four categories: (a) material costs/benefits, (b) emotional-psychological consequences, (c) social consequences, and (d) other. The complete coding scheme is available in [Appendix B](#). Responses that mistakenly focused on moral worth rather than personal interest were also categorized as “other”. Given that moral reasoning is context-dependent, justifications often varied by situation; therefore, the following results are organized by situation.

Because the analysis of justifications was exploratory, no specific hypotheses were formulated regarding differences in the distribution of justification types across situations or response categories. Moreover, the justification coding scheme included numerous subcategories, many of which occurred infrequently, resulting in small cell counts that would render inferential statistical tests unreliable and difficult to interpret. For these reasons, the analysis focuses on descriptive patterns in the data, reporting counts and percentages of justification types alongside illustrative excerpts from participants’ responses. This approach allows for a more transparent characterization of the kinds of considerations participants invoked when explaining their moral congruence judgments.

Positive situations

Justifications for the ***Helping*** situations are shown in Table 9. In response to the low-cost condition of the Helping situation, 51% of participants (28 out of 55) judged that helping the young boy pick up his stationery would be good for the protagonist himself. The majority of these participants (86%; 24 out of 28) justified their judgment by referencing the emotional reward of helping—coded as “warm glow”—noting that such actions “make one feel good.” Additional justifications included the possibility of developing a relationship or friendship (7 out of 28; e.g., “They may become friends”) and the minimal cost involved (7 out of 28; e.g., “It only costs him 15 minutes”). Among those who judged helping to be “not good” for the protagonist (10 out of 55), the predominant justification (80%) was the situational cost (e.g., “He will have to wait 15 minutes”). A smaller proportion (20%) acknowledged the potential emotional benefits of helping but concluded that these were outweighed by the personal cost.

Table 9 Frequency distribution of moral congruence justifications (Helping)

Justifications		Helping-Low Cost			Helping-High Cost		
		Good (28)	Not good (10)	Depends (17)	Good (9)	Not good (39)	Depends (8)
	Material (situational) costs	7	8	3	1	36	6
Psychological	Guilt and regret	3	-	-	-	-	-
	Identity and self-respect	1	-	-	1	1	1
	Mental health	2	-	-	-	-	-
	Warm glow	24	2	4	4	1	2
Social	Approval and reputation	-	-	1	2	1	-
	Reciprocity and sanction	2	-	-	-	-	-
	Relationship and friendship	7	-	1	-	-	-
Other	Depends on actual conseqs	-	-	3	-	-	2
	Depends on agent	-	-	5	-	-	1
	Unelaborated assertion	-	-	1	3	2	1

In the high-cost condition, a majority of participants (70%; 39 out of 56) judged that helping was “not good” for the protagonist. Nearly all of these justifications cited the situational cost—namely, being late for tryouts and potentially missing the opportunity to make the team. While a few participants acknowledged possible benefits of helping, such as emotional reward or social approval, they concluded that these benefits were outweighed by the cost, rendering the action ultimately bad for the protagonist. To the question “Is helping the young boy good for John himself?”, one participant (18 years old, female) responded:

“Probably not. Because he’s not going to make the soccer team. Um, so I don’t think it would be good for him. Maybe like, John could just think like, Oh, I did a really good thing today, but otherwise, like, it wouldn’t help him.”

Participants who selected “Depends” typically recognized that both costs and benefits were involved but expressed uncertainty about whether, overall, helping was good or not good for the protagonist. For these participants, a definitive judgment of whether acting morally would be good for the agent would depend on further contextual factors—such as (1) the agent’s personal desires or priorities (e.g., how much he cares about helping others versus making the team), and/or (2) the actual outcome of the moral action, including whether the good deed was acknowledged or led to a meaningful relationship, both of which remained unknown hypothetically and in real life. It is also interesting to note that the low-cost condition elicited a higher number of “Depends” responses (31%, 17 out of 55) than the high-cost condition (14%, 8 out of 56). In other words, participants tended to be less definitive in passing their judgments of moral congruence, when the moral act was insignificant and involved little personal cost. For example, one participant (19 years old, female) believed that helping would be neither good nor bad for the protagonist (in the low cost condition):

“I don’t think it’s good or bad for him. Or maybe it could be a little bad if he like, really just wanted to go home and they would take extra 15 minutes for him to get home. But I don’t think it would. Maybe it would make him feel good to help someone out. But I don’t think anything really concretely good or bad would be so...”

The lack of a definitive judgment in these cases did not stem from a difficulty in coordinating competing interests; rather, it arose because both the moral and non-moral considerations were perceived as trivial or insignificant.

Justifications for the *Intervention* situations are shown in Table 10. In the low-cost condition, 42 out of 56 participants judged that the moral choice—intervening to help the victim—was congruent with the agent’s own interest, or “good for the protagonist”. Participants provided a range of justifications, with a majority (54%) referring to emotional and psychological benefits. These included the experience of positive emotions, such as a “warm glow”, pride or enhanced self-respect, as well as the avoidance of negative emotions, such as guilt or regret. Below are some examples of participants’ responses to the moral congruence question in this situation:

Table 10 Frequency distribution of moral congruence justifications (Intervention)

Justifications		Intervention-Low Cost			Intervention-High Cost		
		Good (42)	Not good (3)	Depends (11)	Good (17)	Not good (28)	Depends (10)
	Material (situational) costs	10	3	1	2	29	7
Psychological	Identity and self-respect	9	-	-	2	-	2
	Mental health	-	-	-	2	-	-
	Guilt or regret	7	-	1	3	2	2
	Warm glow	14	-	2	4	-	1
Social	Approval and reputation	2	-	-	3	1	-
	Reciprocity and sanctions	2	1	-	1	-	-
	Relationship and friendship	2	-	-	6	-	-
Other	Depends on actual conseqs	-	-	4	-	-	2
	Depends on agent	-	-	3	-	-	1
	Individual-society harmony	1	-	-	-	-	-
	Unelaborated Assertion	9	-	-	-	-	-

“I think I think it is good for himself. I like it. I feel like if I were him, it wouldn’t be like a big deal for me to just like, I would definitely feel proud of myself. I think [...] it would be good. I know it would be good for me. So yeah, it’s good for him.” (12 years old, female)

“I don’t think he would have any direct benefit from helping the boy...would only be good for him that it would weigh hopefully good on his conscience that he decided to step up and stand up for the young boy. So in that sense, yes, it would be good for him if he took it as like, Oh, I did this really good thing today, and I helped another person out. And that’s just like a reflection of my character and who I am.” (20 years old, female)

“He would have only lost on 15 minutes, but I guarantee he would feel really good about himself for saving the boy.” (37 years old, male)

In addition to emotional and psychological benefits, other factors were cited in judging the moral action to be in the protagonist’s interest, such as the minimal material cost of intervention (18%) and the potential positive social consequences (12%). However, not all participants believed that intervening was good for the protagonist. One participant (54 years old, female), for instance, judged that it was not good for Daniel to intervene, solely based the consideration of the situational cost:

“It’s not good for Daniel because he will miss his bus and have to wait 15 minutes longer. However, he should stop the bullying because it is greatly needed and the right thing to do. The person being attacked is crying in pain”.

Although most participants regarded the cost in this condition as minimal or negligible, it remained a personal cost. However, as this response illustrates, a judgment of incongruence (the belief that doing the morally right thing is not in the protagonist's best interest) did not preclude the belief that the protagonist should still act morally. In other words, judging that a moral action is not in one’s self-interest is entirely compatible with the judgment that one ought to perform that action, with no inherent inconsistency between the two.

In the high-cost condition of Intervention, just over half of the participants (51%; 28 out of 55) judged that intervening was “not good” for the protagonist. These participants justified their judgments exclusively by referencing the material cost of intervening—namely, the risk of bodily harm or physical danger. In contrast, those who judged intervention to be good for the protagonist (31%; 17 out of 55) primarily cited positive emotional-psychological benefits (48%)—such as feelings of pride or self-respect—and social benefits (43%), including potential recognition or strengthened relationships. Participants who selected “Depends” tended to express uncertainty about how the costs and benefits should be weighed or believed that the answer would depend on additional factors—such as the actual outcome of the protagonist’s action or the protagonist’s personal values and motivations.

Negative situations

Justifications for the ***Stealing*** situations are presented in Table 11. In these situations, the protagonist (Judy) is presented with an opportunity to keep ten dollars accidentally dropped by another person. In the low-gain condition, she is portrayed as coming from a wealthy family with ample cash, implying she does not need the money. Conversely, in the high-gain condition, she comes from a modest background and is working hard to save for a concert ticket, suggesting the extra cash would provide a genuine benefit. To assess moral congruence, participants were asked whether keeping the money would be “good for Judy herself” and to provide justifications for their judgments. Data suggested that moral congruence judgments in both conditions were quite evenly split between participants who believed that keeping the money would be “good for Judy” and those who believed it would be “not good”. Furthermore, fewer participants selected “Depends” than in other situations.

Among participants who judged that stealing would be good for the protagonist, nearly all referred exclusively to the material benefit—specifically, that Judy would possess ten additional dollars. A 24-year-old male participant provided the following response in the low-gain condition:

Interviewer: “Would it be good for Judy herself to pick up the money and keep it?”

Participant: “It is definitely good for her because she has 10 more dollars to pay [for] anything [or] to buy something”.

Similarly, in the high-gain condition, justifications for the “good for Judy” response centered on the fact that keeping the money would satisfy Judy’s desire to attend the concert. A 22-year-old male participant explained:

Interviewer: “Would it be good for herself to just take the money and buy the concert ticket?”

Participant: “I think for Judy’s self-interest, it would definitely be good to buy the concert ticket, just because of how close she is to, like, be actually [being] able to buy it. I don’t think morally it’s good to take the ten dollars”.

Crucially, the judgment that keeping the money would be “good for Judy” should not be interpreted as an endorsement of the action. Participants frequently added that Judy should not take the money or that the act would remain morally wrong, regardless of its benefit to her personal interests.

Table 11 Frequency distribution of moral congruence justifications (Stealing)

Justifications		Stealing-Low Gain			Stealing-High Gain		
		Good (26)	Not good (27)	Depends (3)	Good (26)	Not good (23)	Depends (6)
	Material (situational) benefits	25	11	1	25	4	2
	Identity and self-respect	1	-	-	-	3	-
Psychological	Guilt or regret	1	5	1	2	11	2
	Warm glow	-	2	-	1	-	-
	Approval and reputation	-	1	-	-	1	-
Social	Reciprocity and sanctions	-	4	-	-	4	-
	Relationship and friendship	-	2	-	-	1	-
	Enlightened self-interest	-	8	-	3	2	2
	Depends on agent	-	2	1	-	-	2
Other	Unelaborated assertion	-	8	1	1	9	-
	Karmic belief	-	1	-	-	-	1

Conversely, participants who judged that stealing would be “not good” for Judy tended to downplay the impact of the ten dollars on her overall well-being or happiness. They noted that Judy did not objectively need the extra money in the low-gain condition, or that she had other accessible options to acquire the funds in the high-gain condition. For instance, a 38-year-old female participant responded to the low-gain condition as follows:

“Judy already has ample cash on her, in addition to her parents being wealthy. Ten dollars is not likely to make any meaningful change in Judy’s life, so it would be hard to argue that it is good for her to pick it up.”

Those who judged keeping the money as “not good” also considered broader “interests” beyond monetary gain, such as social consequences or emotional-psychological effects like guilt and regret. This holistic view was particularly common in high-gain conditions:

“It’s probably not in her best interest, just in case someone sees it, [or] she might feel guilty after.” (22 years old, female)

Some participants explicitly distinguished between immediate “short-term” interests (the monetary gain or attending the concert) and “long-term” interests (often non-material consequences like a clear conscience). These participants often concluded that prioritizing long-term interests was the better, or rational course of action:

“I think it would be good for her in terms of like, short term good. Like, she’ll get her... immediate need, but I feel like it would also[...] weigh on her conscience. So I don’t know. That’s long term good. I think overall, it wouldn’t be good.” (21 years old, female)

“For her self-interest, it would be good for her to take the money and go to the concert. But what’s going to happen in the future then? Maybe after a few days—or one day—she finds out that was the only money the other girl had. Maybe she needed it to buy something for school, or maybe even food. Yeah... then you see, Judy might end up feeling guilty.” (14 years old, male)

While many participants weighed multiple costs and benefits, others took a more conservative approach to the moral congruence question. They argued that whether keeping the money was “good” for Judy depended entirely on her internal psychological state—specifically, her capacity for guilt:

If she wouldn’t feel guilty and bad about herself then yes it would be good for her because she gets to go to a concert she’s really excited for. If she will feel bad about it, then no. (45 years old, female)

This reluctance to make assumptions about the protagonist’s psychological dispositions was a defining characteristic of many participants who selected the “Depends” option in response to the Stealing situations.

Justifications for the **Bribing** situations are presented in Table 12. In these situations, a high school principal, Mr. Smith, is presented with an opportunity to accept a bribe by awarding a fellowship to an unqualified student in exchange for personal gain—either a fancy dinner (low-gain condition) or a large sum of money (high-gain condition). Unlike the Stealing situations, where moral congruence judgments were evenly split, Bribing elicited more polarized responses in both the low- and high-gain conditions. In the low-gain condition, a majority of participants (69%; 38 out of 55) judged that accepting the bribe would not be good for the protagonist. Among the justifications offered, 30% referred to the triviality of the gain (e.g., “It’s just a fancy dinner”), 26% cited potential negative social consequences, such as being caught or losing one’s job, and 19% mentioned anticipated negative emotions, including guilt or regret. The excerpts below are examples that contained these common justifications:

“A fancy dinner is small compensation for the cost to Mr. Smith’s moral fiber, and it would put his reputation on the line as well. If word of his acceptance of the offer were to become known, he could very well lose his position as the one to dispense fellowships” (38 years old, male).

“Because, like, a fancy dinner is so not permanent. That’s just a one-time thing, and you’d be taking it...in exchange for changing the course of somebody’s life. Like, that dinner would probably taste awful by the end of it, you know what I mean? It would just ruin everything—it’s not worth it” (19 years old, female).

“It’s not worth it. It’s not...not really good for him to accept the offer, because he only he will only have the fancy meal. So it’s just a dinner, and he might feel really bad about himself. So it’s like, it’s not really worth it” (12 years old, female).

Sixteen percent of participants judged that accepting the bribe would be “good” for the protagonist, basing their assessment solely on the immediate material benefit, that is, that the protagonist would receive a free fancy meal. These participants did not reference potential risks, such as being caught, or emotional consequences like guilt. This narrow concentration on the situational or material gain in making moral congruence judgments was not limited to any particular age group. Participants who selected “Depends” (15%) generally acknowledged both the material benefit and other prudential concerns, such as possible social or emotional consequences. However, they remained uncertain as to whether the act would ultimately be good or bad for the protagonist, reflecting a more ambivalent stance on the relationship between morality and self-interest in this situation.

Table 12 Frequency distribution of moral congruence justifications (Bribing)

Justifications		Bribing-Low Gain			Bribing-High Gain		
		Good (9)	Not good (38)	Depends (8)	Good (32)	Not good (15)	Depends (8)
	Material (situational) benefits	8	16	2	31	5	2
Psychological	Identity and self-respect	-	3	-	-	2	-
	Guilt or regret	-	11	1	-	1	-
	Warm glow	-	2	-	-	-	-
Social	Approval and reputation	-	6	-	-	4	-
	Reciprocity and sanction	-	14	-	2	9	-
	Relationship and friendship	-	-	-	-	-	-
Other	Enlightened self-interest	-	5	2	2	3	-
	Depends on agent	-	2	3	-	-	4
	Assertion	1	10	1	-	4	-
	Depends on actual conseqs	-	1	2	-	-	2

In the high-gain condition, the majority (58%; 32 out of 55) judged that accepting the bribe would be good for the protagonist, basing their responses exclusively on the material benefit—namely, a substantial sum of money equivalent to three years' income. Interestingly, as can be observed by the following excerpts, this evaluation of the immoral choice as “good for the protagonist” was often accompanied by the insistence that the act is morally wrong:

“Mr. Smith would definitely benefit from the money but it would be morally wrong”. (39 years old, male)

“Definitely [good for the principal]. Yeah...because he probably I mean, principles don't make a ton of money. So he's probably [going to be] extremely wealthy and that would help him in his personal life, but it's still I feel morally wrong”. (21 years old, male)

“I think it would be good for Mr. Smith himself to accept the offer. Cuz you get a lot of money. And maybe if, and maybe if he needed it for something, then he could use it. So I think it would be good for him”. (11 years old, male)

Among the participants who judged that accepting the offer would be “not good” for the protagonist (27%; 15 out of 55), several justifications were provided. Material gain was mentioned in 27% of these responses, while social consequences—such as the risk of being caught or losing one's job—were cited in 59%. Additionally, emotional consequences, such as guilt or regret, were mentioned in 14% of cases. These participants generally believed that the potential risks and negative outcomes outweighed the personal benefits of accepting the offer; consequently, they viewed performing the morally right action as being in the protagonist's best interest. Here are some examples of this type of reasoning:

“He would likely get...he would likely benefit from it, but he may feel guilty, and that's how there could be cost to him. But there's and also, if...if it is found out that he accepted a bribe to do this task, then he could also face punishment later on”. (21 years old, male)

“I think you'd also have to think about the consequences for him. Um, if he goes home to his wife, let's say his wife's like, wow, how did you get this much money? Basically [he is] going to have to tell her I got bribed. That's like, even if he cares about his self-image, and his pride and his humility. I think all of those also tie into what should be in his best interest. I wouldn't want to tell people I got all this money because I was bribed. And he shouldn't either. So it's morally right. But also in terms of his self-interest, he wouldn't look too good. So that's another reason why I think he shouldn't do it. But yeah, it's in his best interest to do the morally right thing” (22 years old, female).

Additionally, 15% of participants in the high-gain condition selected “Depends”, reasoning that whether accepting the bribe would be good for the principal depended on (a) the principal's personal values and priorities—that is, what he truly wants or cares about—and (b) the actual outcomes of his decision, such as whether he ultimately gets caught.

Summary of justifications for moral congruence judgments

Although a very small number of participants appeared to conflate the notion of “morally good” with “good for the agent,” the majority engaged with the moral congruence question by reflecting on how the protagonist's moral choice might affect their own interests or well-being. As anticipated, participants' justifications largely centered on conceptions of what constitutes a person's own good. Importantly, while the immediate costs or benefits associated with each

moral choice were made explicit in the hypothetical situations, participants' reasoning extended beyond these situational costs and gains. Participants' justifications reflected a broad conception of welfare that extended across several dimensions: from material to psychological and social consequences; from immediate to temporally extended interests; and from actual outcomes to probabilistic risks and future possibilities.

When participants perceived moral action as congruent with the protagonist's interests, they frequently cited emotional, psychological, or social consequences alongside—or in place of—immediate material outcomes. By contrast, judgments of incongruence were more common in high-cost or high-gain situations, with justifications focusing more heavily on tangible costs or benefits. This pattern suggests that concrete material considerations can, in some contexts, override other dimensions of self-interest, leading participants to view moral action as contrary to the agent's well-being. Although most participants weighed multiple facets of interest—including long-term consequences, emotional rewards, and social standing—a subset across all age groups attended exclusively to material outcomes. This narrower focus was especially pronounced in negatively valenced moral situations (e.g., Stealing, Bribing).

Chapter 5: Discussion

Is acting morally good for oneself?

Across all three age groups, most participants believed that acting morally is generally good for oneself. Of the one hundred and eleven participants, only eight expressed clear disbelief in the general congruence between morality and self-interest, and these individuals were evenly distributed across age groups (three children, two young adults, and three older adults). While affirming the general benefits of moral action, most participants also acknowledged the existence of exceptional situations in which acting morally may not serve one's interests.

The vast majority justified their belief in moral congruence by appealing to two major categories of naturalistic consequences: a) emotional or psychological outcomes, and b) social outcomes. The former encompassed positive emotional experiences—from a simple “warm glow” to feelings of moral pride, integrity, and self-respect—as well as freedom from negative emotions such as guilt, regret, or remorse. Participants also cited intermediate psychological states like “peace of mind”. Social consequences included reciprocity and sanctions (e.g., kindness repaid with kindness, or retaliation for wrongdoing), social evaluation (i.e., reputation and others' perceptions), and the maintenance or erosion of genuine human relationships. Although these categories are conceptually interconnected, participants distinguished them as discrete aspects of what makes moral action beneficial to the agent.

Participants' naturalistic understanding of moral congruence was further corroborated by their responses to the third and fourth general questions (“Do you believe good/bad things will happen to those who have done morally good/bad things?”). Compared to the first two questions, a larger proportion of participants across all ages responded with a clear “no”, rejecting the notion that moral congruence is somehow maintained by supernatural forces such as karma. The percentage of affirmative responses was also substantially lower; among those who answered “yes”, most offered purely naturalistic explanations, again citing the psychological and social consequences of moral actions as the basis for congruence.

With regard to general beliefs, two age-related patterns emerged. First, children showed the highest rate of agreement and the lowest rate of disagreement with the statement that good or

bad things befall individuals according to their moral conduct. Older adults exhibited the opposite pattern—the lowest agreement and highest disagreement—with young adults falling in between. Considered alongside participants’ justifications, this finding aligns with existing research evidence that children are prone to moralized, teleological explanations of life outcomes or significant life events (as in “Everything happens for a reason”) but such a tendency diminishes with age (e.g., Banerjee & Bloom, 2015). Adult participants’ skepticism was often accompanied by a sense of resentment toward the perceived mismatch between moral character and life outcomes. This skeptical stance, likely shaped by accumulated life experience and exposure to injustice, was frequently paired with a normative judgment: that it *ought* to be the case that people’s life circumstances align with their moral character.

Second, children were also the least likely to agree that moral action can sometimes be detrimental to oneself. The precise reason for this steadfast belief in moral congruence remains unclear. One possibility, suggested by the reasoning of participants who answered “no” or “depends”, is that a small number of child participants were confused about the two senses of the word “good”: moral goodness versus personal well-being. For some children, the moral domain may carry such inherent authority that “moral” is presumed to entail “good” in all respects, making the idea of morally good but “personally bad” action difficult to comprehend. This confusion may stem from the polysemy of the word “good” in the interview context; participants may have interpreted the term exclusively in its moral sense, rather than considering the relation between moral and non-moral goods.

But beyond linguistic ambiguity, this trend may reflect a substantive feature of children’s moral orientation shaped by socialization. While children clearly distinguish moral imperatives from personal interests, their lived experience is often defined by the consistent reinforcement of moral behaviors. Because socializing agents (parents, teachers, and peers) systematically pair moral behaviors with positive outcomes like material rewards or social approval, children may develop a functional expectation of moral congruence. From this perspective, the belief that moral action is “good-for-me” is a logical induction based on a history of positive reinforcement where doing “right” and faring “well” are empirically linked. However, this perceived link likely weakens as individuals mature and encounter a more complex moral landscape, where acting morally often demands personal sacrifice and provides no guarantee of external reward—a shift reflected in the adult participants’ greater readiness to acknowledge the potential for moral-personal conflict.

Contextualized judgments revealed a more nuanced picture than general beliefs. In positive moral situations involving costs to the agent, the magnitude of those costs significantly shaped judgments of moral congruence, all else being equal. For instance, when helping entails minimal sacrifice, most participants judged it not only morally good but also beneficial to the agent himself to help, citing positive psychological effects and potential social rewards. However, when helping requires thwarting an important personal goal—such as missing soccer tryouts and the chance to make the team—moral action was no longer seen as aligned with, and was often viewed as detrimental to, the agent’s interests.

Crucially, “cost” carries a subjective dimension, tied to the individual’s wants, desires, and goals. In the high cost condition of the Helping situation, missing soccer tryouts constitutes a “high cost” only insofar as the agent genuinely loves soccer. For someone who hates the sport and participates only under parental pressure, the same situation entails little or no cost. This subjectivity extends to the emotional and psychological effects of moral action as well. Some

participants selected “Depends” when making judgments of moral congruence precisely because they considered the positive effects of acting morally to be contingent on factors such as “how much he cares about morality” or “how guilty he would feel if he did not act morally”. Such information about the agent’s moral psychological constitution is relevant to weighing the pros and cons of moral action, yet the hypothetical situation typically did not provide it.

It need be stressed, however, that this subjective dimension of self-interest did not prevent the majority of participants from offering definitive judgments across the hypothetical situations. Participants were able to do so because self-interest also possesses a salient objective dimension, and they commonly relied on assumptions about the moral psychology of average individuals to anticipate more objective consequences. In the Intervention situations, for instance, most participants judged that intervening would be “bad for the protagonist” if it entailed physical harm, reasoning that the positive feelings from doing the right thing could not outweigh the reality of bodily injury. By contrast, when the cost of intervention was merely missing the bus home, nearly all participants judged the act as both morally right and beneficial to the agent—on the grounds that there was objectively little to no cost, and because, as one participant put it, “who doesn’t enjoy being a hero?!”

This objective aspect of self-interest becomes especially salient when it potentially conflicts with its subjective counterpart. In some situations, individuals may want or desire something that is, from an objective standpoint, not in their best interest. The low gain condition of the Bribing situation exemplifies this tension. Here, most participants judged that accepting the bribe would be bad for the protagonist, reasoning that the negative consequences—such as damage to reputation or risk of job loss—far outweighed the transient satisfaction of a single fancy dinner. Even if the protagonist subjectively desired to accept the bribe, thinking that it would be in his interest, participants still concluded that taking it was objectively against his interests. Some participants drew on the distinction between short-term and long-term interests to drive home this point. In such cases, participants adopted an objectivist stance in evaluating what is good for someone, grounding their judgments in more objective and robust facts about personal interests or well-being rather than contingent or subjective factors.

It would be mistaken to assume that moral acts are necessarily seen as aligned with self-interest when the latter is judged objectively. Although this idea features prominently in certain philosophical arguments for moral congruence, such as those appealing to “enlightened self-interest”, it is not widely shared by ordinary individuals. Consider the high cost condition of the Intervention situation, in which the decision to intervene entails physical injury to oneself. Here, the vast majority of participants judged that acting morally would be against the protagonist’s self-interest, even if the protagonist “wants” to. This is not to say that they overlooked the possible emotional or social benefits of such heroism. Rather, most concluded that, on balance, the sacrifice required was too great to support the claim that moral action in this context serves one’s own interests.

Just as the sacrifices entailed by heroic or supererogatory moral acts are recognized as genuinely real and conclusive, so are the personal gains from immoral acts acknowledged as benefits, rather than dismissed as illusory or easily outweighed by negative consequences of acting immorally. In the high gain condition of the Bribing situation, approximately 60% of participants judged that accepting the bribe would be good for the protagonist, citing the straightforward appeal of “a lot of money”. The remaining 40%, by contrast, judged the act as contrary to his interests, emphasizing potential negative social and emotional consequences (e.g., “he may get exposed and lose his job”). One might argue that the latter group engaged in more

sophisticated prudential reasoning, weighing not only immediate financial gains but also future risks and non-material goods, while the former focused narrowly on monetary outcomes. However, this interpretation is implausible, as many participants in the 60% group adopted a broader conception of self-interest when evaluating other situations. A more plausible explanation is that participants were reluctant to claim that someone who acts immorally for personal gain is essentially acting against their own interests, as such a claim would make moral condemnation feel less natural or justified. After all, a central feature of immorality involves advancing one's own interests at the expense of others; to deny that the immoral actor has advanced his interests would seem to undermine the basis for moral blame (e.g., Bostyn & Roets, 2016; Feinberg et al., 2019; Malle et al., 2014). Moreover, to say that he has harmed his own interests would render his action inexplicable or irrational from his own subjective standpoint: who would violate moral norms only to harm himself? There must be something to be gained.

It must be emphasized that while over half of participants judged the immoral act as good for the protagonist, virtually no one believed that the protagonist *should* act immorally to benefit himself. This pattern also held in the Stealing situations. The divergence in moral congruence judgments across these negative situations (with the exception of low gain condition of Bribing) appeared to stem from differing psychological attributions. In the Stealing situations, for instance, participants who judged that stealing would benefit the protagonist often noted that she would feel happy at being able to attend the concert she had always wanted. By contrast, those who judged the act as contrary to her interests typically predicted that guilt would follow, preventing her from truly enjoying the experience.

One might argue that these psychological predictions reflect participants' own moral psychology: if I predict that the protagonist will feel happy after taking someone else's money, then that is likely how I would feel in the same situation, revealing something about my own moral stance. This line of reasoning connects to research on the Happy Victimizer Phenomenon (e.g., Arsenio et al., 2006; Nunner-Winkler, 1998), which found that younger children (ages 4–5) tend to attribute positive emotions to wrongdoers, whereas older children (ages 7–8) attribute negative emotions. The question is whether such differences in emotion attribution reflect genuine differences in participants' own moral emotion and motivation. This conclusion would hold only if participants identified with the hypothetical protagonists. However, particularly among older participants, such identification is unlikely. They are more likely predicting what another fictional character would feel, not what they themselves would feel in the same situation. One could argue that these predictions are ultimately projections of one's own psyche, but this claim is overextended and lacks empirical support. Given that nearly all participants disapproved of engaging in immoral action, it is more plausible that those who judged the act as "good for the protagonist" were merely assessing its interest-related consequences for another person, while themselves condemning the act and presumably not regarding it as beneficial from their own first-person perspective.

Participants who judged immoral acts as bad for the agent may also have been making psychological attributions—only with a more positive assumption about the protagonist's character. For instance, they might say, "She wouldn't be able to really enjoy the concert knowing the money wasn't hers." Yet it seems more fitting to interpret these moral congruence judgments not as mere psychological predictions, but as normative suggestions or practical reason-giving. These participants often reasoned, in a manner akin to paternalistic thinking, that the "badness-for-the-protagonist" obtains independently of the protagonist's subjective psychological characteristics, such that even if the protagonist believed the act to be good for

herself, it would still be contrary to her real or long-term interest. As such, in making moral congruence judgments (i.e., that acting immorally would be bad for oneself), participants were providing reasons—reasons of a prudential or self-interested kind—for complying with morality or refraining from immorality, alongside moral reasons.

But do moral congruence judgments really have any reason-giving force so that they influence moral decision-making? In the next section, the relation between moral congruence judgments and moral decision judgments are considered.

The coordination of morality and self-interest in decision-making

Moral decision-making involves the coordination of multiple types of considerations, moral and nonmoral. Research has explored how individuals navigate competing concerns across various domains, including morality, social conventions, personal autonomy, and the value of scientific practices (Turiel, 1983, 2015a, 2023; Turiel & Gingo, 2017). Building on this framework, the present study can be seen as one that examined how individuals coordinate moral concerns with self-interest, with particular attention to the role of judgments of moral congruence. The central assumption was that perceptions of moral congruence—that is, whether doing the morally right thing is also good for oneself—may mediate how such coordination unfolds in decision-making.

Importantly, evidence suggested that decision-making in positive moral situations (where acting morally involves a personal cost) differed in important ways from decision-making in negative moral situations (where acting immorally offers a personal gain). In positive situations, participants' decisions about what the protagonist should do were influenced by both the magnitude of the personal cost and the moral seriousness of the choices. When the cost was low and the moral stake high, participants overwhelmingly judged that the protagonist should act morally. Conversely, when the cost was high and the moral value of the action appeared minimal, many participants concluded that pursuing self-interest was justifiable. Moreover, in positive situations, there was a notable alignment between participants' moral decision judgments (i.e., What should be done) and their moral congruence judgments (i.e., Whether doing what is moral is good for oneself). When participants endorsed the moral action, they typically also judged it to be good for the protagonist; when they endorsed the self-interested option, they often judged the moral action as not good for the protagonist.

If whether one prioritizes morality or one's own interest is to a great extent determined by cost to one's interest, does this not imply that self-interest determines moral decision? Such a conclusion would be premature. While considerations of self-interest clearly influenced participants' final decisions, their reasoning or deliberative process was guided by a normative or moral principle often implicit in their verbal justifications.

It is important to recognize that framing the decision-making process as a simple coordination or trade-off between "morality" and "self-interest" is somewhat misleading. In positive situations, the moral act—such as helping someone retrieve dropped pencils or intervening to stop bullying—was understood as benefiting another individual. Participants evaluated the moral significance or seriousness of the action by assessing its impact on the other person's interests or welfare. For instance, the *Intervening* situation was generally seen as more morally serious than the *Helping* situation, because failing to intervene could result in continued and severe (physical and mental) harm to the victim, whereas not helping with picking up pencils would have a much more insignificant impact on well-being. At the same time, each moral choice came with some kind of personal cost to the agent. Thus, participants were not weighing

“morality” against self-interest, but rather balancing the interests of another person against the interests of the protagonist. Given that these situations did not involve special obligations—such as familial duties, promises, or debts—it is plausible that participants were guided by an implicit principle of equality: the idea that one person’s interests should not outweigh another’s. From this perspective, participants’ reluctance to endorse significant self-sacrifice for relatively minor moral gains should not be interpreted as placing self-interest above morality. Rather, it reflects an effort to treat both sets of personal interests as equally valid and worthy. Their deliberative process involved finding a fair and reasonable balance between the agent’s own welfare and the welfare of others, without privileging one over the other (Tomasello, 2020). It thus seems correct to say that the decision to protect an important personal goal from a minor morally good yet costly act (as in the high cost condition of Helping) is “moral”, as it abides by the principle of fairness or equality (i.e., giving equal consideration to one’s own interest and the interest of another), although participants often framed the choice as one involving prioritizing self-interest over morality. But it would be odd to say of the opposite choice or decision that it is “immoral” or “morally wrong”. It seems more fitting to say that it is “irrational”, as some participants did.

In contrast to positive situations, moral decision-making in negative situations did not appear to be influenced by the magnitude of personal gain or the perceived seriousness of the immoral act. Across all negative conditions, the vast majority of participants judged that the protagonist should refrain from the immoral action, regardless of whether the personal benefit was minor or substantial. Consistent with prior research, participants also did not find less serious wrongdoings (e.g., indirect stealing) any more acceptable (Kahn, 1992; Nucci et al., 2017). Moreover, moral congruence judgments—assessments of whether the immoral act is “good for oneself”—were often disconnected from decision judgments about what one ought to do: many participants acknowledged that the act might be “good for the protagonist” while still affirming that it was morally impermissible and one should not do it.

Participants seemed to find it much easier to decide what should be done in negative situations than in positive ones. Consideration of personal gain played little role in the deliberation process for negative acts, unlike the way personal cost factored into reasoning about decisions in positive situations. Even when personal benefits were high and tempting, most participants were not conflicted about what constituted the right course of action. This seemed to be due to the fact that judgments of moral wrongness were presumptuous, leaving little room for weighing competing considerations like personal gains. In contrast to positive cases—where moral judgments such as “it would be good to help” offered provisional reasons to act that required coordination with self-interest—judgments of wrongdoing tended to function as “categorical imperatives”: once an act was seen as wrong, participants typically concluded it should definitely not be done.

In this sense, people “coordinate” morality and self-interest quite differently in positive versus negative moral situations. While judgments of moral goodness or moral worth characteristic of positive situations were recommendatory and open to negotiation with self-regarding concerns, moral judgments of right or wrong in negative situations are presumptuous, nonnegotiable in deliberation, overriding competing considerations such as personal gain. Judgment about whether acting morally is good for oneself, may be an important factor in determining what one ultimately should do in positive moral situations, but it seems more or less irrelevant to moral decision in negative situations.

This is not to say that people do not even entertain the idea of benefitting oneself via an immoral choice. People are often tempted to act immorally for personal gain and they might struggle in deciding what to do, especially when the temptation is big. But most people will not find it justified to think that they “ought” to do the immoral act which brings significant personal advantage, whereas they will find it justified or right to think that they “ought not” to do the moral act which brings significant damage to personal interest.

Conclusion

This study investigated how ordinary individuals reconcile moral acts with self-interest. Across three age groups (11-14, 18-24, and 34-67 years old), participants generally believed moral acts are good for the agent. When judging hypothetical situations, they routinely looked beyond immediate material costs and gains to consider broader emotional, psychological, and social consequences. While the magnitude of situational costs did influence judgments, participants predominantly framed morality and self-interest as congruent by appealing to these long-term, non-material interests, sometimes exhibiting a paternalistic attitude with regard to another’s (the protagonists) interests.

A central aim was to examine how these moral congruence judgments relate to moral decision-making. Results revealed a striking asymmetry. In positive situations (e.g., helping someone), judging an act as contrary to one’s interests was widely accepted as a legitimate reason not to perform it. Conversely, in negative situations (e.g., lying, stealing), even when an immoral act was judged to be in the protagonist’s interest, participants overwhelmingly maintained it was wrong and ought not to be done. This asymmetry illuminates the nuanced role of self-interest in folk morality. Its “reason-giving force” is conditional: it can excuse inaction in prosocial contexts but cannot legitimize a wrongful act. This suggests that even when people believe immorality serves their interests, they hold a deontological constraint, i.e., the pursuit of self-interest cannot justify what is morally wrong.

Limitations: The study is, of course, not without limitations. One important limitation concerns the way the moral congruence question was framed in interviews. Specifically, participants were asked: “Is the moral act good for the protagonist him- or herself?” This phrasing was intentionally chosen over more direct references to “self-interest” due to several anticipated advantages. The term “good-for-someone” was thought to invite broader reflection on the multiple dimensions of personal well-being—emotional, psychological, social, and material—without narrowing the focus to mere material or egoistic gains, as the term “self-interest” often implies. Additionally, “self-interest” carries negative connotations in moral discourse and may bias participants in their responses. The hope was that by not specifying which aspects of a person’s good should be considered, participants would feel encouraged to weigh diverse potential benefits and costs and arrive at a more comprehensive, all-things-considered judgment about whether the moral course of action would be good for the protagonist.

However, participants’ responses revealed some limitations of this approach. While many individuals did indeed consider multiple dimensions of the protagonist’s well-being—such as emotional rewards, social consequences, and moral identity—others focused narrowly on immediate material gains or losses. This was particularly evident among older adults responding to the online survey, suggesting that without interviewer guidance, some participants defaulted to situational thinking rather than reflecting on broader or long-term interests. It is possible that

more explicit prompts encouraging reflection on different aspects of well-being would have yielded more nuanced and internally consistent judgments. Additionally, a small number of participants (more frequently among children) appeared to conflate “good for someone” in the self-interested sense with “good to do” in the moral sense, indicating some conceptual ambiguity in interpreting the question.

Another limitation concerns the design of the hypothetical situations, particularly the manipulation of variables such as moral seriousness and personal cost. In some cases, the intended variables were not held constant across conditions. For example, while both scenarios labeled “high-cost” involved significant trade-offs, the cost in one involved missing out on a sports team opportunity, whereas in the other it entailed risk of physical harm. This inconsistency complicates direct comparisons and limits the rigor of statistical analysis. Nonetheless, designing realistic and diverse moral scenarios required balancing narrative variety with experimental control. Future research could benefit from more systematic manipulation of variables within a single scenario structure, or more careful counterbalancing across different stories.

Finally, the selection of age groups—children, adolescents, and adults—was not guided by a specific developmental hypothesis. The goal was not to test when certain cognitive or moral capacities emerge but rather to explore possible age-related differences in how participants think about the relationship between morality and self-interest. This reflects the exploratory nature of the study. While this choice yielded interesting comparative insights, future research could adopt a more targeted developmental framework to examine specific transitions in understandings of the relation between morality and self-interest across age groups.

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Appendix A: Sample of interview protocol

Part I: General questions

1. People often say that acting morally is "good". This generally means that moral acts are good for their recipients and society. But do you think that acting morally is good for the person himself (or herself)? Why or why not?
2. Do you think there are occasions where doing what is moral is not good for oneself? Please provide an example(s).
3. Do you believe that good things will happen to people who have done morally good things? Why or why not?
4. Do you believe that bad things will happen to those who have done morally bad things? Why or why not?

Part II: Hypothetical situations

1. Positive situations

1.1.Helping

- (Low cost) John is at a bus station, getting ready to go home for the weekend, when he witnesses a young boy slip and fall, causing his pencil case to drop and scattering all his stationery on the ground. Although the boy isn't injured, he asks John if he could help him pick up his stationery. However, his bus has just arrived and if he helps the young boy, he will have to wait an additional 10 minutes for the next one. John is deciding what to do.
- (High cost) John is on his way to the final soccer tryouts, where the coaches will make their final cuts. He's been working hard for this opportunity and has a good shot of making the team. But on the way, he comes across a young boy who slipped and fell, causing his pencil case to drop and scattering all his stationery on the ground. Although the boy is not injured, he asks John if he could help him pick up his stationary. John realizes that if he stops to help, he'll be late for tryouts and miss his chance to make the team. John is deciding what to do.

1.2.Intervening in bullying

- (Low cost): Daniel just finished his class and is waiting for his bus home. He sees a boy shoving and punching another boy under a tree across the street, and the boy getting punched is crying in pain. Daniel is bigger and taller than any of them, so he can easily stop the bullying without getting himself hurt. However, Daniel's bus has just arrived,

and if he goes over to intervene, he will miss his bus and have to wait for another 15 minutes. Daniel is deciding what to do.

- (High cost): Daniel just finished his class and is leaving the school, when he notices a boy shoving and punching another boy under a tree. The boy who is punching is bigger and stronger than Daniel and the boy getting punched. The smaller boy is crying in pain. Daniel wants to go over and stop the bullying; however, the bigger boy warns him not to, otherwise he will hurt Daniel. Daniel is deciding what to do.

2. Negative situations

2.1. Stealing

- (Low gain): Judy comes from a family that has a lot of money; Judy is in the playground when she sees a 10-dollar bill fall out of another girl's pocket; the other girl doesn't know that the 10-dollar bill has fallen out of her pocket; Judy already has 20 dollars and is considering picking up the 10 dollars and keeping it for herself.
- (High gain): Judy comes from a family that does not have a lot of money; Judy's favorite band from a city far away is going to give a rare concert in her town; so, Judy gets a job to save money to go to the concert. But by the time she needs to buy the ticket she is 10 dollars short. Later that day at the playground, she sees a 10-dollar bill fall out of another girl's pocket; the other girl does not know that the 10-dollar bill has fallen out of her pocket; Judy is considering picking up the 10 dollars to buy the concert ticket.

2.2. Bribing

- (Low gain): Mr. Smith is the principal of a high school. Every year, a prestigious university offers two full fellowships to the school's graduates to attend the college. The principal decides who will get the fellowships. Amy is a good student but not competitive enough to earn one of the fellowships. However, Amy's parents have offered to treat Mr. Smith to a fancy dinner at a restaurant, in exchange for securing one of the fellowship positions for their daughter. Mr. Smith is deciding what to do.
- (High gain): Mr. Smith is the principal of a high school. Every year, a prestigious university offers two full fellowships to the school's graduates to attend the college. The principal decides who will get the fellowships. Amy is a good student, but not competitive enough to earn one of the fellowships. However, Amy's parents are wealthy, and they have offered to give Mr. Smith a large sum of money, equivalent to his three years' income, in exchange for securing one of the fellowship positions for their daughter. Mr. Smith is deciding what to do.

Questions for each hypothetical situation:

1. What should the protagonist do? Why? [Moral decision question]
2. Would it be alright if the protagonist chose the nonmoral (for positive situations) or immoral course of action (for negative situations)? [Moral permissibility question]
3. Is doing [M] (the moral course of action) good for the protagonist her/himself? Why? [Moral congruence question]
4. Suppose the protagonist is unwilling to do [M] (the moral choice), do you think doing [M] would be good for him/herself? [Moral congruence question – objectivity test]

Appendix B: Justification categories

Justification categories for moral decision judgments

Justification	Definition and Example
Assertion (categorical)	Participant asserts an act is right or wrong without providing further justifications. [e.g., “It is the right thing to do”].
Karmic belief	Participant indicates their belief in karmic justice. [e.g., “What goes around comes around.”, “When you do good things, good karma follows after that.”]
Common good or better world	Participant indicates an act as conducive to collective interests or making the world a better place. [e.g., “If he does help. That’s helping build the world that we want”.]
Justice or fairness	Participant refers to an act as being just or unjust (fair or unfair), based on qualification or deservingness. [e.g., “That is not fair to other students that may be more qualified and worked really hard”.]
Character and integrity	Participant indicates concern for maintaining moral integrity or damage to own character. [e.g., “It would lead to the slow crumbling of Judy’s moral fiber. If she can justify this behavior, then she’ll make compromising decisions in more impactful situations down the line”.]
Ownership of property	Participant indicates the right to property and the wrongness of taking the property of others. [e.g., “Because that is not her money.”]
Professional morality	Participant refers to special obligations or standard of conduct associated with a particular social position or profession. [e.g., “There must be a code of ethics a principal adheres to.”]
Welfare	Participant indicates concern for the interest or welfare of others. [e.g., “I think Daniel should intervene in this situation because the stakes are high with injury occurring to someone else if he doesn’t act.”]
Emotional-psychological consequences	Participant refers to the emotional or psychological consequences of one’s moral choices, including positive emotions like “warm glow” and self-respect, as well as negative ones like guilt or regret. [e.g., “He will feel good knowing he did the right thing and helped someone out”.]
Situational (material) benefit or cost	Participant indicates concern for immediate benefits or costs incurred by a moral decision. [e.g., “Daniel could be injured if he intervenes directly. He may even be risking his life to do so.”]

Social consequences	Participant indicates concern for the social consequences of one's moral choices, including impacts on reputation, social approval or disapproval, potential social or legal punishments, and the effects on one's social network and relationships. [e.g., "I feel it is good for the person themselves mostly because of the way that everyone else sees that person in society. More people should respect you if you have and show good morals."]
Agent-contingency	Participant indicates that the decision would depend on the agent's psychology, character, subjective beliefs, desires, values, etc. [e.g., "It depends on how important the tryouts are to him."]
Obligation and discretion	Participant indicates that the protagonist does not have a moral obligation to do what is morally good, or has discretion to prioritize personal interest if he wants to. [e.g., "John has to try out to make the team. Though it would be a kind act, he is not obligated to help the boy. Helping will hurt his self-interest too much in this case"]

Justification categories for moral congruence judgments

Justification	Definition
Authenticity	Participant indicates that acting morally is good for oneself in so far as the moral act is an authentic expression of one's own values and beliefs, or one's self-identity.[e.g., "It's not good for yourself if you're only trying to be someone that is not your true self. Only trying to please somebody else or trying to conform to the social norm".]
Guilt and regret	Participant indicates negative emotions like guilt and regret as a consequence of not doing what is morally right or good.[e.g., "Daniel should try to intervene even though it might mean that he gets hurt in the process. If not, Daniel will probably regret it in the future."]
Integrity, identity and self-respect	Participant indicates concern for maintaining moral integrity and self-respect. [e.g., "This allows a person to have self-respect and dignity for themselves."]
Peace of mind and mental health	Participant indicates that acting morally brings peace of mind, promotes overall psychological well-being or mental health [e.g., "Acting morally good will keep your conscience clear of any bad feelings. Too much bad feelings and it will bring your mood down, which could have physically negative effects to your overall health."]

Warm glow	Participant refers to experiencing emotional reward (“feeling good”) as a positive result of moral acts. [e.g., “He will feel good knowing he did the right thing and helped someone out”.]
Social approval, reputation and respect	Participant indicates that moral acts have impact on one’s social standing, reputation and social respect from others [e.g., “I feel it is good for the person themselves mostly because of the way that everyone else sees that person in society. More people should respect you if you have and show good morals.”]
Social reciprocity and sanctions	Participant indicates that one’s moral choices are typically reciprocated in social interactions, in terms of repaying kindness or benefits (positive), as well as social sanction or legal repercussions (negative). [e.g., “I don't like the idea of getting caught, so I would say the girl should return it and find another way to get that money”.]
Social network, relationship and friendship	Participant refers to one of the two considerations: 1) acting morally results in being surrounded by good people, or people with similar character. 2) being moral or having integrity is essential for having meaningful and trustful social relationships such as friendship.[e.g., “People who do bad things surround themselves with other bad people who are not moral. Eventually it will catch up to them.”]
Agent-contingency	Participant indicates that the evaluation depends on the agent’s psychology or character, i.e., his or her subjective beliefs, desires, values, etc. [e.g., “Judy would probably feel great that she's now able to buy the ticket. But it depends if Judy would feel guilt and if that would bother her later.”]
Assertion of goodness or badness	Participant makes the assertion that an act is good or bad for someone without providing further justifications.[e.g., “It is good for herself but not the right thing to do”.]
Belief in karmic justice	Participant refers to karmic belief as a justification for moral congruence. [e.g., “When you do good things, good karma follows after that. It's always nice to know when you are doing the right thing.”]
Depends on actual consequences	Participant indicates that whether an act is good or bad for the agent depends on what actually happens in terms of consequences. [e.g., “It may cause conflict for Daniel, and it may cause praise. I don't think anyone could know exactly which or what other circumstances could take place.”]

Individual-society harmony	Participant indicates that acting morally benefits the society/community as a whole, but since one is part of the society/community, one also benefits from one's own moral acts. [e.g., "When you act morally you make society better for everyone and that includes yourself."]
Enlightened self- interest	Participant distinguishes self-interest from mere wants or desires, as well as short-term interests; identifies self-interest with objective or long-term well-being.[e.g., "Sometimes what you want is not the best thing for yourself."]
Situational (material) benefit or cost	Participant refers to the immediate material benefit or cost to the agent incurred by the agent's choosing to act morally [e.g., "John would miss the bus ride, so it wouldn't be good for John himself."]