

# Culture's Ethical Palette: Cultural Influences in the Moral Machine Era

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**Abstract.** Culture, an intricate tapestry of beliefs, values, and traditions, serves as both a mirror reflecting an individual's identity and a potent force shaping their very being. This cultural mosaic imparts a unique hue to each person's outlook and molds their moral compass. Indeed, the multifaceted influence of culture extends its reach into the realm of moral decision-making, where diverse cultural backgrounds yield a kaleidoscope of choices. As observed in the Moral Machine experiment, cultural nuances are pivotal in shaping preferences when confronted with ethical dilemmas. Varied cultural aspects, such as religion and collectivism, cast their distinct shadows on individuals' choices. These cultural imprints infuse complexity into the moral calculus, offering a window into the diverse ethical landscapes that emerge from different cultural backgrounds. In the context of emerging technologies like automated cars, the impact of culture on decision-making is particularly significant. It is plausible that vehicles equipped with artificial intelligence may make distinct choices when operating in diverse cultural settings. These differences, rooted in cultural backgrounds, are not arbitrary but arise from deeply ingrained cultural values and norms.

**Keywords:** Collectivism; East and West; Family; Religion.

## 1. Introduction

Morality, often taking the moral high ground, raises the intriguing question of its definition and evaluation. This inquiry becomes even more pertinent in the context of the rapid advancements in machines and artificial intelligence. Machines are no longer confined to simply maximizing well-being while minimizing harm; they must now navigate the complex terrain of distributing well-being and addressing inevitable harm. This intricate dilemma is vividly illustrated by the Moral Machine experiment, which tackles the scenario of unavoidable harm, such as a self-driving car about to crash. In such a critical moment, choices must be made, and the moral machine is tasked with deciding whose lives to prioritize [1].

Within this ethical crucible, the moral machine confronts multifaceted decisions: whether to save a man or a woman, an older person or a young person, or a larger or a smaller group. Given the diversity of individual moral codes and the absence of a universally recognized guiding principle, the moral machine resorts to surveys, like those conducted in the Moral Machine experiment, to gauge public expectations. The experiment's findings indicate that choices fluctuate based on geographical regions, personality traits, and cultural backgrounds.

The sway of religious beliefs on individuals is unquestionable, evident in the enhanced happiness and life satisfaction reported by religious adherents [2].

However, when confronted with moral dilemmas, do people of different faiths diverge in decision-making? For instance, Buddhism's reverence for the Bodhisattva and Christianity's devotion to Jesus could influence moral judgments. This distinction extends beyond religion to encompass regional disparities, with notable contrasts between Eastern and Western cultural perspectives. Such regional inclinations tend to yield divergent outcomes in aggregate.

Another influential determinant tied to cultural backgrounds is the dichotomy of individualism and collectivism. Conceptually, collectivism places greater emphasis on the welfare of the collective, sometimes at the expense of individual considerations [3]. Collectivism often leans towards maximizing overall benefits when confronted with unavoidable harm. Conversely, individualism

allocates less weight to the broader spectrum of interests. In the context of the moral machine, individualism may lead to choices centered around personal relevance.

In summation, the cultural backdrop significantly shapes an individual's moral choices, thereby endowing distinct cultures with varying impacts on the moral machine's outcomes. This paper explores the interplay of cultural context and collectivism, unraveling specific influences and divergences. By examining these factors closely, we gain a more comprehensive understanding of how cultural intricacies influence ethical decision-making and steer the course of the moral machine's verdicts.

## 2. Literature review

### 2.1. Results

The available data provides insights into the nuanced variations in decision outcomes when comparing individuals with no religious background to those with a religious experience, particularly when faced with moral dilemmas. Edmond Awad explores this topic in his study titled "Moral Machine Perception of Moral Judgment Made by Machines." Awad highlights the intricate interplay between religion and morality, noting that these constructs revolve around the right course of action and what one ought to do [4]. Indeed, the interconnectedness of these themes serves as a focal point for understanding human ethical reasoning. Religious and non-religious people are more likely to vote for more people, uphold the law, choose women, choose people with higher social values, choose younger people, and choose fit people. Still, age tendencies are slightly more skewed towards older people for religious people than for non-religious people.

Within the context of the "Moral Machine" experiment, a visual representation of data reveals intriguing patterns. The scores and choices exhibited through this data visualization exhibit a relatively subtle contrast between the two groups under scrutiny [1]. Delving into this graphical presentation (as shown in Graph 1), it becomes apparent that most preferences align, with only a few exceptions. Curiously, religious individuals lean more towards utilitarian judgments, often opting to save older individuals. Contrarily, older people seem less inclined to prioritize saving characters perceived as appropriate in such scenarios. This discrepancy is notably more pronounced when considering specific questions.

Notably, non-religious users demonstrate distinct attitudes toward autonomous machines. They exhibit higher trust in machine judgment and a greater willingness to invest in autonomous vehicles. Additionally, their apprehensions regarding machine autonomy are comparatively lower [1]. This attitudinal contrast further emphasizes the subtle yet intriguing differences between individuals with varying religious orientations.

Secondly, an equally intriguing aspect emerges—the interplay between collectivism and individualism and their role in ethical decision-making. Oyserman shed light on the influence of these cultural paradigms on ethical judgments. Their analysis draws attention to the delicate balance between prioritizing individual interests versus the interests of the collective [5]. The dynamic between individualism and collectivism is particularly evident in collectivist cultures, where strong interpersonal ties foster cohesive group dynamics beyond immediate family bonds. This cultural fabric calls for unwavering loyalty throughout an individual's lifespan [5].

The data-driven exploration of moral decision-making and the influence of religious backgrounds and cultural paradigms illuminate the intricate tapestry of human ethical reasoning. It underscores how religious beliefs and cultural perspectives significantly contribute to our perceptions of what is morally just and proper, ultimately shaping our choices in the face of complex moral dilemmas.

#### 2.2.1 Analysis

Significant disparities exist between Eastern and Western cultures, giving rise to pronounced variations in moral decision-making. These disparities extend to the choices made in moral quandaries, further emphasizing the intricate interplay of cultural influences. The experimental

findings vividly portray a tapestry of distinctions among three distinct regions: the East, the West, and the South. Within these regions, striking disparities emerge in terms of preferences.

The Western cultural landscape demonstrates a propensity towards non-action, as many individuals opt not to intervene in critical situations. In contrast, the Eastern cultural ethos prioritizes pedestrian safety and upholds law-abiding behavior. This dichotomy might stem from variations in the application and perception of the law. For instance, participants from less affluent and less institutionalized countries might exhibit greater leniency towards illegal pedestrian crossings, underscoring the nuanced interplay between socioeconomic factors and moral choices [1].

Remarkably, the Southern region presents a fascinating facet of gender-related moral preferences. A notable trend surfaces: a significant number of participants in the South opt to shield women over men in ethically challenging scenarios. Additionally, a preference emerges for yielding to younger individuals and those occupying higher social strata. This multifaceted insight unveils a complex intermingling of cultural norms, gender dynamics, and societal hierarchies that collectively shape the moral compass of the Southern region.

In summation, the disparities between Eastern and Western cultures manifest not only in daily customs and traditions but also distinctly influence the selection of moral pathways. The experimental data illuminate a spectrum of choices that reflect the complex tapestry woven by cultural nuances, socio-economic factors, and gender dynamics. This intriguing confluence of influences resonates as a testament to the kaleidoscope of human ethics, encapsulating the intricate web of cultural forces that orchestrate our moral deliberations.

Embarking upon exploring collectivism and individualism unfurls a tapestry of intricate and contrasting philosophies. Within this realm, collectivism emerges as a doctrine emphasizing safeguarding group interests, inherently prioritizing the collective's well-being and extending its care to those embraced within the community's fold. In stark opposition, individualism casts a luminous spotlight on the individual's intricate emotions and unique experiences. Driven by their profound empathic inclinations, collectivists consistently exhibit a pronounced inclination to evade the infliction of violent harm [6].

As the magnifying glass turns toward moral choices shaped by these two paradigms, discernible patterns emerge. Collectivists, propelled by their innate ethos, manifest a sweeping tendency to champion the welfare of small children and individuals encompassing multifaceted attributes. This inclination encapsulates their unwavering dedication to preserving the well-being of the vulnerable members within the broader fabric of the group dynamic. Interestingly, a pervasive preference for female characters materializes across the global tapestry. Nevertheless, this preference assumes a heightened fervor within societies that extend superior prospects for women's health and longevity. Notably, this preference's intensified significance within regions venerating women's well-being underscores a poignant interplay between gender equity and moral choice. It becomes evident that societies advocating enhanced gender equality and elevated women's health value men's lives as comparatively more expendable within the panorama of choices offered by the moral machine.

Furthermore, the landscape of individualism and collectivism is undergoing metamorphosis as the once-discernible boundary between these ideologies becomes increasingly obscured. A pivotal nuance is the contextual foundation that molds the interpretation of individualism and collectivism [7]. Amidst the shifting currents of societal norms and evolving conceptions of these philosophies, an in-depth exploration of their meanings becomes an imperative pursuit.

The dynamic interplay between collectivism and individualism traverses a complex trajectory, resonating through the corridors of moral decision-making. As collectivists weave bonds of communal unity and individualists herald the sanctity of personal autonomy, the intricate tapestry of human ethics receives further embellishment through the interwoven fabric of these juxtaposed perspectives [6]. This intricate interplay not only sculpts the moral machine's choices but also underscores the ever-evolving dynamics of cultural and philosophical paradigms, exerting a profound influence on the path taken in ethical contemplation.

## 2.2. Traditional Moral Difference

In traditional Chinese culture, the reign of "feudal etiquette" is a testament to a moral system that prevailed and was rigidly upheld. At the heart of this system lies the profound influence of Confucianism, an enduring philosophical underpinning. Confucianism's tenets revolve around the cultivation of self-restraint, the return to decency, the elevation of collective welfare alongside individual growth, and the pursuit of a gentle and generous spirit tempered by a restraint on worldly desires. This ethos places paramount importance on curbing personal desires and selfish impulses while maintaining a perpetual alignment between one's words and deeds with the norms of etiquette. Ancient China, deeply steeped in these principles, championed hiding individual idiosyncrasies and projecting a demeanor that mirrored society's expectations. This enduring facet of Chinese moral culture has left a profound mark on the collective psyche [8].

In stark contrast, the Western moral landscape unfolds with a distinctive emphasis on celebrating individuality and adoring personal uniqueness [8]. The Western cultural narrative ardently promotes individualism and the hero's journey. Western societies prioritize expressing individual ideas and characteristics, a stark departure from the traditional Chinese ethos. Unlike China's inclination to conceal individual peculiarities, the West champions unveiling unique traits and proclamation of one's distinct voice. This cultural paradigm, deeply rooted in Western history, continues influencing Western moral values [8].

These historical and philosophical underpinnings have sowed the seeds of profound differences in moral values between China and the West since ancient times. These disparities, rooted in the past, resonate through contemporary Eastern and Western cultures, exerting varying degrees of influence on their moral landscapes. The intricate interplay between these cultural streams enriches the global tapestry of human ethics and serves as a testament to the enduring legacy of historical and philosophical traditions.

## 2.3. Family Moral Education Environment

Through the historical corridor of moral evolution, our focus now narrows to the contemporary influence of moral education within the home's sanctum, particularly upon children's impressionable minds [9]. In this intimate sphere, the parents ascend to the role of the most pivotal educators, wielding a profound and enduring influence upon their offspring. Their guidance shapes the moral compass of the young, with consequences that often reverberate through a lifetime.

Xunzi, a venerable thinker and educator of the Warring States period, aptly remarked, "The fluffy hemp is not supported, and the white sand is in the nirvana, and it is all black." This enigmatic phrase underscores the direct and potent impact of one's environment upon one's moral character [9]. Indeed, the environment, particularly the familial milieu, weaves the very fabric of an individual's moral identity. It is the crucible wherein moral values, principles, and virtues are forged.

In an era where information flows abundantly from diverse sources, the enduring influence of the family environment on personal morality remains irreplaceable. Within the cocoon of the family, moral education takes diverse forms, often reflecting the unique tapestry of each household. The family's moral education ecosystem is intricately interwoven with factors like economic status, social standing, familial structure, and the intricate dynamics between its members. These variables blend to create a unique moral atmosphere within each family unit, molding the ethical outlook of its members in distinct ways [9].

This revelation underscores the profound role parents and the broader family context play in nurturing moral values in the next generation. Their guidance, informed by their beliefs and experiences, resonates through their children's formative years. As the family unit remains a cornerstone of the societal fabric, its contribution to the moral tapestry of individuals remains inestimable. Hence, the family is a sanctuary of love and care and a hallowed institution where the seeds of moral character find fertile ground for growth.

### 3. Research Inspiration

Zooming back to the canvas of real life, we encounter a perennial human endeavor—grappling with moral quandaries. Even the seemingly trivial act of picking up a piece of litter represents a moral gesture, a dedication to safeguarding our environment. Often an intuitive compass, morality eludes easy confinement within legal confines or regulatory frameworks. Its elusive nature makes it a formidable challenge to prescribe definitive rights and wrongs. Nevertheless, this challenge underpins the intricate tapestry of human ethics, enriching the very fabric of existence. While the canvas of moral decisions may differ for each individual, it is the existence of morality that imbues the world with heartwarming moments and gestures. These instances resonate as beacons of humanity's finest qualities, warming our collective journey. The tapestry of human experiences weaves with instances where divergent moral paths converge to create a mosaic of shared values. As our focus shifts from the complex realm of ethical dilemmas to the canvas of real life, we recognize that morality is an intrinsic part of the human experience. From simple gestures to profound choices, our moral compass guides us, transcending cultural boundaries and inviting us to ponder the intricate dance of right and wrong. The very existence of morality nurtures a world rich in empathy, compassion, and shared understanding. It encourages us all to engage in the profound quest for moral clarity, embrace our diverse perspectives, and collectively journey toward becoming individuals of integrity and virtue [10].

### 4. Conclusion

In summation, the exploration of moral issues is a complex endeavor shaped by a multitude of factors. Yet, returning to the heart of the matter, why do we experiment with moral machines? The rationale behind these experiments is rooted in the imperative need to gain a deeper understanding of machine morality. Most research endeavors concerning the ethical decision-making of intelligent machines revolve around three pivotal aspects.

Firstly, there's a profound interest in understanding people's acceptance of decision-making by intelligent machines, unraveling the intricate phenomenon known as "algorithmic aversion." This facet delves into the human psyche, probing the extent to which individuals are willing to entrust moral choices to machines.

Secondly, researchers delve into the attribution of responsibility for the decision-making of intelligent machines. This inquiry seeks to untangle the web of accountability when machines are tasked with moral decisions. It's a quest to ascertain where the buck stops when ethical dilemmas are at play.

Thirdly, the exploration extends to the decision-making mode of intelligent machines. Researchers endeavor to unveil whether people anticipate utilitarian or moralistic decisions from intelligent machines when confronted with moral quandaries. This inquiry probes the very nature of machine ethics and its alignment with human values.

The outcome of these investigations bears significant implications for human trust and acceptance of machine moral decision-making. The speed at which machines make these decisions further accentuates the impact on human trust. This intricate interplay between humans and machines underscores the urgency to create technically proficient and morally trustworthy machines.

Ultimately, the collective pursuit of understanding morality and the quest for machines capable of making morally sound decisions stem from a fundamental human aspiration. It is an aspiration grounded in the desire for devices we can trust to make ethically good choices. Despite the diversity of moral standards worldwide and even within individuals, the overarching message is clear: contemplation of morality and adherence to ethical norms is encouraged and wholeheartedly supported. These endeavors are a pathway through which individuals seek to find their value in life, discover courage, derive happiness from aiding others, and, most importantly, navigate the intricate journey of self-regulation and self-discovery.

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