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Research Article

Understanding Fairness: How Pakistani Children Make Fairness Judgements

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Abstract

Background/Objectives. Fairness plays a pivotal role in children's moral development. While previous studies have provided valuable insights into how fairness concepts evolve, there is still a lack of detailed understanding regarding the thought processes that underlie children's fairness judgments. This study aims to delve into the qualitative aspects of children's reasoning behind fairness judgments, contributing to existing literature on the topic.

Method. Utilizing a sequential explanatory design, open-ended interviews were conducted with 150 Pakistani children aged 3 to 6 years. The participants were selected through purposive sampling from private schools in Islamabad, Pakistan. The study sought to explore the rationale behind their fairness decisions, particularly in scenarios involving offers of toffees, and how different relational dynamics influenced their reasoning. Both qualitative and quantitative analyses were conducted including thematic analysis, McNemar χ^2 Test, Fisher's Exact Test and Chi-Square test.

Results. Analysis revealed that Pakistani children predominantly utilized desired-based reasoning to justify their fairness judgments. However, morality-based, and norm-based reasoning were also observed. The study found that the dynamics of different relationships (sibling, friend, or stranger) significantly influenced the justifications provided by children.

Conclusion & Implications. The findings underscore the complexity of children's fairness reasoning and highlight the impact of social relationships on their decision-making processes. Understanding children's fairness judgments has implications for fostering moral development and promoting equitable behavior. This study contributes valuable insights to both theoretical understanding and practical interventions aimed at enhancing children's moral reasoning and social behavior.

Keywords. Fairness justifications, child development, moral development

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Introduction

From casual social activities such as playing games to more serious affairs involving finances, people hold a certain expectation of fairness from society, and it has long been regarded as a virtue that is desirable in all matters of people (Cappelen, 2019). However, it can sometimes be difficult to explain or even uphold in complex environments. How exactly is fairness understood or explained? Fairness, extensively explored in psychology, points to being just, impartial, and equitable. Psychological research approaches fairness through distributive justice, procedural justice, and social justice (Reynolds et al., 2015). Our study aims to explore how young children justify their fairness related decisions to gauge their understanding and motivations behind fairness.

Prosocial norms vary across cultures in human development. However, this culturally guided development is universal i.e., prosocial norms like fairness develop across the globe (House et al., 2020). While being a universal trait, perhaps culture plays a role in shaping our fair behaviour. We do see the cultural variations within the prosocial tendency of fairness, for example in matters such as differences in individualistic vs. collectivistic cultures on the children (Huppert et al., 2019) and the different trajectories of Advantageous inequity (AI) and Disadvantageous inequity (DI) aversion in developing children (Blake et al., 2015). But what is meant by these different inequity aversions and why do they matter? In simple terms, inequality aversion refers to the human inclination to have a negative attitude towards outcomes that are not equal (Yang et al., 2016). Children and some primates display aversion to both receiving less (DI aversion) and more (AI aversion), indicating a universal dislike of inequity (Brosnan & Waal, 2014). This behavior is observed in humans and apes but not in dogs, birds, or monkeys, which only exhibit DI aversion. Despite initial costs, this aversion to advantageous inequity likely fosters long-term social benefits and may be linked to the evolution of fairness concepts and cognitive development in higher primates (Ulber et al., 2017).

A lot of studies on fairness follow some form of resource allocation game or tasks following the Game Theory. Social Researchers have long been using tasks based on economic models like the Dictator and Ultimatum Games, to study children's understanding of fairness (Allgaier et al., 2020). The Fairness Acceptance Task is an adaptation of the Inequity Game by Blake and McAuliffe (2011) which is widely used in testing children's inequity aversions and provides direct evidence to support children's fairness understanding.

Fairness, a cornerstone of morality encompassing issues of others' rights, welfare, and justice, has garnered most significant attention in developmental psychology (Sheskin, 2017; Yang et al., 2019). Researchers have extensively investigated the development of fairness in children, exploring its various dimensions and cultural influences (Williams & Moore, 2016; Corbit et al., 2017). Studies highlight infants' early sensitivity to fairness in resource allocation tasks, progressing with age to expect equitable distributions (Rakoczy et al, 2016; Ziv & Sommerville, 2017). Social influences, such as infants' preference for equal distribution and children's rejection of advantageous allocations, further shape fairness development (Smith et al., 2013; McAuliffe et al., 2017). Additionally, research tracks the trajectory of fairness development, from prosocial behaviors in early childhood to nuanced understanding in later years (Köster et al., 2016; Blake, 2018). However, a gap exists in understanding the justifications behind children's fairness judgments, with limited emphasis on measuring these in contemporary research.

This exploratory phase of our mixed methods design aims to delve into the underlying reasons behind children's fairness judgments. By employing a qualitative approach, we seek to investigate this complex phenomenon in depth, complementing quantitative measures (Smith & Chudleigh, 2015). Our primary objective is to illuminate young children's understanding of fairness and the justifications they provide for their decisions, crucial for exploring the development and fostering of fairness behavior (Mei, 2021). We incorporate children's justifications alongside direct behavioral measures, employing open-ended questions across various relationship scenarios and nuanced allocations. This approach gives valuable insight into children's reasoning, guiding future studies on fairness comprehension and decision-making in children.

Method

Participants

Purposive sampling was used to select participants for the study from three private schools in Islamabad, Pakistan. Our inclusion criteria were children of both genders between the ages of 33 months to 83 months (approximately 2.75 to 7 years old). Children outside the specified age range were excluded from participation. Additionally, children with developmental disabilities or cognitive impairments that could potentially hinder their ability to comprehend and participate in the study were excluded.

Our total sample was 150 (M = 56.9, S.D = 10.6). We had 74 males and 76 females across the total sample. We divided our sample into three age groups with the younger group (N= 36) from 33 to 48 months (2.7 to 4 years) of age (M = 43.1, SD = 3.8), the middle group (N= 58) from 49 to 60 months (4 to 5 years) of age (54.8, SD = 3.7) and the old group (N= 56) from 61 to 83 months (5 to 7 years) of age (M = 68, SD = 5.4). About 72% of the children, in our sample, had mothers and 66% had fathers with a university education (at least 14 years). 74% of our sample came from families with monthly income above 80 thousand (average household income in urban areas reported as 53010 by Pakistan Bureau of Statistics, 2019).

Materials and Procedure

Data was collected from 150 students of three private schools in Islamabad. Parents were first sent out information sheets and consent forms through the schools. Only children with consenting parents were made part of the study. Before starting, assent was also taken from each child. Children that were hesitant and refused to take part were not interviewed. During data collection, each participant spent 10 to 20 minutes with the researcher in their school library or computer lab. Post-collection, parents received debrief sheets containing a thank-you note and relevant reading resources.

Fairness Acceptance Task. To look at children's fairness, we used Mei's version (2021) of the Inequity Game (Blake & McAuliffe, 2011), presented to participants with the help of Qualtrics. In this adaptation, the researcher distributes the resources to minimize the mental effort needed to be exerted by the children. The task includes three different allocations. In each trial, the child is presented with a hypothetical scenario where they imagine a recipient. There are three types of allocations:

1. In the fair trial, one candy is allocated to each: the participant child and the imagined recipient.
2. In the Advantageous Inequality (AI) trial, the participant child receives 2 candies while the imagined recipient only 1.
3. In the Disadvantageous Inequality (DI) trial, the participant child receives 1 candy while the imagined recipient 2.

After the researcher makes the allocation, the child is given the choice of either accepting or rejecting it. Rejection results in neither the participant nor the recipient getting any candy.

Each allocation trial was repeated three times, involving an imagined sibling, a friend, and a stranger. All possible scenarios were presented in a counterbalanced order. Children without siblings imagined a hypothetical one. They nominated a friend for that trial, while the stranger was described as an unknown same-gender child from another school.

At the end of each trial, the researcher asked one single, open-ended qualitative question to each child: "Could you tell me the reason you accepted (or) rejected the one (or) two toffee(s) when the [recipient (sibling/friend/stranger)] received one (or) two"? The question's details for acceptance vs. rejection and one vs. two toffees, along with the recipient (either sibling, friend, or stranger) were matched with the last trial the child completed during the fairness acceptance task. For example, if a child's last trial presented him with a choice of either accepting or rejecting two toffees while their brother gets one toffee which he accepted, the qualitative question posed was: "Could you tell me the reason you accepted the two toffees when your brother received one"?

For the exploratory analysis (reported in this article), children's responses were noted verbatim and later the data was analyzed for a deeper understanding of children's reasoning for their fairness judgements. The analysis was carried out following the Clarke & Braun (2017) approach to

qualitative content analysis.

We assessed inter-rater reliability using Cohen's Kappa (κ) to measure the agreement between the two independent coders. The resulting Kappa value was κ = 0.69, indicating moderate agreement according to McHugh (2012) guidelines. The 95% confidence interval for Cohen's Kappa was [-0.21 to 1.59], suggesting possible issues with reliability. The discrepancies were discussed between the raters, and a consensus was reached to finalize the coding, ensuring a more consistent interpretation of the data.

Results

All responses of 150 children were analyzed. The responses were first coded based on their general relevance and meaning. For example, a child saying, "because I am hungry" produced the code, "referral to hunger". The initial codes were revised and grouped into major categories such as "self-fulfillment" and "learned ideals". These categories were reviewed with existing themes used in previous studies such as McAuliffe and colleagues (2013). Final themes are presented in the following table.

Table 1

Desire-based Justifications for Fairness Judgement

THEME	DESCRIPTION	TRANSLATION
Desire Based Justification	Implicit or explicit reference to one's desire	Examples
Subthemes	*Description*	
Liking Toffees	Exclamation of one's preference for toffees	Because I like them (p030)
Liking More	Expressing the desire to have more	I like to have 2 things (p108)
Personal Desire	Exclaiming one's desire for toffees explicitly	I want toffee (p006)
Appreciation for Toffees	Showing admiration for the toffees, implicitly showing a desire	Toffee is good (p010)
Appeal to Hunger	Expressing the "need" to consume toffee as a response to hunger	I was hungry (p048)
Intention to share in future	Claiming future intentions to share while accepting advantage in the present	I will take 1 and give 1 to my sister (p141)
Not liking toffees	Claiming a dislike for toffees in general	I don't like them (p134)

Note: p=Participant.

Table 2

Norm-based Justifications for Fairness Judgement

THEME	DESCRIPTION	TRANSLATION
Norm Based Justification	Stating learned values and behaviours or conforming to perceived process or authority	Examples
Appeal to Health	Expressing concerns about health or giving a medical history	Because I have teeth cavities (p144)
Describing Habit	Sharing past relevant behaviours and/or routines	I eat 1 toffee (p127)
Referred to Game	Claiming to be following the "game" and only just agreeing	I was playing the game (p131)
Referred to Researcher	Claiming to just agree with the researcher	When you (researcher) give it to me (p073)
Mentioning what was given	Pointing to the allocation and just agreeing	Because I got 2 (p014)
Appeal to Friendship	Referring to their friendship with the recipient as justification	he is my friend (p109)
Appeal to Siblinghood	Referring to their siblinghood as justification	Because he is my older brother (p111)
Parental Teaching	Referring to direct teaching by parents	My dad tells me to never be jealous (p124)

Note: p=Participant.

Table 3

Morality-based Justifications for Fairness Judgement

| THEME	DESCRIPTION	TRANSLATION
Morality Based Justification	Explicit referral to a moral belief as being their own, invoking relationship and/or talking about right and wrong	Examples
Appeal to Morals	Expressing some fairness ideals or referring to right vs. wrong	Because she (stranger) is also like our friend (p072)
Appeal to Generosity	Explicitly stating generosity towards the recipient	I want to give those that have less, more (p129)
Appeal to Being Good	Referring to goodness as being a characteristic of self	I do good things (p066)
Appeal to Equality	Expressing the need for equality for both parties	Both should have the same (p115)
Content with what they have	Showing contentment with the allocation	"aik bhi theek hai" (pk049)

Note: p=Participant.

Table 4
Unresponsive Answers

| Unresponsive	Unable to provide any reason or relevant response to the question	Examples
Can't provide a reason	Explicitly stating ignorance or being unable to answer	I don't know (p114)
Irrelevant	Pointing to something not relevant or telling a random story	I don't hit (p040)

Note: p=Participant.

Figure 1
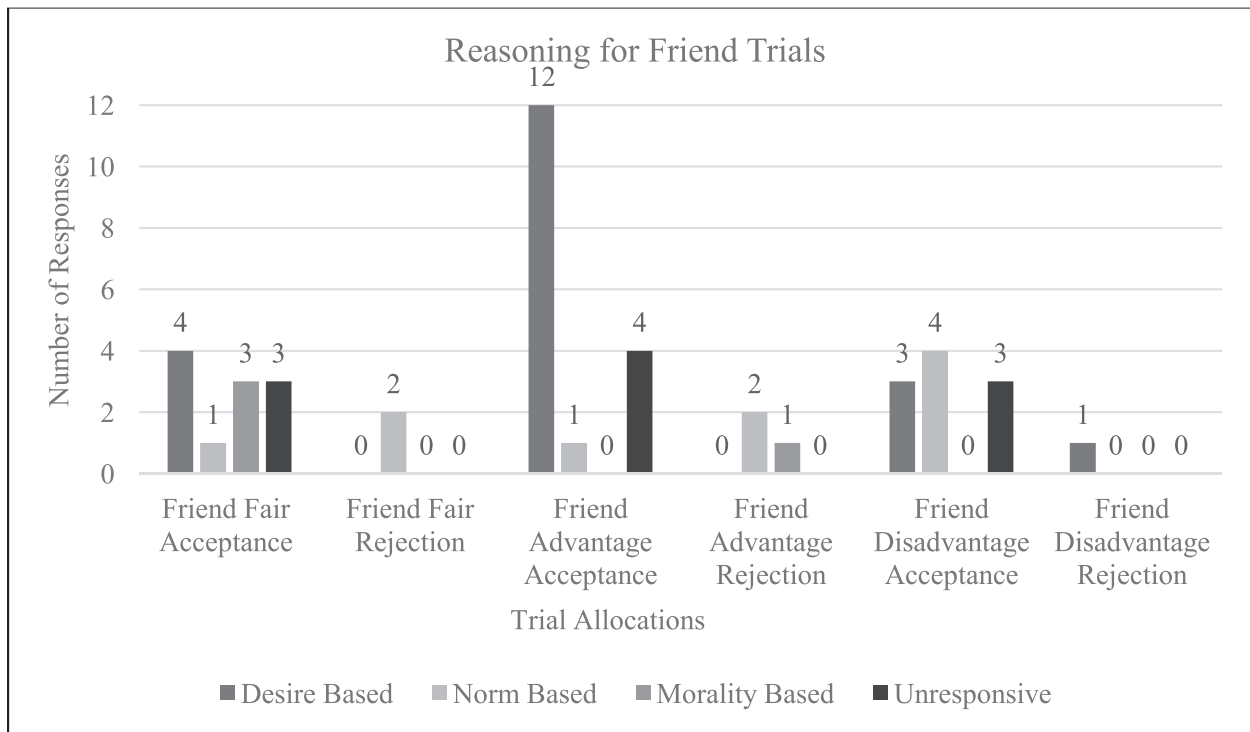*Acceptance Justifications Overall*
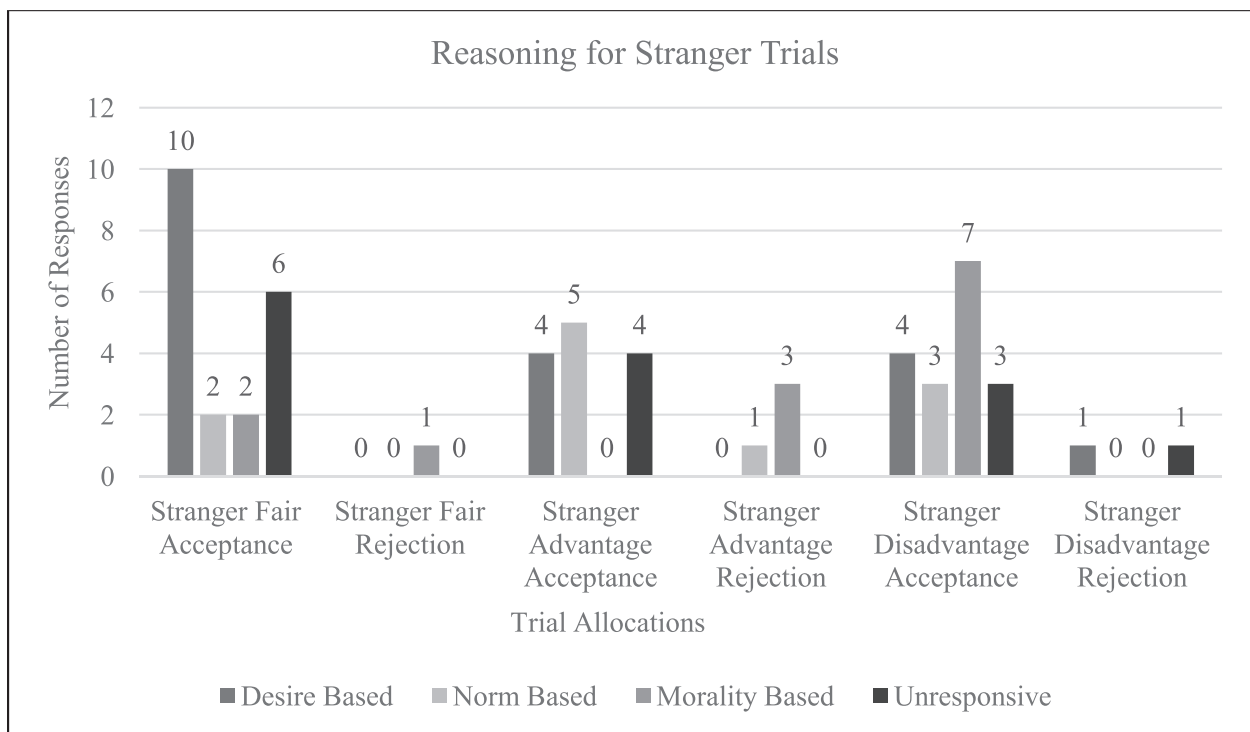

Acceptance Reasoning
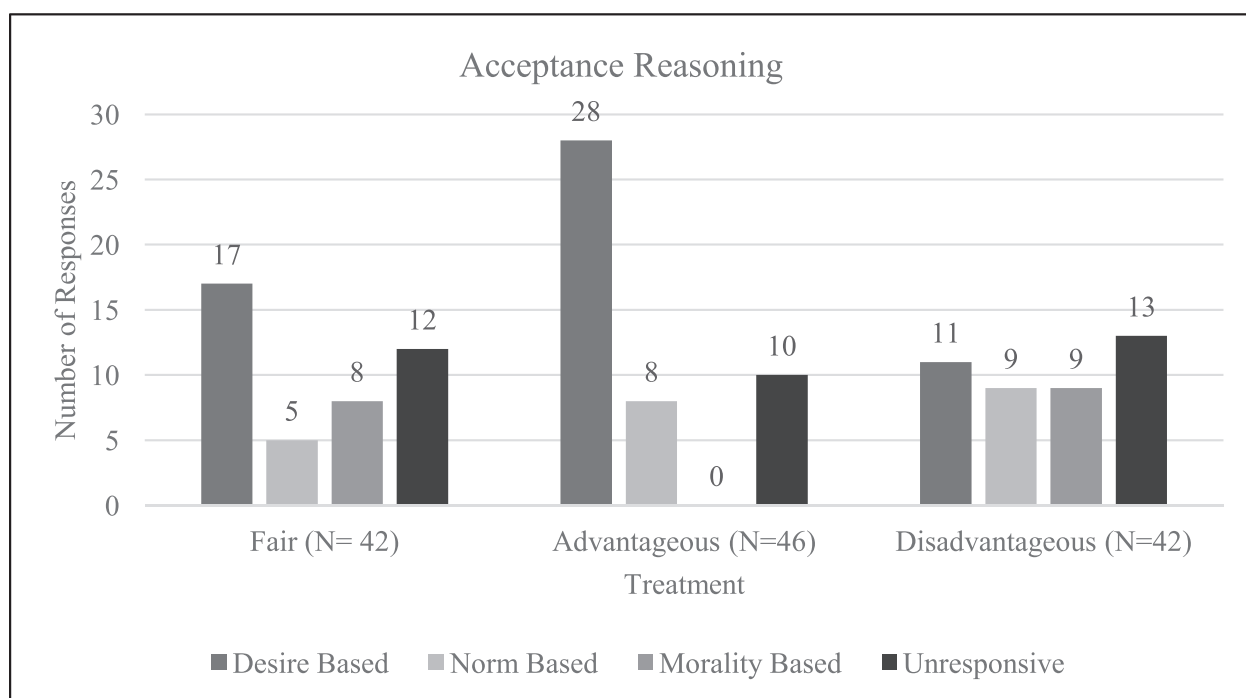
Figure 2
Rejection Justifications Overall
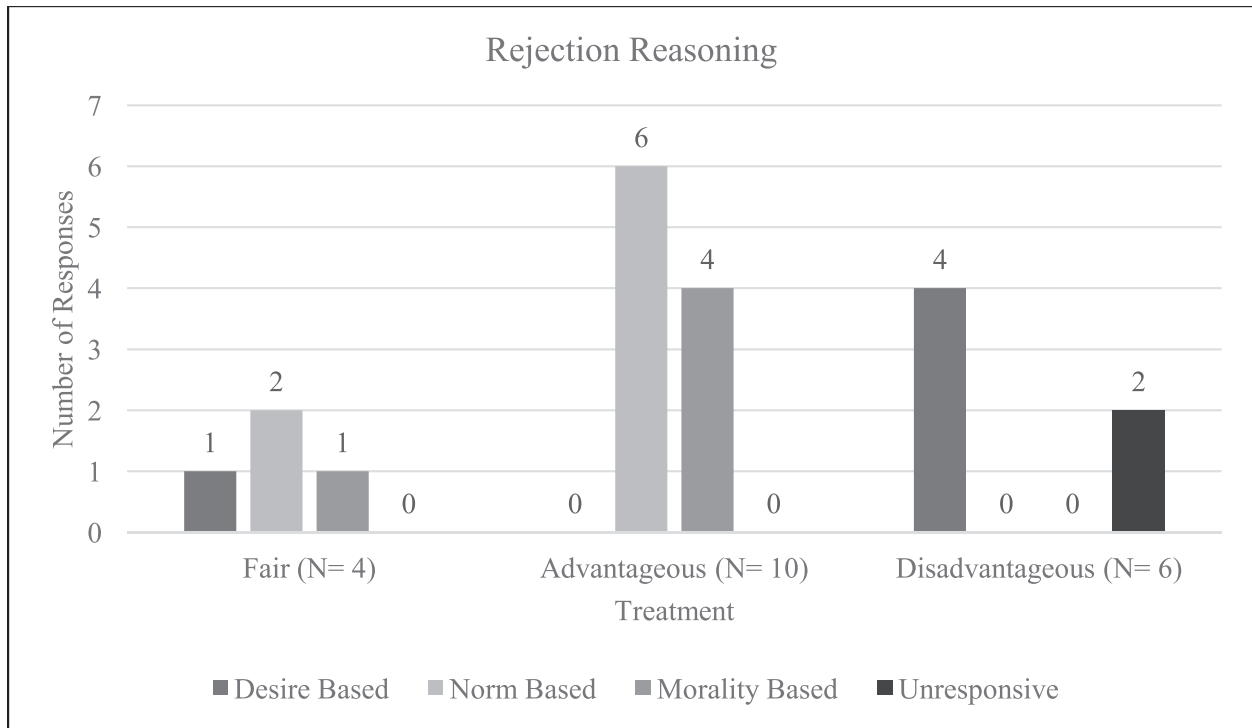
Figure 3
Justifications for Sibling Trials
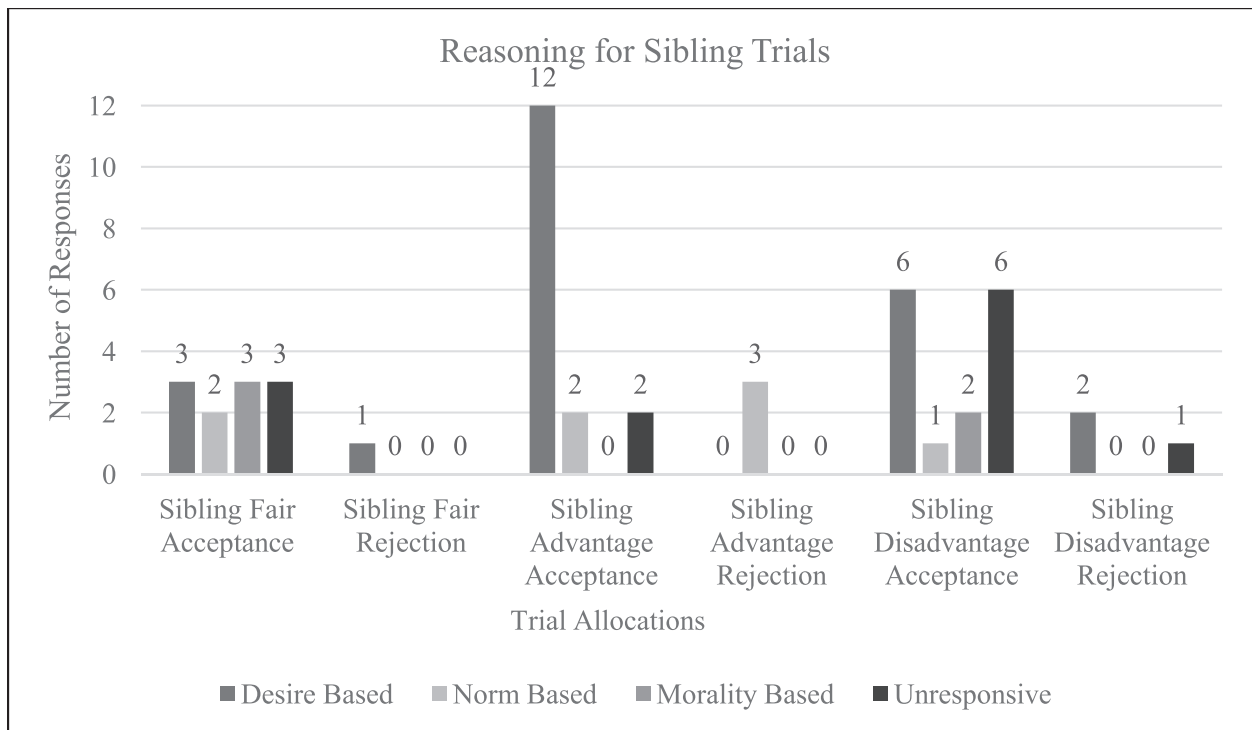
Figure 4
Justifications for Friends Trials

Reasoning for Friend Trials

Figure 5
Justifications for Strangers Trials

Reasoning for Stranger Trials

Each child was presented with counterbalanced scenarios containing a fair, advantageous and disadvantageous offer in comparison with an imagined sibling, friend, and a stranger. For the last scenario presented to them, we asked each participant why they had or had not accepted either the one or multiple toffees offered. Their verbatim answers were recorded and analyzed to form themes and subthemes (table 1 to 4).

Only 20 out of the 150 total responses from children were rejections of the last presented allocation. The remaining 130 children accepted the allocations. The above charts present the justifications provided for acceptance and rejection decisions. 36 of the respondents were Unresponsive, resulting in a 76% valid response rate which when contextualized with the age group of the participants is adequate for the research objectives.

Going by percentage, 38.6% of the total justifications provided were desire-based, while 14% were norm-based and 11.3% were morality-based. Looking at the observable data, we can see some patterns emerging. We see that children provided overwhelmingly desire-based justifications in accepting advantage over their sibling (12), and their friend (12) but not with a stranger (4). We also see more children providing a morality-based justification for accepting a disadvantage against a stranger (7) versus a sibling (2) and a friend (0).

When it comes to the general pattern of children's justifications when they accepted the offering, desired-based justifications are most frequent across all three allocations. Followed by norm-based, and then morality-based (figure 1). Desired-based justification refers to children's reasoning solely based on their self-serving desire. There were multiple variations of desired-based responses, with children sometimes directly and sometimes indirectly referring to their want as a reason for their decision to accept or reject the allocation. Out of the total justifications, most participants (38.6%) gave a desired-based justification. We also see that the advantageous acceptance produced the most desired-based responses (figure 1). And most of these desire-based answers were given in the sibling and friend trials compared to the stranger trials (figures 3 and 4).

For rejection of allocations in figure 2, 4 out of 6 responses in the disadvantageous trials were desire-based compared to 1 out of 4 and 0 out of 10 for other situations: fair and advantageous respectively. We see more norm-based answers in both fair and advantageous rejections than desire-based ones and children grounded their justifications in norms rather than desire or morality in both fair and advantageous trials. The second prominent theme Norm-Based Justification refers to children's reliance on their previous habits, routines, personal affiliation, and explicit social norms. 16.1% of the codable justifications for accepted allocations were norm-based in this study. Morality-based justifications encompass references to some form of morality, appealing to equality, and being content with the allocation.

Overall, 11.3% of children gave morality-based justifications for their behaviour. Explicit references to morals such as right vs. wrong are included within moral justifications and not as normative because of the difference in children's apparent internalization of the principles for example stating, "Because it is not good" versus "My father says we shouldn't be jealous". We observed that children gave most morality-based answers in the stranger trials, specifically for accepting the disadvantageous offer (figure 5).

Several exploratory analyses were conducted to examine the associations between allocation types (e.g., fair, advantageous, disadvantageous), relation categories (e.g., sibling, friend, stranger), demographic variables (e.g., gender), and justification categories (e.g., desire vs all other categories combined).

A series of McNemar χ^2 tests were conducted to explore the frequency of neighbouring pairs of justification categories. Results showed that for the overall sample, children employed a higher number of desire-based justifications (N=63) compared to norm-based justifications (N=29), p < .001. For the relation categories, children employed desire-based justifications more frequently (N=24) than norm-based justifications (N=8), in sibling condition, p = .008. The rest of the comparisons within relation categories did not show significant differences.

Next, justifications were compared across the three allocation conditions using McNemar χ^2 tests and, Fisher's Exact Tests due to the low

expected count in some cells. Results showed that, for fair allocation, desire-based justifications (N=18) were significantly more frequent than norm-based justifications (7), p=.043. Similarly, in the advantageous condition, desire-based justifications (28) were significantly higher than the norm-based justification (n=14), p=.045. However, in the disadvantageous condition, a similar frequency of desire and norm justifications were provided, p=.108. Additionally, within the advantageous condition, children provided a significantly higher frequency of norm-based justification (N=14) than morality-based justification (4), p=.031. A similar frequency of norm-based and morality-based justifications was observed in the fair and disadvantageous allocation conditions, p>.8.

To further assess the relationship between justification categories (e.g. desire-based vs. other categories combined) and the three relation conditions (sibling, friend, and stranger), Chi-square tests were conducted, separately in the allocation groups. The relationship between desire-based justifications and relation was significant in the advantageous condition, with a higher frequency of desire-justifications in sibling and friend conditions compared to the stranger condition, p=.032. Similarly, a significant relation was observed between morality-based justification and relation in the disadvantageous condition, p=.026, with a higher frequency of morality-based justifications observed in the stranger condition. The relation between gender and justification categories was not significant. Age categories were significantly related to desire-based justifications (p = .01), with older children (5-6 years old) employing a higher number of desire-based justifications compared to younger children (2-4 years old).

Discussion

Our study aimed to understand the reasoning children provide for their fairness judgments. In this section, we compare our results with previous literature to derive conclusions from our data.

One of our major results is that most responses of children were desire-based. This finding corroborates previous literature that finds young children, mostly aged 3 to 5 years, provide self-serving reasons such as "Because I want it" for

their decisions in fairness tasks (Mei, 2021). The advantageous acceptance also invoked the most desired-based answers, which aligns with previous literature stating that young children struggle to suppress their desire to attain more resources (Blake & McAuliffe, 2011). Other research over the past two decades has observed that young children prioritize their self-interest when it comes to fairness in resource allocation tasks and judgments, a tendency that seems to be more regulated with growing age (Yu et al., 2016).

Our comparison of justifications across different relationships showed more desire-based responses with siblings. This difference between siblings and friends can be understood within the broader trend of children generally providing desire-based justifications. Previous literature has found that children increasingly reference cognitive terms and shared internal states with siblings more than with friends, particularly as they grow older (Leach et al., 2017).

Our results indicate that older children (5-6 years old) were more likely to use desire-based justifications than younger children (2-4 years old), a finding that may seem counterintuitive given that older children are generally expected to develop more sophisticated moral reasoning (as referenced above). However, this trend could be explained by the developmental shift where older children are becoming more aware of their desires and better able to articulate them. This increased articulation may lead them to express desire-based reasoning more frequently, even as they begin to understand and incorporate other principles such as fairness and morality into their decision-making. As children grow older, they develop a "veil of fairness," becoming increasingly concerned with appearing fair to others. This is evidenced by 6–11-year-olds' tendency to use seemingly fair procedures while still favoring themselves in outcomes (Shaw et al., 2014).

Interestingly, we see as many morality-based justifications as norm-based ones for accepting the disadvantageous allocation. On the other hand, when it comes to rejecting advantageous allocations, morality-based justifications appear more frequently than when accepting such allocations. This trend in the data is explained by previous literature where

researchers have reported that children's aversion to disadvantageous inequity develops earlier than advantageous aversion across various cultures (Williams & Moore, 2016).

Our observations regarding norm-based justifications are also notable when it comes to rejection. In both fair and advantageous scenarios, more children relied on norm-based justifications rather than those based on desire or morality when rejecting these allocations. This could provide preliminary evidence for the formation of fairness understanding developing as normative principles in young children, as seen in larger literature (Kajanus et al., 2019; Shaw et al., 2013). Our results align with developmental research positing a more adult-like or stable understanding of fairness from age six (Jaroslawska et al., 2020), with more rejection of advantageous allocations as well (Williams & Moore, 2016). Only about thirty percent of our participants were over the age of 5, and for the minority that did reject advantageous allocation, giving more normative justifications does seem to align with our previous understanding of fairness.

Our observations did deviate from the prevalent pattern observed in the literature regarding predominantly normative justifications provided by children from collectivistic cultures (Yau & Smetana, 2003). Moreover, results from a recent Chinese sample saw equal frequencies of desire-based and norm-based justifications in a similar study (Mei, 2021). Our results showed relatively lower instances of children giving norm-based justifications for their judgment decisions. We also did not observe our sample showing an obvious in-group bias, unlike previous studies (Corbit et al., 2022) that reported a strong peer preference in fairness decisions. This difference from previous studies on Eastern cultures such as China could be due to our sample belonging to a more Westernized community. In Western cultures, children prioritize autonomy and independence, fostering an equality norm (Smith et al., 2013).

Morality-based justifications reference some form of internal morality. According to Mei (2021), deviation from an external source of what is right (norm-based justification) suggests the development of more complex moral principles formed through social-experiential interaction. Definitively stating whether the moral principles cited by young children are mere imitations of normative behavior or more consistent and stable internal principles is a complicated question and one beyond the scope of this study. However, these results align with research that puts age 5 to 7 as a critical transition period for children to have stable moral principles, including fairness (Tsutsu, 2010).

We especially see that children invoke morality in disadvantageous settings with strangers compared to siblings or friends, a statistically significant observation. This could be evidence for internalized fairness, as literature has established that children do understand fairness principles early, but their fairness knowledge does not always align with their behaviour, which is influenced by relative advantage and how rewards are acquired (Blake et al., 2014). Our observation regarding strangers is somewhat similar to Moore's (2009) study, where an out-group stranger with no established relationship was treated just as pro-socially as friends, and even more so than non-friends. This suggests that when acting pro-socially comes with little or no cost, young children are likely to do so even in situations where they have no prior acquaintance. According to Killen & Rizzo (2014), children can apply moral concepts to outgroup members, but this ability appears to be complex. The challenges involved in making moral judgments about outgroup members include understanding group dynamics, recognizing the intentions of those who differ from themselves, and having the capacity to challenge stereotypical expectations of those outside their own group.

It is important to note, however, that other studies have reported children's preferential treatment of friends or siblings over strangers (Over, 2018; Mei, 2021). Children might find it easier to empathize with their friends (Ongley & Malti, 2014), and there is an inability to share with strangers until the age of 8 (Fehr et al., 2008). This difference in results can be attributed to variation in study methodologies as well as cross-cultural differences. Previous literature has found children being more reserved when providing a reason in stranger trials, perhaps due to cultural norms and maintaining social image (Botto & Rochat, 2019). The fact that these children only employed more morality-based justifications in disadvantageous

trials could be another evidence of this complexity and the difficulty of balancing self-interest with moral principles, as discussed earlier.

One example of such a justification is a child stating, "Because she (stranger) is also like our friend" (p072). Even though most children in our study overwhelmingly accepted the allocations, those who did reject an advantageous offer compared to a stranger were able to invoke explicit morality. This again alludes to preschoolers' capacity to not only engage in fair behaviour but, according to Mei (2021), these young minds can be altruistic and much more nuanced in their decision-making processes.

When it comes to morals and norms, children seem to be at least able to distinguish between the two as separate events. Hypothetically, morality pertains to actions that are normatively binding, universally applicable, impersonal, and obligatory. Looking at all three emerging themes, we see a picture where even young children have a nuanced understanding of fairness at their levels and can provide a justification that differs among their peers and according to the social situation. For example, giving different justifications for accepting a disadvantage versus accepting an advantage over another person. Children tend to prioritize concepts such as welfare (harm), fairness, and rights in their decision-making processes, which are central to moral considerations (Martin et al., 2021).

Children's adoption of social norms is shaped by the customs prevalent in their local environment and their identification as members of specific social groups (Tomasello, 2016). While preschoolers typically grasp information limited to a single aspect of a situation, children aged five and older develop the ability to integrate data from multiple dimensions (Lucas et al., 2013). This developmental divergence is evident in the moral domain as well. Our study also points towards the general trend of younger children making decisions in their self-interest overwhelmingly, but there is enough nuance in their justifications to go beyond and exhibit fair behaviour. Fairness, as an inherent human trait, evolves in response to the social environment (Govrin 2014) and specific contextual factors (Hod-Shemer et al., 2018), that influence moral judgments.

Conclusion

In our analyses, children's justifications for their decisions revealed three prominent themes: desired-based, morality-based, and norm-based reasoning. These reasoning patterns were influenced by the relationship context of the hypothetical game. Desired-based justifications, reflecting self-serving desires, were most common among younger children, especially in sibling trials. Norm-based justifications indicated children's reliance on previous habits and social norms, with balanced frequency across relationships. Morality-based justifications demonstrated children's appeal to principles of equality and contentment. These principles were expressed especially in scenarios involving strangers and disadvantageous allocations. This suggests that even at a young age, children are not only guided by self-interest but also demonstrate an early understanding of fairness principles. Our study highlights the complexity of children's fairness understanding and the emergence of moral principles shaped by social interactions. This nuanced perception suggests potential implications for moral education and policy-making practices.

Limitations and Future Recommendations

Our sample was limited to an urban population and our sample was selected from upper middle-class, private school. A more diverse sample can offer more insight into the phenomenon under study. The scope of this study was also limited in its exploration and further probing of the research question. As our sampling was purposive and limited to a specific socioeconomic class, a more diverse sample from different backgrounds plus a larger sample will be beneficial for future studies. Also including more age groups in the study can help us understand more developmental underpinnings of children's reasoning as well.

Declaration
Funding

This study was not funded by any institution or organization.

Conflict of interest

There is no conflict of interest in this research study.

Availability of Data

Datasets are not publicly available due to privacy and confidentiality agreements.

Ethical Approval

Approval was obtained from the National University of Sciences and Technology's (NUST) ethical committee (Ref: 0988/Ethic/01/S3H/091/DBS) before the start of data collection.

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