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Elementary school children's perspectives on distributive justice in trade

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ABSTRACT

Although issues of global justice are increasingly considered an important topic to include in elementary school curricula, little is known about children's perspectives on complex distributive justice issues. This exploratory study investigated children's understanding of a fair economic distribution between the workers involved in international trade. As part of a classroom project, in mixed-aged groups, 57 elementary school children were invited to discuss how they would fairly divide 30 coins among five workers involved in the banana trade. Results showed that half of the groups decided for equal distributions, based on arguments of strict equality, equal work, equal value, or interdependence. The other half of the groups decided for unequal distributions, based on the different contributions, and costs and profits. In each group, children generally agreed or accepted others' ideas. Findings provide preliminary insights on how elementary school children collectively reason about distributive justice concerning a complex global issue.

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Children are growing up in an increasingly diverse and interconnected world with complex issues of global justice, such as growing social and economic inequalities (United Nations, 2020). International organizations (e.g., Council of Europe, 2016; Organisation for Economic Co-operation and Development [OECD], 2018; Oxfam, 2015; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2015) and scholars (e.g., Acedo & Hughes, 2014; Boix Mansilla & Jackson, 2011; Gardner, 2004; Reimers, 2010; Suárez-Orozco, 2010) recommend the introduction of global justice topics since the first years of school, as a way of developing a new generation of students, committed to creating a sustainable and socially just world. A growing body of developmental research is dedicated to young children's understanding of issues of justice, poverty, and inequalities on a local scale (e.g., Chafel & Neitzel, 2005; Elenbaas & Killen, 2017; Mistry et al., 2015). However, few educational materials, programs, and research studies focus on issues of global justice in elementary school (Dillon et al., 2010; Ruane et al., 2010) and little is known about children's conceptions of issues of global significance. Considering the involvement of elementary school children in a classroom project on social inequalities and trade, the current study aimed to address this gap between developmental and education research and analyze children's perspectives on how to fairly distribute resources in the scope of a relevant global issue: international trade.

Economic and social inequalities in trade are an urgent global issue (United Nations, 2020) and a current topic of interest when teaching about social justice (Rogers & Westheimer, 2017). Established curricula and educational programs suggest that the topic of international trade can

be introduced to elementary school children from a social justice and global citizenship perspective (e.g., Fairtrade Foundation, 2015; McCall, 2017; National Council for the Social Studies, 2013; Oxfam Education, 2007; Trocaire, 2016). On one hand, social justice education involves access to broad and deep levels of information, as well as a critical examination and self-reflection concerning issues of power, privilege, and oppression (Hackman, 2005). On the other hand, global citizenship education aims to foster deep knowledge of global issues and promote values of justice and equality (UNESCO, 2014). Thus, discussions on the principles of fairness and justice (what is and is not fair) are pivotal in social justice and global citizenship education (Oxfam, 2015; Sensoy & DiAngelo, 2017).

Distributive justice is a key aspect of social justice (Miller, 2006; Tyler, 2015) that has long been a theme of interest in the fields of philosophy (e.g., Rawls, 1999) and psychology (e.g., Damon, 1975; Kohlberg, 1969; Piaget, 1932). Distributive justice entails that everyone receives their fair share of resources, from small-group contexts to whole societies (Miller, 2006). Since the seminal work of Piaget (1932), developmental research has analyzed children's distributive justice as a fundamental moral issue (e.g., Noh et al., 2019; Smith & Warneken, 2016). Distributive justice in children has mostly been examined with allocation tasks close to children's daily life situations, such as inviting children to fairly divide stickers, toys, or candies between peers (e.g., Kienbaum & Wilkening, 2009; Sheskin et al., 2016). Research on the fair distribution of resources within societal processes has mostly focused on adolescents (e.g., Arsenio, 2015; Arsenio & Willems, 2017; Barreiro et al., 2019; Kornbluh et al., 2019) and adults (e.g., Norton & Ariely, 2011). Yet,

research with children on this topic would have the potential to inform developmentally appropriate practices in social justice and global citizenship education.

Children's distributive justice perspectives: insights from developmental research

The early work of Piaget (1932), Kohlberg (1969), and Damon (1977) opened the field of developmental research on children's morality and suggested a developmental sequence for distributive justice decisions. The authors argued that younger children would first distribute resources based on principles of self-interest and authority. A preference for equality would later emerge with five to eight-year-old children conceptualizing fairness as strict equal treatment. Children from nine to ten years of age onwards would progressively be able to acknowledge factors such as merit and need, and distribute resources based on the principle of equity (Damon, 1977; Kohlberg, 1969; Piaget, 1932). Empirical studies in the decades that followed invited children to distribute money between characters who worked on a common task and supported a late development of equity. In these early studies, children as old as ten would fail to use the logic of merit (e.g., Enright et al., 1984; Sigelman & Waitzman, 1991).

More recently, social domain theory argues that, unlike classic theorists claimed (Damon, 1977; Kohlberg, 1969; Piaget, 1932), children have moral concerns from an early age. The social domain perspective posits that children have different types of concerns, such as moral (related to fairness, welfare, and rights), social (related to conventions promoting harmonious group functioning), and psychological (of personal choice and autonomy). As development occurs, when judging a social situation or dilemma, children are progressively able to weigh and prioritize these concerns more efficiently (Killen & Smetana, 2015; Nucci et al., 2017; Smetana et al., 2014; Turiel, 2006). Thus, this perspective has highlighted the importance of distinguishing the outcomes of the distribution from children's underlying reasoning. For example, in a study by Carson and Banuazizi (2008), ten-year-old children chose to divide resources equally, for different reasons. Some children were concerned with rewarding equal merit and competence, while others pondered over the social and emotional consequences of the distribution.

In line with social domain theory, recent studies show a more nuanced perspective on the development of distributive justice, when compared to the developmental sequence theorized by Piaget (1932) and Damon (1977). Children as young as three prefer equal distributions but can consider merit (Baumard et al., 2012; Kanngiesser & Warneken, 2012; Kenward & Dahl, 2011) and economic status (Essler et al., 2020; Paulus et al., 2018; Wörle & Paulus, 2018) when prompted to do so. Notwithstanding, a preference for equality or an aversion to unequal distributions in early childhood has been broadly documented in the literature (e.g., Blake et al., 2015; Elenbaas, 2019a; Paulus, 2015). Six to eight-year-old children will even choose to discard a resource instead

of having an unequal distribution (Blake & McAuliffe, 2011; Shaw & Olson, 2012).

As children progress to middle childhood, they can acknowledge and integrate different principles of fairness and begin to make judgments based on equity with increasingly complex scenarios (e.g., Cowell et al., 2019; Huppert et al., 2018; Kienbaum & Wilkening, 2009; McGillicuddy-De Lisi et al., 2006; Noh et al., 2019; Qiu et al., 2017; Rizzo & Killen, 2016; Schmidt et al., 2016; Smith & Warneken, 2016; Thomson & Jones, 2005). From eight to ten years old, children are progressively capable of integrating more than one concern when distributing resources (Anderson & Butzin, 1978; Kienbaum & Wilkening, 2009). Also, they can manage the conflicting demands of moral and social concerns (e.g., merit and group norms) in their judgments (Elenbaas et al., 2016). In the elementary school years, children seem to develop the ability to make increasingly complex judgments related to distributive justice. However, these also seem to be dependent on the specificities of the situation that is being judged, namely the type of resources to distribute and the scenario's contextual features.

Regarding the type of resources, the literature distinguishes between nice-to-have resources (such as toys, stickers, or candies) and necessary resources, essential for others' living and welfare (such as water, medicine, or income) (Noh, 2020). Although research with children distributing necessary resources is scarce, a study by Rizzo and colleagues (2016) investigated the allocation of luxury (i.e., enjoyable to have) and necessary (i.e., needed to avoid harm) resources between a hard-working character and a character who did not work as much. In this study, elementary school children allocated necessary resources more equitably than luxury resources. Children allocated necessary resources based on the principle of equality and concerns for the characters' welfare, and distributed luxury resources based on the principle of equity and merit (Rizzo et al., 2016).

The scenario and its contextual characteristics can also play a role in children's distributive justice decisions and underlying reasoning. Elementary school children give more resources to a subordinate character (Charafeddine et al., 2016) or a poor character (Elenbaas, 2019b; Shutts et al., 2016) based on their disadvantaged status. Moreover, eight-year-old children can consider more than one claim to distribute fairly. Studies report that children give more to those in need or at disadvantage than to a meritorious character (e.g., Cowell et al., 2019; Kienbaum & Wilkening, 2009; Rizzo et al., 2016; Thomson & Jones, 2005). A recent study introduced the nuance that merit features are not judged equally. When opposing a meritorious character for hard work and the quality of the outcome, elementary school children emphasized effort rather than outcome (Noh et al., 2019).

The role of peer discussions: insights from educational and developmental research

Education for social justice and global citizenship may assume diverse formats, from whole-school approaches to

discrete initiatives. Across formats, different pedagogies are recommended to discuss global issues, such as structured debates, project-based learning, and cooperative learning (Asia Society/OECD, 2018; Boix Mansilla & Jackson, 2011; Oxfam, 2015). Recommendations for instruction transversally highlight the role of promoting discussions between students around meaningful topics. These discussions represent optimal opportunities for deep engagement and for exploring student's experiences, emotions, and stereotypes with depth and complexity (Boix Mansilla & Chua, 2007; Boix Mansilla & Gardner, 2007; Reimers et al., 2016). Still, few empirical studies have studied how children collectively discuss issues of global fairness and social justice.

Theories on children's moral development (e.g., Killen & Smetana, 2015; Piaget, 1932; Turiel, 2006) emphasize that peer interactions can be considered a primary driver of children's reasoning, as they bring into light discussions about the (un)fairness of a certain process or situation. Piaget (1932) theorized the role of cognitive conflict in peer discussions. Peer discussions would prompt children to take different and even antagonistic perspectives into account, as they would have to resolve conflicts and integrate ideas, thus advancing their moral reasoning (Piaget, 1932). Evidence points out that peer discussions can be effective in promoting higher levels of moral reasoning, assessed by developmental indexes of moral reasoning about sharing, fairness, and distributive justice (e.g., Damon, 1977; Kohlberg, 1958). In these studies, peer discussions were deemed more effective than reasoning individually or dyadically with an adult (Damon & Killen, 1982; Kruger, 1992; Maitland & Goldman, 1974).

An experimental study by Damon and Killen (1982) provided some insight into the processes by which moral development may happen through peer interactions in small group discussions. In this study, accepting (by verbal agreement or repetition) and transforming (by clarification, extension, or compromise) peers' ideas helped children with lower developmental levels advance their moral development in Damon's positive-justice developmental sequence (Damon, 1977). On the other hand, rejecting or contradicting peers' ideas was not associated with developmental change (Damon & Killen, 1982). However, more evidence is needed, as few studies target peer interactions in discussions about moral issues, and even more when considering those of global nature.

The current study

International organizations and scholars are urging for the introduction of complex global issues into elementary school curricula (e.g., Asia Society/OECD, 2018; Boix Mansilla & Jackson, 2011). As such, understanding children's perspectives on complex distributive justice issues is deemed necessary to inform social justice and global citizenship educational practices. Developmental literature suggests that children's reasoning about issues of fairness and justice varies depending on the complexity of the scenario and the characters involved (e.g., Cowell et al., 2019; Kienbaum &

Wilkening, 2009; Rizzo et al., 2016; Thomson & Jones, 2005). Therefore, in the scope of a classroom project around global trade, children learned about the geographical origins of food and the workers involved in the process. In a subsequent step, we aimed to explore elementary school children's understanding of distributive justice regarding international trade.

The first goal of the study was to investigate how children numerically distribute the money between five workers involved in the banana global trade (farmer, plantation worker, transporter, factory worker, supermarket worker). Specifically, we aimed to analyze if children favor equal distributions (everyone gets the same amount of money) or unequal distributions (some or all parts get different amounts of money). The second goal was to analyze children's justifications for a fair distribution. Finally, given the complexity of trade processes and recommendations for promoting peer discussions when teaching about global issues, children were invited to discuss distributive justice in trade in the context of small mixed-aged groups. Accordingly, the third goal of this study was to examine how children cope with diverse perspectives and strive for consensus through peer interactions.

Method

Participants and context of the study

Participants were 57 children (35 boys) with ages between seven and ten years ($M=8.26$; $SD=0.99$). Children were enrolled in second to fourth grade, in a public school in Portugal (North of Portugal, Porto District). One of the five teachers responsible for this group of students collaborated more closely with the research project. This teacher is female and 40 years old. She has a degree and post-graduate degree in teaching mathematics and 11 years of experience as a teacher (overall and at this school).

The research project

The current study was part of a broader Horizon 2020 European research project, composed of a consortium of 17 partner institutions (mainly universities) in 11 countries. The global aim of this collaborative project was to contribute with effective policy and practice recommendations to combat arising and persisting educational inequalities. One of its goals was the development of a virtual learning environment, promoting multilingual, intercultural, and social justice education in early childhood education and primary school classrooms. This task involved five partners from the project's consortium, from five different countries (for a detailed description of the task and the work developed in each country, see Pastori et al., 2019). In Portugal, learning experiences were designed and implemented on global trade, through a collaborative process between researchers and teachers, following a design-based research approach (Design-Based Research Collective, 2003).

In brief meetings, the above-mentioned teacher and the research team, composed of three researchers,

exchanged ideas and resources around the topic of global trade and planned learning experiences to be implemented in the classroom. These learning experiences were implemented in the classroom by the teachers, in collaboration with the research team. At least one of the members of the research team was present during the implementation, observing and intervening in the discussions upon teacher request (see Table 1 for a summary of the learning experiences). First, children searched and discussed the process of global trade, namely where food comes from and who is involved in the process. Then, the teacher and the researchers were motivated to better understand children's perspectives on distributive justice and planned this distributive justice activity. Only researchers implemented it.

The school setting

This public school in the North of Portugal covers 150 to 200 children, from three to fifteen years old, from preschool to ninth grade. The participants of this study were enrolled in second to fourth grade and shared the same workspace. These children work in an open space on round tables of five to four children from mixed grades and ages. Teachers and children follow the regular Portuguese curriculum. According to the latest available report by the Ministry of Education, this school setting has 49% of the school's students benefiting from school social support – a measure from the Ministry of Education that provides a financial contribution for meals, school insurance, transportation, or other specific needs, to eligible families. This school social support has different levels based on families' annual income and covers both low and medium-low incomes. Regarding the families' educational backgrounds, 15% of parents had a higher education degree. The school has only 2% of students with a nationality other than Portuguese (Ministério da Educação e Ciência/Inspeção Geral da Educação e Ciência, 2013).

Materials and procedure

Data collection

Before data collection, a protocol between the school and the research consortium was established. Parents signed written informed consents authorizing their children's participation in the project. The project was reviewed and approved by the Ethics Committees of the universities involved.

In the participating school, children usually work in mixed-aged groups of four or five children. For this study, the regular groups in which children work were respected and used to form mixed-aged groups. In each group, children were asked to divide themselves into groups of two ($n=48$, 24 groups) or three ($n=9$, 3 groups) members. Each group would meet with one researcher in a room outside the classroom (school hall/library). In these small mixed-aged groups, children were invited to discuss how they would fairly divide thirty (equal) coins between five workers involved in the banana's process of trade (farmer, plantation worker, transporter, factory worker, and supermarket worker) and to justify their answer. The prompt used by the researchers was the following:

When you buy a banana at the supermarket, the banana has already been through different steps: first, with the farmer, then, with the worker at the plantation, the transporter, the factory worker, and, finally, the supermarket worker. Here we have 30 coins to pay these workers. In your opinion, how many coins do you think each should receive so that the distribution is fair? Why?

Following the instruction, children discussed aloud how they would fairly divide the money between the five workers while allocating 30 physical coins among five cards with illustrations (each card representing one of the workers involved in the trade process, see Figure 1 with the illustrations used as stimulus). Children's discussions were approximately 10 minutes long. They were audio-recorded in the researchers' computers and later subject to verbatim transcription.

Table 1. Project implemented in the classroom: learning experiences and goals.

	Goals	Learning experiences
Stimulus situation	<ul style="list-style-type: none"> To introduce the topic of social and economic inequalities; To introduce the concepts of justice and fairness; To invite children to learn more and research about the topic of inequalities; To gauge children's interests and knowledge about the topic of inequalities; To promote children's expression of ideas and perspectives in the scope of inequalities. 	<p>Whole group discussions of two short videos.</p> <p><i>Video 1: 2030 Agenda for Sustainable Development, with an emphasis on the goal of reducing social and economic inequalities</i></p> <p>Children discussed their views on inequalities, school mechanisms to reduce inequalities between students, and causes of poverty.</p> <p><i>Video 2: Banana trade</i></p> <p>Children discussed the origin of certain food items.</p>
Children learn more	<ul style="list-style-type: none"> To enable children as researchers and informants; To promote family involvement and value families and children's resources; To promote children's understanding of the interdependence of people and countries throughout the world in trade. 	<p>Children searched at home the geographical origin of a food item of their choice.</p> <p>Children built a world map with the food items linked to the countries of origin and shared the results of their searches with the whole group.</p>
Children take action	<ul style="list-style-type: none"> To assess children's views on economic distribution in trade and fairness; To foster discussions on social justice and equity; To develop agency and provide a pathway to action toward a just world. 	<p>Children discuss how they would divide 30 coins between those involved in the process of trade;</p> <p>Children are confronted with the real distribution and discuss what can be done toward a more just world.</p>



Figure 1. Illustrations of workers involved in the banana trade used as stimulus. Reproduced with permission from Fairtrade Schools.

At the end of the discussion, when children had agreed on the distribution, they were invited to register it in the research project's virtual learning environment, a closed website based on the Moodle platform. Access to the website was protected by a username and password, only known by researchers and teachers involved in the project. The researchers created a response form on the website, through H5P, an open-access application that allows creating different online activities. The researchers introduced the form to children as a way to collect and organize all of their responses. Children registered in this response form, opened in the researcher's computer, how many coins they would give to each part and wrote a short answer with the reason(s) for that distribution. The researchers instructed children to write the justification(s) that arose from the group discussion. Spontaneously, one or more children would volunteer to write the answers on behalf of the group. The rest of the group would suggest minor changes or agree with its present form. The written answer with the justification for the distribution was not used for data analysis in the scope of the current study.

Two researchers collected the data, one junior researcher with a Master's in Psychology and a senior researcher with a Ph.D. in Psychology, both with experience in collecting data in educational settings. Children were acquainted with the presence of the researchers in the school and classroom, as they collaborated with the teachers in the implementation of the previous classroom experiences. In this task, researchers would intervene to clarify the instruction, ask children for clarification, elicit further discussions, or promote the participation of all children. Children were encouraged to interact with each other and build on each other's perspectives. The researchers made sure that all students were sharing their ideas and perspectives, respectfully asking children who were in silence to participate and share their point of view.

From time to time the researchers explicitly stated to children that the purpose of the activity was to discuss how a fair distribution would be according to children's perspectives and that there were no right nor wrong answers so that children would not see this as a mathematical challenge with a unique correct answer. In a few cases, children would begin the discussion by proposing a distribution of the money that was not possible (e.g., "we could distribute 30 coins, more 30 coins, to each one of the persons," "have 50 to us and 50 to the farmers"). Therefore, either the researcher or other children would clarify the number of coins available and the scope of the instruction.

Data analysis

The process of analysis followed several steps. First, to investigate children's perspectives of a fair economic distribution

(goal 1), we considered developmental research on distributive justice (e.g., Sigelman & Waitzman, 1991; Smith & Warneken, 2016). Thus, the transcribed material (i.e., each group's discussion) was divided into two categories: (a) equal distributions (everyone gets the same amount) and (b) unequal distributions (some or all workers get different amounts). Each group discussion was categorized according to the number of coins delivered to each worker (i.e., equal or unequal) that was registered in the website's response form. Children's justifications for a fair distribution (goal 2) and their interactions in small groups as they strive for consensus (goal 3) will be presented considering the division of the data in these two categories.

Concerning the second goal, based on the verbatim transcripts of children's discussions, researchers analyzed the justifications for a fair distribution using content analysis (Braun & Clarke, 2013; Elo & Kyngäs, 2008; Flick, 2007). In a first step, the first author read the full transcript of children's discussions twice: (1) in a fluid way, to become familiar with the data; (2) identifying the excerpts in which children enounce justifications for the distributions, and writing initial ideas for coding in the margins of the document. At this point, the initial ideas for codes were written with the wording as close as the one used by children in the transcripts.

In a second step, the first author systematically coded each unit of meaning involving justifications for the distribution. No *a priori* coding categories were previously defined. Categories were allowed to emerge from the data in an inductive process of analysis. Yet, the researcher's knowledge on children's justifications mentioned in the literature (e.g., merit, luck, social status) were kept in mind throughout the process and may have shaped the analyses, even if categories were not defined *a priori* by theory, as referred in Braun and Clarke (2013). Each discussion was analyzed in full, before proceeding to the next. All discussions resulting in equal distributions were analyzed first, followed by those resulting in unequal distributions.

In a third step, the first author reviewed the written categories, defined in open coding. This involved first re-reading the transcripts, reviewing the categories, and collating the categories into a separate file. The file included the names of the categories and all citations from the data supporting the category. At this point, the names of the categories were refined to be uniformized and coherent across the different group discussions. Categories were organized into subcategories when deemed conceptually appropriate (i.e., when the justifications were of the same nature).

In a fourth phase, categories were reviewed by the second and third authors and discussed among the three

researchers. After a process of discussing and refining the categories, the final categories were defined and (re)named. Finally, the authors selected excerpts to illustrate each category.

Concerning the third goal, to analyze how children coped with diverse perspectives and strived for consensus through peer interactions, we drew from Carey's (1995) and Stevens (1996) approaches of analyzing focus group data. As in a focus group, discussions between children involved interactions with each other, in which the members of each group built on each other's perspectives and insights. Thus, to analyze interactions leading to consensus, we followed the analytic questions posed by Stevens (1996), looking into when consensus was produced and how the group resolved disagreements.

First, the first author read the full transcript and identified the group discussions in which consensus was obtained from the beginning and maintained throughout the discussion. In these groups, children only discussed one idea: paying equally to all workers or paying differently to some/all workers. The number of groups in which consensus was automatically reached was counted and registered. Then, in the other group discussions, the first author read the transcripts and identified the excerpts in which changes for the distribution were proposed or different ideas in how to fairly distribute the coins were introduced by children.

In the excerpts in which children agreed to change the distribution, the first author wrote a brief description of the role of each interaction (e.g., "introduces new argument," "agrees," "poses a question") leading to consensus. Then, in a second phase, the researcher looked into the category of the justification when a child would introduce an argument leading to a new distribution. This allowed understanding the nature of the argument resulting in a change of distribution. In a third phase, the excerpts were collated. At this point, the researcher reviewed the analysis and looked for patterns (or commonalities) across groups in the interactions and to the nature of the arguments leading to consensus. Finally, the other researchers fully reviewed the analyses and the choice of quotations.

Results

Goal 1: to investigate children's economic distribution between the workers involved in the process of trade

Half of the groups of children (thirteen groups) considered that equal distributions would be fair distributions, delivering six coins to each worker. The other half of the groups (thirteen groups) decided on unequal distributions of coins between workers, advocating for differences in the payments of those involved in the process. In the latter case, on average, children allocated seven coins to the farmer, five coins to the supermarket worker, and six coins to the plantation worker, the transporter, and the factory worker. It is worth mentioning that, in one group, children did not reach consensus and were allowed to register different answers.

Goal 2: to analyze children's justifications for a fair distribution

A summary of the categories of children's justifications for a fair distribution is presented in Table 2.

Children's justifications for equal distributions

Considering the discussions resulting in equal distributions, children mentioned four justifications. Half of the groups that chose equality justified their option by simply referring that equality is fair. Within these groups, children highlighted that equal distributions are fair distributions without further explanation (e.g., "because, like this, everyone (...) has the same and everything is fair," "because it is equal to everyone," "with the same number, like this, it would be fair to everyone"), or contrasting that unequal distributions would be unfair ("my opinion is that we should give the same to everyone because otherwise, some would have less and others would have more and it would not be fair," "because if this one receives more than this one, it is not fair for him," "because if one has more, the others would be sad and it would not be fair").

Three additional reasons to choose equality were given by children. The first reason was related to the similarity of the

Table 2. Categories and sub-categories on children's justifications of a fair distribution.

Categories and sub-categories		Examples of quotes from children
Equal distributions	Equal is fair	"with the same number, like this, it would be fair to everyone"
	Unequal is not fair	"because if this one receives more than this one, it is not fair for him"
	Same work	"because they [the workers] all do almost the same work"
	Equal value of the works	"because everyone that did all this work should have the same good conditions, the same good payment"
Unequal distributions	Interdependence of the works	"because everyone did a part, a part of the work"
	Different rewards based on:	"because it depends on the works, the works are different"
	a. quantity of work	a. "because some work less and some [work] more"
	b. type of work	b. "the plantation, she packs, she makes there the boxes for the truck to take"
	c. difficulty of the work	c. "the ones who are harder receive more and the ones who have [jobs] easier receive less"
	d. amount of effort	d. "[they, everyone except the supermarket] do a lot of effort"
	e. time spent on the task	e. "the farmer stays almost all the night working"
	f. aptitude or skills	f. "because [the plantation worker] has to be good"
	g. value of the work	g. "because agriculture is a nice thing to feed people"
	Costs and profits	"he [transporter] has to pay a lot of stuff, a lot of gas to go to places," "because the supermarket earns a lot"

works (e.g., “because they [the workers] all do almost the same work,” “I think almost everyone does the same work, only in different ways,” “everyone does a difficult work”). The second reason focused on the value of the works and how everyone should have an adequate payment (“because everyone that did all this work should have the same good conditions, the same good payment,” “and it [the payment] is worth the effort of the work”). Thirdly, children highlighted the interdependence of the works, namely that all of the workers produced the same item (“because they [all the workers] produce the same thing”) and had an important role in the process (“because everyone did a part, a part of the work and should receive the same,” “because everyone has an important role”).

Children's justifications for unequal distributions

The main reason discussed by the groups to justify that some workers involved in the process of trade should receive more than others was related to the characteristics of the different works (e.g., “because it depends on the works, the works are different,” “I think it would be fair for everyone to have the same amount, but on the other hand some should have more because it depends on the work, of each work”). Namely, the groups discussed that each worker should receive according to the quantity of work, meaning that those who worked more would receive more coins (e.g., “because some work less and some [work] more,” “because this one [the farmer] has more work, so should receive more money”). Most of the groups considered that the farmer was the one who worked more and should receive more coins (e.g., “the farmer should have more because [he/she] has the most work,” “because the farmer has the most work,” “the farmer works more”). In contrast, children generally expressed that the supermarket should receive fewer coins for having a lower amount of work (e.g., “this one [the supermarket] only does the end, only does a small part,” “because he [supermarket worker] doesn't work, only sells”).

Children also justified their distribution by specifying the type of work, describing the different tasks or responsibilities involved (e.g., “he [the farmer] had to seed the fruits, the food, carry them, do everything so that the food arrives at the other places,” “the plantation, she packs, she makes there the boxes for the truck to take,” “the plantation is where you treat the plants, the fruits,” “the transporter should receive a lot because he can go for example from France to Portugal”).

In addition to the quantity and types of work, children considered the difficulty of the work (e.g., “because they have different jobs and the ones who are harder receive more and the ones who have easier [jobs] receive less,” “the transporter, we put with five, because, because it is not very hard, it isn't hard to transport,” “because it's easy, it's just to drive, and here [supermarket] I would take three [coins] because it is only, only receiving money”; “the seller only needs to do this like this and pass it in the machine and give to the [costumer's] hand”), the amount of effort (e.g., “[they, everyone except the supermarket] do a lot of effort, so they should receive 100% of the profits,” “the supermarket isn't that hard”) and the time spent on the task (e.g., “the

farmer stays there every day, every day,” “the farmer stays almost all night working,” “in the plantation, it will take some days and, in the transportation, it also can take time and in the factory too”). Another factor considered by children was the aptitude or skills needed for the work (e.g., “we thought that [the plantation worker] should receive one more than the others, because [he/she] has more work and because [he/she] has to be good,” “having to, like, see if you drive well”).

Finally, it is worth mentioning that, in one of the groups, children also reflected on the value of the work for the consumers (e.g., “because agriculture is a good thing, to feed people, so it would cost more money,” “because the plantation is to see if the bananas, if they had no worms, diseases, that go in many bananas, and agriculture is to plant the bananas to eat and it does good to our health and protects us from the diseases and does us well”).

In addition to the arguments related to the different works developed by each part, children also considered the costs and profits that some would have, mentioning the costs of the transporter (“the transporter also should earn a little bit more because it also spends gas and then also has to pay and so,” “he [transporter] has to pay a lot of stuff, a lot of gas to go to places”) and profits of the supermarket and factory (“because the supermarket earns a lot,” “these [supermarket and factory] will already receive more from the clients, already will receive more, so I would take a little bit more [coins] from these here”).

Goal 3: to examine how children strived for group consensus on the fair distribution

A summary of children's achievement of consensus in small groups toward equal and unequal distributions is presented in Figure 2.

Striving for consensus toward equal distributions

Of the thirteen groups that agreed on equal distributions, ten groups of children exclusively considered and discussed the possibility of paying equal to all the workers. Hence, a child would propose an equal distribution and the other(s) would agree. Group consensus was automatically reached in these cases. In three out of the thirteen groups, children considered the possibility of paying unevenly to the different workers, but then collaboratively decided for equal distributions.

Specifically, in one of the groups, a child stated that some should receive more and others less, but after hearing a peer's argument favoring an equal distribution, children agreed on paying equally to all workers. This exchange of ideas is depicted in the dialogue below:

R: What do you think? Do you think that we should give the same to everyone one or more to some and less to others?

C47: Yes... more to some and less to others...

C48: No, no...

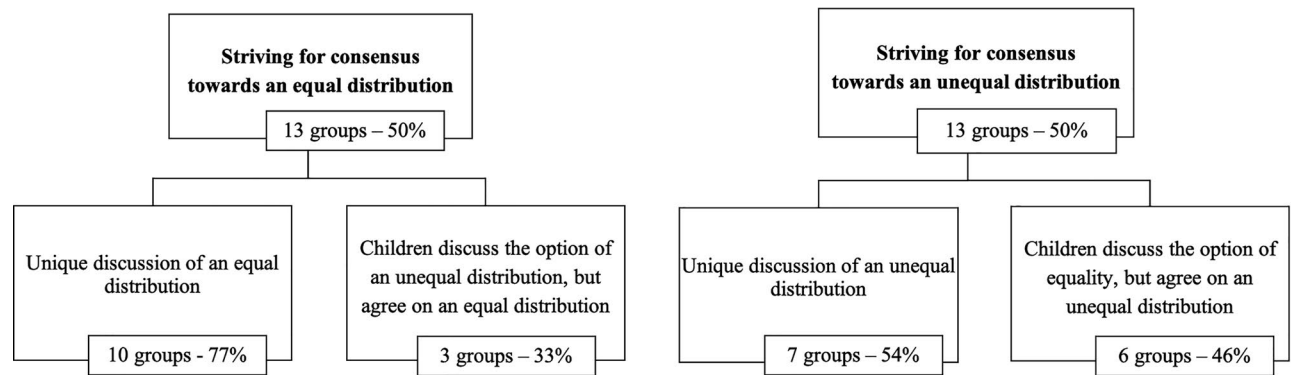


Figure 2. A summary of how children strived for consensus in small groups toward equal and unequal distributions.

R: What do you think? There is no right answer, it's your opinion

C48: My opinion is that we have to give the same to each other, because otherwise the others got less, and others got more, and it wasn't fair. And you, do you agree?

C47: I agree

In the second case, when facing the possibility of taking a coin out to give more to the farmer, children agreed to choose an equal distribution:

R: So, everyone the same, that's what you would say, everyone gets the same part, is that it?

C1: But the farmer had to receive one euro more

R: The farmer, in your opinion, would receive a little bit more

C2: And who would receive less?

C1: Hum, everyone would get the same amount of money

C2: Yes

R: Is it? what's fair, you think, what's fair is for everyone to get the same

C2: Yes

In the last case, children began by considering an unequal distribution. Then, when the researcher summarized their distribution, children changed their views and opted for a distribution based on equality:

R: At this moment, the only difference is that the supermarket has one more [coin], and the plantation has one less [coin], do you think it is good this way? Do you agree? What do you think?

C20: Hum [children change the disposition of the coins towards an equal distribution]

R: So, it is the same for everyone?

C21: Yes

C20: Yes

As it is demonstrated in the three cases above, children easily achieved consensus: in the first case, a child explained that if one worker would receive more, this would be unfair, and the other child agreed; in the second case, when one

child asked to the other which worker would receive less, children decided for an equal distribution; finally, in the last case, the researcher summarizing the distribution encouraged children to change their distribution toward equality. Thus, interactions resulted in a collaborative change of the distribution toward equality.

Striving for consensus toward unequal distributions

Seven groups (out of the thirteen that chose unequal distributions) started by discussing an economic distribution with some workers receiving more and less and reached a consensus from the beginning. In these groups, children started right away discussing how they should divide the coins between the five workers and which workers would receive more or less. Children discussed and agreed with each other on how to distribute the coins.

In the other six groups, children also considered the possibility of paying equally to all workers but agreed to distribute the coins unevenly after an argument favoring an unequal distribution. The arguments introduced were mainly related to the characteristics of the different jobs, as is illustrated in the dialogue below:

C23: It is fair receiving the same...

R: Is it?

C23: Yes... or maybe receiving differently because it depends on the jobs

R: What do you think?

C23: What do you think, C22, tell us...

C22: I think it is different

C23: To me, [it is] different...

As it is conveyed in the example above, one child would introduce the idea of distributing based on the differences of the jobs and the other member of the group would agree. The distribution would then change to an unequal distribution that would be maintained throughout the discussion. The same is depicted in the conversation below, in which a child started to distribute the coins unevenly after an exchange of opinions with the peer. The peer introduced the argument that those who work more, should receive more:

C12: I think everyone should have the same quantity...

R: Everyone should have the same quantity? What do you think, C13?

C13: That the one who has more work is the one who should have more, it is the farmer

R: The farmer?

C12: One for the farmer, another here [starts dividing the coins]

In one of the groups who changed from an equal to an unequal distribution, the idea introduced was not related to the differences in the works, but the costs and profits of the supermarket. Specifically, one of the children distributed the coins evenly. Then, another introduced the idea that the supermarket had more profits and should receive less. Both children agreed and adjusted the distribution accordingly, as the dialogue below shows:

C53: So, each one would receive six coins...

R: So, each one would receive the same?

C54: Hum

R: What's your opinion?

C54: I think that here no, these [supermarket] will already get more from the clients, they're already getting more so I'd take a little more of these here...

R: You would take a little from the supermarket, is that it?

C54: Yes, because...

C53: So, like this?

C54: Because they will already get more from the clients and so...

C53: So, we take one

Most of the time, children tended to agree with each other's ideas, changing the distribution based on the different arguments (related mostly to differences in the works). Disagreements were uncommon, as children mostly accepted other ideas and adjusted the distribution accordingly. When distributing the money to the different workers, children also tended to agree on the characteristics of the work performed by each worker (in terms of quantity, type of work, difficulty, effort, etc.).

Discussion

In an effort to acknowledge the gap between developmental science and social justice and global citizenship education, this study proposed to explore elementary school children's perspectives on distributive justice in the scope of a relevant global issue, international trade. In the scope of a classroom project on the topic, this exploratory study analyzed elementary school children's understanding of a fair economic distribution in the process of trade. Specifically, we investigated children's distribution of resources between five workers involved in trade (i.e., farmer, plantation worker, transporter, factory worker, supermarket worker), namely

how was the money distributed (equal vs. unequal distributions), children's justifications for a fair distribution, and how children achieved consensus in small group discussions.

In small mixed-aged groups, half of the groups decided for equal distributions, distributing the coins evenly among the five workers, and the other half decided for unequal distributions, delivering the coins unevenly based on the different contributions and contextual features. This result extends past research by providing preliminary evidence that children between seven and ten years old can make varied distribution decisions when faced with a complex scenario. Early studies with more complex scenarios reported that, in these ages, children would mainly consider equality-based distributions (e.g., Enright et al., 1984; Sigelman & Waitzman, 1991). Our study is aligned with more recent perspectives on children's distributive justice showing that elementary school children can make distributive decisions both based on equality and equity (e.g., Cowell et al., 2019; Kienbaum & Wilkening, 2009; Smith & Warneken, 2016). Yet, it seems important that developmental research on distributive justice expands its focus and considers diverse and complex scenarios based on societal issues to inform educational practices.

Children's justifications for a fair distribution allow us to further understand their perspectives by shedding light not only on the outcome of the distribution but also on the process of reasoning. First, children's understandings and justifications for equality were diverse. On one hand, some groups of children were concerned with a strict equal outcome, understanding equality as equivalent to fairness and inequality as equivalent to unfairness. In this case, children focused solely on the outcome of the distribution, not considering the processes or individual contributions. Interestingly, when justifying equality by affirming inequality as unfair, children sometimes mentioned interpersonal motives, referring to the feelings of those who would have less, as a reason to choose equality. On the other hand, children also justified equality by highlighting each worker's contribution to the process of trade. In this case, children reasoned based on the principle of equity (distributing resources according to contributions) and mentioned the similarity of the contributions, the equal value of each contribution, and the interdependence of all contributions.

This result highlights the importance of studying the underlying reasoning and principles justifying an allocation of resources, as social domain theory highlights (Smetana et al., 2014; Turiel, 2006). The same distribution can have diverse motives or principles, and different final distributions can be based on similar principles and justifications. In the current study, children chose an even distribution of coins between the five workers based either on principles of strict equality, equating an equal outcome to fairness and an unequal outcome to unfairness, or on principles of equity, reflecting on each worker's contribution for the process, though concluding that they were similar. Thus, when assessing children's views on distributive justice, it is of major importance to consider the principles and motives behind the distributions, as a final distribution based on

equality can be grounded on equally complex principles and motives as unequal distributions.

Children's justifications for distributing the money unevenly were primarily based on the quantity and type of work, difficulty, effort, the time spent on the tasks, the aptitude or skills needed, and the value of the job for consumers. In general, children highlighted that the farmer should receive more and the supermarket worker less for their work. When distributing the coins differently, children reflected on the different contributions, mobilizing their prior knowledge about the world, the various occupations, and the process of trade. Some groups also acknowledged and discussed the profits and costs some workers have, referring that those with higher profits should have lower payments and that those with more costs deserved a higher payment. In this way, children's background knowledge and involvement in a classroom project seemed to play a role in their distributive justice perspectives.

Before the distributive task, children had been involved in learning experiences around the topic of trade. As such, it is important to mention that children watched a video portraying the banana's process of trade. Although the video portrayed each part of the process mentioned in the distributive task, it conveyed a special focus on the farmer's work and life conditions. Children also researched the geographical origins of diverse food items. Thus, these prior experiences may have contributed to assigning more coins to the farmer and fewer coins to the supermarket. The farmer was represented in the video that children watched as a person at disadvantage. Although no child explicitly mentioned the farmer life conditions or disadvantage status, nor any worker's ethnic or cultural origin, as a reason to justify the distribution, research shows that elementary school-aged children give more to those in need, poverty, or disadvantage in distributive tasks (e.g., Cowell et al., 2019; Elenbaas, 2019b; Kienbaum & Wilkening, 2009; Rizzo et al., 2016; Shutts et al., 2016; Thomson & Jones, 2005). An additional explanation for these results relies on children's individual contact and familiarity with the occupations, and their background knowledge. Children equated the supermarket worker's job with selling, considering it an easier task, and the farmer's job with planting and hard work, perhaps due to their past personal experiences. Still, children always bring prior conceptions to the classroom (and research tasks), and, in this case, could be more familiar with the supermarket's and the farmer's work.

When teaching about social, economic, and global topics, such as trade, teachers are recommended to invite children to share prior understandings and conceptions related to the topic to become aware of children's prior knowledge and explicitly correct misconceptions, providing factual in-depth knowledge (McCall, 2017). According to Hackman (2005), content mastery is one of the five essential components of education for social justice and comprehends delivering broad and deep levels of factual information, historical contextualization, and a macro-to-micro analysis of the topic. In this way, the relationship between children's content knowledge and their distributive justice orientations

concerning societal processes or events (e.g., distribution of income in trade or within a country) should be investigated in future studies, strengthening the connection between children's development of distributive justice and their knowledge of contents.

Finally, given the complexity of the scenario and the integration of this activity in a larger classroom project, children were invited to discuss the fair distribution in small mixed-aged groups, respecting the groups in which children usually work at school. Children either discussed a unique distribution possibility (equal or unequal distribution) or discussed the two ideas, easily accepting each other's perspectives and adjusting the distribution. These results offer very preliminary evidence that children tend to agree with each other and adjust their position according to others' arguments when distributing resources. Damon and Killen (1982) mention precisely the role of collaboration, through accepting and transforming ideas in discussions between peers, as a process to promote higher levels of reasoning. Although our study does not allow to disentangle the effects of peer interactions in moral reasoning, it is possible that discussing this scenario in mixed-aged groups may have helped children expose their arguments with more clarity and enrich their perspectives, reaching higher levels of reasoning when faced with a complex scenario. Still, more research is necessary to understand the processes of collective reasoning about distributive justice issues and the effects of peers' collective discussions, in comparison with reasoning individually or with an adult.

Limitations

This study has several limitations that need to be acknowledged. First, the study was conducted in the scope of a larger research project, that included the implementation of social justice learning activities in the classroom, before data collection. The involvement of participants in these learning experiences certainly shaped the results of this study and cannot be ignored. Notwithstanding, this study is also an example of how research studies can become an integral part of classroom projects, as children's discussions were not only arranged for data collection purposes but also as meaningful learning experiences. Secondly, children's views were assessed in small mixed-aged groups and results could have been different if children answered to the scenario individually or with same-aged peers. On the other hand, peer discussions may allow children to bring into light their ideas with more clarity, as previously discussed. Future studies should analyze the role of peer discussions and processes of reasoning about distributive justice issues, comparing the effects of reasoning with same-aged peers, in mixed-aged groups, individually, and with an adult. It is noteworthy that researchers inserted themselves in children's discussions and may have played a role in the course of the conversation, in children's interactions and decisions. Notwithstanding, the presence of the researchers also aimed to ensure the participation of all children and the expression of different perspectives in a safe space.

In line with a qualitative approach, this study aims to analyze reality in a given setting, with specific participants. Thus, although results can shed some light on elementary school children's perspectives on distributive justice in complex trading processes, these findings must be interpreted with caution and generalization is unwarranted. Although we have some information on the school's student body characteristics, an additional caveat of our study consists of the absence of information on students' social identities (in terms of ethnicity/religion, nationality, and economic status) and power dynamics within the school.

This study is a first step to capture children's distributive justice perspectives on a topic of global nature. Future research is recommended to address issues of power, oppression, and group dynamics within the participants. Students from marginalized communities (i.e., low socioeconomic status, minority cultures/religions) might have different perspectives than students from dominant groups and might have been silenced over more dominant voices. Moreover, power dynamics between importing and exporting countries and the workers' cultural and ethnic origins were not portrayed in the illustrations used as stimuli. Future studies are recommended to explore the usage of other stimuli, depicting the workers' cultural and ethnic identities and addressing power dynamics in global trade (e.g., Gokmen et al., 2020). Moreover, further research is warranted to explore predictors of different nature, such as social and cognitive skills, children's social identities, minority status, and the role of content knowledge.

Conclusions

Overall, our findings suggest that elementary school children are able to reason about the complexities of a fair distribution around a pressing global issue, in small mixed-aged groups, after a set of activities contextualizing the process under judgment. Results provide preliminary insights about children's perspectives on a fair distribution in trade, underlying motives, and processes of reasoning in small groups. This study shows that children can bring into the discussion justifications of different nature and complexity (related to strict equality, equal contributions and value, interdependence, merit, and economics) and that children easily collaborate toward a final distribution. These results can inform teachers' and education practitioners' planning of lessons or discussions around the topic. Moreover, this study stresses the importance of bridging developmental and education research, as both can benefit from each other in their common role of understanding and promoting development and learning on issues related to justice and fairness. As global topics are being increasingly introduced into elementary schools' curricula, children's developmental perspectives of justice can inform social justice and global citizenship education. Similarly, developmental literature on distributive justice can extend its focus and study children's perspectives on current social issues of global significance.

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References

- Acedo, C., & Hughes, C. (2014). Principles for learning and competences in the 21st century curriculum. *Prospects*, 44(4), 503–525. <https://doi.org/10.1007/s11125-014-9330-1>
- Anderson, N. H., & Butzin, C. A. (1978). Integration theory applied to children's judgments of equity. *Developmental Psychology*, 14(6), 593–606. <https://doi.org/10.1037/0012-1649.14.6.593>
- Arsenio, W. F. (2015). Moral psychological perspectives on distributive justice and societal inequalities. *Child Development Perspectives*, 9(2), 91–95. <https://doi.org/10.1111/cdep.12115>
- Arsenio, W. F., & Willems, C. (2017). Adolescents' conceptions of national wealth distribution: Connections with perceived societal fairness and academic plans. *Developmental Psychology*, 53(3), 463–474. <https://doi.org/10.1037/dev0000263>
- Asia Society/OECD [Organisation for Economic Co-operation and Development]. (2018). *Teaching for global competence in a rapidly changing world*. <https://asia-society.org/education/teaching-global-competence-rapidly-changing-world>
- Barreiro, A., Arsenio, W. F., & Wainryb, C. (2019). Adolescents' conceptions of wealth and societal fairness amid extreme inequality: An Argentine sample. *Developmental Psychology*, 55(3), 498–508. <https://doi.org/10.1037/dev0000560>
- Baumard, N., Mascaró, O., & Chevallier, C. (2012). Preschoolers are able to take merit into account when distributing goods. *Developmental Psychology*, 48(2), 492–498. <https://doi.org/10.1037/a0026598>
- Blake, P. R., & McAuliffe, K. (2011). "I had so much it didn't seem fair": Eight-year-olds reject two forms of inequity. *Cognition*, 120(2), 215–224. <https://doi.org/10.1016/j.cognition.2011.04.006>
- Blake, P. R., McAuliffe, K., Corbit, J., Callaghan, T. C., Barry, O., Bowie, A., Kleutsch, L., Kramer, K. L., Ross, E., Vongsachang, H., Wrangham, R., & Warneken, F. (2015). The ontogeny of fairness in seven societies. *Nature*, 528(7581), 258–261. <https://doi.org/10.1038/nature15703>
- Boix Mansilla, V., & Chua, F. (2007). Signature pedagogies in global competence education: Understanding quality teaching practice. In S. Choo, D. Sawch, A. Villanueva, & R. Vinz (Eds.), *Educating for the 21st century: Perspectives, policies and practices from around the world* (pp. 93–115). Springer. <https://doi.org/10.1007/978-981-10-1673-8>
- Boix Mansilla, V., & Gardner, H. (2007). On teaching globalization to nurturing global consciousness. In M. M. Suárez-Orozco & D. B. Qin-Hilliard (Eds.), *Globalization: Culture and education in the new millennium* (pp. 47–66) University of California Press.
- Boix Mansilla, V., & Jackson, A. (2011). *Educating for global competence: preparing our youth to engage the world*. Asia Society and Council of Chief State School Officers.
- Braun, V., & Clarke, V. (2013). *Successful qualitative research – a practical guide for beginners*. Sage Publications.

- Carey, M. A. (1995). Comment: Concerns in the analysis of focus group data. *Qualitative Health Research*, 5(4), 487–495. <https://doi.org/10.1177/104973239500500409>
- Carson, A. S., & Banuazizi, A. (2008). That's not fair" similarities and differences in distributive justice reasoning between American and Filipino children. *Journal of Cross-Cultural Psychology*, 39(4), 493–514. <https://doi.org/10.1177/0022022108318134>
- Chafel, J. A., & Neitzel, C. (2005). Young children's ideas about the nature, causes, justification, and alleviation of poverty. *Early Childhood Research Quarterly*, 20(4), 433–450. <https://doi.org/10.1016/j.ecresq.2005.10.004>
- Charafeddine, R., Mercier, H., Clément, F., Kaufmann, L., Reboul, A., & Van der Henst, J. B. (2016). Children's allocation of resources in social dominance situations. *Developmental Psychology*, 52(11), 1843–1857. <https://doi.org/10.1037/dev0000164>
- Council of Europe. (2016). *Competences for democratic culture: Living together as equals in culturally diverse democratic societies*. Council of Europe Publishing.
- Cowell, J. M., Sommerville, J. A., & Decety, J. (2019). That's not fair: Children's neural computations of fairness and their impact on resource allocation behaviors and judgments. *Developmental Psychology*, 55(11), 2299–2310. <https://doi.org/10.1037/dev0000813>
- Damon, W. (1975). Early conceptions of positive justice as related to the development of logical operations. *Child Development*, 46(2), 301–312. <https://doi.org/10.2307/1128122>
- Damon, W. (1977). *The social world of the child*. Jossey-Bass Publishers.
- Damon, W., & Killen, M. (1982). Peer interaction and the process of change in children's moral reasoning. *Merrill-Palmer Quarterly*, 28(3), 347–367.
- Design-Based Research Collective. (2003). Design-based research: An emerging paradigm for educational inquiry. *Educational Researcher*, 32(1), 5–8. <https://doi.org/10.3102/0013189X032001005>
- Dillon, S., Ruane, B., & Kavanagh, A. M. (2010). Young children as global citizens. *Policy & Practice: A Development Education Review*, 11, 84–91.
- Elenbaas, L. (2019a). Against unfairness: Young children's judgments about merit, equity, and equality. *Journal of Experimental Child Psychology*, 186, 73–82. <https://doi.org/10.1016/j.jecp.2019.05.009>
- Elenbaas, L. (2019b). Perceptions of economic inequality are related to children's judgments about access to opportunities. *Developmental Psychology*, 55(3), 471–481. <https://doi.org/10.1037/dev0000550>
- Elenbaas, L., & Killen, M. (2017). Children's perceptions of social resource inequality. *Journal of Applied Developmental Psychology*, 48, 49–58. <https://doi.org/10.1016/j.appdev.2016.11.006>
- Elenbaas, L., Rizzo, M. T., Cooley, S., & Killen, M. (2016). Rectifying social inequalities in a resource allocation task. *Cognition*, 155, 176–187. <https://doi.org/10.1016/j.cognition.2016.07.002>
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>
- Enright, R. D., Bjerstedt, Å., Enright, W. F., Levy, V. M., Jr, Lapsley, D. K., Buss, R. R., Harwell, M., & Zindler, M. (1984). Distributive justice development: Cross-cultural, contextual, and longitudinal evaluations. *Child Development*, 55(5), 1737–1751. <https://doi.org/10.2307/1129921>
- Essler, S., Lepach, A. C., Petermann, F., & Paulus, M. (2020). Equality, equity, or inequality duplication? How preschoolers distribute necessary and luxury resources between rich and poor others. *Social Development*, 29(1), 110–125. <https://doi.org/10.1111/sode.12390>
- Fairtrade Foundation. (2015). *Where does chocolate come from? Lesson plan for primary schools*. <https://schools.fairtrade.org.uk/resource/where-does-chocolate-come-from-new-for-fairtrade-fortnight-2019/>
- Flick, U. (2007). Qualitative research designs. In U. Flick (Ed.), *Qualitative research kit: Designing qualitative research* (pp. 36–50). SAGE Publications. <https://doi.org/10.4135/9781849208826>
- Gardner, H. (2004). How education changes: Considerations of history, sciences, and values. In M. M. Suárez-Orozco & D. B. Qin-Hilliard (Eds.), *Globalization: Culture and education in the new millennium* (pp. 235–258). University of California Press.
- Gokmen, G., Vermeulen, W. N., & Vézina, P. L. (2020). The imperial roots of global trade. *Journal of Economic Growth*, 25(1), 87–145. <https://doi.org/10.1007/s10887-020-09174-7>
- Hackman, H. W. (2005). Five essential components for social justice education. *Equity & Excellence in Education*, 38(2), 103–109. <https://doi.org/10.1080/10665680590935034>
- Huppert, E., Cowell, J. M., Cheng, Y., Contreras-Ibáñez, C., Gomez-Sicard, N., Gonzalez-Gadea, M. L., Huepe, D., Ibanez, A., Lee, K., Mahasneh, R., Malcolm-Smith, S., Salas, N., Selcuk, B., Tungodden, B., Wong, A., Zhou, X., & Decety, J. (2018). The development of children's preferences for equality and equity across 13 individualistic and collectivist cultures. *Developmental Science*, 22(2), 1–15. <https://doi.org/10.1111/desc.12729>
- Kanngiesser, P., & Warneken, F. (2012). Young children consider merit when sharing resources with others. *PLoS One*, 7(8), e43979. <https://doi.org/10.1371/journal.pone.0043979>
- Kenward, B., & Dahl, M. (2011). Preschoolers distribute scarce resources according to the moral valence of recipients' previous actions. *Developmental Psychology*, 47(4), 1054–1064. <https://doi.org/10.1037/a0023869>
- Kienbaum, J., & Wilkening, F. (2009). Children's and adolescents' intuitive judgements about distributive justice: Integrating need, effort, and luck. *European Journal of Developmental Psychology*, 6(4), 481–498. <https://doi.org/10.1080/17405620701497299>
- Killen, M., & Smetana, J. G. (2015). Origins and development of morality. In R. M. Lerner (Ed.), *Handbook of child psychology and developmental science* (pp. 701–749). Wiley-Blackwell.
- Kohlberg, L. (1958). *The development of modes of moral thinking and choice in the years ten to sixteen* [Unpublished doctoral thesis]. University of Chicago.
- Kohlberg, L. (1969). Stage and sequence: The cognitive development approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization theory* (pp. 347–480). Rand McNally.
- Kornbluh, M. E., Pykett, A. A., & Flanagan, C. A. (2019). Exploring the associations between youths' explanations of poverty at the societal level and judgements of distributive justice. *Developmental Psychology*, 55(3), 488–497. <https://doi.org/10.1037/dev0000523>
- Kruger, A. C. (1992). The effect of peer and adult-child transactive discussions on moral reasoning. *Merrill-Palmer Quarterly*, 38(2), 191–211.
- Maitland, K. A., & Goldman, J. R. (1974). Moral judgment as a function of peer group interaction. *Journal of Personality and Social Psychology*, 30(5), 699–704. <https://doi.org/10.1037/h0037454>
- McCall, A. L. (2017). Teaching children about the global economy: Integrating inquiry with human rights. *The Social Studies*, 108(4), 136–142. <https://doi.org/10.1080/00377996.2017.1343791>
- McGillicuddy-De Lisi, A. V., Daly, M., & Neal, A. (2006). Children's distributive justice judgments: Aversive racism in Euro-American children? *Child Development*, 77(4), 1063–1080. <https://doi.org/10.1111/j.1467-8624.2006.00919.x>
- Miller, D. (2006). *Principles of social justice*. Harvard University Press.
- Ministério da Educação e Ciência/Inspeção Geral da Educação e Ciência. (2013). *Avaliação Externa das Escolas. Relatório. Nome da escola. Localidade* [External Evaluation of Schools. Report. Name of the school. Locality.]. [erased to guarantee anonymity].
- Mistry, R. S., Brown, C. S., White, E. S., Chow, K. A., & Gillen-O'Neel, C. (2015). Elementary school children's reasoning about social class: A mixed-methods Study. *Child Development*, 86(5), 1653–1671. <https://doi.org/10.1111/cdev.12407>
- National Council for the Social Studies. (2013). *The college, career, and civic life (c3) framework for social studies state standards: Guidance for enhancing the rigor of k-12 civics, economics, geography, and history*. National Council for the Social Studies.
- Noh, J. Y. (2020). Children's developing understanding of merit in a distributive justice context. *Journal of Child and Family Studies*, 29(5), 1484–1492. <https://doi.org/10.1007/s10826-019-01606-2>
- Noh, J. Y., D'Esterre, A., & Killen, M. (2019). Effort or outcome? Children's meritorious decisions. *Journal of Experimental Child Psychology*, 178, 1–14. <https://doi.org/10.1016/j.jecp.2018.09.005>

- Norton, M. I., & Ariely, D. (2011). Building a better America-One wealth quintile at a time. *Perspectives on Psychological Science: A Journal of the Association for Psychological Science*, 6(1), 9–12. <https://doi.org/10.1177/1745691610393524>
- Nucci, L., Turiel, E., & Roded, A. D. (2017). Continuities and discontinuities in the development of moral judgments. *Human Development*, 60(6), 279–341. <https://doi.org/10.1159/000484067>
- Organisation for Economic Co-operation and Development [OECD]. (2018). *The future of education and skills: Education 2030*. [https://www.oecd.org/education/2030/E2030%20Position%20Paper%20\(05.04.2018\).pdf](https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf)
- Oxfam. (2015). *Global citizenship in the classroom: A guide for teachers*. <https://www.oxfam.org.uk/education/resources/global-citizenship-in-the-classroom-a-guide-for-teachers>
- Oxfam Education. (2007). *Find your way through trade: Learn about food and global trade*. <https://oxfamlibrary.openrepository.com/handle/10546/620724>
- Pastori, G., Mangiatordi, A., & Pagani, V. (2019). *The ISOTIS virtual learning environment. Multilingualism and global competence in ECEC & primary school settings*. <https://www.isotis.org/en/publications/isotis-virtual-learning-environment-multilingualism-and-global-competence>
- Paulus, M. (2015). Children's inequity aversion depends on culture: A cross-cultural comparison. *Journal of Experimental Child Psychology*, 132, 240–246. <https://doi.org/10.1016/j.jecp.2014.12.007>
- Paulus, M., Nöth, A., & Wörle, M. (2018). Preschoolers' resource allocations align with their normative judgments. *Journal of Experimental Child Psychology*, 175, 117–126. <https://doi.org/10.1016/j.jecp.2018.05.001>
- Piaget, J. (1932). *The moral judgment of the child*. The Free Press.
- Qiu, X., Yu, J., Li, T., Cheng, N., & Zhu, L. (2017). Children's inequity aversion in procedural justice context: A comparison of advantageous and disadvantageous inequity. *Frontiers in Psychology*, 8, 1855. <https://doi.org/10.3389/fpsyg.2017.01855>
- Rawls, J. (1999). *A theory of justice* (Rev. ed.). The Belknap Press of Harvard University Press.
- Reimers, F. M. (2010). Educating for global competency. In J. E. Cohen & M. B. Malin (Eds.), *International perspectives on the goals of universal basic and secondary education* (pp. 183–202). Routledge.
- Reimers, F. M., Chopra, V., Chung, C. K., Higdon, J., & O'Donnell, E. B. (2016). *Empowering global citizens: A world course*. CreateSpace Independent Publishing Platform.
- Rizzo, M. T., Elenbaas, L., Cooley, S., & Killen, M. (2016). Children's recognition of fairness and others' welfare in a resource allocation task: Age related changes. *Developmental Psychology*, 52(8), 1307–1317. <https://doi.org/10.1037/dev0000134>
- Rizzo, M. T., & Killen, M. (2016). Children's understanding of equity in the context of inequality. *The British Journal of Developmental Psychology*, 34(4), 569–581. <https://doi.org/10.1111/bjdp.12150>
- Rogers, J., & Westheimer, J. (2017). Teaching about economic inequality in a diverse democracy: Politics, ideology, and difference. *PS: Political Science & Politics*, 50(04), 1049–1055. <https://doi.org/10.1017/S1049096517001287>
- Ruane, B., Dillon, S., & Kavanagh, A. (2010). Young children's engagement with issues of global justice. *Trócaire Development Review*, 2010, 85–100.
- Schmidt, M. F., Svetlova, M., Johe, J., & Tomasello, M. (2016). Children's developing understanding of legitimate reasons for allocating resources unequally. *Cognitive Development*, 37, 42–52. <https://doi.org/10.1016/j.cogdev.2015.11.001>
- Sensory, O., & DiAngelo, R. (2017). *Is everyone really equal? An introduction to key concepts in social justice education*. Teachers College Press.
- Shaw, A., & Olson, K. R. (2012). Children discard a resource to avoid inequity. *Journal of Experimental Psychology: General*, 141(2), 382–395. <https://doi.org/10.1037/a0025907>
- Sheskin, M., Nadal, A., Croom, A., Mayer, T., Nissel, J., & Bloom, P. (2016). Some equalities are more equal than others: Quality equality emerges later than numerical equality. *Child Development*, 87(5), 1520–1528. <https://doi.org/10.1111/cdev.12544>
- Shutts, K., Brey, E. L., Dornbusch, L. A., Slywotzky, N., & Olson, K. R. (2016). Children use wealth cues to evaluate others. *PLoS One*, 11(3), e0149360. <https://doi.org/10.1371/journal.pone.0149360>
- Sigelman, C. K., & Waitzman, K. A. (1991). The development of distributive justice orientations: Contextual influences on children's resource allocations. *Child Development*, 62(6), 1367–1378. <https://doi.org/10.1111/j.1467-8624.1991.tb01611.x>
- Smetana, J. G., Jambon, M., & Ball, C. (2014). The social domain approach to children's moral and social judgments. In M. Killen & J. G. Smetana (Eds.), *Handbook of moral development* (p. 23–45). Psychology Press.
- Smith, C. E., & Warneken, F. (2016). Children's reasoning about distributive and retributive justice across development. *Developmental Psychology*, 52(4), 613–628. <https://doi.org/10.1037/a0040069>
- Stevens, P. E. (1996). Focus groups: collecting aggregate-level data to understand community health phenomena. *Public Health Nursing (Boston, Mass.)*, 13(3), 170–176. <https://doi.org/10.1111/j.1525-1446.1996.tb00237.x>
- Suárez-Orozco, M. M. (2010). Education and the globalization paradigm. In J. E. Cohen and M. B. Malin (Eds.), *International perspectives on the goals of universal basic and secondary education* (pp. 203–212). Routledge.
- Thomson, N. R., & Jones, E. F. (2005). Children's, adolescents', and young adults' reward allocations to hypothetical siblings and fairness judgments: Effects of actor gender, character type, and allocation pattern. *The Journal of Psychology*, 139(4), 349–368. <https://doi.org/10.3200/JRLP.139.4.349-368>
- Trocaire. (2016). *SOS. An interactive learning resource & guidance notes*. Ballymoney Community Resource Centre.
- Turiel, E. (2006). The development of morality. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 863–932). Wiley.
- Tyler, T. (2015). Social justice. In M. Mikulincer, P. Shaver, J. Dovidio, & J. Simpson (Eds.), *APA handbook of personality and social psychology, Volume 2: Group processes* (pp. 95–122). APA Press.
- United Nations. (2020). *World social report 2020. Inequality in a rapidly changing world*. United Nations Publication.
- United Nations Educational, Scientific and Cultural Organization [UNESCO]. (2014). *Global citizenship education. Preparing learners for the challenges of the twenty-first century*. UNESCO.
- United Nations Educational, Scientific and Cultural Organization [UNESCO]. (2015). *Rethinking 3d education: Towards a global common good?* UNESCO.
- Wörle, M., & Paulus, M. (2018). Normative expectations about fairness: The development of a charity norm in preschoolers. *Journal of Experimental Child Psychology*, 165, 66–84. <https://doi.org/10.1016/j.jecp.2017.03.016>