

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/375547020>

Education to justice and infants' sense of fairness

Article in *Frontiers in Developmental Psychology* · November 2023

DOI: 10.3389/fdpys.2023.1282533

CITATIONS

2

READS

56

5 authors, including:



[Alessandra Geraci](#)

University of Catania

46 PUBLICATIONS 1,176 CITATIONS

[SEE PROFILE](#)



[Ana Rita De Cássia Santos Barbosa](#)

University for International Integration of the Afro-Brazilian Lusophony

3 PUBLICATIONS 2 CITATIONS

[SEE PROFILE](#)



[Rosanna Augello](#)

Università per Stranieri "Dante Alighieri" di Reggio Calabria

3 PUBLICATIONS 5 CITATIONS

[SEE PROFILE](#)



[Luca Surian](#)

University of Trento

134 PUBLICATIONS 5,198 CITATIONS

[SEE PROFILE](#)



OPEN ACCESS

EDITED BY
Susanne Kristen-Antonow,
Munich University of Applied
Sciences, Germany

REVIEWED BY
Bahia Guellai,
Université Paris Nanterre, France

*CORRESPONDENCE
Alessandra Geraci
✉ geraci.ale@gmail.com

RECEIVED 24 August 2023
ACCEPTED 10 November 2023
PUBLISHED 28 November 2023

CITATION
Geraci A, Santos Barbosa ARdC, Augello R,
Perucchini P and Surian L (2023) Education to
justice and infants' sense of fairness.
Front. Dev. Psychol. 1:1282533.
doi: 10.3389/fdyps.2023.1282533

COPYRIGHT
© 2023 Geraci, Santos Barbosa, Augello,
Perucchini and Surian. This is an open-access
article distributed under the terms of the
[Creative Commons Attribution License \(CC BY\)](#).
The use, distribution or reproduction in other
forums is permitted, provided the original
author(s) and the copyright owner(s) are
credited and that the original publication in this
journal is cited, in accordance with accepted
academic practice. No use, distribution or
reproduction is permitted which does not
comply with these terms.

Education to justice and infants' sense of fairness

Alessandra Geraci^{1*}, Ana Rita de Cássia Santos Barbosa²,
Rosanna Augello¹, Paola Perucchini³ and Luca Surian⁴

¹Department of Social and Educational Sciences of the Mediterranean Area, Dante Alighieri University for Foreigners, Reggio Calabria, Italy, ²Institute of Humanities and Letters-Malês Campus, University for International Integration of the Afro-Brazilian Lusophony, São Francisco do Conde, Bahia, Brazil, ³Department of Education, Roma Tre University, Rome, Italy, ⁴Department of Psychology and Cognitive Sciences, University of Trento, Trento, Italy

KEYWORDS

infancy, fairness, socio-moral development, education, distributive justice

Introduction

In the past two decades, infant research has shown that infants as young as 3 months possess socio-cognitive capacities and make intuitive social evaluations of others' actions (for a recent review see [Woo et al., 2022](#)). In particular, studies on infants' evaluations of distributive actions shed light on an early-emerging concept of fairness (e.g., [Geraci and Surian, 2011, 2023a; Schmidt and Sommerville, 2011; Buyukozer Dawkins et al., 2019](#); for a review see [Buyukozer Dawkins et al., 2020](#)). Crucially, other studies found a relation between fairness expectations and the presence of siblings, suggesting that daily interactions with siblings provide infants with richer opportunities for observing and participating in resource distribution ([Ziv and Sommerville, 2017](#)). Once infants begin to engage in interactions, these may involve direct, first-party experiences as victims of transgressions, as well as third-party witnesses to siblings' and peers' moral transgressions. In particular, specific caregiver reaction to a moral transgression plays a key role ([Carpendale et al., 2013](#)), and more generally first social interactions and responses to transgressions facilitate the construction of moral understanding that builds on predispositions that are evident in infancy (for a review see [Yoo and Smetana, 2022](#)).

The emerging field of infants' socio-moral competencies may provide new insights for moral education research and applications ([Nucci and Turiel, 2009; Krettenauer, 2021](#)). A constructive dialogue between these fields is needed. There is no reason to doubt that early prevention and intervention programs both in the family and in the day-nursery schools may enhance moral development and promote the emergence of prosocial behaviors ([Eisenberg et al., 2006](#)) by relying on the interplay between cooperative skills and morality ([Hamlin, 2013](#)). Nevertheless, to date, there is still a wide gap between infant cognition and the field of moral education. The present work is aimed to put forward some suggestions to start to fill this gap. First, we briefly summarize the current evidence that supports an early-emerging sense of fairness. Then we review pedagogical views emphasizing the important role of education and how specific interventions may foster moral development. Finally, we end with some suggestions and implications for future research and educational interventions.

Evidence for an early sense of fairness

Prior infant research has demonstrated that infants, from 4 months of age, expect other people to distribute resources equally toward third parties ([Schmidt and Sommerville, 2011; Sloane et al., 2012; Ziv and Sommerville, 2017; Buyukozer Dawkins et al., 2019](#)), and prefer to interact with fair distributors (i.e., distributors that all things being equal, distribute resources equally among possible beneficiaries; [Geraci and Surian, 2011, 2023a](#);

Burns and Sommerville, 2014; Lucca et al., 2018; Geraci et al., 2022). Moreover, 9-month-old infants expect an agent to reward equal distributors and punish unequal distributors (Geraci and Surian, 2023a). At 15 months, infants associate an equal distributor with praises and an unequal distributor with admonishments (DesChamps et al., 2016), and they even intervene to reward the fair distributor (Ziv et al., 2021).

Ten-month-old infants detected a violation when an agent approached a distributor that tried unsuccessfully to be unfair (i.e., attempted to perform an unequal distribution of resources without success) rather than a distributor that tried to be fair (Strid and Meristo, 2020). Moreover, 4-month-olds looked longer at the events displaying an agent that attempted to perform an equal distribution of resources, and they also showed a visual preference for the agent that attempted to perform a fair distribution (Geraci and Surian, 2023a). At 9 months of age, infants showed both visual and reaching preference for the agent that attempted to perform a fair distribution (Geraci et al., 2022). Taken together, these findings support the claim that infants' sense of fairness includes sensitivity to distributors' intentions (Dawes et al., 2007; Haidt and Joseph, 2007; Rai and Fiske, 2011; Geraci, 2022). While a preference for equality emerges early in life, it takes children to develop a normative sense of fairness that guides their actions and allows them to prioritize fairness concerns over selfish motives (e.g., Blake et al., 2015). Fairness as a socio-moral preference seems to be innate or at least very early emerging, as a normative concern that guides actions it appears to be slowly learned (Krettenauer, 2021). Following this framework, we support the role of early educational interventions on moral development in terms of normative concerns, but we also consider infants as already equipped with an early-emerging moral core (Hamlin, 2013). We believe that this moral core can be described as a sprout that needs to be cultivated and "fertilized."

What is the role of education?

Philosophical and pedagogical reflections in the field of justice, as well as its relationship with education, have been addressed by several intellectuals throughout human history. Due to space limitations, here we will focus only on a few great contemporary thinkers who, between the second half of the twentieth century and the beginning of the twenty-first century, emphasized the crucial role that education may play in shaping moral development.

From a pedagogical perspective, pedagogy of emancipation was a central motif for Italian educator Don Lorenzo Milani, who understood school as an important social space for the development of conscious and active citizens, and culture as a means for the development and blossoming of humanity in children (Milani and Scuola di Barbiana, 1967; Milani, 2017). Following a similar perspective for what concerns emancipatory education, Brazilian educator Freire (1997, 1998) stands out in his published works, as well as in the actions he developed, aiming at promoting individual empowerment and revolutionizing the pedagogical conceptions all over the world. Although he did not work directly with children, in his works Freire emphasized the role of teachers and other educators in establishing a horizontal relationship with their

students, respecting and valuing their previous knowledge, their culture, and their ways of life. Taking as a point of departure the interactions established with her students, a teacher/educator must be able to have them reflect on their conditions of existence, thus contributing to the development of their self-awareness as subjects entitled to rights, carrying a history, a culture, and an identity.

When working in the field of adult literacy, both in Brazil and in the African continent, Freire and Macedo (1987) innovated it by proposing new perspectives for the literacy of people who had been historically excluded from traditional education systems, focusing on his processes of "reading the world." Freire's (1997, 1998) works are an enormous legacy to the formation of teachers and educators within the scope of an education that aims to promote ethics and justice by addressing historical, social, and political issues. According to Freire (1998), among many other necessary skills and competencies, teachers should (i) appreciate aesthetics and ethics, (ii) avoid discrimination, (iii) have respect for knowledge brought by students, as well as for their curiosity, common sense, justice, humility, joy, and hope. However, teachers must understand that education is a way of intervening in the world, for which children become able to listen and be open to dialogue, besides being compassionate and caring toward students. In this sense, Freire makes it clear that it is not possible to promote good development and learning without joy, warmth, respect for each individual, and awareness of the need to promote social justice, which is also done through education.

We wish also to highlight the relevant contribution of a more specific proposal known as "Philosophy for Children." Such a proposal, created by Matthew Lipman, emerged in the 1970s in the United States and has also spread to other geographical contexts. Its goal is to acquaint children with the act of "philosophizing" from an early age, thus promoting questioning, investigation, and discussion of themes considered philosophical, such for instance, the fairness principle. In this way, one aims to promote the so-called higher-order thinking skills starting from a program that educates to thinking, which can be applied to children from the age of three onward. Potentializing and improving children's reflections, as well as those thoughts that give rise to such reflections, are some of the goals of philosophical education. This is a way to try to promote higher-order thinking skills based on stimulating creative, critical, and caring thinking (Kohan and Wuensch, 1998). Lipman (1988) emphasizes that learning to think does not simply mean acquiring specific cognitive skills that are applied mechanically, but instead includes the development of the ability to reflect on such skills and how to employ them in real-life situations.

The key idea of Philosophy for children is to develop, from an early age, children's ability to think and reflect on different philosophical themes that may arise under the stimulus of storytelling (specific philosophical narratives created by the program), questioning, and debates mediated by educators specialized in this field. In such areas, themes concerning ethics and justice can be inferred from the stories told to kids, contributing to a reflection on these themes through a philosophical mediation established between educators and children. According to Fisher (2001), over time such practice contributes to the development of the following specific higher-order thinking skills: information-processing skills, inquiry skills, reasoning skills, and creative

thinking skills. This way, helping children to develop their cognitive and metacognitive abilities from an early age, mediated by language, starting from the reflection on philosophical themes, undoubtedly contributes to educating to morality, considering that themes related to equity, respect, ethics, and justice often can be inferred and addressed along the development of this program, and later can be identified by children in everyday human social interactions.

Implications for educational interventions

One needs to be careful in planning any educational intervention program that is inspired by recent empirical evidence as there is a high risk of engaging in premature applications of such findings (Nucci and Turiel, 2009). Nevertheless, both developmental and moral-pedagogical views suggest that early interventions may facilitate the development of a normative sense of fairness that allows children to prioritize fairness concerns over their selfishness in the first 2 years of life. From an early age, preverbal infants can be presented with educational tools aimed at developing a normative concern of fairness. Although recent studies found that infants from 4 months of age prefer fair distribution (Geraci and Surian, 2023a) and expect a fair distribution of resources (Buyukozer Dawkins et al., 2019), it is unknown how they develop normative fairness. We define here normative fairness as the understanding of fairness as a norm that transcends personal opinion and attitudes, which translates into terms of an understanding of principles of fair distribution as agent-neutral prescriptive norms for which an agent is subject to the norm in much the same way when distributing resources (McAuliffe et al., 2017; Tomasello, 2018). It is well-known that children from preschool age not only understand and enforce fairness principles as prescriptive and normatively binding but also act following them and expect that others will do so (Rakoczy et al., 2016).

Considering the most recent findings on infancy, we endorse that an early sense of fairness can be revised and improved by education, which helps infants to grow into early “nice” people who engage in pro-social activities, exhibit basic concerns about fairness, and display an inequality aversion, even advantageous inequality (Nucci and Turiel, 2009; Nucci, 2016; Krettenauer, 2021).

We identify a set of different kinds of interventions that could be aimed to develop morality and fairness normative concerns in both family and day nursery contexts:

- a) Increasing the frequency of social interactions with caregivers and peers (i.e., siblings) for the (co-)construction of social norms (Dunn et al., 2014; Tomasello, 2018; Essler and Paulus, 2022);
- b) spurring a supportive climate of relationships (Bulotsky-Shearer et al., 2020) and helping children develop empathic responses toward the victims of unfair treatment;

The following interventions could be well-planned and activated in day nurseries or nursery schools, by involving both educators and caretakers:

- a) promoting interactive and social plays within early educational programs (Coelho et al., 2017);
- b) enhancing the use of puppets and puppetry plays in which fair behavior is praised and unfair behavior is admonished (Remer and Tzuriel, 2015; Luen, 2021);
- c) increasing social imitative interactions to stimulate unconscious copying of gestures in naturalistic (Chartrand and Bargh, 1999), automatic imitation by using a computer (Heyes, 2001), or copying a series of actions demonstrated by a model (Over and Carpenter, 2009);
- d) encouraging the integration of specific cooperative activities (Bredenkamp and Coppie, 1997) or joint intentional activities (Schmidt et al., 2019);
- e) proposing activities involving language, such as peer discussions of multifaceted social issues (Recchia and Wainryb, 2022), cooperative communications (Li and Tomasello, 2021), or folk and fairy tales (Lee et al., 2014; Lewin, 2020);
- f) promoting the parent-child picture-book reading (Adrián et al., 2007) and the use of terms or events related to prosociality and morality (Lee et al., 2014);
- g) modeling fairness by presenting infants with animations displaying distributive actions (e.g., Geraci and Surian, 2011) and following consequences, such as rewards and punishments delivered to fair and unfair distributors (Geraci and Surian, 2023b);
- h) proposing methods, such as tales, role-play, and live theater, for improving empathy (Upright, 2002; Rathje et al., 2021).

Notably, several studies emphasize the role of specific training for educators about how to promote moral development in their classrooms (e.g., Bustamante et al., 2021), as well as for parents about how to improve their intuitive parenting style (Essler and Paulus, 2022). Beyond the role of specific training aimed to improve parenting, it is well-known that parents promote children’s moral understanding naturally, since both affective and cognitive components of parents’ interactions with their children may facilitate children’s moral development (Smetana, 1999; Walker, 1999; Tan and Yasin, 2020). Certainly, our proposal emphasizes the role of caretakers, including parents, caregivers, and educators, since through social interactions and communication, the principle of fairness may become more prominent in early moral judgment and behaviors (Smetana, 2006; Rizzo and Killen, 2016; Mammen and Paulus, 2023).

Discussion

As noted above, there is an extensive body of research demonstrating that infants as young as 4 months of age are sensitive to violations of distributive fairness (Buyukozer Dawkins et al., 2019; Geraci and Surian, 2023a). Based on these recent findings on infancy, we endorse an extension of the core-domains view of early cognition, according to which preverbal infants possess abstract concepts about various aspects of the world (Spelke, 1994; Carey, 2009), to the socio-moral domain of fairness (Geraci and Surian, 2011; Buyukozer Dawkins et al., 2020). We emphasize that this is not an “anti-developmental” view and we sketch how early prevention and intervention programs may work to edit

the initial “moral draft” and foster the subsequent growth of moral knowledge.

Concerning the complex relationship between morality and empathy, our proposal supports the view that empathy plays a fundamental role in motivating concern for others and morality (Hoffman, 2001), but we also believe that empathy is not always the best guide for moral judgment (Bloom, 2017). Early educational interventions help infants combine empathy with reasoning, in line with the claim that reasoning is essential to filter and evaluate emotional reactions that guide evaluations and moral decisions (Decety, 2021).

There is no doubt that social interaction plays an important role in prevention and intervention programs. In line with this view, some researchers support that early social interaction is a facilitator of cognitive development since it spurs language acquisition and the development of executive functions (for a review see Morgan et al., 2021). Also, we assume that social interaction may be a significant trigger for moral development by improving explicit representation (Callaghan and Corbit, 2015), short-term memory (Courage and Howe, 2004), and moral judgments (Krebs, 2008; Turiel, 2018; Dahl, 2019). Based on these considerations, we hypothesize that earlier educational intervention may affect some age-related norms in moral development that have been reported by previous developmental researchers (Nucci et al., 2018). For the future, it seems important that infant research on socio-moral development explores the implications for the field of moral education. This could help developmental researchers recognize moral education as a new field of research and early application.

We agree, then, with the many contemporary developmental researchers, as well as ancient philosophers, that proposed an innate basis for human morality, and so a fairness principle. But human nature and morality are complex, and need to be cultivated carefully from infancy (for deep insights on this from Chinese philosopher Mencius, see Lau, 2004). So we find ourselves agreeing also with the French philosopher Jacques Maritain, who wrote “(...) primary aim of education in the broadest sense of this word is to ‘form a man’ or, rather, to help a child of man attain his full formation or his completeness as a man.” (Maritain, 1967, p. 51).

References

- Adrián, J. E., Clemente, R. A., and Villanueva, L. (2007). Mothers’ use of cognitive state verbs in picture-book reading and the development of children’s understanding of mind: a longitudinal study. *Child Dev.* 78, 1052–1067. doi: 10.1111/j.1467-8624.2007.01052.x
- Blake, P. R., McAuliffe, K., Corbit, J., Callaghan, T. C., Barry, O., Bowie, A., et al. (2015). The ontogeny of fairness in seven societies. *Nature* 528, 258–261.
- Bloom, P. (2017). *Against Empathy: The Case for Rational Compassion*. Random House.
- Bredenkamp, S., and Copple, C. (1997). *Developmentally Appropriate Practice in Early Childhood Programs, Revised Edn*. Washington, DC, National Association for the Education of Young Children.
- Bulotsky-Shearer, R. J., Fernandez, V. A., Bichay-Awadalla, K., Bailey, J., Futterer, J., and Qi, C. H. (2020). Teacher-child interaction quality moderates social risks associated with problem behavior in preschool classroom contexts. *J. Appl. Dev. Psychol.* 67, 101103. doi: 10.1016/j.appdev.2019.101103
- Burns, M. P., and Sommerville, J. A. (2014). “I pick you”: the impact of fairness and race on infants’ selection of social partners. *Front. Psychol.* 5:93. doi: 10.3389/fpsyg.2014.00093
- Bustamante, A., Maldonado-Carreño, C., González, O. L., Navia, M. A., Restrepo, E. C., and Torres, D. F. (2021). ‘Who said we play to hit each other?’ Early childhood teachers’ responses to children’s transgressions. *J. Mor. Educ.* 50, 233–249. doi: 10.1080/03057240.2019.1708710
- Buyukozur Dawkins, M., Sloane, S., and Baillargeon, R. (2019). Do infants in the first year of life expect equal resource allocations? *Front. Psychol.* 10, 116. doi: 10.3389/fpsyg.2019.00116
- Buyukozur Dawkins, M., Ting, F., Stavans, M., and Baillargeon, R. (2020). “Early moral cognition: a principle-based approach,” in *The Cognitive Neurosciences, 6th Edn*, eds D. Poeppel, G. R. Mangun, and M. S. Gazzaniga (Cambridge, MA: MIT Press), 7–12. doi: 10.7551/mitpress/11442.003.0005
- Callaghan, T., and Corbit, J. (2015). “The development of symbolic representation,” in *Handbook of Child Psychology and Developmental Science, 7th Edn, Vol. 2*, eds R. M. Lerner, L. S. Liben, and U. Müller (Hoboken, NJ: John Wiley and Sons), 250–295.
- Carey, S. (2009). *The Origin of Concepts*. New York, NY: Oxford University Press. doi: 10.1093/acprof:oso/9780195367638.001.0001
- Carpendale, J. I., Hammond, S. I., and Atwood, S. (2013). A relational developmental systems approach to moral development. *Adv. Child Dev. Behav.* 45, 125–153. doi: 10.1016/B978-0-12-397946-9.00006-3

Author contributions

AG: Conceptualization, Methodology, Project administration, Supervision, Writing—original draft, Writing—review & editing, Investigation, Resources. AS: Conceptualization, Supervision, Writing—original draft, Writing—review & editing, Investigation, Methodology. RA: Writing—review & editing, Writing—original draft. PP: Conceptualization, Supervision, Writing—original draft, Writing—review & editing. LS: Conceptualization, Supervision, Writing—original draft, Writing—review & editing.

Funding

The author(s) declare that no financial support was received for the research, authorship, and/or publication of this article.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

The author(s) declared that they were an editorial board member of Frontiers, at the time of submission. This had no impact on the peer review process and the final decision.

Publisher’s note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

- Chartrand, T. L., and Bargh, J. A. (1999). The chameleon effect: the perception-behavior link and social interaction. *J. Pers. Soc. Psychol.* 76, 893. doi: 10.1037/0022-3514.76.6.893
- Coelho, L., Torres, N., Fernandes, C., and Santos, A. J. (2017). Quality of play, social acceptance and reciprocal friendship in preschool children. *Eur. Early Childh. Educ. Res. J.* 25, 812–823. doi: 10.1080/1350293X.2017.1380879
- Courage, M. L., and Howe, M. L. (2004). Advances in early memory development research: insights about the dark side of the moon. *Dev. Rev.* 24, 6–32. doi: 10.1016/j.dr.2003.09.005
- Dahl, A. (2019). The science of early moral development: on defining, constructing, and studying morality from birth. *Adv. Child Dev. Behav.* 56, 1–35. doi: 10.1016/bs.acdb.2018.11.001
- Dawes, C. T., Fowler, J. H., Johnson, T., McElreath, R., and Smirnov, O. (2007). Egalitarian motives in humans. *Nature* 446, 794–796. doi: 10.1038/nature05651
- Decety, J. (2021). Why empathy is not a reliable source of information in moral decision making. *Curr. Direct. Psychol. Sci.* 30, 425–430. doi: 10.1177/09637214211031943
- DesChamps, T. D., Eason, A. E., and Sommerville, J. A. (2016). Infants associate praise and admonishment with fair and unfair individuals. *Infancy* 21, 478–504. doi: 10.1111/inf.12117
- Dunn, J., and Hughes, C. (2014). “Family talk about moral issues: the toddler and preschool years,” in *Talking About Right and Wrong: Parentchild Conversations As Contexts for Moral Development*, eds C. Wainryb and H. E. Recchia (Cambridge University Press), 21–43. doi: 10.1017/CBO9781139207072.004
- Eisenberg, N., Fabes, R. A., and Spinrad, T. L. (2006). *Handbook of Child Psychology*, Vol. 3. Hoboken, NJ: John Wiley & Sons.
- Essler, S., and Paulus, M. (2022). Caregivers’ everyday moral reasoning predicts young children’s aggressive, prosocial, and moral development: evidence from ambulatory assessment. *Infancy* 27, 1068–1090. doi: 10.1111/inf.12493
- Fisher, R. (2001). Philosophy in primary schools: fostering thinking skills and literacy. *Reading* 35, 67–73. doi: 10.1111/1467-9345.00164
- Freire, P. (1997). *Pedagogy of the Heart*. New York, NY: The Continuum Publishing Company.
- Freire, P. (1998). *Pedagogy of Freedom: Ethics, Democracy and Civic Discourse*. New York, NY: Rowan and Littlefield.
- Freire, P., and Macedo, D. (1987). *Literacy: Reading the Word and the World*. Westport, CT: Bergin and Garvey.
- Geraci, A. (2022). Some considerations for the developmental origin of the principle of fairness. *Infant Child Dev.* 31, e2350. doi: 10.1002/icd.2350
- Geraci, A., Simion, F., and Surian, L. (2022). Infants’ intention-based evaluations of distributive actions. *J. Exp. Child Psychol.* 220, 105429. doi: 10.1016/j.jecp.2022.105429
- Geraci, A., and Surian, L. (2011). The developmental roots of fairness: infants’ reactions to equal and unequal distributions of resources. *Dev. Sci.* 14, 1012–1020. doi: 10.1111/j.1467-7687.2011.01048.x
- Geraci, A., and Surian, L. (2023a). Intention-based evaluations of distributive actions by 4-month-olds. *Infant Behav. Dev.* 70:101797. doi: 10.1016/j.infbeh.2022.101797
- Geraci, A., and Surian, L. (2023b). Preverbal infants’ reactions to third-party punishments and rewards delivered toward fair and unfair agents. *J. Exp. Child Psychol.* 226, 105574. doi: 10.1016/j.jecp.2022.105574
- Haidt, J., and Joseph, C. (2007). The moral mind: how five sets of innate intuitions guide the development of many culture-specific virtues, and perhaps even modules. *Innate Mind* 3, 367–391. doi: 10.1093/acprof:oso/9780195332834.003.0019
- Hamlin, J. K. (2013). Moral judgment and action in preverbal infants and toddlers: evidence for an innate moral core. *Curr. Direct. Psychol. Sci.* 22, 186–193. doi: 10.1177/09637214124270687
- Heyes, C. (2001). Causes and consequences of imitation. *Trends Cogn. Sci.* 5, 253–261. doi: 10.1016/S1364-6613(00)01661-2
- Hoffman, M. (2001). *Empathy and Moral Development: Implications for Caring and Justice*. Cambridge: Cambridge University Press.
- Kohan, W., and Wuensch, A. (1998). *Filosofia Para Crianças: A Tentativa Pioneira de Matthew Limbam*. Petrópolis: Vozes.
- Krebs, D. L. (2008). Morality: an evolutionary account. *Perspect. Psychol. Sci.* 3, 149–172. doi: 10.1111/j.1745-6924.2008.00072.x
- Krettenauer, T. (2021). Moral sciences and the role of education. *J. Moral Educ.* 50, 77–91. doi: 10.1080/03057240.2020.1784713
- Lau, D. C. (2004). *Mencius*. London: Penguin Books.
- Lee, K., Talwar, V., McCarthy, A., Ross, I., Evans, A., and Arruda, C. (2014). Can classic moral stories promote honesty in children? *Psychol. Sci.* 25, 1630–1636. doi: 10.1177/0956797614536401
- Lewin, D. (2020). Between horror and boredom: fairy tales and moral education. *Ethics Educ.* 15, 213–231. doi: 10.1080/17449642.2020.1731107
- Li, L., and Tomasello, M. (2021). On the moral functions of language. *Soc. Cogn.* 39, 99–116. doi: 10.1521/soco.2021.39.1.99
- Lipman, M. (1988). *Philosophy Goes to School*. Philadelphia, PA: Temple University Press.
- Lucca, K., Pospisil, J., and Sommerville, J. A. (2018). Fairness informs social decision making in infancy. *PLoS ONE* 13, e0192848. doi: 10.1371/journal.pone.0192848
- Luen, L. C. (2021). Puppetry activities in early childhood programmes. *Southeast Asia Early Childh. J.* 10, 89–96.
- Mammen, M., and Paulus, M. (2023). The communicative nature of moral development: a theoretical framework on the emergence of moral reasoning in social interactions. *Cogn. Dev.* 66, 101336. doi: 10.1016/j.cogdev.2023.101336
- Maritain, J. (1967). *The Education of Man*. D. Gallagher and I. Gallagher, eds. Notre Dame: University of Notre Dame Press.
- McAuliffe, K., Blake, P. R., Steinbeis, N., and Warneken, F. (2017). The developmental foundations of human fairness. *Nat. Hum. Behav.* 1, 0042. doi: 10.1038/s41562-016-0042
- Milani, L. (2017). *Tutte le Opere*. Milano: Mondadori.
- Milani, L., and Scuola di Barbiana (1967). *Lettera a Una Professoressa*. Firenze: Libreria Editrice Fiorentina.
- Morgan, G., Curtin, M., and Botting, N. (2021). The interplay between early social interaction, language and executive function development in deaf and hearing infants. *Infant Behav. Dev.* 64, 101591. doi: 10.1016/j.infbeh.2021.101591
- Nucci, L. (2016). Recovering the role of reasoning in moral education to address inequity and social justice. *J. Moral Educ.* 45, 291–307. doi: 10.1080/03057240.2016.1167027
- Nucci, L., and Turiel, E. (2009). Capturing the complexity of moral development and education. *Mind Brain Educ.* 3, 151–159. doi: 10.1111/j.1751-228X.2009.01065.x
- Nucci, L., Turiel, E., and Roded, A. D. (2018). Continuities and discontinuities in the development of moral judgments. *Hum. Dev.* 60, 279–341. doi: 10.1159/000484067
- Over, H., and Carpenter, M. (2009). Priming third-party ostracism increases affiliative imitation in children. *Dev. Sci.* 12, F1–F8. doi: 10.1111/j.1467-7687.2008.00820.x
- Rai, T. S., and Fiske, A. P. (2011). Moral psychology is relationship regulation: moral motives for unity, hierarchy, equality, and proportionality. *Psychol. Rev.* 118, 57. doi: 10.1037/a0021867
- Rakoczy, H., Kaufmann, M., and Lohse, K. (2016). Young children understand the normative force of standards of equal resource distribution. *J. Exp. Child Psychol.* 150, 396–403. doi: 10.1016/j.jecp.2016.05.015
- Rathje, S., Hackel, L., and Zaki, J. (2021). Attending live theatre improves empathy, changes attitudes, and leads to pro-social behavior. *J. Exp. Soc. Psychol.* 95, 104138. doi: 10.1016/j.jesp.2021.104138
- Recchia, H., and Wainryb, C. (2022). “The role of conversations in moral development,” in *Handbook of Moral Development* (Routledge), 357–372. doi: 10.4324/9781003047247-28
- Remer, R., and Tzuriel, D. (2015). “I teach better with the puppet”–Use of puppet as a mediating tool in Kindergarten Education–An evaluation. *Am. J. Educ. Res.* 3, 356–365. doi: 10.12691/education-3-3-15
- Rizzo, M. T., and Killen, M. (2016). Children’s understanding of equity in the context of inequality. *Br. J. Dev. Psychol.* 34, 569–581. doi: 10.1111/bjdp.12150
- Schmidt, M. F., Rakoczy, H., and Tomasello, M. (2019). Eighteen-month-old infants correct non-conforming actions by others. *Infancy* 24, 613–635. doi: 10.1111/inf.12292
- Schmidt, M. F., and Sommerville, J. A. (2011). Fairness expectations and altruistic sharing in 15-month-old human infants. *PLoS ONE* 6, e23223. doi: 10.1371/journal.pone.0023223
- Sloane, S., Baillargeon, R., and Premack, D. (2012). Do infants have a sense of fairness? *Psychol. Sci.* 23, 196–204. doi: 10.1177/0956797611422072
- Smetana, J. G. (1999). The role of parents in moral development: a social domain analysis. *J. Moral Educ.* 28, 311–321. doi: 10.1080/030572499103106
- Smetana, J. G. (2006). “Social-cognitive domain theory: consistencies and variations in children’s moral and social judgments,” in *Handbook of Moral Development*, eds M. Killen and J. G. Smetana (Mahwah, NJ: Erlbaum), 119–153.
- Spelke, E. S. (1994). Initial knowledge: six suggestions. *Cognition* 50, 431–445. doi: 10.1016/0010-0277(94)90039-6
- Strid, K., and Meristo, M. (2020). Infants consider the distributor’s intentions in resource allocation. *Front. Psychol.* 11, 596213. doi: 10.3389/fpsyg.2020.596213
- Tan, W. N., and Yasin, M. (2020). Parents’ roles and parenting styles on shaping children’s morality. *Univ. J. Educ. Res.* 8, 70–76. doi: 10.13189/ujer.2020.081608

- Tomasello, M. (2018). The normative turn in early moral development. *Hum. Dev.* 61, 248–263. doi: 10.1159/000492802
- Turiel, E. (2018). Moral development in the early years: when and how. *Hum. Dev.* 61, 297–308. doi: 10.1159/000492805
- Upright, R. L. (2002). To tell a tale: the use of moral dilemmas to increase empathy in the elementary school child. *Early Childh. Educ. J.* 30, 15–20. doi: 10.1023/A:1016585713774
- Walker, L. J. (1999). The family context for moral development. *J. Moral Educ.* 28, 261–264. doi: 10.1080/030572499103061
- Woo, B. M., Tan, E., and Hamlin, J. K. (2022). Human morality is based on an early-emerging moral core. *Annu. Rev. Dev. Psychol.* 4, 41–61. doi: 10.1146/annurev-devpsych-121020-023312
- Yoo, H. N., and Smetana, J. G. (2022). Distinctions between moral and conventional judgments from early to middle childhood: a meta-analysis of social domain theory research. *Dev. Psychol.* 58, 874. doi: 10.1037/dev0001330
- Ziv, T., and Sommerville, J. A. (2017). Developmental differences in infants' fairness expectations from 6 to 15 months of age. *Child Dev.* 88, 1930–1951. doi: 10.1111/cdev.12674
- Ziv, T., Whiteman, J. D., and Sommerville, J. A. (2021). Toddlers' interventions toward fair and unfair individuals. *Cognition* 214, 104781. doi: 10.1016/j.cognition.2021.104781