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Report

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FINAL REPORT

Towards a better understanding of the development of non-cognitive skills in children

1 General Information

DFG reference numbers: SCHI 1377/1-1 and SCHI 1377/1-2

Project number: 392529304

Project title: “Towards a better understanding of the development of non-cognitive skills in children: Malleability, sensitive periods, typical trajectories and transmission within the family” and “Towards a better understanding of the development of non-cognitive skills in children: The role of parents, local environment and exogenous shocks”

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2 Summary

Non-cognitive skills are key predictors of central life outcomes such as educational attainment, earnings and health outcomes. Despite their fundamental importance, we know surprisingly little about how these skills form. This project advances our understanding of the formation of non-cognitive skills in childhood and adolescence. In defining non-cognitive skills, we adopt an interdisciplinary approach that encompasses both economic preferences and personality traits. Skill measurement relies on incentivized experiments and validated survey scales. By combining the collection of four waves of panel data on non-cognitive skills of 3,000 whole families with a randomized controlled trial, we provide causal evidence on investments as possible drivers of skill formation on top of cutting-edge descriptive evidence. Children in 135 elementary schools in Bangladesh were randomly assigned to participation in the social and emotional learning program Lions Quest (LQ) that is designed to enhance children’s non-cognitive skills.

Using the model of skill formation as a common underlying theoretical framework, our findings on skill formation between age 6 and 18 include the following: Participation in LQ in-

creases children's self-control and prosociality. Our results indicate sensitive periods in the formation of self-control and patience around ages 7-9; prosociality is similarly malleable throughout ages 7-11. Participation in LQ also increases children's educational attainment, which in part seems to operate through improving LQ teachers' teaching style. Using our panel data, we go beyond previous cross-sectional evidence by studying the dynamic, within-individual development of children's preferences over time. We provide first evidence on self-productivity and cross-fertilization of children's preferences. We demonstrate that parents' mental health, their parenting style and investments into children are important sources of the substantial heterogeneity in children's preference trajectories. Based on a novel experimental measure of parental paternalism, we show that most parents interfere paternalistically in their children's intertemporal decision-making to (effectively) mitigate their present bias. Finally, our results highlight the importance of the local environment beyond the family for the formation of children's preferences. We find that adverse shocks such as natural catastrophes can reverse the typical age trajectory of patience, challenging the common notion that patience universally increases as children grow. Using spatial autoregressive models and Kriging, we show that models with spatial components explain a considerable part of so far unexplained variation in children's preferences. In sum, our findings promote basic research on the formation of non-cognitive skills and offer advice to parents, teachers and policy makers on how to foster the development of children's skills.

Aktuelle Forschung verdeutlicht, dass nicht-kognitive Fähigkeiten starke Vorhersagekraft für zentrale Lebensergebnisse wie Bildungs- und beruflichen Erfolg oder Gesundheit besitzen. Trotz ihrer enormen Bedeutung ist aber weitgehend unerforscht, wie nicht-kognitive Fähigkeiten in Kindheit und Jugend entstehen. Hier setzt unser Projekt an. Die zugrundeliegende Definition nicht-kognitiver Fähigkeiten umfasst dabei sowohl Zeit-, Risiko- und soziale Präferenzen als auch Persönlichkeitseigenschaften, die wir mit incentivierten Experimenten und validierten Fragebogenmaßen messen. Die Kombination aus 4 Wellen Paneldaten zu den nicht-kognitiven Fähigkeiten 3.000 ganzer Familien und einem kontrolliert randomisierten Experiment ermöglicht es, innovative deskriptive und kausale Evidenz zur Rolle von Investitionen für die Herausbildung von nicht-kognitiven Fähigkeiten im Alter von 6 bis 18 Jahren bereitzustellen. Kinder aus 135 Grundschulen in Bangladesch wurden zufällig der Teilnahme am Programm Lions Quest (LQ) zugeordnet, das darauf abzielt, ihre nicht-kognitiven Fähigkeiten zu fördern.

Auf der Grundlage des Modells zur Entstehung von Fähigkeiten von Heckman und Koautoren haben wir u.a. folgende Forschungsergebnisse gewonnen: Die Teilnahme an LQ erhöht neben dem Lernerfolg auch die Selbstkontrolle und Prosozialität der Kinder. Das Alter von 7-

9 stellt eine sensitive Periode für die Entwicklung von Selbstkontrolle und Geduld dar, während Prosozialität über die gesamte Grundschulzeit hinweg in ähnlichem Ausmaß formbar ist. Die Paneldatenanalyse erlaubt es, jenseits der bisherigen Querschnittsanalysen die dynamische Entwicklung der Präferenzen von Kindern auf individueller Ebene zu untersuchen. So stellen wir erste Evidenz zur Selbstproduktivität und gegenseitigen Förderung von ökonomischen Präferenzen der Kinder bereit. Wir zeigen, dass die mentale Gesundheit der Eltern, ihr Erziehungsstil und ihre Investitionen in ihre Kinder wichtige Ursachen für deren unterschiedliche Präferenzentwicklung sind. Mit Hilfe eines neuen experimentellen Maßes für elterlichen Paternalismus dokumentieren wir, dass die Mehrheit der Eltern in die intertemporalen Entscheidungen ihrer Kinder eingreift, um deren Gegenwartsverzerrung (effektiv) abzumildern. Wir zeigen außerdem, wie wichtig die lokale Umgebung jenseits der Familie für die Präferenzentwicklung der Kinder ist. Negative Shocks wie Naturkatastrophen können das typische Entwicklungsmuster einer mit dem Alter zunehmenden Geduld ins Gegenteil verkehren. Empirische Modelle, die räumliche Komponenten berücksichtigen, erklären einen großen Anteil der bisher unerklärten Variation in den Präferenzen der Kinder. Die neuen Einsichten unseres Forschungsprogramms bringen nicht nur die Grundlagenforschung zur Entstehung nicht-kognitiver Fähigkeiten entscheidend voran, sondern bieten auch Eltern, Lehrern und Politikern Hilfestellung, wie sie die Entwicklung nicht-kognitiver Fähigkeiten bei Kindern und Jugendlichen unterstützen können.

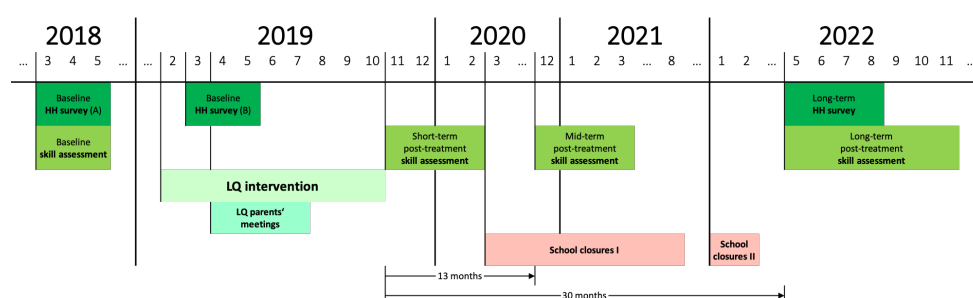
3 Progress Report

Background and objectives of the project. Our project aimed at substantially advancing our understanding of the formation of non-cognitive skills in childhood and adolescence. Such knowledge can help to contribute to a brighter future of children and society as a whole through enhancing children's life outcomes.

The **objectives** of the first funding period were to analyze the malleability of non-cognitive skills via the social and emotional learning (SEL) program LQ (research question RQ1), to investigate sensitive periods and multiplier effects in the process of skill formation (RQ2), to provide first evidence on individual trajectories in the development of economic preferences (RQ3) and to offer new insights on the transmission of skills within the whole family (RQ4). In the second funding period, we investigated the role of parental and public investments as well as shocks in shaping children's skills: in particular, the importance of local environment beyond the family (RQ5), whether unanticipated, exogenous shocks leave an imprint on children's skills (RQ6) and the role of cognitive scarcity for parental investments in their children (RQ7). Moreover, we extended the set of measured skills to incorporate empirically under-

studied skills that feature prominently in behavioral economic theory: sophistication and naiveté regarding own self-control (RQ8) and higher order risk preferences (HORP) (RQ9).

Data collection (incl. timeline and quality-enhancing measures). Significant advancement of our knowledge on skill formation requires data that go beyond existing data sets. As planned, we have been able to collect a data set on non-cognitive skills and IQ that is unique in several respects. First, it spans childhood, adolescence and young adulthood (age 6 to 18), covering the whole period of life that is critical for skill formation. We followed an interdisciplinary and multi-method approach in defining non-cognitive skills: the elicited skills encompass both economic preferences (time, risk and social preferences) and personality traits (Big Five, locus of control, self-control, self-esteem). Second, the data set is groundbreaking by covering up to four family members, using age-adapted measurement tools of the same skills for one or two siblings and both parents. Third, the data's panel dimension allows investigating multiplier effects in the dynamic process of children's skill formation. We have successfully collected four waves of data ("skills assessments" in the timeline below). Fourth, sample size is large. In 2018, we collected data from 4,850 children and 5,109 parents in 3,000 households. We took several measures (such as following households that had moved) to keep attrition low. Fifth, the data set combines the collection of panel data with a randomized controlled trial (RCT) such that we can analyze the malleability of non-cognitive skills via a randomly assigned investment–participation in Lions Quest Skills for Growing, an SEL program instructed at school. This allows providing causal evidence on investments as a possible driver of children's skill formation on top of cutting-edge descriptive evidence.



The data were collected in four districts of Bangladesh (Netrokona, Sunamganj, Chandpur, Gopalganj). 11 sub-districts were chosen based on the availability of NGOs willing to execute later payments to participants. 150 villages were randomly drawn from the sub-districts. In each of the 150 villages that are served by 135 public primary schools, we randomly sampled 20 students using class lists, 5 students from grade 2 to 5 each. We conducted a computer-assisted household survey with their parents that covered socio-demographics, income, expenditures, employment, land ownership, credits savings, assets, health and shocks. This survey was repeated successfully in 2019 and 2022 (see timeline), a further one had to be

interrupted before completion in March 2020 due to Covid-19. In order not to exceed participants' attention span, we measured IQ and non-cognitive skills only after a time lag, via paper-and-pencil interviews. The lower age bound of 6 years ensured that children were able to understand the survey questions and experiments. If a family had more than one child aged 6 to 16 years in 2018, a second child was randomly selected for the skill measurement.

Measurement tools were implemented as explained in the grant proposal. Our multi-method measurement approach for non-cognitive skills combined incentivized experiments and validated survey scales. We used control questions to verify that participants understood the experimental instructions, carefully pre-tested all items in our context and adapted them to the children's age range. Additionally, we measured children's IQ, trust, life satisfaction, savings and participation in risky behaviors. Parents answered a questionnaire on their parenting style and scarcity, they assessed their children's personality traits, strengths and difficulties and provided information on child outcomes (grades at school, studying behavior, working or helping with household duties). We have enriched our data by collecting children's exam results in 2019, information on schools and teachers in 01-02/2020 and by conducting standardized tests in math and Bengali in 12/2019. A collection of exam results and student-teacher matching for further pre- and post-intervention years is ongoing.

A local, specialized and experienced survey firm (Evaluation and Consulting Services Ltd., ECONS) managed the whole data collection process including recruitment and training of interviewers, survey logistics and data entry. At least one member of our project team supported ECONS in each interviewer training and supervised them at the start of the field period in Bangladesh. All data collection took place at the household premises and interviews and experiments were conducted with children and parents on a one-to-one basis. We ensured that members of the same household did not influence each other's decisions.

We have complemented our rich panel data with the LQ RCT (pre-registration: ID AE-ARCTR-0003129) to be able to provide causal evidence on investments as possible drivers of skill formation. We randomly chose 69 of the 135 elementary schools in our sample to integrate the LQ program into the school curriculum. LQ is a promising investment to study as it is designed to enhance children's non-cognitive skills (<https://www.lionsquest.org/elementary-social-and-emotional-learning/>). Among others, the program addresses self-control, patience, goal-setting, cooperative behavior, empathy, perspective-taking, relationship skills, avoidance of overly risky behaviors and self-confidence. Implemented in more than 90 countries, LQ is one of the most widely used SEL programs in the world. However, its impact had not yet been rigorously and comprehensively evaluated. In order to fit the school year in Bangladesh, we opted for the 28-week schedule with one LQ lesson per week. Lessons took place in the classroom of grades 2 to 5 (children aged 7-11) between 1-

11/2019. Since LQ had not yet been implemented in Bangladesh before, local professionals translated the LQ materials and adapted them to the local context. Lions Clubs Bangladesh and International supported our initiative and provided funds for program implementation (including teacher training, translation and distribution of materials). Our intervention was only feasible due to support by the Ministry of Primary and Mass Education of Bangladesh which instructed teachers to teach LQ and organized several teacher meetings with district officials to keep teacher motivation high. We hired four local research assistants to monitor and support the implementation. They visited treatment and control schools regularly.

Description of findings. Below, I summarize the project-specific results paper by paper, matching papers to the initial research objectives. Papers labelled as “bonus” emerged on top of the planned subprojects while working on the overall project.

In *The Right Timing Matters: Sensitive Periods in the Formation of Socio-Emotional Skills* (Breitkopf, Chowdhury, Kamhöfer, Schildberg-Hörisch, Sutter; RQ1&2; DP), we propose a novel approach to learn about sensitive periods in the formation of non-cognitive skills in which returns to investments into skills are especially high. In particular, as part of our RCT, we implement the same investment, the LQ program, in different school grades and study grade-specific treatment effects on children’s skills. Our results indicate sensitive periods in the formation of self-control and patience in grade 2 (ages 7-9), while prosociality appears to be similarly malleable throughout grades 2 to 5 (ages 7-11). Identifying sensitive periods is crucial for an efficient timing of parental or public investments aimed at fostering children’s skills.

The Effects of a Large-scale Social and Emotional Learning Program on Students’ Educational Attainment (Breitkopf, Chowdhury, Kamhöfer, Schildberg-Hörisch, Sutter; bonus; work in progress; 4 external presentations): Analyzing the causal effects of the LQ program, we show that an intervention targeting children’s non-cognitive skills can also have a substantial, positive impact on their educational attainment. Participation in LQ increases children’s performance by about 20 percent of a standard deviation, both for teacher-graded exams and centrally administered and graded achievement test scores. Potential mechanisms are a significant increase in children’s self-control and an improvement in the LQ teachers’ teaching style.

The Formation of Economic Preferences (Bertermann, Breitkopf, Chowdhury, Schildberg-Hörisch, Sutter; RQ3; work in progress, 8 external presentations): We use our unique panel data on children’s time, risk and social preferences to study preference formation before the onset of adulthood. We go beyond previous cross-sectional evidence by studying the dynamic, within-individual development of children’s preferences over time, demonstrating prefer-

ence persistence already at young ages. Building on the model of skill formation (Cunha and Heckman 2007), we provide first evidence on self-productivity and cross-fertilization of children's preferences and IQ. Moreover, we demonstrate that family members, parental investments and local shocks are important sources of the substantial heterogeneity in children's preference trajectories.

Parental Paternalism and Patience (Kiessling, Chowdhury, Schildberg-Hörisch, Sutter; RQ4, financed through MPI funds; DP, *conditionally accepted at Journal of Public Economics*): Quantitative evidence on the extent of paternalism within families is scarce. We design a novel measure to study whether and how parents interfere paternalistically in their children's intertemporal decision-making. In an experiment, we find that more than half of all parents are willing to pay money to override their children's choices in order to mitigate the (correctly anticipated) level of children's present bias. The extent of parental paternalism is strongly related to parenting styles and we discuss how it interacts with the intergenerational transmission of patience.

Spatial Patterns in the Formation of Economic Preferences (Chowdhury, Puente-Beccar, Schildberg-Hörisch, Schneider, Sutter; RQ5; DP): We investigate whether and how strongly the local environment beyond the family contributes to the formation of children's economic preferences. Building on precise geolocation data for each family, we use fixed effects, spatial autoregressive models and Kriging to capture the relation between the local environment and children's preferences. We show that models with spatial components explain a considerable part of so far unexplained variation in children's preferences. The "spatial stability" of preferences exceeds the village level. Our results highlight the importance of the local environment for children's preference formation, which we quantify to be as large as that of parental preferences.

Growing Up in Uncertainty: Shocks and the Age Profile of Patience (Bertermann, Breitkopf, Chowdhury, Schildberg-Hörisch, Sutter; RQ6; work in progress, one poster presentation): We study how environmental stability shapes the development of patience from childhood to early adulthood. Using our panel data from Bangladesh, a country highly vulnerable to natural disasters, we document a declining age profile of patience between ages 7-18—in sharp contrast to the increasing trajectory consistently observed in high-income settings. We show that exposure to negative shocks significantly reduces patience and is responsible for the overall negative age trend. To assess the generalizability of our findings, we analyze variation in shock exposure within Germany following a major flood in 2013. In both contexts, our results reveal that adverse shocks can flatten—or even reverse—the typical age trajectory of patience. These findings challenge that patience universally increases in age and underscore the critical role of environmental stability in shaping time preference. While we find similar

patterns for the “Covid shock” as for natural disasters, we have decided to focus on the latter due to our perception that there is fatigue regarding Covid-related research.

Do Economic Preferences of Children Predict Behavior? (Breitkopf, Chowdhury, Priyam, Schildberg-Hörisch, Sutter; bonus; DP): We study whether children’s time, risk and social preferences predict their behavior. Results from standard regression specifications demonstrate the predictive power of children’s preferences for their prosociality, educational achievement, risky behaviors, emotional health and behavioral problems. In a second step, we add rich information on socio-economic status, parental preferences and IQ, parenting style, family structure and religion to capture household environment. As a result, the predictive power of preferences for behavior attenuates. We discuss implications of our findings for research on the formation of children’s preferences and behavior.

Nurturing the Future: How Positive Parenting Is Related to Children’s Skills and Well-Being (Breitkopf, Chowdhury, Priyam, Schildberg-Hörisch, Sutter; bonus; DP): Studying the relationship between parenting style and children’s skills and outcomes, we find that children exposed to positive parenting have higher IQs, are more altruistic, open to new experiences, conscientious and agreeable, have a higher locus of control, self-control and self-esteem, perform better in scholarly achievement tests, behave more prosocially and are more satisfied with their life. Positive parenting is negatively associated with children’s neuroticism, patience, engagement in risky behaviors, their emotional and behavioral problems.

Parental Mental Health and the Economic Preferences of the Next Generation (Bertermann, Schildberg-Hörisch; bonus; work in progress): This paper provides the first evidence that children’s economic preferences vary systematically with parental mental health. We document that children with parents affected by mental illness are less prosocial but more patient than their peers with mentally healthy parents. Attitudes toward risk remain unchanged. Potential pathways through which parental mental health may influence preference formation are that children with mentally ill parents assume greater responsibilities within the family, experience less parental involvement and are exposed to more adverse home environments.

Information Provision over the Phone Saves Lives: An RCT to Contain Covid-19 in Rural Bangladesh at the Pandemic’s Onset (Chowdhury, Schildberg-Hörisch, Schneider, Sutter; bonus; financed through MPI funds; DP, *reject and resubmit JPE Micro*): Lack of information about Covid-19 may have contributed to excess mortality at the pandemic’s onset. In 3-4/2020, we implemented an RCT with the about 3,000 households in our sample. Our one-to-one information campaign via phone stressed the importance of social distancing and hygiene measures and illustrated the consequences of an exponential spread of Covid-19. We find that information provision improves knowledge about Covid-19 and induces significant behavioral changes. Information provision also yields considerably better health outcomes,

most importantly by reducing the number of reported deaths by about 50% in treated villages.

Regarding RQ7-9, we measured parental scarcity (via a novel, 5-item survey scale), sophistication about own self-control problems and HORP for all children and a subset of their parents in our sample in wave 4 of our data collection as planned. For all three outcomes, we have run first analyses that yield promising results. For example, we document that (i) the novel scarcity scale has good test properties (Cronbach's alpha = 0.76), (ii) parents with low income, expenditures or who live below the poverty line score higher on scarcity and (iii) controlling for income and IQ, parental scarcity predicts lower time and material investments into children, lower parental life satisfaction, mental health and higher debt. We believe that our novel measure can advance our knowledge about the implications of scarcity and be implemented in other samples in future research. Due to the work on the five "bonus" papers, the papers addressing RQ7-9 are still early work in progress to be completed in the future.

Contributions by team member: The **PI** has developed the research agenda, is steering the project from design to delivery, has contributed to the methodological approach, managed the research process, overseen the data management and guided the data analysis. Jointly with **Matthias Sutter** (cooperation partner), the PI is responsible for the intellectual leadership and writing papers. **Shyamal Chowdhury** (Mercator Fellow) was mainly responsible for steering the fieldwork in Bangladesh. Originally from Bangladesh, he possesses indispensable expertise on cultural and local conditions. As planned, the PI has stayed at the University of Sydney for 4 weeks in 2019 and Shyamal Chowdhury in Düsseldorf/Bonn in 01/2020 and 10/2024 for intense collaboration. **Laura Breilkopf** has been involved into the project from its very start (after the funding was granted) until today. She has played a key role in the final design of questionnaires and experiments, supervision of data collections, initial interviewer training in Bangladesh, implementing the LQ RCT, data cleaning, documentation and management, general project management, contributions to data analysis, paper writing and dissemination activities. As of today, she is a coauthor of six project-related research papers. The **further coauthors** have joined for specific papers, contributing to conceptualization, data analysis and writing of papers. The **student assistants** provided organizational support, assisted in conducting literature reviews and helped preparing the research data for long-term archiving.

Deviations from the original concept. Overall, the project's implementation closely followed the original concept sketched in the grant application. We additionally seized the opportunities provided by our unique data set and infrastructure financed through the grant to approach additional promising research questions in a speedy manner and at lower cost than

usual, see the bonus papers described above. The Covid-19 pandemic posed a major challenge to the project. Wave 3 (mid-term, post-treatment) skill assessment had to be postponed, the corresponding household survey was interrupted after 1/3 of households had been interviewed in 3/2020. Covid-19 was also very disruptive to children's school life. Schools were closed for about 20 months in total and some of the older children, in particular boys, did not return to school when schools re-opened but had started working. We decided to collect only one further wave of panel and long-term, post-treatment data in 2022 since the massive "Covid-shock" hinders an interpretation of the data as a pure follow-up. We reallocated some money to collect information on children's school performance (design, collection and grading of achievement tests in Bengali and math, collection of exam scores), information on student-teacher matching, teachers' teaching style and schooling during Covid-19.

Handling of research data generated in the project. The corresponding information is contained in the separately provided "Datenschutzsicherheitskonzept" that was set up for this project. Under the guidance of the PI, Laura Breitskopf has devoted substantial time to ensure an adequate handling of the research data and to prepare a detailed data documentation that will facilitate the reuse of the data by external users as soon as the corresponding papers are published. The PI is responsible for curating the data after the end of the project. The substantial measures we have taken to ensure high data quality have already been documented in response of DFG's query during the application process for the second grant.

Science communication measures. The whole project team (including all coauthors) presented the project results at about 88 national and international conferences and invited presentations (PI: 16 presentations). We were also active in communicating our findings to the general public, as reflected in seven newspaper articles (3 x FAZ, 4 x Rheinische Post; 4 initiated by PI), two radio broadcasts (Deutschlandfunk Nova (PI), rbb radioeins) and one report in TV (ARD alpha Campus Talk). The PI also presented the results on sensitive periods as part of her general research agenda on self-control at the Neujahrsempfang of HHU Düsseldorf, HHU Hochschulradio, Haus der Universität and to Düsseldorfer Jonges. Finally, we shared the evaluation results regarding the LQ program with the Directorate of Primary Education in Dhaka, Bangladesh and the Lions Club in Düsseldorf.

Bibliography

Cunha, F. and J. J. Heckman. 2007. "The Technology of Skill Formation." *American Economic Review* 97 (2): 31–47.

4 Published Project Results

Discussion papers

1. Breitkopf, L., S. Chowdhury, D. Kamhöfer, H. Schildberg-Hörisch and M. Sutter (2025). The Right Timing Matters: Sensitive Periods in the Formation of Socio-Emotional Skills, IZA DP 17974, ISSN 2365-9793.
2. Kiessling, L., S. Chowdhury, H. Schildberg-Hörisch and M. Sutter (2021). Parental Paternalism and Patience, IZA DP 14030, ISSN 2365-9793.
3. Chowdhury, L., H. Schildberg-Hörisch, S. Schneider and M. Sutter (2022). Information Provision over the Phone Saves Lives: An RCT to Contain COVID-19 in Rural Bangladesh at the Pandemic's Onset, IZA DP 15768, ISSN 2365-9793.
4. Breitkopf, L., S. Chowdhury, S. Priyam, H. Schildberg-Hörisch and M. Sutter (2024). Do Economic Preferences of Children Predict Behavior? IZA DP 16834, ISSN 2365-9793.
5. Breitkopf, L., S. Chowdhury, S. Priyam, H. Schildberg-Hörisch and M. Sutter (2024). Nurturing the Future: How Positive Parenting is Related to Children's Skills and Well-being, IZA DP 17336, ISSN 2365-9793.
6. Chowdhury, S., M. Puente-Beccar, H. Schildberg-Hörisch, S. Schneider and M. Sutter (2025). Spatial Patterns in the Formation of Economic Preferences, Max Planck Institute for Research on Collective Goods Discussion Paper 2025/10, <https://hdl.handle.net/21.11116/0000-0011-69FB-D>.