Research Statement

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My research considers the fact that choices taken by families and their members are often influenced by their endowments and personal attributes, as well as by external, exogenous factors. These household choices are closely linked to policy-relevant household dynamics and outcomes, such as consumption and savings, labor supply and time allocation, household formation and dissolution, fertility and child development, gender inequality, and intergenerational mobility. To date, I have studied how personal attributes, particularly non-cognitive skills within households, act as powerful drivers of life outcomes, including child development. Additionally, I have investigated how technological change, by reshaping labor market dynamics, may influence household behavior. As detailed below, I intend to extend my current research in several areas. To address my empirical questions, I have grounded my analysis in economic theory and employed a broad and versatile toolkit of methods, including structural econometrics, quantitative modeling, and causal inference techniques.

Central to my research agenda is modeling behavior within a sound economic framework, the econometric identification closely tied to empirical data, and formulating policy implications aimed at equalizing opportunities. My primary expertise lies in parametrically modeling household behavior using both unitary and collective structural models, within either static or dynamic frameworks. I have proficiently endogenized key life cycle elements, including household formation and divorce in marriage markets with frictions, intrahousehold bargaining, and the formation of child skills. Throughout my PhD thesis, I have used various techniques for identifying and estimating these models, such as control function approaches, value function iteration, and analytical solution methods. I have complemented this expertise with the empirical modeling of collective household behavior within a nonparametric revealed preference analysis. In related work, I have further developed my empirical expertise by analyzing labor markets using causal inference techniques in static settings, where firms operate in competitive markets. During my research, I have worked with several publicly available datasets, including PSID (US), NLSY (US), HILDA (Australia), LISS (Netherlands), CIS (Germany), MEqIn (Belgium), CASEN (Chile), and EPS (Chile).

1. Personal Attributes, Non-Cognitive Skills, and Household Dynamics

My PhD thesis studies how family life cycle dynamics are influenced by their household members' non-cognitive skills. In my Job Market Paper (JMP), I investigate the impact

of parental personality skills on child outcomes throughout the life cycle.[1] I show that the productivity of these skills in both the labor market and childrearing activities has long-lasting effects on the endogenous formation of a child's cognitive and non-cognitive skills. My JMP builds on earlier chapters of my PhD thesis, where I examine the role of non-cognitive skills in aspects related to bargaining, marital stability, and home production. First, I show that non-cognitive skills can affect family behavior by altering preferences and intrahousehold bargaining power in a static collective framework.[2] Second, in collaboration with Mariia Kovaleva, we explore the mechanisms driving this effect in a dynamic setting with endogenous marriage, suggesting that personality influences preferences for marital stability, home production, and labor market outcomes.[3] This set of papers highlights the important role that non-cognitive skills play not only in labor market outcomes but in household dynamics associated with the distribution of power between men and women, marriage market outcomes, and the development of children.

I plan to extend this research in several ways. For example, my current analysis does not account for the effects of divorce or unstable marriages on child development. A key priority in the coming years is to integrate my JMP—which assumes household formation as given—into a dynamic collective model where choices are made under limited commitment. This integration will help us understand, e.g., whether the personality of single parents can compensate for the potential lack of economic resources that children might experience in single-parent households. My JMP does not consider the possibility of parental personality being endogenous to a child's behavior, something which I am interested in exploring further. More broadly, I aim to leverage my accumulated expertise to investigate how other personal attributes and endowments affect household dynamics. For instance, in collaboration with my advisor Laurens Cherchye, we are interested in looking at how the economic and non-economic gains of stable marriages are independently explained by individual characteristics using a revealed preference nonparametric approach.[4] Additionally, with Leonardo Cáceres, I am working to understand how preferences for income redistribution contribute to trends in household income inequality. Other potential extensions of this research include studying prenatal household behavior and child development, the intergenerational transmission of skills within a dynastic framework, and the implications for income inequality arising from the increase in the number of same-sex couples.

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[1]Job market paper available here.
[2]Working paper available here.
[3]Working paper available here.
[4]Abstract available here.

2. Exogenous Shocks, Labor Markets, and Household Dynamics

Household behavior is influenced not only by the personal attributes and endowments of family members but also by exogenous factors such as technological change. In a series of papers conducted alongside my PhD thesis, in collaboration with Paolo Carioli, Dirk Czanirtzki, Bettina Peters, and Christian Rammer, I have investigated how artificial intelligence and digital technologies influence labor market dynamics. First, we show that the adoption of these technologies by firms significantly affects their productivity,[5] likely due to increased levels of research and innovation.[6] Second, the adoption of these new technologies is associated with an increase in labor demand, particularly for middle-class workers or those with non-elite skills.[7] I plan to extend this research by examining in greater depth the skills premium that recent technologies generate compared to those from previous technological advancements.

I also intend to integrate my research on labor market dynamics resulting from recent technological changes into the analysis of household life cycle behavior. First, technological shocks can influence the allocation of time between market and non-market activities within households, e.g., due to job displacement or the adoption of flexible work arrangements. Leveraging my expertise in collective labor supply models, I plan to examine the implications of these shocks for intrahousehold bargaining power and gender asymmetries in resource allocation. Second, the widespread adoption of new technologies may boost families to make human capital investment decisions throughout their life cycles. In collaboration with Marcos Balmaceda, we plan to investigate the effects of these investment decisions on female labor supply and dynamics within households. We aim to achieve this by incorporating variation from a randomized controlled trial on a prompt engineering training program for middle-class female entrepreneurs within a structural household model. Finally, as the labor market becomes more technologically integrated, households may increasingly adopt new automation technologies through a propagation effect. This framework would enable the study of how household adoption of new technologies impacts the skills formation of children and teenagers.

My research agenda also includes the study of other external shocks that can influence household dynamics, such as changes in marital legislation. In collaboration with Valeria Cordova and Wietse Leleu, we are examining the effects of the Chilean law "Acuerdo de Unión Civil," which grants legal rights to cohabiting individuals. We analyze how the variation introduced by the law affects household insurance and female labor supply, by incorporating exogenous changes in relationship transitions into a dynamic collective structural model that accounts for endogenous household formation and separation.

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[5]Published article available here.
[6]Published article available here.
[7]Working paper available here.