Who actually decides? Family networks in housing market choices in the Czech Republic

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Abstract

After 1990 a dramatic rise in homeownership was observed in post-socialist countries. Recent research in the Czech Republic confirmed the existence of a housing social norm that deems homeownership the superior form of housing tenure. This paper describes the role of social networks, and the family network in particular, on the reproduction of this norm and demonstrates that home-buying decisions are path dependent and socially framed. The paper draws on findings from qualitative, quantitative and experimental studies. The results confirm that tenure and home-buying decisions are determined by inherited patterns of family wealth transfer, implicit socialisation and the familial nature of housing preferences. The findings help to explain housing market rigidity and market agents' systemic deviations from economic rationality in housing systems with sharply increasing homeownership rate.

Introduction

Sociological approaches to explaining the behaviour of market agents have attracted the wider attention of housing researchers in recent years (Christie et al. 2008, Meen & Meen 2003, Munro & Madigan 1998, Shiller 2003). The aim is to explain the irrational behaviour of housing market participants that can't be explained by standard individual agent utility maximising models. This article aims to contribute to the field by addressing the issue of the intergenerational (within-family) transmission of housing tenure status and preferences, which makes market decisions path dependent and socially framed.

Life-cycle and life-course theories (Kendig 1990) link particular life stages with different life events, decisions, and typical behavioural patterns. According to age, marital status or the presence of children, each individual can be classified into a certain life-cycle stage. As a person moves through different life stages, he/she may also move along the housing ladder. The housing ladder is a hierarchical ranking of housing tenures (and types of neighbourhoods) that reflects prevailing social norm. Homeownership, and specifically a privately owned detached house, is often found at the top end of such a ladder (see, for example, on the US, Clark & Dieleman 1996, Taylor 1999, Shlay 2006; on Australia, Bourassa 1995; on Belgium, De Decker & Geurts 2003; on the UK, Stephens 2003).

In the countries of Central and Eastern Europe, socialist ideology violated the historical process whereby homeownership establishes itself as a social norm. Private ownership was officially suppressed. However, ownership of detached homes (and in some countries, such as Bulgaria, the former Yugoslavia or Hungary, also of apartments) was common (Mandic & Clapham 1996). After 1990, the homeownership rate dramatically rose as a result of the mass giveaway privatisation of the public housing stock. In many societies the rate exceeded 90% of the housing stock and such housing systems started to be referred to as 'super-homeownership' systems (Stephens 2005). In the Czech Republic, the homeownership rate rose from 57% in 1991 to 78% in 2011 (last census).

In our recent research in the Czech Republic, we were able to observe strong adherence to a housing social norm that deems homeownership is always better than tenancy. The pragmatic or financial arguments justifying tenure choice and the decision to buy a dwelling that respondents/first-time buyers cited during our thorough qualitative study were vague and poorly grounded in knowledge; when pressured during the interviews they usually abandoned the rational arguments and wound up referring to a housing social norm (Lux et al. *forthcoming*). Consequently, the main research question of this paper is the following: What social network mechanism helps to sustain the given normative housing ladder, i.e. the housing social norm, in the Czech environment? Specifically, how do social networks, and the family network in particular, serve to reproduce the housing social norm that exists in Czech society?

Our research attempts to contribute to explaining housing market rigidity and market agents' systemic deviations from economic rationality, in particular in housing systems with a sharply increasing homeownership rate. We show that tenure and home-buying decisions in the Czech Republic are determined by inherited patterns of family wealth transfer, implicit socialisation and the familial nature of housing preferences. The independent formation of preferences by market agents and rational/pragmatic choice between tenure alternatives, which is assumed in economic theory, are rare. The first section focuses on a review of existing research; data sources and methods of analysis are described in the second section, the results of which are contained in the third section. The fourth section presents a discussion of the main conclusions.

1. Review of existing research

The process by which participants in the housing market makes decisions is not solely centred on an isolated, strictly rational individual (Levy & Lee 2004: 320); decision-making is embedded in social ties (Granovetter 1985) and in the culturally shared ethos of morality (Ossowska 2012). Residential market choices also reflect emotions and sentiments (Munro & Smith 2008, Akerlof & Shiller 2009, Christie et al. 2008).

In a study of home-buying we recently conducted among young Czech first-time buyers, we found that adherence to a housing social norm has a more significant influence on people's decisions to buy housing than any financial, pragmatic or investment (speculative) considerations (Lux et al., *forthcoming*). The decisions (tenure choices) were only poorly grounded in the respondent's knowledge of market trends, fundaments, investment alternatives, tenancy security legislation and other relevant facts; almost all the respondents were unable to compare the financial costs of housing tenure alternatives. We were able to observe systemic deviations from rational behaviour based on adherence to a housing social norm. This paper will provide details on the role of social networks in the reproduction of this norm across generations.

According to Granovetter (1983), two types of social ties can be distinguished – strong ties and weak ties. Strong ties are constituted within families, cohabiting couples, or very close friendships and are of a stable and intimate nature. Weak ties cover a wide range of acquaintances, colleagues, neighbours and friends. Concerning strong ties, the literature suggests various channels through which family members can influence each other's housing choices (Easterlin 1987, Rossi & Rossi 1990, Bengston & Roberts 1991, Kohli 1999,

Helderman & Mulder 2007, Mulder 2007). In general, the intergenerational transfer of homeownership occurs by means of a transfer of resources (Blaauboer 2010, Mulder & Smits 2013, Henretta 1984); a few authors also mention transfer through socialisation (Blaauboer 2010, Henretta 1984), but there is a lack of empirical evidence on this. Methods of transferring resources include inheritance, gift giving, and other *inter vivo* financial transfers (on the Netherlands, see Helderman & Mulder 2007; on Cyprus, see Minas et al. 2013). Socialisation refers to the process of the formation of attitudes, preferences, aspirations, expectations and ways of acting or style of speech. Easterlin (1987) hypothesises that the housing conditions a person becomes accustomed to in childhood may determine the baseline for housing preferences in later life.

Existing studies have focused mainly on resource transfers, and they have shown that tenure status is reproduced within the family. However, the empirical research on socialisation within the family and the role of resource transfers within socialisation itself has been somewhat neglected. The reason is that studies use mainly quantitative survey data, which have no information on family members' attitudes, preferences and their interactions. They study the outcome of family interactions (such as housing tenure reproduction) rather than the process of interaction itself. Qualitative studies or experiments may give us a more detailed picture of within-family interactions.

2. Data and methodology

We conduct our analysis in the Czech Republic where (1) there has been considerable growth in owner-occupied housing during the last three decades caused by the privatisation of municipal housing; but where (2) housing tenure structure is not so markedly skewed in the direction of owner-occupied housing and a substantial part of the housing stock is rented; and where (3) rents have been deregulated and therefore prices/rents are not distorted by state intervention. In 1991, the homeownership rate in the Czech Republic was 38%, co-op housing formed 19% and public rental 39% of the housing stock; private renting was almost non-existent. In 2011, the homeownership rate increased to 56%, co-op housing formed 9%, public rental 8% and private rental housing 14% of the housing stock.

The vast majority of rental tenancies recorded in the 2011 census were legal tenancies, i.e. based on a written and properly signed rental contract between landlord and tenant. There may be several reasons why most private rental contracts are based on legal written agreements, a situation that distinguishes the Czech Republic from most other post-communist states: (a) the relatively large scale of property restitution, which generated a class of professional landlords (physical persons); (b) the emergence of institutional investors who own from hundreds to several thousand flats; (c) generous tax provisions, allowing investors to deduct house depreciation from rental income.

In this paper we combine a quantitative analysis of survey data with a qualitative study and an experiment. For the quantitative analyses, we used data from the *Housing Attitudes 2013* survey of the Czech population's preferences and attitudes towards housing. Interviews were carried out with 3,003 respondents in 2013. The survey was designed as a quota survey representative for the whole Czech population: quotas included gender, age, education, municipality size, region and housing tenure. We tested for tenure status reproduction across generations using a two-level (nested) logit model; this makes it possible to test for autocorrelation between children of the same parent. The model parameters were estimated

using the method of maximum likelihood in SPSS, based on the Generalized linear mixed models procedure.

First-time buyers were examined in a qualitative study that sought to understand the social interactions in home-buying in detail. 63 respondents from two big Czech cities who were in the process of buying their first housing took part in seven focus groups, which included role-playing in a simulated family conversation about tenure choice. The respondents filled in a questionnaire designed to observe the size and strength of social networks. In addition, we conducted in-depth interviews with 10 dyads of respondents (first-time buyers) and the respondent's parent. Table 1 shows the characteristics of the respondents. We conducted a content analysis of transcripts of the interviews and focus groups using Atlas.ti software. In the content analysis we combined inductive open coding and coding within selected categories, where the units of analysis were sentences and/or paragraphs.

Table Error! No sequence specified.**: Characteristics of respondents (first-time buyers) in the qualitative study**

Category	Number, frequency
Location	city 1 (Brno) 62%; city 2 (Ostrava) 38%
Gender	male 41%; female 59 %
Age	average 31 years; median 29 years
Education	university 81%; secondary 18%; lower than secondary 2%
Marital status	married 22%; cohabiting 46%, single 24%, divorced 7%

Source: Mini-panel of fist-time buyers. N = 63.

Housing preference formation (1) takes a long time and (2) may be a partially unconscious process. Moreover, direct questioning about social influence is subject to survey biases such as priming, framing or cueing. Consequently, we also applied an experiment, in which we searched for family influence on housing preference formation indirectly: we tested for an association between (a) the level of similarity in housing preferences within a family dyad composed of a parent and his/her adult child, and (b) the level of reciprocal knowledge measured on a scale indicating how well parents are able to guess the preferences of their children and how well adult children are able to estimate the housing preferences of their parents. The purpose was to test whether similarity in housing preferences across generations is associated with good reciprocal knowledge of these preferences; the latter was a proxy for explicit within-family conversation and socialisation.

We invited 82 subjects (mostly students who were expected to make their tenure choice in a few years) from a subject pool of participants in economic experiments. The participants were instructed to bring one of their parents with them to the experiment. The experiment basically involved letting 82 dyads of parents and their adult children evaluate sets of hypothetical housing profiles. The subjects were first asked to evaluate the profiles on their own and then estimate his/her partner's housing preference. We designed two sets of hypothetical housing profiles. We refer to the first set of profiles as the fundamental set and it included the following housing attributes: housing tenure (four categories), dwelling size (four categories), construction material (two categories), its technical state (three categories), and type of heating (three categories). The second set of housing profiles combined characteristics that relate to the living environment: namely, air quality, neighbourhood relationships, security, level of noise, accessibility of green areas, accessibility to the city centre, and individual

specific characteristic of workplace accessibility; all of them two-category variables. We refer to this second set of profiles as the environmental set of profiles.

We employed a fractional design[1] so that the subjects would not have to evaluate all theoretically possible combinations of attribute levels. In fact, it was sufficient for the subjects to evaluate just 12 profiles of fundamental characteristics and 8 profiles of environmental characteristics (Tables 1A and 2A in the Appendix). The subjects were asked to evaluate the hypothetical profiles on a scale of 1 to 20 points, where 1 is the best outcome and 20 the worst.[2]

We tried to define a methodological framework where the respondent would be incentivised to reveal their own housing preferences 'truly' and 'honestly'. Both members of a dyad were given financial incentives to evaluate sets of hypothetical flat profiles as sincerely as possible so that their partner in a dyad could later replicate these ratings as accurately as possible. The financial payoff for each subject was based on each person's ability to correctly estimate their partner's evaluation of hypothetical housing profiles. The financial incentives induced the respondents to engage in the mental effort of evaluating housing profiles; and providing precise estimates of the housing profiles of their partners.[3]

3. Findings

3.1 Strong ties in tenure structure reproduction / home-buying

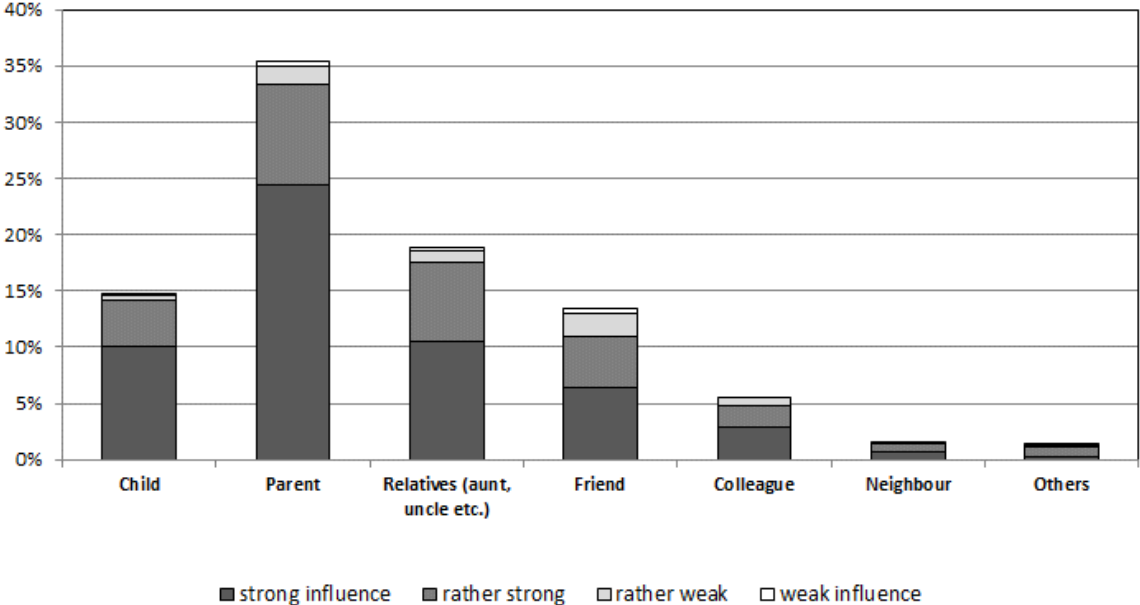In the *Housing Attitudes 2013* survey, the respondents, who had acquired a dwelling within

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[1] In this kind of experiment, the sets of profiles can be presented to the experimental subjects either in a full factorial design or in a fractional factorial design. Full-profile designs, although abundant in the literature (see a review by Timmermans et al. 1994), are typically limited in application by the maximum cognitive burden the subjects can bear. When overloaded with information, respondents may adopt simplifying heuristic rules to help them to evaluate the profiles offered, whereby they pay attention to only a subset of attributes (Hensher 2006). By using a fractional design, the task size can be reduced, which in turn increases the feasibility of completing the task (Timmermans et al. 1994).

[2] The advantage of fractional designs is that they permit unbiased estimates of the contribution of different attributes to the overall preference. Using this design, however, comes at a cost, as only the main effect contributions are estimated. When faced with the trade-off between the subjects' cognitive load and model complexity, we opted for the lower cognitive load. In this respect, Molin et al. (2001) has made the important point that many previous studies have disregarded interaction effects as playing a negligible role in explaining housing choice, suggesting that our fractional experimental design is a reasonable one.

[3] Theoretically, any combination of strategies used to report a housing preference represents equilibrium in this coordination game of guessing the other person's housing-profile evaluations. For example, if both the parent and the child manage to coordinate their reporting so that they both indicate the exact opposite to their true preferences, they can still maximise their payoffs. This kind of coordination strategy, however, is rather unlikely when communication between the participating partners is not allowed. The experimental design is constructed in a way that the respondents are incentivised to coordinate their answers towards providing a truthful response: the instructions for the experiment clearly and repeatedly stated that the preferred equilibrium should be the truthful revelation of preferences. This serves as a simple coordination device – a focal point – that enables the subjects to maximise the probability of coordinating the same combination of strategies, which consequently maximises their expected experimental payoff. The instructions also explicitly stated that the housing profiles for evaluation would be presented in a randomised manner, which further reinforces the attractiveness of the suggested focal point. The average payoff in our experiment was 47 Euro per dyad or child-parent pairing. The payments, however, were made separately to each subject in cash at the conclusion of the experiment on the basis of the accuracy of each individual in predicting their partner's housing preference profile.
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the preceding five years, were asked to indicate the three to five most important persons whom they consulted on home-buying. Figure 1 shows how often the respondents mentioned the given persons and the strength of influence that person had on the home-buying decision. In most cases the respondents consulted with their parents, other relatives and their children; parents were mentioned most, and they also had the strongest impact on their choice. The dominant role played by 'strong ties' in tenure decisions was also confirmed in an analysis of data drawn from a short questionnaire survey conducted among first-time buyers (participants in qualitative study). Respondents were asked to name the group of persons whom they consulted on their home purchase.[4] The question was answered by 73.5% of respondents and all the persons mentioned were included within seven categories. The most frequent category was 'parents' (25%), followed by 'other relatives' (21%) and 'friends' (20%). The results, presented in Figure 1A in the Appendix, confirm that strong ties (with parents) were not only the most frequent but also had the strongest influence on the home-buying decision of respondents.

Figure 1: Influence of strong and weak ties in home-buying decisions

Source: *Housing Attitudes 2013*. Respondents who had acquired owner-occupied housing or a cooperative flat in the preceding five years N_0=461; persons who respondents consulted on their purchase of a home N_1=708.
Question: Did you acquire owner-occupied housing or a cooperative flat within the past five years?
If you look at the past 5 years, who are the people around you that you mostly consult on important matters?
Indicate the three to five most important persons. What is your relationship to this person? Did you consult on your home purchase with this person? How strong an influence did this person have on your decision?

Drawing on the crucial role played by family (strong ties) in home-buying decisions, we used

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[4] The answers to the question were filled into a prepared diagram by the respondents. The midpoint in the diagram represented the respondent him/herself and the frames freely spread around the midpoint represented persons that provided the respondent with advice or support relating to the property purchase. The respondents' task was to fill the frames with the persons who gave them advice or support (e.g. mother, aunt, uncle) and then to arrange the frames in such a way that the persons who had a greater influence would be located closer to the centre of the diagram. The distances between the individual frames and the centre of the diagram were measured using AutoCAD design software and then visually displayed (Figure 1A in the Appendix). The positions of individual persons are marked by circles, which are differentiated by symbols according to the defined categories.

data from the *Housing Attitudes 2013* survey to test the hypothesis that homeownership tenure status is reproduced within the family, i.e. from parents to their adult children. In the survey, the respondents – parents having direct tenure title and at least one child aged 18+ years - were asked to give the age, marital status, place of residence, and housing tenure of each of their adult children. This question was answered by 926 respondents who provided data on 1,476 adult children. We conducted logit (nested) model where the housing tenure of the adult child was a dependent dummy variable with the following values: (1) owner and (2) other tenure. The independent variables were gender, age and the marital status of the adult child; and education, housing tenure and average household income (z-scored) of the respondents-parents. The null-model was estimated, i.e. a model including a constant only, for the purpose of comparing the models' fit. Table 2 (odds ratios) shows that children whose parents are homeowners have a much greater chance of being also homeowners.

Table 2: Tenure choice of adult children - logit model coefficients (Exp(B))

Variable	Category	Exp(B)
Gender (Descendant)	Female	0.989
	Male (ref.)	
Age (Descendant)		1.059*
Marital status (Descendant)	Widowed	5.313
	Divorced	1.002
	Married	4.649*
	Single (ref.)	
Tenure (Parent)	Owner	2.238*
	Co-op member	1.174
	Tenant, subtenant, other (ref.)	
Education (Parent)	University	1.443
	Secondary Upper	0.850
	Secondary Lower	0.818
	Vocational (ref.)	
Monthly household income (Parent, Z-scored)		1.014
Intercept		*0,076**
Model descriptives		
	N	1476
	AICC / AICC (null-model)	6856 / 7364
	BIC / BIC (null-model)	6861 / 7369
	Corr. predict (%)	81.4
	Random intercept Variance	0.560
	Sig.	0.002

Source: *Housing Attitudes 2013.*
Note: * *P<=0.05. The dependent variable is the housing tenure of the adult child: (i) owner;(ii) other tenures. The monthly household income refers to income as converted to z-scores. Ref. indicates the reference category in the estimated model. The model coefficients are the odds ratio [Exp(B)], where values >1 indicate a higher probability of the particular choice and conversely parameters <1 reflect a lower probability. Independent variables were controlled for collinearity.*

In the intergenerational reproduction of tenure status, a very important role may be played by family financial transfers. Using the same dataset, we ran logit regressions with the dummy dependent variable indicating whether the respondent gave/would give financial support to buy a home at least to one of his/her adult children. Independent variables included the socio-demographic characteristics of respondents, the respondent's household income, housing tenure, the number of adult children and dummy variable indicating whether the respondent received a financial transfer to buy a home from his/her parents, grandparents or relatives, or

from parents, grandparents or relatives of his/her partner.

Model 1 was computed on the total number of respondents, i.e. both tenants and owners, who have at least one adult child. Table 3 shows that the respondent's age, education and income do not have a statistically significant influence on the chance that he/she gave or plans to give financial support to his/her adult child/children to buy a home; on the other side, his/her marital status, number of dependent children and housing tenure are statistically significant predictors. Married respondents, respondents with fewer children and existing homeowners rank among the main transfer-givers.

The chain of transfers is even more interesting when we include the variable that measures whether a respondent (parent) received a financial transfer to buy a home from his/her relatives or relatives of his/her partner; this time the analysis is restricted to a subsample of homeowners (Model 2 in Table 3). The results show that family transfer supporting respondent homeownership is the most significant predictor for a respondent also being a transfer-giver to his/her children. Homeownership is probably perceived as a kind of commitment to secure the same tenure status for the next generations by providing them with financial help; and the strongest commitment is felt by those whose acquisition of homeownership was also accompanied by a family transfer. This provides a clearer picture of the whole chain of home-buying support within the family and its effect on tenure status reproduction in the Czech Republic.

Table 3: Reproduction of tenure status – logit model coefficients (Exp(B))

Variable	Category	Model 1	Model 2
Age		0.992	0.997
Education	University	0.949	0.971
	Secondary Upper	0.834	0.856
	Secondary Lower	0.786	0.788
	Vocational (ref.)		
Marital status	Single	0.464	0.513
	Divorced	0.385*	0.423*
	Widowed	0.682*	0.549*
	Cohabiting	0.483*	0.380*
	Married (ref.)		
Monthly household income (z-scores)		1.020	0.962
Number of dependent children		0.784*	0.750*
Tenure	Owner	2.516*	.
	Other (ref.)		.
Financial transfer	Yes (received)	.	2.082*
	No (ref.)	.	
Intercept		*1.208*	*1.860*
Model descriptives			
	N	1283	1006
	AICC	5556	4357
	BIC	5561	4362
	Corr. predict (%)	63.4	62.3

Source: *Housing Attitudes 2013.*
Note: ** P<=0.05. The dependent variable is financial transfer from respondent to at least one of his/her adult children: (i) no transfer made —the reference category, and (ii) transfer made. Ref. indicates the reference category. Model coefficients are the odds ratio [Exp(B)], where values >1 indicate a higher probability of a financial transfer and conversely parameters <1 reflect a lower probability. Independent variables were controlled for collinearity.*

3.2 Strong ties in housing-preference formation

The question remains, however, whether the intergenerational transfer of homeownership status, enabled largely thanks to a historical chain of family wealth transfers, is also the outcome of the intergenerational transmission of housing preferences. In other words, does the reproduction of homeownership tenure status also result from the fact that the housing preferences of children are formed within the family via intra-family communication and socialisation?

As a first step towards answering this question we conducted an experiment. Recognising the methodological limits of research that concerns the impact of family on housing-preference formation, we tested for an association between (a) the level of similarity in housing preferences within a family dyad composed of a parent and his/her adult child, and (b) the level of reciprocal knowledge measured on a scale indicating how well parents are able to estimate the preferences of their children and how well adult children are able to estimate the preferences of their parents. Good reciprocal knowledge across generations serves us as an indicator of strong explicit (communicated) within-family socialisation.

For each family, we estimated a 'family' model using the data from the profile evaluations made by parents and their offspring. We took advantage of the fact that everybody evaluated the same sets of profiles on the same rating scale. We used the individual-level ratings of the housing profiles within each of the categories - fundamental and environmental. We constructed a model in which we pooled the profile evaluations for each dyad of a parent and his/her offspring. We thus constructed 82 'family' models using the following specification:

$$(1) \qquad Profile\_rating_{ip} = \alpha + \sum_{a=1}^{A-C} Attribute\_level_{aip} * \beta_a + \varepsilon_{ip}.$$

The dependent variable in model (1) is a rating of housing profile *p* by individual *i*, where $i=\{1,2\}$, i.e. being either a parent or his/her offspring. The evaluated profiles are either within the *fundamental* or the *environmental* set of profiles. The independent variables are the set of *(A-C)* variables for the particular housing-attribute levels present in profile *p*, where *A* is the total number of attribute levels and *C* is the total number of attribute categories. The coefficients represent the average part-worth utility contributions of the respective attributes within the family. We applied OLS to estimate model (1).

Following Molin et al. (2001), we interpret the model fit (R^2) of each estimated model (1) as a measure of the closeness of preference functions between the parent and his/her offspring. The higher the model fit (R^2), the closer the preferences of the respective family members. In an ideal case, where there are identical housing preferences across the generations, the model fit will be perfect ($R^2=1$). On the other hand, we based the payoff earned in our experiment on the parents' ability to guess the preferences of their children and the children's ability to guess the preferences of their parents. Hence, we argue that the larger joint payoff earned in our experiment provides a proxy for a deeper reciprocal knowledge of housing preferences. Analogically, the larger parent payoff is a proxy for a parent's better knowledge of the housing preferences of his/her adult child and the larger offspring payoff is a proxy for an offspring's better knowledge of the housing preferences of his/her parent.

We examined the correlations between the model fit (similarity in preferences) and the different types of experimental payoffs (reciprocity in knowledge of preferences). Table 4 shows that there is a significant correlation (at the 10 per cent significance level) between

reciprocal knowledge (joint payoff) and a similarity of preferences within a family for both sets of profiles. However, if reciprocal knowledge is measured just on a scale of how well parents know the preferences of their children (parent payoff, columns 3 and 4) the association with the level of similarity of preferences was weak. Similarly, if reciprocal knowledge was measured on a scale of how well children know the preferences of their parents (children payoff, columns 5 and 6) the association with the level of similarity of preferences was even stronger than for joint reciprocal knowledge.

Consequently, we did not find any proof that similarity of housing preferences is the result of explicit within-family communication. It is true that the more informed adult children are about the housing preferences of their parents the more their preferences will be similar to those of their parents. However, as parents were much less informed about the preferences of their adult children than *vice versa*, and their good knowledge was not significantly associated with a similarity of housing preferences across generations in this case, the similarity of housing preferences within a family seems to be more the result of implicit socialisation and the socialised factors of the lived environment than of explicit communication within family.

However, an experiment gave us another important finding. We selected families (a) with an above-median joint preference model fit (R^2) used to measure the closeness of the preference functions between the parent and his/her offspring and, simultaneously, (b) that received above-median joint (offspring, respectively) payoffs, which is used here as a proxy indicator for reciprocal knowledge; and then we compared them to the rest of our sample. The results (Table 5) show that families characterised by *familial preferences* likely have higher earnings.[5] It is obvious that parents from upper-income families are more likely to live in their preferred housing and therefore their children are better at predicting their preferences. However, the preferences of adult children were also more similar to the preferences of their parents in this case, which is probably a sign of familial housing preferences in this social group. If we look at the similarity of preferences between parents and their offspring only (last column of Table 5), we do not find any significant socioeconomic cleavage.

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[5] However, it necessary to note that N = 164 in our sample is not sufficient to detect differences and our sample does not have sufficient power to reject the null hypothesis.

Table 4: Association between reciprocal knowledge of housing preferences and the similarity of housing preferences within the family: correlation coefficients and OLS estimates of the joint preference model fit (R^2) on experimental payoff (joint, parent and offspring)

	(1)	(2)	(3)	(4)	(5)	(6)
	Model fit in fundamental set of profiles	Model fit in environmental set of profiles	Model fit in fundamental set of profiles	Model fit in environmental set of profiles	Model fit in fundamental set of profiles	Model fit in environmental set of profiles
Joint payoff	0.11*	0.12	-	-	-	-
	(0.06)	(0.08)				
Parent payoff	-	-	0.12	0.14	-	-
			(0.10)	(0.10)		
Offspring payoff	-	-	-	-	0.28**	0.25
					(0.12)	(0.16)
Corr. Coeff.	0.20*	0.19*	0.15	0.16	0.23**	0.19*
	(p=0.07)	(p=0.08)	(p=0.19)	(p=0.16)	(p=0.04)	(p=0.09)
N	82	82	82	82	82	82

Note: Six models are presented in this table. The dependent variable is either the joint preference model fit for the *fundamental* set of profiles or for the *environmental* set of profiles. Each model has only one regressor: the joint payoff for the family (in thousands of CZK), the parent payoff (in thousands of CZK) or the offspring payoff (in thousands of CZK), respectively. The stars represent significance at a 1% significance level (***), a 5% significance level (**), and a 10% significance level (*). OLS estimates with robust standard errors in parentheses are reported. Correlation coefficients are reported with the appropriate significance levels.

Table 5: Differences in income and education (means) between families with strong and weak familial preferences

		Familial preferences (joint payoff)		Implicitly familial preferences (offspring payoff)		Similarity of preferences	
		Strong familial preferences[1]	Weak familial preferences[2]	Strong familial preferences[3]	Weak familial preferences[4]	High similarity of preferences[5]	Low similarity of preferences[6]
Fundamental characteristics	Parental income (in CZK)	30211.54* (p= 0.07) (16076.18)	25084.54 (13235.89)	30040.00** (p=0.03) (16295.40)	24811.12 (13035.67)	27834.98 (p=0.24) (15470.14)	25585.37 (13121.02)
	University education of parents (in %)	50 (p=0.55) (0.51)	52 (0.50)	60 (p=0.14) (0.50)	47 (0.50)	56 (p=0.19) (0.50)	46 (0.50)
	Observations	26	56	25	57	41	41
Environmental characteristics	Parental income (in CZK)	30925.00* (p=0.07) (15162.52)	25350.55 (13864.19)	30521.74** (p=0.07) (17026.37)	25224.31 (12946.22)	27798.39 (p=0.25) (14806.85)	25621.95 (13871.18)
	University education of parents (in %)	50 (p=0.55) (0.51)	52 (0.50)	57 (p=0.28) (0.51)	49 (0.50)	46 (p=0.81) (0.50)	56 (0.50)
	N	20	62	23	59	41	41

Note: The means of the presented variables are represented by the numbers with standard errors in parentheses. The P-values in parentheses report the one-sided mean comparison t-test comparing the differences in the tested variables between the groups within each box. The stars represent significant differences at a 1% significance level (***), a 5% significance level (**), and a 10% significance level (*).

[1] Dyads characterised by above joint preference median model fit (R^2) and above median parent payoff.

[2] Dyads characterised by below joint preference median model fit (R^2) and below median parent payoff.

[3] Dyads characterised by above joint preference median model fit (R^2) and above median offspring payoff.

[4] Dyads characterised by below joint preference median model fit (R^2) and below median offspring payoff.

[5] Dyads characterised by above joint preference median model fit (R^2).

[6] Dyads characterised by below joint preference median model fit (R^2).

The experiment gave us three findings: (1) explicit within-family communication on housing preferences between parents and children as equal parties seems to be weak, but (2) familial preferences indeed exist, though more implicitly than explicitly (through children following their parents or through living environment socialisation), and (3) are more likely among families with higher income. The questions remain: What strategies parents use to shape tenure preferences of their adult children? And why is a family's income status likely to be relevant in housing preference reproduction?

In our qualitative study we explored more deeply within-family communication relating to tenure preferences and home-buying. We analysed transcripts from 20 in-depth interviews with 10 dyads (parents-adult child) and transcripts from role-playing in seven focus groups with 63 first-time buyers. In interviews with 10 dyads we found that parents often stress their 'non-interference' in their children's decisions and, similarly, their children stressed 'autonomy' of their decision-making. However, in the same breath, parents added that they provided advice, consultation or financial support to their children. This seeming contradiction occurs in all the parental interviews. The second most frequent was the explicit declaration that the decision is left to the children, but the simultaneous presence of other codes from transcripts of interviews with parents (Table 6) proves that the parents interfere in this decision anyway in various ways.

Table 6: The most frequent codes in interviews with parents

Code	Explanation	Frequency of occurrence
Reluctance to advise children, but in the same time providing them with support	This code refers to the seemingly contradictory situation where parents express a reluctance to advise or guide their children, but at the same time (shortly after that statement) talk about providing advice or some form of support.	27 (11.2%)
Leaving the decision to children	This code is rather unambiguous and refers to the situation where parents perform the role of an impartial actor who expressly leaves the decision to the children.	18 (7.4%)
Parental support is natural	This code represents the situation where parents regard their support as something completely natural, something that is not up for discussion and is taken for granted.	15 (6.2%)
Providing advice	This code refers to the situation where parents have explicitly advised their children.	13 (5.4%)
Using weak ties	This code refers to the situation where parents used their weak ties to help the children in the process of home-buying.	12 (5%)
Providing financial transfer	This code indicates the situation where parents had already transferred financial support to their children, and that support was usually supposed to help them with housing (though in some cases they could use it as they wished).	12 (5%)
Total coded segments		**242 (100%)**

Source*: First-time buyers qualitative study*, interviews with parents; N = 10.

When comparing the interviews with parents with the interviews with their children we can see striking similarities in their narratives. For all the children, the parents played a significant role: they provided advice, financial help (gifts, savings) and offered to serve as the lenders of last resort. In all cases, parents and children shared the same tenure preference, and in only three cases did they disagree on particular issues (timing, locality, type of housing). The similarity between the preferences of parents and their adult children can be explained by the

familial nature of preferences that coexists, surprisingly, with expressions of 'non-interference' and 'autonomy' during housing tenure decision itself. The accounts from our interviews show that familial preferences can be best achieved by means of subtle and gradual socialisation; an illustration of this is provided by the following excerpt from an interview with one parent:

'Well, we have never given them advice, because you shouldn't counsel children too much. You should maybe just guide them a little bit, but he has always been responsible (…) Well, it's hard to describe how to guide them, I think you do it by raising them in a certain way, not telling him: "You must buy a house".' (Pauline 8:23)

The parents, all of them homeowners, simply regard homeownership as the best possible way of resolving one's housing situation and they raise their children with this ethos through the socialisation process as a whole (also relying on the effect of socialisation through the lived environment). The tenure decision of their adult children then retains formal aspects of freedom and independence. The strategy of performative 'non-interference', but factual interference, is like a metaphor about two persons, each of them standing on his/her own vessel. If they throw a ball to each other and their interaction is face-to-face and direct, the vessels will move further away from each other, but if they stand back to back, throw a boomerang instead of a ball and their interaction is more indirect, their vessels will move closer together. For parents, the subtle and delicate forms of influence exercised through (a) non-explicit long-term socialisation into certain sets of moral and cultural values, and by means of (b) indirect respectful conversation, occurring in the second stage of decision-making (when, what, how), have a much more effective influence on the decisions their children make than forcing them to make a choice they don't want.

In each focus group, respondents were asked whether their parents had influenced their decision to buy housing or not. Respondents who answered in the affirmative formed one group and they played the role of parents; the others formed the second group and played the role of an adult child. The respondents in the first group were asked to replicate the arguments of their parents and to try to convince the respondents in the second group to buy housing; the respondents in the second group were supposed to oppose them. We analysed the usage of arguments by the respondents playing the role of parents: the place of the arguments in the discussion, how frequently they occurred (Table 7) and their impact (Table 8). We assume that the most frequent arguments and arguments that appeared at the beginning or the end of the role-playing are the ones that were regarded as important. In addition, the impact of the argument was valued based on whether the counterparty (the respondents who role-played the children) was able to come up with a counter-argument. If they were unable find a meaningful reaction, the impact was assumed to be strong.

Table 7: Arguments of 'parents' in role playing of focus groups

Argument	Occurrences	Where the argument occurred in the discussion		
		Beginning	Middle	End
An offer to give financial support on home-buying	10	6	1	3
Ownership represents security and a good investment	9	4	5	0
An offer of other form of help	8	3	2	2
Ownership is currently financially advantageous	6	2	4	0

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Ownership is always financially advantageous	6	1	3	2
A person should own a home at a certain age	5	1	2	2
A person should own a home once he/she has a stable job	3	3	0	0
A person should own a home once planning a family	3	2	1	0
Renting is an insecure and uncertain	3	0	2	1

Table 8: Impact of the arguments of 'parents' in the role-playing of focus groups

		Impact of the argument		
Argument	Occurrences	Discussion continues	Discussion ends (win)	Discussion ends (lose)
An offer to give financial support on home-buying	10	5	4	1
Ownership represents security and a good investment	9	9	0	0
An offer of other form of help	8	5	1	2
Ownership is currently financially advantageous	6	5	1	0
Ownership is always financially advantageous	6	4	1	1
A person should own a home at a certain age	5	2	2	1
A person should own a home once he/she has a stable job	3	3	0	0
A person should own a home once planning a family	3	3	0	0
Renting is an insecure and uncertain	3	2	1	0

Note: The column 'discussion ends (win)' indicates the situation where 'the children' were unable to counter the argument, while the column 'discussion ends (lose)' is the situation where the argument was regarded as irrational and easily contested by 'the children'.

The tables show that the promise of financial aid is regarded as the most important argument and also the one with the strongest impact (the discussion often ends). The qualitative study thus confirmed the prominent role of financial transfers in within-family conversation. This may explain why a family's income status is likely to be relevant in housing-preference reproduction. Both real and anticipated (promised) financial transfers may determine the existence of familial housing preferences: when transfers are not expected, the knowledge of parental preferences is poorer and preferences are more likely to be different across generations. Providing material transfers helps children to feel confident and secure. While assuming a large mortgage loan increases a person's doubts about the rationality of the purchase, material transfers effectively reduce them.

4. Conclusion

The main goal of this paper was to describe the intergenerational (within-family) transmission of housing tenure status and preferences in the Czech Republic, which makes market decisions concerning home-buying path dependent and socially framed. This is a follow-up to our previous research that found that housing social norm has a strong influence on the home-buying decisions of first-time buyers; and we showed how family networks specifically reproduce this norm in Czech society. Tenure and home-buying decisions are determined by inherited patterns of family wealth transfer, implicit socialisation and the familial nature of housing preferences.

The independent formation of preferences by market agents, which is assumed in economic theory, is far from reality: instead, the decision to buy a home reflects a norm that is strongly reproduced within the family, and, consequently, reflects the preferences of preceding generations. This adds to the rigidity of housing markets; and a portion of the recent housing market inefficiency is probably explained by the impact of family socialisation and the historical chain of financial transfers.

We found that homeownership status is reproduced across generations within the family and that homeownership represents a kind of commitment to secure the same tenure status for the next generations by providing financial assistance; and the strongest commitment is felt by those whose acquisition of homeownership was also accompanied by a transfer from the family. Using qualitative and experimental studies we found that implicit within-family socialisation (including socialisation through the living environment) rather than explicit communication and strategic indirect interventions (performative non-interference but factual interference) play an important role in tenure preference reproduction, and this is likely to be strongest among high-income families. The primary importance given to the financial transfers in within-family conversation may explain why a family's income status is likely to be relevant in the effective reproduction of housing preferences.

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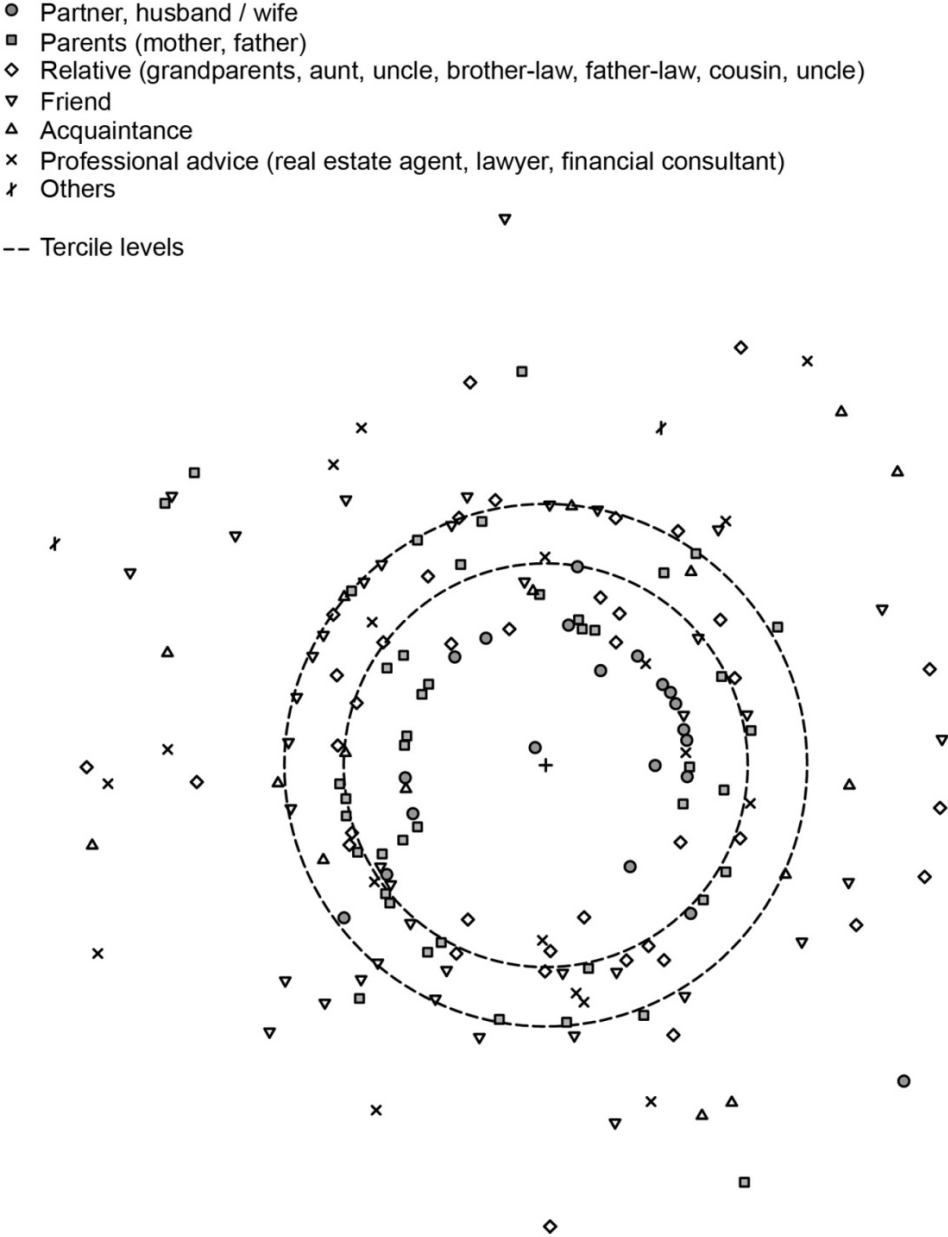
Appendix

Table 1A: Fundamental set of profiles

	Housing tenure	Flat type and floor space	Heating	Technical state of the house/flat	Construction material
1	Ownership with an 4% IR mortgage	2 rooms + kitchen / 70m2	Electric heating	Older building / reconstructed flat	Brick
2	Ownership with an 4% IR mortgage	2 rooms + kitchen / 70m2	Gas heating	Older building / reconstructed flat	Brick
3	Ownership with an 4% IR mortgage	3 rooms + kitchen / 60m2	Off-building heating	Older building / reconstructed flat	Concrete
4	Ownership with an 8% IR mortgage	3 rooms + kitchen / 60m2	Electric heating	New building / new flat	Brick
5	One-year rental contract	2 rooms + kitchen / 50m2	Gas heating	Older building / reconstructed flat	Concrete
6	One-year rental contract	3 rooms + kitchen / 60m2	Off-building heating	New building / new flat	Brick
7	One-year rental contract	3 rooms + kitchen / 80m2	Electric heating	New building / new flat	Concrete
8	Ownership with an 8% IR mortgage	3 rooms + kitchen / 80m2	Gas heating	Older building / not reconstructed flat	Concrete
9	Rental contract for indefinite period	3 rooms + kitchen / 80m2	Off-building heating	Older building / not reconstructed flat	Brick
10	Rental contract for indefinite period	2 rooms + kitchen / 70m2	Electric heating	Older building / not reconstructed flat	Concrete
11	Rental contract for indefinite period	2 rooms + kitchen / 50m2	Gas heating	Older building / not reconstructed flat	Brick
12	Ownership with an 8% IR mortgage	2 rooms + kitchen / 50m2	Off-building heating	New building / new flat	Concrete

Table 2A: Environmental set of profiles

	Air quality	Neighbourhood relationships	Security	Noise	Accessibility to green areas	Accessibility to city centre	Accessibility to workplace
1	Bad	Good	High	Quiet	Least accessible	Periphery	Worse accessible
2	Good	Good	High	Noisy	Most accessible	City centre	Worse accessible
3	Bad	Good	Low	Noisy	Most accessible	Periphery	Well accessible
4	Good	Good	Low	Quiet	Least accessible	City centre	Well accessible
5	Bad	Bad	High	Noisy	Least accessible	City centre	Well accessible
6	Good	Bad	High	Quiet	Most accessible	Periphery	Well accessible
7	Bad	Bad	Low	Quiet	Most accessible	City centre	Worse accessible
8	Good	Bad	Low	Noisy	Least accessible	Periphery	Worse accessible

Figure 1A: Influence of strong and weak ties in home-buying behaviour

- ⊙ Partner, husband / wife
- ▫ Parents (mother, father)
- ◇ Relative (grandparents, aunt, uncle, brother-law, father-law, cousin, uncle)
- ▽ Friend
- △ Acquaintance
- × Professional advice (real estate agent, lawyer, financial consultant)
- ⨍ Others

- – – Tercile levels

Source: Questionnaire survey among focus groups participants, N = 50.
Question: We are interested in learning who you consulted with on home-buying and who is of the greatest help to you in the home-buying process.