Chapter 4

Rural-Urban Migration and Happiness in China

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1. Introduction

This chapter links the literatures on rural-urban migration and on subjective well-being in developing countries and is one of the few to do so. Using microeconomic analysis (of people and households), it poses the question: why do rural-urban migrant households settled in urban China have an average happiness score lower than that of rural households? Three basic possibilities of mistaken expectations are examined: migrants had false expectations about their future urban conditions, or about their future urban aspirations, or about their future selves. Estimations and analyses, based on a national household survey, indicate that certain features of migrant conditions make for unhappiness, and that their high aspirations in relation to achievement, influenced by their new reference groups, also make for unhappiness. Although the possibility that migrants are not typical cannot be ruled out, it is apparently difficult for migrants to form unbiased expectations about life in a new and different world. Since the ongoing phenomenon of internal rural-urban migration in developing countries involves many millions of the world's poor, it deserves more attention from researchers and policymakers, especially on the implications of migration for subjective well-being.

Migration can be viewed as a decision, taken independently by myriad rural-dwellers, to better themselves and their families by moving to where the jobs and facilities are. It is generally viewed as a force for good, albeit one that poses many challenges for society and for the state. There are two main forms of rural-urban migration. One is the permanent movement of entire households to the city or town. The other is the temporary movement of individual migrant workers, with at least part of the household remaining in the village. The choice is influenced by government policies of encouragement or discouragement and by the institutions which can impose private costs and benefits on the workers or their households. Both forms of rural-urban migration can take place simultaneously.

Rural-urban migration in developing countries is the great exodus of our time. Rapid urbanisation is taking place in Asia, Africa, Latin America and elsewhere. Table 4.1 shows urbanisation in the regions of the developing world over the period 1990-2015. In each region there was a sharp rise in the urban population as a percentage of total population. The increase in the urban population of the developing regions as a whole was no less than 1,535 million. China was outstanding both in its increase in the urbanisation rate (by 30 percentage points) and in the number of people becoming urbanised (by 463 million). China accounted for 30% of the increase in urban population of the developing world as a whole over the period.

China's urbanisation is not the same as its rural-urban migration. Urbanisation comprises three elements: reclassification of rural places as urban places, natural increase of the urban population, and rural-urban migration. However, China's rural-urban migration is likely to have made up much of the rise in its urban population over this quarter century.¹

The data on migrants in China pose an interesting and socially important puzzle. Migration theory usually assumes that rural people migrate in order to raise their utility, at least in the long run. Thus, migrants who have made the transition into urban employment and living are expected to be happier than they would have been had they remained at home. Yet our sample of rural-urban migrants has an average happiness score of 2.4, well below the average score of the rural sample (2.7) and also below that of the urban-born sample (2.5). Of course, initial hardship is to be expected - and indeed it is predicted by migration models. However, our sample comprises migrants who have established urban households and whose average urban stay is no less than 7.5 years. So why is it that even seven and a half years after migrating to urban areas, migrants from rural areas are on average less happy than they might have been had they stayed at home?

Unfortunately, there is as yet scant evidence to measure and explain the subjective well-being of rural-urban migrants in the developing world. There is more literature on their objective well-being (not only income but also other physical measures of the quality of life). Fortunately, there is more evidence on migrants and their happiness in China, the country which, it is commonly said, has recently experienced 'the greatest migration in human history'. There are many lessons that China can offer policymakers elsewhere in the developing world.

Table 4.1: Urbanisation in Developing Countries: China, Regions, and Total, 1990 and 2015

	1990	2015	Change 1990-2015	
China				
Urbanisation rate (%)	26	56	30	
Urban population (millions)	300	763	463	
Other East Asia and Pacific				
Urbanisation rate (%)	48	59	11	
Urban population (millions)	305	516	211	
Latin America and the Caribbean		·		
Urbanisation rate (%)	70	80	10	
Urban population (millions)	313	504	191	
Middle East and North Africa				
Urbanisation rate (%)	55	64	9	
Urban population (millions)	140	275	135	
South Asia				
Urbanisation rate (%)	25	33	8	
Urban population (millions)	283	576	293	
Sub-Saharan Africa				
Urbanisation rate (%)	27	38	11	
Urban population (millions)	138	380	242	
All Developing Country Regions				
Urbanisation rate (%)	30	49	19	
Urban population (millions)	1479	3013	1535	

 $Notes: Derived from World \ Bank, World \ Development \ Indicators \ 2017, Online \ Tables, \ Table \ 3.12$

One of the themes explored in this chapter is the relationship between actual and hoped-for achievement, i.e. between what people manage to achieve and what they aspire to achieve. Reported happiness might be determined by the extent to which aspirations are fulfilled. That raises research questions to be explored. How best can aspirations be measured? For instance, are the aspirations of migrants moulded by the achievements of the people with whom they make comparisons? Rising aspirations in their new environment might provide an explanation for the relatively low happiness of rural-urban migrants.

2. Rural-Urban Migration in China

The phenomenon of rural-urban migration has been different in China from that in most other poor countries.² During its early years in power the Communist Party separated China into two distinct compartments - creating an 'invisible Great Wall' between rural and urban China primarily as a means of social control. Integral to this separation was a universal system of household registration, known as hukou, which accorded rights, duties and barriers. Rural-born people held rural hukous, urban-born people (including migrants from other urban areas) held urban hukous, and (with a few exceptions such as university graduates from rural areas) ruralurban migrants retained their rural hukous. By the late 1950s, a combination of hukou registration, the formation of the communes, and urban food rationing had given the state the administrative levers to prevent rural-urban migration. Throughout the period of central planning the movement of people, and especially movement from the communes to the cities, was strictly controlled and restricted.

Even after economic reform began in 1978, migration was very limited although temporary migration was permitted when urban demand for labour exceeded the resident supply. The hardships and disadvantages facing temporary migrants holding rural hukous caused many to prefer local non-farm jobs whenever they were available.3 When, increasingly, migrants holding rural hukous began to settle in the cities with their families, they faced discrimination in access to jobs, housing, education and health care. City governments favoured their own residents, and rural-urban migrants were generally treated as second class citizens.4 For instance, they were allowed only into the least attractive or remunerative jobs that urban hukou residents shunned; many entered self-employment, which was less regulated. Although the urban labour markets for urban-hukou and rural-hukou workers have become less segmented over time, the degree of competition between them remained very limited in 2002.5 The tough conditions experienced by rural-urban migrants living in urban China might provide another explanation for their lower happiness.

Despite these drawbacks, rural-urban migration has burgeoned as the controls on movement have been eased and the demand for urban labour has increased. A study drawing on official figures, reported that the stock of rural-urban migrant workers was 62 million in 1993 and 165 million in 2014, in which year it represented 43% of the urban labour force. An extrapolation from the 2005 National Ten Percent Population Survey on the basis of forecast urban hukou working age population and of assumed urban employment growth derived a stock of rural-hukou migrant workers in the cities of 225 million in 2015, having been 125 million in 2005.7 Despite the difficulties of concept, definition and measurement (which no doubt explain much of the difference between the estimates for 2014 and 2015), it is very likely the case that China is indeed experiencing 'the greatest migration in human history'.

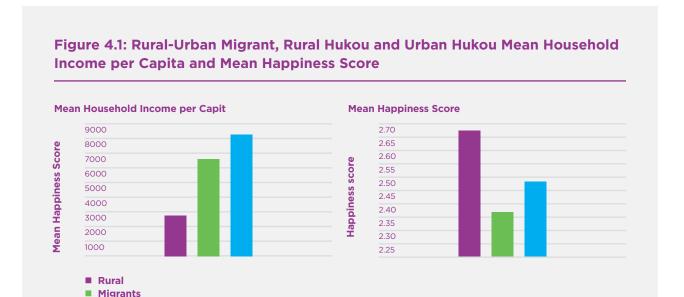
Although a large percentage of migrants come temporarily to the cities with the intention of returning home, an increasing percentage wish to settle in the cities, and are establishing urban households. As Figure 4.1 below suggests, and as evidence of migrant wages in urban China confirms⁸, the prospect of income gain was the likely spur to the great migration.

3. Overview of Rural-Urban Migration in China

This study is based on an urban sample of ruralurban migrant households collected as part of a national household-based survey.9 The survey was conducted by the National Bureau of Statistics early in 2003 and its information generally relates to 2002. There was no repeat interviewing of the same households although there were some questions that required recall of the past or projection of the future. The urban and rural samples were sub-samples of the official annual national household survey. However, because the official urban survey covered only households possessing urban hukous and did not yet cover households possessing rural *hukous*, the rural-urban migrant sample was based on a sampling of households living in migrant neighbourhoods in the selected cities. Migrants living on their own temporarily in the city before returning to the village were excluded.

The migrant survey contains a great deal of information about the household and each of its members, including income, consumption, assets, housing, employment, labour market history, health, education, and rural links. Less commonly, various migrant attitudes and perceptions were explored. The great advantage of this survey is that the separate questionnaire module on subjective well-being contained specially designed questions that help to answer the questions posed in this chapter.

The question on subjective well-being that was asked of one of the adults in each sampled household was: "Generally speaking, how happy do you feel nowadays"? The six possible answers were: very happy, happy, so-so, not happy, not at all happy, and don't know. They were converted into cardinal scores as very happy = 4, happy = 3, so-so = 2, not happy = 1, and not at all happy = 0; the small number of don't knows were not used for the analysis. The happiness variable is critical for our analysis as it is the dependent variable in the happiness functions that are estimated to explain happiness.



It is helpful first to provide descriptive information about the migrants before presenting the happiness functions that will explain what makes rural-urban migrants happy or unhappy. This will inform our interpretations. Consider the characteristics of those household members - 77% of whom were the household head - who responded to the attitudinal questions: 61% were men, 90% were married, 93% were employed, and 88% were living with their family. These respondents were generally not pessimistic about the future: 7% expected a big increase in real income over the next five years, 55% a small increase, 28% no change, and only 10% a decrease. Rural links were commonly retained: 53% had family members who still farmed in the village, 51% remitted income to the village, and 32% had one or more children still living in the village.

Urban

Figure 4.1 shows the average happiness of the three groups rural-urban migrants, rural-dwellers and urban-dwellers (possessing rural hukous, rural hukous and urban hukous respectively), and also their average income per capita. Although the happiness of the migrants was lower than that of rural dwellers, their income was not. The average income per capita of migrant households was 2.39 times that of rural households. Even allowing for the smaller number of dependants in migrant households by comparing total instead of per capita household incomes, the ratio is still 1.54. The ratios of household income per worker

and of wage income per employee are 2.01 and 3.02 respectively. Whichever concept is considered most relevant; migrants were at a considerable income advantage. The higher income of rural-urban migrants appears not to raise their happiness above that of rural dwellers. Yet when rural-urban households are divided into income per capita quintiles, their happiness level increases steadily (from 2.13 for respondents in the lowest fifth to 2.56 for those in the highest fifth). This sensitivity to income compounds the puzzle.

The respondents in the categories "unhappy" and "not at all happy" were asked the reason for their unhappiness. More than two-thirds of the respondents said that their income was too low. The next most important reason, reported by over 11%, was uncertainty about the future, suggesting that insecurity was a problem. This evidence suggests that income can be expected to be an important determinant of migrant happiness. In a separate question, migrants were asked what they thought was the most important social problem: lack of social security as it affected migrants (e.g. unemployment benefit, pension, access to health care) was the most common response to the options available, mentioned by 24% of respondents. Environmental pollution was the second-most reported problem (20%), corruption came third (18%), followed by social polarization (11%), discrimination against migrants (10%), and crime (8%).

Migrants were also asked: "Compared with your experience of living in the rural areas, are you happier living in the city"? No fewer than 56% felt that urban living gave them greater happiness, 41% reported themselves equally happy in rural and urban life, while only 3% reported greater rural happiness. When asked what they would do if forced to leave the city, more migrants would go to another city (54%) than would go back to their village (39%). These results add to the puzzle. If most migrants view urban living as yielding them greater happiness, and most wish to remain in an urban area, why are their mean happiness scores lower than those of rural residents?

4. Possible Explanations

There are several possible explanations for these results. The first possibility is that migrants, when they decided to migrate from the village, had excessively high expectations of the conditions that they would experience in the city. We shall look for evidence that this might be the case by considering the characteristics of their urban life that reduce their welfare.

Second, the puzzle might be solved by recourse to the possibility of adaptation, following Easterlin's evidence.¹⁰ He argues that happiness depends both on income and aspirations, the former having a positive and the latter a negative effect. Moreover, as income rises over time, aspirations adapt to income, so giving rise to what has been called a 'hedonic treadmill'.11 When respondents are asked to assess how happy they had been in the past, when their income was lower, they tend to judge that situation by their current aspirations for income and therefore to report that they are more happy now. Similarly, when they are asked to assess their happiness in the future, when they expect to have higher income, they do not realise that their aspirations will rise along with their income and therefore report that they will be happier. This is possibly because, as findings from social psychology suggest, 'We don't always predict our own future preferences, nor even accurately assess our experienced well-being from past choices'.12

If current judgements about subjective wellbeing, whether in the past, the present, or the future, are based only on aspirations in the present, this might explain why migrants on average are less happy than rural people: aspirations could have risen after having made the decision to migrate. While aspirations might not be directly measurable, the implications of adaptation can be tested. Similarly, we might also find an explanation for why it is that migrants generally report that their happiness is higher, or at least no lower, in urban than in rural areas.

A second possibility is that people form their aspirations relative to some 'reference group', i.e. the people with whom they compare themselves. The reference group can change when they move to the city and find themselves with richer neighbours. The notion that aspirations depend on income relative to that of the relevant reference group comes from the sociological literature,13 and has been developed for China in related papers on subjective well-being.14 The literature on relative income was well summarised and evaluated in 2008,15 since when many more studies of the effects of relative income have been made, albeit mainly for developed economies. Other studies for developing countries which show the importance of reference groups include shifts in reference norms in Peru and Russia,16 comparison with close neighbours in South Africa,¹⁷ and rural-urban migrants retaining a village reference group in Nepal. 18 If the group with which the migrants compare themselves changes as a result of rural-urban migration and urban settlement, this might explain why their aspirations change. We can test whether migrants show 'relative deprivation' in relation to urban society.

Our third possibility is that the presence of members left behind in the village can place a burden on the urban members of the two-location family. Insofar as migrants remit part of their income, their own happiness score might fall and that of their rural family rise. Equivalently, our measure of the income per capita of the urban migrant household might overstate its disposable income per capita.

Fourth, our results might be explained by the untypical nature of the migrants. The lower happiness of migrants may be the result of their, or of their households, having characteristics different from those of the rural population as a whole. If this were the case, they could indeed have been less happy on average had they

remained in the village. Such happiness-reducing characteristics might be captured by the survey data - and thus be capable of being accounted for in the statistical estimations - or they might be unobservable to the researcher. For instance, it is possible that those rural-dwellers who by nature are melancholy or have high and unfulfilled aspirations hold their rural life to be responsible and expect that migration will provide a cure. They might therefore be more prone to leave the village for the city. If the self-selected migrants are intrinsically less happy, this might explain why the sample of rural-urban migrants has a lower average happiness score than does the sample representative of the rural population of which they were previously a part. Self-selection of this sort might also involve false expectations, in this case based on self-misdiagnosis. Its implications can be tested.

5. The Determinants of Happiness

Happiness functions were estimated to discover the factors associated with the happiness of rural-urban migrants¹⁹ so as to test the possible explanations 1, 2 and 3, just outlined. We proceed in stages: first, we estimate ordinary least squares (OLS) estimates of the happiness score with a full set of explanatory variables. Second, we investigate whether these explanatory variables have different effects on happiness depending on the length of time that the household had been living in urban areas by dividing the migrant sample into 'short-stayers' and 'long-stayers', i.e. those who had settled in the city for less and more than the median time (7.5 years) respectively. Third, we confine the sample to employed migrants, as this enables us to see whether working conditions, denoted by work-related variables, have an impact on happiness. However, because the full results are available elsewhere (Knight and Gunatilaka, 2009, 2012, on which this chapter draws heavily) we report only the variables that are critical for our story.

Table 4.2 reports, for the full sample but with only the most relevant variables shown, the average values of the explanatory variables (column 1) and then coefficients in the happiness function estimated with the full set of available explanatory variables (column 2). With the happiness score as the dependent variable (the variable to be explained) and various independent variables

(chosen as the explanatory variables), the estimated 'coefficients' on the explanatory variables indicate the effect on happiness made by a unit change in each explanatory variable, holding all other explanatory variables constant. The asterisks show levels of statistical significance: the more asterisks against a coefficient, the more statistically significant is the effect on happiness. In column 2, the coefficient on log of income per capita is significantly positive, and its value (0.20) indicates that a doubling of income raises the happiness score by about 0.14 points. Income is relevant, as predicted, but its effect does not appear powerful by comparison with either the presumptions of economists or the estimated effects of some other variables. For example, reporting to be in good health (rather than not in good health) raises the happiness score by 0.12 points according to column 2.

Migrants can be expected to adjust over time to urban life in various ways. On the one hand, as they overcome initial difficulties and become more settled, we expect their happiness to rise. On the other hand, their reference groups might change, from the poorer, village society to the richer, urban society, and this fall in perceived comparative status might reduce happiness. The length of time spent in the urban area is introduced as an explanatory variable, and also its square so as to allow the possibility that the relationship is curved rather than being a straight line. The variable and its square are both significant, the former positively and the latter negatively although only at the 10% critical level. The coefficients imply that the happiness score rises to a peak after 12 years and then declines. However, it is possible that there is selective settlement: happier migrants are more likely to choose to stay long in the city. This would tend to bias upwards the estimated returns to duration of urban residence. In summary, it would appear that migrants' happiness tends to rise over several years of urban living, but the evidence is weak.

In order to pursue the notion that reference groups can be important, the effect of relative income was investigated. Drawing on the urban and rural samples of the 2002 national household survey, the average urban income per capita in the destination city and (lacking information on the origin county) the average rural income per capita in the origin province of the migrant, are introduced. The expectation is that both have

Table 4.2: Happiness Functions of Rural-Urban Migrants: OLS Estimation

	Mean or proportion	Full sample	Below median duration	Above median duration
	(1)	(2)	(3)	(4)
Log of per capita household income	8.55	0.2081***	0.1295***	0.2766***
Duration of urban residence (years)	7.51	0.0136*		
Duration of urban residence, squared	84.83	-0.0005*		
In good health	0.90	0.1231**	0.0266	0.1691**
Expect big increase in income over next 5 years	0.07	0.2984***	0.2673**	0.3373**
Expect small increase in income over next 5 years	0.55	0.0262	0.0508	-0.0035
Expect decrease in income over next 5 years	0.10	-0.4033***	-0.3221**	-0.4506***
Log of average per capita income in city of current residence	8.97	-0.1204	0.0053	-0.2800**
Log of average rural income in province of origin	7.81	0.0700	0.1245	0.0519
Living with family members	0.88	0.1347	0.2079**	0.1283
Number of relatives and friends in city	7.19	0.0039*	0.0076	0.0016
Child still in village	0.32	-0.1250**	-0.1254**	-0.1131
No heating	0.65	-0.1499**	-0.2042***	-0.1166*
Constant		1.0248	0.4658	1.6702
R-squared		0.100	0.091	0.134
Number of observations		1850	925	926

Notes: Dependent variable in this table and in Table 4.4: Score of happiness based on cardinal values assigned to qualitative assessments as follows: very happy=4; happy=3; so-so=2; not happy=1 and not at all happy=0.Model 1 is for the full sample. Models 2 and 3 are based on sub-samples selected according to the length of stay in urban areas. The omitted categories in the dummy variable analyses are: single female; employed or labour force non-participant not healthy; in normal or worse than normal mood; change in income expected in the next five years. In this and subsequent tables, ***, **, and * denote statistical significance at the one per cent, five per cent and ten per cent levels respectively. The models have been clustered at city level for robust standard errors.

a negative coefficient, reflecting relative deprivation. The coefficient on destination income is indeed large and negative but not significantly so; that on origin income is small and positive and not significantly different from zero. If the migrant is living with family, or has relatives in the city who can be turned to for help, the effect on happiness is positive, but not significantly so in the former case. Having a child still in the village has a significant depressing impact. Of the housing variables, only lack of heating is significant: the effect is predictably negative.

Columns 3 and 4 of Table 4.2 reproduce the equation for two sub-samples: those who had less than 7.5 years of urban residence and those who had more, respectively. Only the notable variables for which there is a significant difference in coefficients are mentioned. The long-stayers have a higher coefficient on the income variable (0.25 compared with 0.12). This might be because, through self-selection, they are more successful and happier than the short-stayers. However, the result is also consistent with migrants learning to enjoy the costly pleasures of urban life and so becoming more materialistic as they get more involved in urban society. The long-stayers are

more sensitive to average urban income per capita in the destination city (a significant -0.28 compared with a non-significant -0.01). This suggests that over time urban residents increasingly become the reference group for migrants. Moreover, the fact that this makes them relatively less happy might explain why additional income becomes more important for their happiness.

The sensitivity of happiness to relative income in the destination city, especially for long-stayers, seems to agree with our second possible explanation, i.e. that migrants' aspirations rise as they adjust to their new urban environment. The extreme sensitivity of migrant happiness scores to income rank in the city (shown in Table 4.5 below) provides further supporting evidence.

These results were found to be unchanged using alternative versions of the happiness variable²⁰. An attempt was also made to examine the sensitivity of our results to the influence of the unobserved determinants of happiness.²¹ For instance, unobserved characteristics such as personal energy might raise both income and happiness, or happiness itself might improve motivation and so raise income. The income variable was therefore adjusted to correct for such unobserved influences, but the results of this exercise did not alter our story.²²

We investigated the effect of working conditions on the subjective well-being of employed respondents. In other words, does the unpleasantness and insecurity of urban work contribute to the unhappiness of migrants? Table 4.3 is based on estimates of the full sample equation of Table 4.2 but for employed respondents only, the reason being that it is then possible to add various employment-related explanatory variables.²³ The first column provides mean values and the second shows only the results for the additional variables as the coefficients of the variables in common barely change.

Where satisfaction with the current job is rated 4 for 'very satisfied' down to 0 for 'not at all satisfied', this variable has the expected positive and significant coefficient. Respondents were asked whether rural workers enjoyed the same treatment as urban workers in seven different aspects of the employment relationship. The negative answers were added to form an index of discrimination (ranging from 0 to 7). The coefficient is negative and significant, indicating that perceptions of discrimination contribute to unhappiness. Compared with being self-employed, having permanent work or long term contract work raises happiness but this result is not statistically significant, i.e. it could arise by

Table 4.3: Happiness Functions of Employed Rural-Urban Migrants: OLS Estimation

	Mean or proportion	Coefficient
Satisfaction with job	1.98	0.0735*
Index of discrimination	5.35	-0.0322***
Permanent or long-term contract work	0.05	0.1338
Temporary work	0.24	0.0079
Can find another job in two weeks	O.11	-0.0997
Can find another job in a month	0.23	-0.1213**
Can find another job in 2 months	0.10	-0.1478*
Can find another job in 6 months	0.13	-0.1917**
Need more than 6 months to find another job	0.17	-0.2140***
R-squared		0.129
N		1715

Notes: With the addition of employment-related variables, the specification of column 2 is identical to that of column 2 of Table 4.3, but the variables presented in Table 4.3 are not reported. The omitted categories in the dummy variable analyses reported are: self-employed; can find a job immediately. The equation has been clustered at city level for robust standard errors.

chance. Another aspect of the insecurity of urban employment can also be incorporated. Respondents were asked how long it would take them to find another job with equivalent pay if they lost their current job. Compared with 'within one week' - the reference category with which other categories are compared - the coefficients are generally significantly negative and increase steadily in size. The evidence is consistent with our first possible explanation: migrant employment can be unpleasant and insecure, and this depresses migrant happiness.

The third possible explanation emerges from theories of rural-urban migration expressed in terms of decision-making by the rural family, of which the migrant remains a part. The inference is that the average happiness score of migrants is low because they support their rural family members by remitting part of their income to them. In that case, our dependent variable cannot reflect the full gain in happiness of the two-location family. In principle the argument is weak. First, it is less plausible for settled than for temporary migrants. Second, 'utility-maximising economic agents' (a concept commonly used by economists!) are assumed to allocate their income optimally, i.e. at the margin gifts yield as much utility for the giver as consumption. Altruism and satisfaction that they are fulfilling their family obligations might raise migrants' happiness. So happiness need not fall if income is remitted. It is nevertheless true that migrant household disposable income per capita is often reduced by the presence of family members elsewhere.

It is relevant that 51% of migrant households made remittances, and that remittances represented 9% of household income for the sample as a whole and 17% for the remitting households. Do remittances reduce the happiness of respondents in migrant urban households, and so contribute to the low average happiness score? If that were the case, the variable log of household remittance per capita would be significantly negative in the estimated happiness function.²⁴ However, whether this term is added to the full estimated equation or the sub-sample of remitters, the coefficient on the remittance variable remains no different from zero. To illustrate, when the variable log remittances per capita is added to column 2 of Table 4.2 (not shown), the coefficient is a non-significant 0.0064. Thus, we found no evidence in support

of the third possible explanation, i.e. that migrants' happiness is reduced because they remit part of their income.

6. Why Are Migrants Less Happy Than either Rural Dwellers or Urban Dwellers?

Migrants might be less happy on average than either rural or urban people because they differ in their average characteristics, i.e. average endowments of happiness-affecting attributes such as health status. Here a different testing methodology is required. The migrants are compared with both rural and urban residents, employing a standard decomposition technique. The objective is to pinpoint the reasons for the difference in happiness. The decomposition shows the contribution to the difference in happiness that is made by each determinant of happiness.

We began by conducting a decomposition analysis of the difference in household mean income per capita, in order to throw some light on the representativeness and the motivation of the migrants. The decomposition methodology is explained in the technical box below, where it is illustrated in terms of differences in average happiness. Those migrating from rural China are indeed a selective and unrepresentative group. Migrant households, had they remained in the rural areas, would on average earn 10% less income than do rural resident households. There is also a considerable income advantage to their migration: the average income that migrant households actually earn is 2.64 times what they would earn in the rural areas. By contrast, if they were to migrate, average rural households would earn 2.19 times more than they actually earn. It appears that rural households possess productive characteristics that are relatively valuable in the countryside whereas migrant households possess productive characteristics that are relatively valuable in the city.

The average happiness score of rural people was 2.68 and that of migrants 2.37, implying a migrant shortfall of 0.31. Table 4.4 decomposes this gap into the parts which can be explained by differences between the two groups in the average values of their characteristics and by differences in the coefficients in the two

Technical Box

The Blinder-Oaxaca decomposition technique is employed to explain the difference in mean happiness between migrant and rural households. This is based on identical happiness regression equations for the two groups being compared. The choice of explanatory variables used is governed by the availability of the same variable in the two data sets, and by whether it is a successful predictor of happiness in the estimated happiness functions.

The decomposition is based on two equations:

$$H_{r} - H_{m} = X_{m} (a_{r} - a_{m}) + a_{r} (X_{r} - X_{m}),$$
 (1)

and

$$H_{r} - H_{m} = X_{r} (a_{r} - a_{m}) + a_{m} (X_{r} - X_{m}).$$
 (2)

In the equations, H_r , H_m are the mean happiness scores in the rural and migrant samples respectively, X_r , X_m are vectors of rural and migrant mean characteristics, and a_r , a_m are vectors of rural and migrant coefficients. Equation (1) enables us to pose the counterfactual question 'what would be the effect on the mean happiness of migrants if they had the same happiness function as rural people?', and equation (2) the question 'what would be the effect on the mean happiness of rural people if they had the same happiness function as migrants?' To illustrate the decomposition according to equation (2), the entry -55.39 in row 1, column 1 of Table 4.4 is obtained by multiplying the difference in mean log of income per capita by the migrant coefficient of log of income per capita, and the entry 1.01 in row 1, column 2 by multiplying the mean rural log of income per capita by the difference in coefficients, and then expressing these products as percentages of the gross mean difference in happiness. Only the decomposition based on equation (2) is reported in the table. However, the results for the alternative decomposition are very similar.

happiness functions. The figures show the percentage contributions of the difference in average values of characteristics and of the difference in coefficients respectively.

We see from the first column of Table 4.4 that the share of the difference in average happiness scores that is attributable to differences in average characteristics sums to -35%, and from the second column that the share attributable to differences in coefficients sums to 135%. The effect of characteristics is therefore actually to increase the difference in mean happiness scores. This is mainly due to the variable log of income per capita: the effects of income are the same in the two samples but migrants have higher incomes. The reason why migrants have lower average happiness must therefore be found in the different explanations for the happiness of the rural and urban residents, based on their different coefficients. The constant term, health,

and income expectations are the main contributors, and age is the big exception. The importance of the constant term implies that there are unobserved characteristics that we have not been able to include in the model which reduce migrant relative to rural happiness. For example, we are unable to standardise for the various social disadvantages that migrants encounter in the cities because the same variables are not available in the rural data set. Perhaps because rural people are on average less healthy than migrants - poor health being a deterrent to migration - they place a higher value on good health.

In both samples happiness is highly sensitive to expectations about future income in five years' time. It appears from Figure 4.2 that expectations of future income can influence current happiness. With the expectation of no change in income as the reference category in the dummy variable

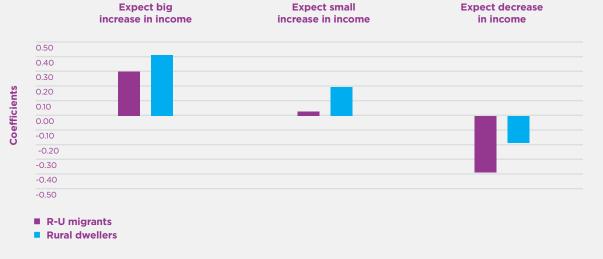
Table 4.4: Decomposition of the Difference in Mean Happiness Score between Rural-Urban Migrants and Rural Residents: Percentage Contribution to the Difference

	Using the migrants'	Using the migrants' happiness function	
	Due to characteristics	Due to coefficients	
Log of income per capita	-55.39	1.01	
Health	-5.81	94.41	
Income expectations	11.34	36.36	
Age	6.69	-131.54	
Other variables	7.95	5.48	
Sum (percentage)	-35.23	135.23	
Sum (score)	-0.1078	0.4137	

Notes: The mean happiness scores are 2.6764 in the case of rural residents and 2.3703 in the case of migrants, creating a migrant shortfall of 0.3061 (set equal to +100%) to be explained by the decomposition. This represents 100 per cent. The composite variables are age and age squared for age, married, single, divorced and widowed for marital status, and big increase, small increase and decrease for income expectations. 'Other variables' included in the equation but not reported are education, age, male, marital status, ethnicity, CP membership, unemployment, working hours, and net financial assets.

Figure 4.2: Rural-Urban Migrant and Rural Dweller Coefficients Of Variables
Denoting Expectations of Income in the Next Five Years, Derived from the
Happiness Equations Estimated for Table 4.4

Expect big Expect small Expect decrease increase in income in income



analysis, the coefficients in the migrant sample vary from 0.31, if a large increase is expected, to 0.05, if a small increase is expected, and to -0.39, if a decrease is expected; the corresponding estimates for the rural sample are 0.41, 0.19 and -0.19 respectively. The fact that in the migrant

sample the coefficients are uniformly lower, in relation to the expectation of static income, suggests that migrants have higher aspirations relative to their current income. This can be expected if aspirations depend on the income of the relevant comparator group. Whereas the

rural respondents are fairly representative of rural society, and so their mean income is close to the mean income of their likely comparator group, the migrant sub-sample is unrepresentative of urban society: migrants tend to occupy the lower ranges of the urban income distribution. If migrants make comparisons with urban-born residents, their aspirations will be high in relation to their current income.

Is the low mean happiness of migrants a general characteristic of city life? The inquiry can be pursued further by comparing migrants with 'urban residents', i.e. persons who are urban-born and or in other ways have acquired urban *hukou* status, with the rights and privileges that accompany it. The average happiness score of urban residents is 2.48 and that of migrants 2.37, implying a migrant shortfall of 0.11. Table 4.5 provides a decomposition exercise similar to that of Table 4.4 but with a different set of explanatory variables - those that are common to the two datasets.

In this case the differences in coefficients add slightly to the migrant shortfall in average

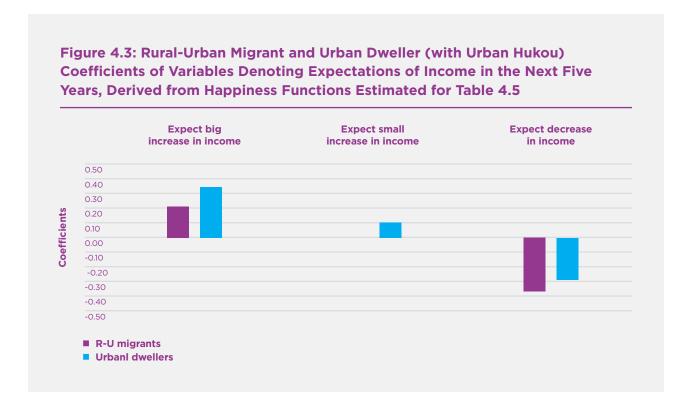
happiness score (in total, coefficients' share of the explanation for the difference in average happiness is -21%). The coefficient on the income variable is higher for urban residents (0.173) than for migrants (0.111), so raising urban relative to migrant happiness. The positive effect of income expectations reflects the lower coefficients in the migrant sample: with static expectations as the reference category, for migrants an expected big increase in income has a coefficient of 0.21, a small increase 0.00, and a decrease -0.37, whereas for urban residents the corresponding estimates are 0.34, 0.10, and -0.29 respectively. Again, migrants appear to have higher aspirations relative to their current income.

The contribution of the various income coefficients to the explanation of the difference in mean happiness is offset by the negative effects of such variables as age, gender and the constant term. Note that position in the city income distribution has a powerful effect on happiness. With the highest quarter of households being the omitted category, the happiness coefficient falls monotonically, to lower than -0.80 in the lowest

Table 4.5: Decomposition of the Difference in Mean Happiness Score between Rural-Urban Migrants and Urban-Hukou Residents: Percentage Contribution to the Difference

	Using the migrants' happiness function		
	Due to characteristics	Due to coefficients	
Log of income per capita	28.15	472.62	
Income expectations	-39.92	59.32	
Living standard in second highest quarter in city	-33.68	26.28	
Living standard in third highest quarter in city	-11.71	77.84	
Living standard in lowest quarter in city	175.93	-8.37	
Age	32.85	-594.05	
Male	-4.08	-46.78	
Health	-28.01	51.89	
Other variables	1.14	36.97	
Constant term	0.00	-96.38	
Sum (percentage)	120.67	-20.67	
Sum (score)	0.1342	-0.0230	

Notes: The mean happiness scores are 2.4845 in the case of urban residents and 2.3703 in the case of migrants, creating a migrant shortfall of 0.1143 (set equal to +100%) to be explained by the decomposition. This represents 100 per cent. The composite variables are age and age squared for age, married, single, divorced and widowed for marital status, and big increase, small increase and decrease for income expectations. 'Other variables' are education, marital status, ethnicity, CP membership, unemployment, working hours and net financial assets.



quarter. As this is true of both samples, it does not affect relative happiness.

The migrant shortfall in happiness therefore has to be explained in terms of differences in average characteristics (the total share of characteristics in accounting for the difference in average happiness is 121%). Two variables stand out: the higher mean income of urban residents improves their relative happiness, and their superior position in the city income distribution has the same effect. A far higher proportion of migrants than of urban residents fall in the lowest quarter of city households in terms of living standard (35% compared with 11%). This fact alone can explain more than the entire migrant deficit. If the income of the relevant comparator group influences aspirations, the inferior position of migrants in the city income distribution can also explain why they appear to have higher aspirations in relation to their current income.

7. Are Migrants Self-Selected?

It is evident that differences in unobserved characteristics are important for the differences in happiness. For example, the constant term in the decomposition presented in Table 4.4 explains more than the entire difference in the average happiness scores of migrants and rural-dwellers. Migrants might be less happy on average simply because inherently unhappy people tend to be the ones who migrate. Support for this idea comes from answers to the question as to whether urban living had yielded greater happiness than rural living. Despite the average happiness score being lower for migrants than for rural people, 56% of migrants thought that urban living made for greater happiness and only 3% disagreed. This is the picture that could emerge if migrants are intrinsically unhappy people whose happiness remains low despite improving after migration.

Migrants might be unhappy people because by nature they are melancholy or they have high but unfulfilled aspirations. However, the latter reason fits ill with the stereotype of migrants as relatively self-confident, optimistic, risk-loving individuals. Consider the implications of assuming both that migrants are naturally unhappy people and that migration does indeed generally raise happiness. Insofar as those migrants with a relatively unhappy disposition become absolutely happier albeit still relatively unhappy after migration, we might expect as high a proportion of unhappy as of happy migrants to report that their life is more satisfactory in urban than in rural areas. In fact the proportion falls, from 67% in the highest happiness category to 34% in the lowest

happiness category, suggesting that this sort of self-selection can at best be only a partial explanation for the lower average happiness of migrants.

The Technical Box below explains how it was possible to isolate that part of the happiness of each migrant that cannot be explained by our variables. We could then test whether this residual helps to explain the respondent's report that they are happier in the city than in the village. Table 4.6, predicting an affirmative answer, identifies the characteristics which have raised happiness. When the residual is introduced into the equation (column 2) the prediction is that it will not be different from zero if inherent and unchanging personality is the cause of unhappiness. However, the positive effect suggests that migration changed the unobserved characteristics of migrants. In that case inherent disposition cannot solve out puzzle.

Instead, migrants might select themselves on the basis of unobserved characteristics that are different or have different effects in the two locations. Several examples come to mind (beyond the case discussed under our second possible explanation, i.e. migrants' aspirations rise). If people who are dissatisfied with life in general but with village life in particular have a high propensity to migrate, migrants might have low average happiness in both locations but particularly in the village. For instance, own or family misfortune or bad family or village relationships could reduce a person's happiness but more so if they remained in the village. If migrants have high pre-existing aspirations which cannot be fulfilled in the village but have the potential to be better met in the city, this might have the same effect. In each of these cases the migrants would be likely to report that their urban life is better than their rural life had

Table 4.6: Determinants of Urban Living Happier than Rural Living: Employed Sample, Probit Estimation

	Marginal Effects of Probit Estimation	
	(1)	(2)
Log of per capita household income	0.0506*	0.0466*
Duration of urban residence (years)	0.0174***	0.0190***
Duration of urban residence, squared	-0.0003	-0.0004
Expect big increase in income over next 5 years	0.1657**	0.1766***
Expect small increase in income over next 5 years	0.0869**	0.0941***
Expect decrease in income over next 5 years	-0.0557	-0.0559
Difference between actual and predicted happiness score		0.1736***
Living with family members	0.1286**	0.1070*
Living in own house	0.1304**	0.1286**
Satisfaction with job	0.0719***	0.0768***
Number of observations	1715	1715

Notes: The dependent variable is the probability of being happier in urban areas. For the dummy variables denoted by (d), the marginal effects are denoted by dy/dx for discrete change of dummy variable from 0 to 1.

The variable, difference between actual and predicted happiness score, has been derived by obtaining predicted happiness score from estimating Model (1) in Table 4.3.The omitted categories in the dummy variable analyses are: single female; employed or labour force non-participant; not healthy; in normal or worse than normal mood; change in income expected in the next five years. Explanatory variables estimated in the equations but not reported in the table are: male, married, male and married, education, working hours, net financial assets, In average household per capita income in city of current residence, In household per capita rural income in province of origin,, permanent or long-term contract work, index of discrimination, can find another job in two weeks, one month, two months, six months, needs more than six months to get another job. The equations have been clustered at city level for robust standard errors.

Technical Box

The argument can be tested rigorously as follows. Estimating the predicted happiness score for each respondent (from column 2 of Table 4.2), the residual (actual minus predicted) score is the part of happiness that cannot be explained by our equation. The residual is made up of measurement error and two sorts of unobserved characteristics of the respondent: those which were present before migration and those which came after migration. A disposition to be happy or unhappy is of the former sort. Assume that migration had a similar effect on the happiness of all respondents whose unobserved characteristics did not change pre- and post-migration. In that case, we can test whether the residual helps to explain whether the respondent reported that their happiness was higher in the city than in the village.

Table 4.6 shows the results of a Probit regression predicting an affirmative answer.

Its two columns, presenting the marginal effects of each explanatory variable, both refer to the employed sample. The object is to identify the characteristics which have raised happiness. Comparing Tables 4.2 and 4.3 (using OLS) with Table 4.6 (using Probit), we see that some of the same variables that determine happiness also correspondingly determine an increase in happiness. When the residual is introduced into the equation corresponding to column 2 of Table 4.6, the expectation is that it will not be significantly different from zero if inherent and unchanging personality is the cause of unhappiness. However, the coefficient is positive and significantly so at the 1% level (column 2), and the marginal implies that a residual of +1.0 raises the probability of an affirmative answer by 17 percentage points. This positive effect suggests that migration changed the unobserved characteristics of migrants, in which case inherent disposition cannot solve the puzzle.

been, despite their low average urban happiness. A test of this type of explanation would require a survey which could reveal the happiness score, and the reasons given for unhappiness, before migrating

8. Other China Studies

One other study deals specifically with migrants.²⁵ It analysed the China Household Income Project (CHIP) survey [also known as the Rural-Urban Migration in China (RUMIC) survey] relating mainly to 2007. The research interest is in the effects of various measures of relative income on happiness. The data differed from that used in the analysis above in that it contained all rural *hukou* people present in the urban areas, i.e. both temporary and settled migrants, and the dependent variable was an aggregation of twelve measures of mental health.

It was found that subjective well-being is negatively affected by the incomes of other migrants and of workers in the home region. However, a positive coefficient was obtained on average income in the local urban area. This was interpreted as a 'signal' effect, i.e. the higher incomes of urban people served as a signal of future income prospects. A similar positive coefficient had been obtained and similarly explained for Russia.²⁶ It contrasts sharply with our finding of a negative coefficient. The contrast was explained as arising because our sample contained only settled migrants, who were more likely to have transferred their reference group from the village to the city. In support of this explanation, it was noted that the positive coefficient declined with years since migration. Containing very different definitions both of a migrant and of subjective well-being, the two analyses are not necessarily contradictory.

Another study examined the changes in the average happiness of urban, rural, and ruralurban migrant households between the CHIP 2002 and CHIP 2013 national household surveys.²⁷ The ratio of migrants' to rural households' income per capita was higher in 2013 than it had been in 2002: again, the economist's expectation is that rural people would have an incentive to migrate to raise their utility. However, the average happiness of rural-dwellers remained higher than that of migrants, although the gap had narrowed. The rise in migrant happiness was probably due to the rapid growth of their income, associated with the growing scarcity of migrant labour, and gradual (but minor) improvements in their urban treatment and conditions in recent years. We surmise that the fall in average rural happiness, despite a rise in average rural income, was because the loss of household members to the cities often left unbalanced families and villages behind, or because rural households' aspirations rose rapidly as their information about urban life improved.

9. Studies in Other Developing Countries

To what extent can the China story be generalised? In one respect - the harsh institutional and policy treatment of rural hukou migrants in the cities - China is likely to be exceptional. However, in many countries rural-urban migrants are at a disadvantage: their social networks are often weak, their education is liable to be of poor quality for urban life and work, and their village customs and weak assimilation might cause social discrimination. However, the available evidence cannot provide a clear answer to this question. It appears that research on the relationship between rural-urban migration and happiness in developing countries remains very limited.

Whereas our China case study found that migration may well have had the consequence of reducing subjective well-being, a study of Thailand found that a somewhat higher proportion of the permanent migrants in that sample experienced an increase in life satisfaction after migration than experienced a decrease.²⁸

The interpretation of our main finding in terms of changing reference groups is echoed in a

pioneering study for developing countries of aspirations relative to achievement which examined 'frustrated achievers' in Peru. More than half of those who had objectively achieved the largest income growth subjectively reported that their economic condition had deteriorated over the previous decade. Part of the explanation was to be found in their perception of increased relative deprivation.²⁹

In South Africa a very extensive system of temporary circular migration prevailed in the past. However, since the advent of democracy the country has increasingly experienced the permanent urban settlement of rural-dwellers. The same question has been posed for South Africa as was posed above for China.³⁰ That study reached similar results and suggested some of the same interpretations but used a different methodology. A longitudinal panel survey identified the happiness of rural people and their happiness four years later after rural-urban migration (excluding temporary migration). The real income of the migrants rose substantially, largely because of their migration. Yet sophisticated estimation yielded a fall in subjective well-being (measured on a scale of 0 to 10) of 8.3%. A favoured interpretation was that this reduction was the result of false expectations and changing reference groups after the migrants settled in the urban areas.

10. Summary and Conclusion

This chapter illustrates how it should be possible to go beyond a description of happiness and its correlates. Using microeconomic (individual and household) data based on a well-designed survey and questionnaire, microeconomic analysis can be used to explore and to answer interesting and important questions about what makes people happy or unhappy. The settled rural-urban migrants that we study are the vanguard of a great wave of settlement as the urban economy becomes increasingly dependent on migrants from rural China.

We have posed the question: why do rural-urban migrant households which have settled in urban China report lower happiness than rural households? Migrants had lower average happiness despite their higher average income: the income difference merely adds to the puzzle. It is a

question that cannot easily be answered in terms of economists' conventional models of ruralurban migration based on 'utility maximisation'. Four possibilities were examined. We found no evidence for the idea that happiness was reduced by the need for the migrants to provide support for family members in the village. Each of the other three possibilities involves false expectations, of three different types: prospective migrants may have false expectations about their urban conditions, or about their urban aspirations, or about themselves. What they have in common is that rural-urban migrants are likely to lack the necessary information to enable them to judge the quality of their new lives in a different world. For each of the three types of belief there are reasons why they are too optimistic about life in the city.

Consider first the idea that migrants are too optimistic about the conditions of city life. The fact that happiness appears to rise over several years suggests that migrants are able to overcome the early hardships of arriving, finding work, and settling in the city. However, some hardships remain, relating to accommodation, family, and work. Provided that accurate information had been available to prospective migrants, they should have taken account of adverse conditions reducing their happiness when deciding to migrate: expectations would not have been false. Why might migrants overestimate the conditions of their urban life and work? It is possible that, whereas expected income is quantifiable and understandable, other aspects of urban life have to be experienced to be understood. Moreover, expectations of conditions might be based on images of the lives of urban residents rather than those of rural-urban migrants, or the reports provided by migrant networks might be too rosy. The migrants, when they made their decisions to move, may have been realistic about their urban income prospects, whereas their expectations of living and working conditions could have been biased upwards. However, there is a caveat: the better the information flows to the villages. the weaker is the case for this possibility.

The second possibility is that migrants had falsely believed, at the time of migration, that their aspirations would not alter in the city. Consider the reasons why migrants' aspirations may have risen and now exceed their actual

achievements. When we conducted a decomposition analysis to discover why migrants have a lower mean happiness score than both rural dwellers and urban dwellers possessing urban hukous, in each case a major contribution came from the higher aspirations of migrants in relation to current income. This is consistent with the fact that over two-thirds of migrants who were unhappy or not at all happy gave low income as the predominant reason for their unhappiness. The relatively high aspirations might be explained by the lowly position of most migrants in the city income distribution: having relatively low income was shown to reduce their happiness. The evidence suggests that migrants draw their reference groups from their new surroundings, and for that reason have feelings of relative deprivation. It is plausible that migrants, when they took their decisions to move, could predict that their incomes would rise but not how their aspirations would rise as they became part of the very different urban society.

Consider the possibility that people with unobserved and invariant characteristics that reduce happiness have a higher propensity to migrate, in the false expectation that migration will provide a cure, and that their continuing unhappiness pulls down the mean happiness score. However, our test using the residual, unexplained component of individual happiness scores provided no support for this argument. Inherent disposition is unlikely to provide a good explanation for the low average happiness score of migrants.

There are other possible explanations which cannot be adequately tested by means of our data set. The one mentioned above is that migration is subject to 'selection bias' on the basis of unobserved characteristics which are different or have different effects in the two locations. Another is that rural-urban migrants, once they settle in the city, are induced by urban cultural norms to use a different scale for measuring happiness, and thus to report happiness scores lower than those of rural residents. We would expect the reported happiness of migrants to be higher before they have time to adjust their happiness scale. However, the average happiness score of migrants who have been in the city for less than three years is 0.08 points lower than the average for all migrants, and the regression results in

Tables 4.3 and 4.4 suggest that the standardised happiness score rises for more than a decade after arrival. Although it is not possible to refute the rescaling explanation, this evidence fails to confirm it. Yet another possibility is that migrants are willing to sacrifice current happiness for future happiness - plausible in a country with an overall household saving rate of no less than 24%. Migrants might be willing to put up with unhappiness because they feel that life will eventually get better for them or their children. Analysis of the 2002 CHIP survey found that a reason for the high happiness of rural-dwellers is that they place a high value on village personal and community relationships (Knight et al., 2009). A further possible contribution to the lower happiness of rural-urban migrants is that they come to realise that their social environment is less friendly and less supportive than it was in the village.

The absence of tests for these alternative explanations means that our conclusions have to be qualified. Further research based on better data sets is required to explain the puzzle in China and, if it is found to be a general phenomenon, in other poor urbanising societies.

Whatever the explanation, the obvious question arises: why do unhappy migrants not return to their rural origins? One reason is that the majority do perceive urban living to have yielded them more happiness than rural living. This result was found to be sensitive to expected income, and the majority of migrants did indeed expect that their incomes would rise over the next five years. Migrants were also more likely to favour urban living the longer they stayed in the city - possibly because they increasingly valued aspects of urban living that were not to be found in rural areas. Social psychology might again be relevant: migrants do not take into account how their aspirations will adjust if they return to village life. Alternatively, migrants might correctly expect that their new aspirations will not adjust back. So there might be symmetry in the way they view leaving their rural residence and not leaving their urban one. Another possible reason why unhappy migrants do not return to their origins - unfortunately not pursued in the survey - is that the cost might be prohibitive. This is plausible if their households have forgone the tenurial rights to village farm land and housing land that they previously held.

The main policy instrument available to a government that is concerned to improve the subjective well-being of rural-urban migrants is to reform the range of institutions and policies which place the migrants at a disadvantage in the cities. In some respects, however, migrants might have to take the initiative. There is scattered evidence that some rural-urban migrants have created a more supportive and helpful city environment for themselves - where migrants from the same village, county or area choose to concentrate in particular parts of a city.

The study has broader implications. Should social evaluation by policy-makers reflect measured happiness? The contrary argument has been examined and found wanting.31 The distinction made above between expected utility (which economic agents are assumed to maximise) and experienced utility (which happiness scores are assumed to measure) is relevant. Insofar as there is a systematic difference between the two, this can arise because of an unpredicted change in aspirations, for instance, owing to a change in reference group. In our judgement, changes in aspirations should be taken into account in assessing people's perceptions of their own welfare. To regard some objectively based 'true' utility as existing separately from subjectively perceived utility is effectively to make a normative judgement about what is socially valuable.

In many developing countries rapid rural-urban migration gives rise to various social ills - such as urban poverty, slums, pressure on infrastructure, unemployment and crime - which adversely affect the welfare of all urban residents. In contrast, by attempting to restrict migration the Chinese government has curbed these outcomes. For instance, in the 2002 national household survey few urban hukou residents reported that the presence of migrants constituted the greatest social problem - well behind corruption, lack of social security and environmental pollution. The fact that rural-urban migrants were the least happy group suggests that they themselves might foment unrest. However, because social instability probably requires not only unhappiness but also a perception that it is man-made and capable of being remedied, no such conclusion can be safely drawn.

The ongoing phenomenon of internal rural-urban migration in developing countries involves many millions of the world's poor. Not only their objective well-being but also their subjective well-being deserves more extensive and more intensive research. There is much to be done, both to advance understanding and to assist policymaking.

Endnotes

- 1 China's rate of natural increase of the urban population was low on account of the one-child family policy, and much reclassification was the result of migration from rural areas.
- 2 Knight and Song (1999: chs. 8,9)
- 3 Zhao (1999).
- 4 Knight and Song (1999: ch.9; 2005, chs.5,6).
- 5 Knight and Yueh (2008).
- 6 Gao et al. (2017: 285). These labour force figures are of course lower than the urban population figures of Table 4.1.
- 7 Knight et al. (2011: 597)
- 8 Knight et al. (2010: table 1).
- Organised by the Institute of Economics, Chinese Academy of Social Sciences, and designed by Chinese and foreign scholars including one of the authors.
- 10 In several papers but especially Easterlin (2003).
- 11 The explanation draws on the psychological literature to make the distinction between 'decision utility' and 'experienced utility': the utility expected at the time of making a choice and the utility subsequently experienced from that choice.
- 12 Rabin (1998:12).
- 13 At least as far back as Runciman (1966).
- 14 Knight et al. (2009); Knight and Gunatilaka (2010).
- 15 Clark et al. (2008).
- 16 Graham and Pettinato (2002), Senik (2004).
- 17 Kingdon and Knight (2007).
- 18 Fafchamps and Shilpi (2008).
- 19 Unless a variable is both important to our story and likely to be endogenous (as in the case of income, discussed below), we interpret the coefficients as indicating causal effects on happiness.
- 20 First, happiness was made a binary variable and estimated by means of a probit model; secondly, happiness was converted into a multinomial variable and estimated with an ordered probit model. The pattern of results was very similar to that of Table 4.3.
- 21 The same specification as in Table 4.3 (column 2) with the potentially endogenous variable that is most relevant to our tests, log of income per capita, now instrumented. The exclusion restrictions are mother's years of education, spouse's years of education, and the income that the migrant earned in the village before migrating, It is plausible that these variables do not directly influence current happiness (not even own happiness has a positive effect in Tables 4.3 and 4.4). The instrument passed the conventional tests.
- 22 The coefficient on income was raised but the effect was modest. One possible explanation for the rise is that hidden relationships have the opposite sign, e.g. higher aspirations raise income but lower happiness, or happiness discourages effort
- 23 Fortunately, few observations are lost.
- 24 With zero remittances set equal to one yuan.
- 25 Akay et al. (2012).

- 26 Senik (2004).
- 27 Luo (2017).
- 28 De Jong et al. (2002).
- 29 Graham (2005).
- 30 Mulcahy and Kollamparambil (2016).
- 31 Clark et al. (2008).

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