Earnings Equality in Teams with Common Microgeographic Origins: Evidence from Laoxiang Guanxi in Chinese Beauty Salons

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This paper demonstrates that coworkers with the same microgeographic origin split economically significant rewards more equally than other teams. We provide three unique contributions through our empirical setting of coworkers bargaining over team commissions in 32 beauty salons in Beijing, China. First, we show that worker teams with a common hometown value equality more than other teams, and that this result cannot be fully explained by common language, ethnicity, or nationality, and is unlikely to be explained by pre-existing friendships. We instead argue this equality preference is consistent with the social identity of common microgeographic origins referred to in China as "laoxiang guanxi." Second, we show that this social-identity favoritism exists even in the presence of status dynamics such as age, gender, and rank differences. Teams with a common hometown show more equal pay splits regardless of other team characteristics. Finally, we show that this split equality is not achieved by relationships developed through repeated teamwork. Our paper shows that, when worker teams are allowed discretion for collective decision-making such as the allocation of tasks or rewards, social identity is likely to play a key role in the bargaining process.

Key words: Social Identity, Bargaining, Negotiation, Equality, Compensation

1. Introduction

This paper argues that common microgeographic origins among workers can shape how workers negotiate with one another over valuable workplace resources such as desirable tasks, positions, recognition, and compensation. The notion that coworker competition is socially embedded is not new. Self-interest is crucial in theories of worker behavior across disciplines (Hölmstrom 1979), but this self-interest is part of a more complex decision process involving network connections (Granovetter 2005), social preferences (Arrow 1972, Roy 1952), and identity (Akerlof and Kranton 2000,

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Granovetter 1985). These factors play important roles in how workers internalize their own impact on the outcomes of those around them. What is less clear is whether workers are willing to sacrifice economically significant rewards based simply on a common hometown or other microgeographic region. We show that beauty salon workers, when bargaining over how to split valuable team-based commissions, arrive at more equal outcomes when they originate from the same hometown and that this hometown effect exists even in teams with heterogeneous status. Our unique contribution over prior research on geographic origins (Choudhury and Kwon 2018, Bandiera et al. 2010, 2005, Hjort 2014, Dahl and Sorenson 2012), however, is that we show common microgeographic origins are important even when all workers share common nationality, economic and social class, and ethnicity, which are mechanisms mentioned in prior literature.

We further support the importance of common hometowns by showing that this favoritism cannot be fully explained by the important role of common language dialects spoken among coworkers from broader regional areas. This result is novel because of the known role of common language in workplace settings (Neeley et al. 2012, Neeley 2013, Hinds et al. 2014) and its correlation with common geographic origins. Crucially, we also cast doubt on the possibility of our results emerging from preexisting social networks resulting in referral-based hiring (Castilla 2005, Burks et al. 2015). One could argue that existing social networks from common hometowns could facilitate job opportunities, which may, in turn, explain equal splits in teams with common microgeographic origins. While we cannot (and should not) rule out the role of such referrals, we argue that they are unlikely to explain our total effects, since we observe the increased equality in teams with the same hometown even in workers who have worked together and built relationships through repeated team interactions. We instead argue that our results are consistent with the role of laoxiang quanxi, or hometown ties, in Chinese business and society, which has been shown to affect scientific awards (Fisman et al. 2018), public spending (Do et al. 2017), political appointments (Fisman et al. 2020, access to capital (Batjargal and Liu 2004), worker competition (Kato and Shu 2016), and tax avoidance (Shen et al. 2019). Although laoxiang quanxi are commonly associated with China, hometown ties are representative of broader theories of place identity (Proshansky et al. 1983. Hernández et al. 2007) and place attachment (Hidalgo and Hernandez 2001, Low and Altman 1992) that generalize to common locations of different scales (e.g., country, region, city, neighborhood).

Another unique empirical contribution to these research areas is our ability to combine highstakes worker rewards with common microgeographic origins not confounded by other important factors such as language, nationality, social class, and ethnicity. This allows us to reasonably claim that it is the *identity* of common microgeographic origins that influences interactions among coworkers, and not one of many other factors that might correlate with geography. Furthermore, we are able to demonstrate that common microgeographic origins shape behavior even when that behavior is financially very costly to workers. In our setting, the team-based commissions over which workers bargain are critical income sources for low-wage subsistence workers. Furthermore, we can demonstrate that the relationship between common origin and bargaining equality is not subsumed by other important team composition components such as gender, age, and rank. We find limited moderating effects on common origin, whose impact persists even across teams with different compositions of known bargaining moderators related to power and status such as gender and age difference Bunderson and Reagans (2011), Eckel et al. (2010), Farh et al. (1998), Chen et al. (2012).

This paper also provides a unique and important contribution to several research streams in management and the social sciences. First, we provide the first evidence that favoritism based in common microgeographic origins influences peers' direct bargaining over pay and other rewards. Prior work has focused on how social preference influences competitive effort among peers with negative externalities (Bandiera et al. 2009, 2010, 2005, Hjort 2014). In our setting, the cost of such prosociality is undeniably salient and quantifiable. Furthermore, our work shows that there is something special about local geography in generating common origin, even when nationality, ethnicity, and language are common.

Our paper is one of the first to extend extensive laboratory evidence on social preferences in bargaining games (Fershtman and Gneezy 2001, Frey and Meier 2004) to peer bargaining among workers in firms. We demonstrate that these results generalize to field settings where the financial stakes are high and the coworking relationships are longer-term. In addition, we contribute to evidence that homophily powerfully shapes worker actions (e.g., Dimitriadis and Koning 2020), even when worker similarity is based solely on a common geographic origin.

Our work also emphasizes the importance of hometown origins in the growing literature on worker migration and organizational outcomes. Most of this work focuses on migration across national borders (e.g, Hernandez 2014, Balachandran and Hernandez 2020, Kulchina 2016, particularly among entrepreneurs. There is increased interest in worker migration patterns within countries (Choudhury and Kwon 2018), or the tendency to stay in places of origin(Dahl and Sorenson 2012)). Our paper adds to this literature by showing that even among ethnically homogeneous groups with the same native language, geographic origins are important for economic outcomes. This internal migration has been particularly important for labor markets in China(Tombe and Zhu 2019), India(Choudhury and Kwon 2018), and other Asian countries(Bryan and Morten 2019).

Finally, we contribute to the growing multidisciplinary and multi-method literature on complex behavioral-decision making in service and manufacturing operations (Roels and Staats 2021). This research stream has already helped transform the health-care sector (Staats et al. 2017, Edmondson 2003, KC and Terwiesch 2009, KC et al. 2013, 2020, Song et al. 2018, Ibanez et al. 2018) and has

expanded to incorporate behavioral responses in industries such as food service (Buell et al. 2017, Tan and Staats 2020, Tan and Netessine 2019, Pierce et al. 2015), manufacturing, and retail sales (Chan et al. 2014). Our results suggest that social ties based on common microgeographic origins could have a significant impact on how tasks and rewards are allocated in service and manufacturing firms. This finding is noteworthy especially in countries with strong inter state labor mobility like China, where migrant workers make up over one third of the labor force and work predominantly in the manufacturing and service industries.¹

2. Theoretical Background

2.1. Group Identity and Prosocial Behavior

People naturally categorize themselves and others into social groups with meaningful implications for both preferences and behavior (Tajfel 1974). Group identity might be based on geography (Park and Luo 2001), wealth (Gino and Pierce 2010), religion (Benjamin et al. 2016, Weber 2002), political affiliation (Falk and Zehnder 2013), ethnicity (Fershtman and Gneezy 2001, Yenkey 2015, Hegde and Tumlinson 2014), nationality (Ben-Ner et al. 2009), military platoon (Goette et al. 2006), or even classroom (Meier et al. 2016) or university affiliation (Gino et al. 2009). An extensive body of literature across disciplines shows that people are more prosocial toward ingroup members than toward outgroup members in a variety of economic games (e.g., Bernhard et al. 2006, Goette et al. 2006, Chen and Li 2009) and other experiments.

Ingroup favoritism has also been shown in a variety of natural work contexts. Bandiera et al. (2005) find that fruit pickers on a United Kingdom farm internalize the spillover of their productive efforts on their self-reported friends (i.e., ingroup members). They do so by withholding productive efforts when working with friends relative to non-friends under relative incentives, but not when working with friends under piece-rate incentives. Bandiera et al. (2009) find that managers on the same fruit farm exhibit ingroup favoritism when they are paid a fixed wage by allocating more managerial effort toward ingroup workers operationalized as those who share the manager's nationality, live in close proximity to the manager on the farm, or arrived on the farm at a similar time when managers receive fixed pay. As a result, productivity of fruit pickers is 9% higher when working with an ingroup than with an outgroup manager. Hjort (2014) finds that flower packers in Kenya shift flowers from non-coethnic downstream workers to coethnic downstream workers to help them gain more of the performance-based pay. Fisman et al. (2017) find that loan officers in India favor ingroup members belonging to their own religion or caste in their lending decisions.

Evidence also shows negotiation outcomes depending on group identity. Michelitch (2015) uses a field experiment to show that Ghana taxi drivers are willing to accept lower fares from riders who

¹ https://www.statista.com/topics/1540/migrant-workers-in-china/

share their ethnicity. Kramer et al. (1993) find similar results in a laboratory setting, where they manipulate social identity by asking MBA students to identify ways in which they are different from (i.e., low social identity) or similar to (i.e., high social identity) other MBAs in the program. The authors find that participants in the high social identity condition reach more equal outcomes than participants in the low social identity condition on a negotiation task.

2.2. Common Microgeographic Origins as a Source of Social Identity

A person's place of origin is an important source of social identity that can shape economic behavior. Psychologists have long recognized the importance of places of origin, which they explain through the concepts of place identity (Proshansky et al. 1983, Hernández et al. 2007) and place attachment (Hidalgo and Hernandez 2001, Low and Altman 1992). Although a number of prior studies provide evidence of identity-based favoritism rooted in one's home country (Bandiera et al. 2009), much fewer focus on social identity based on microgeography such as hometowns.² Do et al. (2017) and Burgess et al. (2015) provide public-sector evidence showing hometown favoritism in infrastructure improvement. In a civic setting, Falk and Zehnder (2013) find higher willingness to trust strangers in Zurich when both individuals originate from the same district. Yonker (2017) provides one of the clearest studies within firms, showing managers are less likely to reduce pay or employment of subordinates at locations nearer their hometowns.

Employees' local place of origin is a particularly salient source of social identity in China, where our study is based. Hometown ties, or laoxiang guanxi in Chinese, are woven into the Chinese cultural fabric and serve as a deep-seated foundation for social identity in China (Tsui and Farh 1997, Park and Luo 2001, Li 2011, Chen and Chen 2004, Shen et al. 2020). For example, when two Chinese people from the same hometown meet for the first time, a typical conversation might proceed as follows: "Where are you from?" "I am a Shanghainese." "We are laoxiang to each other! I am also a Shanghainese!" In such conversations, Shanghai is not simply a place of origin but also a key source of identity. The word "laoxiang," meaning a person with the same place of origin, evokes feelings of closeness and warmth. Identifying another person as a laoxiang immediately places this person in one's ingroup. A famous Chinese saying, "laoxiang jian laoxiang, liang yan lei wang wang," describes a situation in which two strangers from the same hometown tear up immediately after running into each other far away from home. Laoxiang guanxi is so powerful in Chinese society that it is even evident in overseas communities of native Chinese (Crissman 1967).

Despite the cultural significance of *laoxiang guanxi* in China, direct empirical evidence consistent with favoritism based on *laoxiang guanxi* in economic domains such as firms is limited, with

² Other work shows the role of common schooling in financial investment and Congress (Cohen et al. 2010, 2008, Cohen and Malloy 2014).

most work based on government and other public organizations. Using field interviews, Wang (2016) concludes that military officers who have hometown ties with superiors are more likely to obtain promotion within the People's Liberation Army. Consistent with Wang's (2016) qualitative evidence, Fisman et al. (2018) show that hometown ties to selection committee members increase candidates' probability of obtaining membership to two highly prestigious scientific organizations-the Chinese Academy of Sciences and the Chinese Academy of Engineering-by 39%. Several recent papers also find that hometown ties lead to increased leniency in government audits of prefecture government (Chu et al. 2021) and tax avoidance (Shen et al. 2019). However, the same research group (Fisman et al. 2020) find the opposite in selection to the Central Politburo, so the career benefits of common geographic origins are not universal.

One of the few papers to examine *guanxi* in firms is Kong et al. (2020), who provide evidence that CEO hometown connections with suppliers increase access to trade credit that is crucial for efficient supply chains.

2.3. Common Microgeographic Origins as a Source of Bargaining Equality

The effects of common microgeographic origin such as laoxiang guanxi might be evident in hierarchical relationships, as in Fisman et al. (2018), but they are also likely to occur in relationships among peers. As Pierce et al. (2021) explain, teams of peers within organizations constantly bargain over the division of both tasks and rewards. The most powerful workers can select higher-status, more visible, or easier tasks while others are relegated to important but unrewarded tasks such as "committee secretary" (Babcock et al. 2017) or other menial work. Even when the individual rewards from team labor are not monetarily quantifiable, as in our study, the impact of unequal rewards such as recognition or promotion can have significant career and financial impact (Sarsons et al. 2021).

Based on all this prior work, we expect that ingroup favoritism based on the common microgeographic origin associated with *laoxiang guanxi* will result in more equal bargaining outcomes in a setting in which self-managed teams allocate team-based rewards to its members. We also expect that this equality effect will be economically meaningful and exist despite other important forces that influence negotiation or bargaining outcomes. Our setting provides such a test.

3. Empirical Setting

We conducted our investigation in 32 beauty salons belonging to the same brand, in Beijing, China. These salons provide a variety of body (e.g., body and foot massage, skin rejuvenation and resurfacing) and hair (e.g., cut, style, color, and deep conditioning) treatments. Our data cover 50 months from April, 2009 to May, 2013. During this period, 1,212 employees worked independently or in teams to provide services and sell prepaid cards to customers. The services in our data cost,

on average, 144.8 RMB, which is equivalent to 22.5 USD at the time the data was generated (i.e., 2009 to 2013). The prepaid cards sold for an average of 2501.3 RMB, which was equivalent to 387.8 USD, and generated a 9% team commission to the employee team involved in the sale for an average of 225.2 RMB (34.9 USD). A unique characteristic in our setting is that the workers involved in the sale of a prepaid card have full discretion on how to split that commission. Consequently, they bargain with one another for a share of each team commission, after which the bargaining outcomes (the individual commissions) are entered into the commission database of the company. This peer bargaining for team-based commissions affects a significant portion of total pay. Employees average 68.1% of total earnings from individual service commissions with the remaining 31.9% from their share of card sale commissions.³

3.1. Employee Demographics

Another unique characteristic of our empirical setting is that employees in our data come from many different regions and hometowns in China, as represented in Figure 1. This is partially because all salons are in Beijing, which attracts migrant workers from across different regions of China. In fact, according to a report published by the Beijing Municipal Bureau of Statistics in 2019, Beijing has a population of 21.5 million, 7.45 million (or 34.6%) of which are considered to be a mobile population who temporarily migrate to Beijing from other regions in China for better job opportunities. Approximately half of the employees in our salons (54%) were men with 26% having a high school education or higher. The employees' average age was 27.7.

All employees in our data were required to speak Mandarin Chinese fluently according to the company's hiring policy. Employees were also allowed to speak their local dialect when speaking with customers and fellow employees who speak it. In China, people use hundreds of spoken Chinese dialects, which are divided into ten dialect groups (i.e., Mandarin, Wu, Gan, Xiang, Min, Hakka, Yue, Jin, Huizhou, Pinghua).⁴ While dialects within the Mandarin group are intelligible to most Chinese because the official language of China belongs to this group, dialects among the other nine groups are mutually unintelligible. Employees in our sample spoke a total of 97 dialects. As such, dialects spoken by most employees were unintelligible to other employees from different dialectic regions.

Although we have no information about the ethnicity of the employees in our data, 91.59% of the Chinese population is Han Chinese based on the Sixth National Population Census of 2011.

³ The dataset used in this paper is similar to that in Pierce et al. (2021) but not identical since the criterion in selecting qualified employees are less stringent in this paper as we do not need to estimate precise employee fixed effects. Therefore, there are slight differences between the summary statistics reported in this paper and Pierce et al. (2021).

⁴ https://en.wikipedia.org/wiki/List_of_varieties_of_Chinese

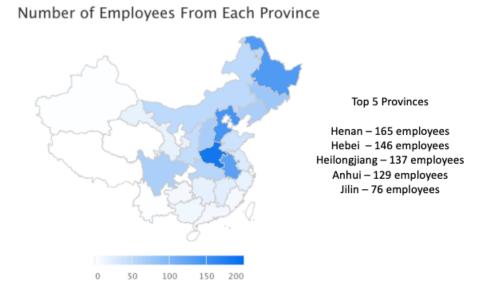


Figure 1 Employee Hometown Heatmap

Note: This figure shows the distribution of regional origins of all workers in our sample.

The remaining 8.41% is made up of 55 minority ethnic groups; 819 (67.6%) of 1,212 employees in our data come from provinces with more than 95 percent Han Chinese, and 1051 (86.7%) of 1,221 employees come from provinces with more than 90 percent Han Chinese. Figure 1 shows a heat map of the number of employees in our data set from each province. The probability that two randomly selected employees from the same home province also belonged to the same minority ethnic group was less than 1%. As a result, employees in our data were ethnically homogeneous Chinese nationals from many different regions of China speaking both Mandarin Chinese and a large variety of local dialects. Panel A of Table 1 shows the summary statistics of all employees in our data set.

3.2. Prepaid Card Sales and Team Bargaining

All employees who interact with a customer can attempt to sell the customer a new prepaid card or convince the customer to load more money to his/her existing card. This process starts when the customer is greeted by a host. Employees take turns being the host when they are not busy with customers. The host helps the customer navigate the salon's menu of treatments. The host can also initiate a prepaid card sale by introducing to the customer many benefits (e.g., discounted and free services) associated with having a prepaid card, although he/she is not required to do so. If the host does not initiate a card sale, any employees who interact with the customer subsequently can make the pitch. Only employees who are directly involved in the sale of a prepaid card are entitled to receive all or a portion of the 9% commission. For example, if two employees provided a service

to a customer, but only one employee worked with the host to convince the customer to purchase a 2000 CNY prepaid card, only this employee and the host would bargain over a team commission of 180 CNY (i.e., 2000 CNY x 9%). In the case of a team-based sale, there are no formal rules for the division of the team-based commission. Based on our discussion with management, if team members agree that a sale is closed by a specific team member, it is common for this team member to receive between 70 and 80% of the total commission. However, this percentage can vary. If a "closer" is not easily identifiable or agreed upon, the team can divide the commission equally or in any way they deem fair.

Our data includes 74,101 card transactions. 39,450, 28,262, and 6,383 of these transactions involved one, two and more than two employees, respectively. As such, our data include the final bargaining outcome for 34,645 instances of team bargaining, 81.6% of which were between two employees. Our main model focuses on the 28,262 two-employee prepaid card transactions for several reasons. First, our main dependent and independent variables (i.e., commission split equality and common hometown) are not well-defined when there are more than two employees. We will explain this later when we construct alternative metrics for teams of more than two employees that show qualitative similar results. Second, as shown above, the majority of the transactions involved two employees.

Panel B of Table 1 presents summary statistics for 28,262 card sale transactions involving two employees. On average, these card sales were 2,501.3 RMB (354.3 USD), which generated on average 212.3 RMB commissions that could be split between the two involved employees. On average, 9.96% of transactions were associated with teams consisting of two employees from the same province, while 1.21% of transactions were associated with teams consisting of two employees from the same hometown (i.e., county-level administrative region). These same-hometown transactions represented 154 unique workers across 54 hometowns (out of 634 total hometowns in our data). Among all the transactions, 10.45% involved workers who spoke the same dialect. On average, the number of days from the first time the two people in a team worked together to the day of the focal transaction was 12.1, which roughly represents any two employees' experience with one another.

3.3. Staffing and Team Formation

All salons operate seven days per week. In a given week, employees are assigned to five or six 10-hour shifts. Employees take turns taking one or two days off each week. A key characteristic of our setting is that worker schedule and team assignment are determined though a quasi-random process.⁵ Employees can be broadly classified into two categories: stylists who provide hair treatments and beauticians who provide facial and body treatments. Stylists are further classified into senior stylists

⁵ See Pierce et al. 2021 for formal tests of this assignment process.

Table 1 Summary Statistics of	Two-employe	e Card T	ransactio	ns and	Workers	
Variable	No. of Obs	Mean	Std	Min	Max	
Panel A:	Worker Chara	cteristics				
Age	1,221	27.7	8.1	19	47	
Start Year	1,221	2010.8	1.12	2009	2013	
Male	1,221	0.54	0.5	0	1	
High School Education	1,221	0.26	0.44	0	1	
Panel B: Two-employee Card Transactions						
Revenue	28,262	2,501.3	3,346.7	8.0	100,000	
Commission	28,262	212.3	289.7	0.72	9,000	
Hour	28,262	16.9	3.7	0	23	
Month	28,262	6.5	3.6	1	12	
Year	28,262	2011.7	0.92	2009	2013	
Same Hometown	28,262	1.21%	11%	0	11	
Same Province	28,262	9.96%	30%	0	11	
Same Dialect	28,262	10.45%	31%	0	11	
NumDays From First Transaction	28,262	121.3	191.9	0	1365	

Note: The table contains all observations related to the 1,212 workers in our data. All currency is in Chinese yuan (CNY).

and junior stylists. Customers pay a premium for services that are labeled "senior" indicating that the key tasks in that service are performed by a senior stylist. As a result, while senior stylists can perform all hair-related tasks, junior stylists are excluded from performing certain key tasks in services with a "senior" label. For example, while a junior stylist normally completes all tasks in a junior haircut, they can only wash the customer's hair (i.e., a peripheral task) in a senior haircut, leaving the cutting and styling to a senior stylist. To ensure fair customer and task assignment, employees rotate within their own function and rank group for task assignment and are not allowed to choose their tasks and customers. When a new task becomes available (e.g., a customer who ordered a senior haircut needs her hair washed), the next available employee whose function and rank best matches the task (e.g., a junior stylist) will take the task. Customers sometimes request a specific employee. For example, if the customer who orders a senior haircut requests a specific senior stylist, the next available junior stylist will first wash her hair. The customer will then wait for the requested senior stylist to become available to cut her hair. As such, neither the senior nor junior stylist can choose their partner regardless of whether the customer asks for a specific stylist, resulting in a process through which workers are randomly assigned to a team based on the combination of tasks associated with the services ordered by a specific customer. Because customer needs vary, team composition varies substantially throughout the day.

4. Identification Strategy

In this section, we will first introduce our definition of bargaining inequality between two-employee card transaction. We will then discuss our empirical model.

4.1. Variable Definitions

We measure our main dependent variable, bargaining inequality, at the employee-transaction level, defining it for employee i in transaction j as the extent to which employee i's actual share of the commission for transaction j deviates from an equal share. This is calculated as follows:

Equality Deviation_{$$ij$$} = $|Cut_{ij} - EqualCut_{ij}|$,

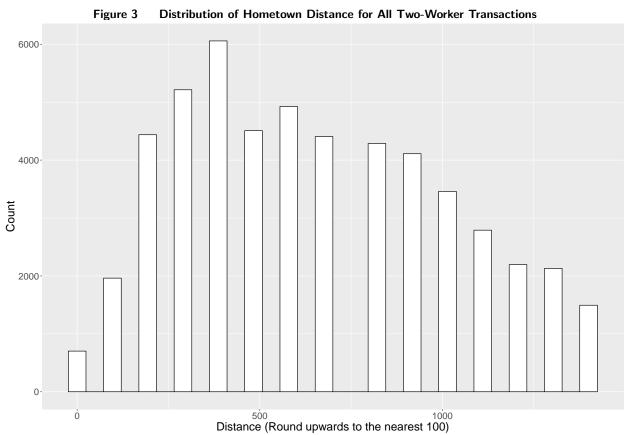
where Cut_{ij} is the actual commission employee i gets for transaction j divided by the total commission generated by transaction j, and Equal Cut_j is 1 divided by the number of members in the team. For a transaction completed by a team of two employees, Equal Cut equals 50%; for a transaction completed by a team of three, Equal Cut equals 33.3%. If a team splits the commission equally, EqualityDeviation $_{ij}$ equals zero regardless of the team size. If a team of two splits the commission 100/0, EqualityDeviation $_{ij}$ equals 50% for both members of the team. As such, for teams of two, EqualityDeviation $_{ij}$ ranges from 0% to 50% and has the same value for both members of the team regardless of how the team splits the commission. However, if a team of three splits the commission 100/0/0, EqualityDeviation $_{ij}$ would equal 66.7% for the employee receiving 100% of the commission, and 33.3% for the two employees receiving 0%. As a result, for teams of three, EqualityDeviation $_{ij}$ ranges from 0% to 66.7%, and this range gets even wider as team size increases. Because our measure of bargaining inequality is more comparable among observations when team size is held constant, we only use data from teams of two for all of our main analyses. We will show later that our results do not qualitatively differ if we include teams of larger sizes.

Our main independent variables capture whether employees in a team share a common geographic origin or dialect. We measure common geographic origin using the hometown of each employee. We define SameHomeTown_j as 1 if all employees in transaction j come from the same county-level administrative region, and 0 otherwise.⁶. Figure 3 presents the distribution of hometown distances in miles for all two-person transactions with those with the same hometown represented as zero miles.

We determine the specific dialect employees speak by tracing the hometown at the county level to the dialect spoken in the region using the dialect map published by Baidu Encyclopedia, the largest search engine company in China.⁷ While each county-level administrative region can only be mapped to one dialect, each dialect is often mapped to multiple county-level administrative regions.

 $^{^6}$ An average county-level administrative region in China has a population around 0.44 million according to https://en.wikipedia.org/wiki/Counties_of_China

⁷ https://baike.baidu.com/



Note: This figure shows the distribution of distances (in miles) between the hometowns in all two-worker transactions. All bins are rounded up, such that 100 represents all transactions with distances between 1 and 100 miles. Samehometown transactions are represented by zero.

4.2. Empirical Model

To test the relationship between common micro-geographic origin and bargaining outcomes, we estimate the following linear regression model:

EqualityDeviation_{ij} = SameHomeTown_j +
$$g(\text{TotalCommission}_j)$$
 + Weekday_j + Month_j +
$$\text{Year}_j + \text{Store}_j + D_i + \text{TeamControls}_j + \epsilon_{ij}, \tag{1}$$

where EqualityDeviation_{ij} and SameHomeTown_j are as previously defined. We control for the size, time, and location of the transaction. TotalCommission_j is the amount of total commission generated by transaction j; $g(\cdot)$ are fourth-order polynomial functions. Weekday_j equals 1 if transaction j took place on a week day and 0 on the weekend; Month_j, Year_j, and Store_j indicate the month, year, and store in which transaction j took place. We also include worker fixed effects for worker i, D_i , to control for time- and partner-invariant worker characteristics such as gender, skill/ability, and baseline social preference that may affect the worker's share of commissions. We cluster standard errors by employee to account for the interdependence of their bargaining decisions.

The cut for employee i in transaction j depends not only on the characteristics of worker i but may also on the combination of characteristics of workers in the team. For instance, workers who come from the same hometown may have similar ranks and, in turn, have lower bargaining inequality. Therefore, we also control for several aspects of the team demographics, i.e., the combination of two workers' demographics, that may influence the equality of the bargaining outcomes for a focal transaction j (i.e., TeamControls $_j$). TeamControls $_j$ include categorical controls of (a) a categorical variable that includes the ranks of two employees in the transaction, (b) a categorical variable indicating the combination of genders of the two employees in the transaction, (c) a continuous variable representing the difference in ages between two workers in the team, and (d) a categorical variable indicating the title combination of two employees. There were three ranks of employees in our dataset: intern, junior, and senior. The six most commonly coded types of transactions involved more than 70% of all transactions: "facial beautician," "style," "stylist haircut," "massage," "simple haircut," and "hair care." The remaining 30% included over 1,000 rare task descriptions that we collectively code as "other."

5. Results

In this section, we first discuss the main effects of originating from the same hometown on workers' bargaining equality. We then demonstrate the persistence and robustness of this relationship.

5.1. Having the same hometown increases split equality

Table 2 presents the impacts of common hometown on equality deviations of card transactions using Equation 1 with different control specifications. Column (1) of Table 2 shows that, without any controls, employees from the same hometown have 1.9 percentage points lower equality deviation compared to employees from different hometowns in card transactions with two employees. The average equality deviation is 21.06 percentage points; therefore, a difference of 1.9 percentage points can be translated to a 9% decrease in equality deviation. Column (2) shows the same results after controlling for weekday, month, year. and store fixed effects; a comparison of results in Column (1) and (2) shows that, after controlling for time and store fixed effects, the impact of common hometown on equality becomes larger and more significant.

In addition to time and store fixed effects, Column (3) of Table 2 contains worker fixed effects. Therefore, the estimates in Column (3) capture within-worker differences. These results suggest that adding worker fixed effects does not change the results qualitatively or quantitatively. In other words, we can rule out the possibility that individuals who work in teams with others from the same hometown are more prosocial regardless of with whom they work.

Column (4) controls for the absolute age differences between two team members in addition to controls in Column (3), and the results are barely changed. This specification allows us to rule out

	Effect of H	ometown on	Equality De	viation (i wo	-Employee	ransactions	
	Dependent variable: Equality Deviation						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Same hometown	-0.019*	-0.026***	-0.027***	-0.026***	-0.026***	-0.019***	-0.017***
	(0.011)	(0.007)	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
Total commission	-0.711***	-0.842***	0.062	0.062	0.120	0.500***	0.551***
	(0.272)	(0.244)	(0.194)	(0.194)	(0.195)	(0.188)	(0.186)
(Total commission) ²	0.278*	0.469***	0.241*	0.244*	0.228*	0.241*	0.210
,	(0.160)	(0.139)	(0.134)	(0.134)	(0.133)	(0.135)	(0.134)
(Total commission) ³	0.360***	$0.017^{'}$	-0.013	-0.017	-0.012	0.064	0.087
,	(0.140)	(0.127)	(0.122)	(0.122)	(0.122)	(0.121)	(0.120)
(Total commission) ⁴	-0.262*	0.020	0.168	0.172	0.164	0.196	0.189
,	(0.148)	(0.131)	(0.130)	(0.130)	(0.130)	(0.134)	(0.133)
Team age difference	` ′	` ,	,	0.0004***	0.0003***	0.0001	0.0001
				(0.0001)	(0.0001)	(0.0001)	(0.0001)
Constant	0.211***			, ,	, ,	, ,	,
	(0.002)						
Time and Store FEs	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FEs	No	No	Yes	Yes	Yes	Yes	Yes
Team Age Controls	No	No	No	Yes	Yes	Yes	Yes
Team Rank Controls	No	No	No	No	Yes	Yes	Yes
Team Title Controls	No	No	No	No	No	Yes	Yes
Team Gender Controls	No	No	No	No	No	No	Yes
Observations	56,524	56,524	56,524	56,524	56,524	56,524	56,524
\mathbb{R}^2	0.001	0.104	0.211	0.211	0.215	0.248	0.254

Table 2 of Hometown on Equality Deviation (Two-Employee Transactions)

Note: Standard errors are clustered at the employee level. *p<0.1; **p<0.05; ***p<0.01

an age-based alternative explanation. Namely, workers from the same hometown are more likely to have similar ages and split more evenly. Column (5) of Table 2 includes additional controls for the combination of ranks in the team. Since employees can have three different ranks, the combination of ranks in a team can take $3 \times 3 = 9$ different levels, such as "senior-senior," "senior-junior," and so on. Since the estimates in Column (5) are almost identical to those in Column (4), we can rule out the alternative explanation that teams from the same hometown are more likely to have people with similar ranks who are then more likely to split more equally.

Column (6) includes additional controls for the combination of titles. Since employees may have seven different titles (including "other"), this control accounts for $7 \times 7 = 49$ different combinations of titles. It can be seen that, after controlling for the combination of titles in a team, the impact of having the same hometown reduces from 0.026 to 0.019 but remains highly significant. This finding shows that people from the same hometown are more likely to do jobs that generate more equal splits compared to people from different hometowns, but this effect cannot fully explain the impact of having the same hometown on the equality of bargaining outcomes. Finally, Column (7) controls for the gender combinations of the team members in addition to all controls in Column (6). Again, the magnitude of the estimate decreases slightly but remains significant. This finding suggests that people from the same hometown are more likely to form same-gender teams that reach more equal bargaining outcomes, but this effect cannot fully explain the impact of having the same hometown on bargaining equality.

In summary, Table 2 shows that the effect of having the same hometown on bargaining equality is robust to including different sets of controls. Comparing different columns of Table 2, we observe that, while workers from the same hometown may form teams with certain demographics associated with more equal bargaining outcomes, team demographics alone cannot fully explain the impact of having the same hometown. Moreover, the estimated effect is robust to including time, store, and worker fixed effects, ruling out alternative explanations such as workers from the same hometown being inherently more prosocial or tending to work in stores with more prosocial norms.

To highlight the importance of coming from the same town as opposed to nearby towns, we present raw data with standard errors in Figure 4 to show how bargaining equality changes as the distance between two employees' hometowns increases. Transactions with workers from the same hometown are coded with a value of zero miles. On the x-axis, 0 contains all transactions with employees from the same hometown, and 100 contains transactions with employees whose hometowns are not the same but are less than 100 miles apart. There is a sharp increase in EqualityDeviation when the distance goes from 0 to any positive distance, and EqualityDeviation does not monotonically change with distance once the distance is above 0. This graph shows that having a common hometown is crucial for increasing bargaining equality between two employees. When two employees come from different hometowns, even if the two towns are in close proximity, they do not reach more equal bargaining outcomes.

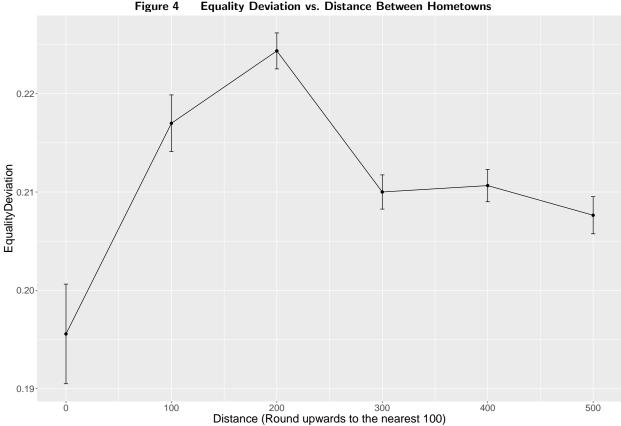
5.2. Having the same hometown increases equality even with power and status differences

While our earlier models controlled for certain group combinations, such as gender, seniority, and title, we are interested in whether the same-hometown effect exists even with large power and status differences within teams. Bargaining and negotiation outcomes are widely known to depend on the relative power and social status of the participants (Malhotra and Bazerman 2008, Elfenbein 2015, Amanatullah and Tinsley 2013, Blader and Chen 2012, Brett and Thompson 2016). Those in positions of formal (i.e., authority) or informal power are likely to receive larger shares, thereby generating less equal outcomes on average. Similarly, status differentials in bargaining tend to generate unequal splits both in laboratory and field settings. Given the ability of higher-power or higher-status workers to extract larger (and thus unequal) commission splits, we wish to test whether a common microgeographic origin with a coworker still motivates such workers to allow a more equal split.

We do so using three team characteristics likely to represent unequal power or status.⁸ First, we examine the potential role of age differences within teams. In Asian cultures such as our setting,

⁸ It is impossible to differentiate these in our field setting.

zero miles.



Note: This figure shows the relationship between EqualityDeviation and the distance between hometowns in all two-

person transactions. Whiskers represent =/- 1 SE. Same-hometown transactions are represented with a distance of

age typically yields status and respect that can lead to deference in decision-making or resource allocation (Bond and Hwang 1986, Nishiyama 1971, Knutson et al. 2000). Consequently, as the age difference between two employees increases, we might expect bargaining inequality to also increase. Second, we represent power differences through employee rank, which represents a combination of seniority and expertise. Finally, we examine gender differences as representative of differences in power. A substantial literature shows mixed-gender bargaining outcomes to be less equal, with women receiving worse rewards and more onerous tasks (Babcock et al. 2017, Sarsons et al. 2021, Bowles et al. 2007). Furthermore, prior research using these data has shown this to be strongly the case in our setting (Pierce et al. 2021).

We expect inequality in each of these three measures of power/status to correlate with inequality in the commission split, but, just as importantly, we examine whether they moderate the effect of same hometown. More specifically, we ask if the negative relationship between same hometown and inequality is still important when the teams are unequal on these three measures.

	De	ependent varia	ible:
	EqualityDeviation		
	(1)	(2)	(3)
Same hometown	-0.025**	-0.024**	-0.021***
	(0.012)	(0.010)	(0.007)
Team age difference	0.0002*	, ,	,
	(0.0001)		
Same rank		-0.009***	
		(0.002)	
Same gender		, ,	-0.034***
			(0.003)
Same hometown $\times Teamagedifference$	0.001		
	(0.001)		
Same hometown $\times Samerank$,	0.013	
		(0.012)	
Same hometown $\times Same gender$			0.009
			(0.014)
Total commission	0.423**	0.475**	0.534***
	(0.188)	(0.185)	(0.186)
(Total commission) ²	0.266*	0.238*	0.215
,	(0.136)	(0.135)	(0.135)
(Total commission) ³	$0.055^{'}$	0.078	0.086
	(0.121)	(0.120)	(0.121)
(Total commission) ⁴	0.203	0.201	0.190
,	(0.135)	(0.133)	(0.133)
Time and Store FEs	Yes	Yes	Yes
Individual FEs	Yes	Yes	Yes
Team Rank Controls	Yes	Yes	Yes
Team Title Controls	Yes	Yes	Yes
Team Gender Controls	Yes	Yes	Yes
Observations	56,524	56,524	56,524
\mathbb{R}^2	0.245	0.251	0.254

Table 3 Moderation Effects (Two-Employee Transactions)

Note: Standard errors are clustered at the employee level. $^*p<0.1; ^{**}p<0.05; ^{***}p<0.01$

Specifically, we use the following specification to estimate these moderating effects:

$$\label{eq:continuity} \textbf{EqualityDeviation}_{ij} = \textbf{SameHomeTown}_j + \textbf{Moderator}_j \times \textbf{SameHomeTown}_j +$$

$$g(\text{TotalCommission}_j) + \text{Moderator}_j + \text{TeamControls}_j + D_i +$$
 (2)

$$\label{eq:Weekday} \mathbf{Weekday}_j + \mathbf{Month}_j + \mathbf{Year}_j + \mathbf{Store}_j + \epsilon_{ij},$$

where $Moderator_{ij}$ can be $\{SameGender_j, SameRank_j, AgeDifference_j\}$. SameGender_{ij} and $SameRank_j$ are binary variables equal to 1 if the two employees have the same gender or rank, and 0 otherwise. AgeDifference_j is a continuous variable representing the absolute age difference between two team members in the transaction. Note that, in the case where TeamControls_j absorbs $Moderator_j$, we leave $Moderator_j$ as the control variable instead of the corresponding variable in $TeamControls_j$. For example, when estimating the moderating impact of having the same gender, we use $SameGender_{ij}$ instead of the team's gender combination as a control variable.

The results from all three models are consistent with status or power differences increasing inequality and having the same hometown decreasing inequality in commission splits. More importantly, we see no strong evidence that the same-hometown effect is moderated by status or power differences.

Column (1) of Table 3 shows the role of age differences in bargaining equality. Similar to prior literature, age difference increases bargaining inequality; one year of age difference increases bargaining inequality by 0.02 percentage points, albeit with weak precision. This implies that being from the same hometown offsets the effect of an age difference of over ten years. However, age difference does not have a statistically identifiable moderating effect on having the same hometown. The same-hometown effect seems consistent across teams of all age mixes.

Column (2) of Table 3 similarly shows a predictable positive relationship between rank differences and inequality in commission splits. Teams with the same seniority show reduced equality deviation by 0.9%. We see no precise changes in the same-hometown effect based on rank differences. We do note, however, that this interaction term coefficient estimate is imprecisely large, so we cannot definitely rule out such moderation. If coefficient estimate was indeed accurate, the effect of common hometown on bargaining inequality would only be half as large in teams of equal rank compared to teams with unequal ranks.

Column (3) of Table 3 shows that teams with the same gender have 3.4 percentage points less inequality compared to teams with different genders, a very large effect that is consistent with prior work in this setting (Pierce et al. 2021). However, we do not see, a precise moderating effect. The interaction coefficient, while directionally consistent with a moderating effect, is very imprecise, so we cannot conclude that gender plays a consistent role in the effect size of having a common hometown. Collectively, the results in Table 3 are consistent with common hometown having an economically significant effect on the equality of bargaining outcomes. This effect survives other important countervailing forces and exists consistently across a range of power and status differentials.

6. Alternative Explanations and Robustness

This section describes various tests we conduct to rule out alternative explanations such as common language and pre-existing friendships. Moreover, we demonstrate our results are robust if we extend to transactions with more than two employees.

6.1. Mechanisms and Alternative Explanations

While we have shown that coming from the same hometown may reduce the bargaining inequality between two employees controlling for other potential confounding factors, the underlying mechanism remains unclear. As discussed in Section 2, there are two prominent alternative mechanisms explaining why employees from the same hometown split more evenly beyond common social identity. First, employees from the same hometown may speak the same dialect and, in turn, may have better communications among themselves and are likely to split more evenly. Another alternative

Table 4 Dialect and Familiarity as Alternative Mechanisms (Two-Employee Transactions)

	Dependent variable:			
	EqualityDeviation			
	(1)	(2)	(3)	(4)
	Full Sample	\geq 25 days	$\geq 50 \text{ days}$	\geq 75 days
Same hometown	-0.017^{**}	-0.016^{**}	-0.018**	-0.017^{**}
	(0.007)	(0.007)	(0.007)	(0.007)
Same dialect	0.0002			
	(0.003)			
Total commission	0.525^{***}	0.322**	0.306^{*}	0.233
	(0.186)	(0.164)	(0.165)	(0.165)
(Total commission) ²	0.225^{*}	0.020	-0.028	0.020
	(0.134)	(0.154)	(0.162)	(0.162)
(Total commission) ³	0.078	0.003	-0.00004	0.005
	(0.120)	(0.136)	(0.145)	(0.148)
(Total commission) ⁴	0.189	-0.174	-0.106	-0.211
	(0.134)	(0.146)	(0.155)	(0.155)
Team age difference	0.0001	0.0001	0.0002	0.0002^{*}
	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Time and Store FEs	Yes	Yes	Yes	Yes
Individual FEs	Yes	Yes	Yes	Yes
Team Rank Controls	Yes	Yes	Yes	Yes
Team Title Controls	Yes	Yes	Yes	Yes
Team Gender Controls	Yes	Yes	Yes	Yes
Observations	56,114	31,120	26,860	23,304
\mathbb{R}^2	0.255	0.274	0.277	0.282

Note: Standard errors are clustered at the employee level. *p<0.1; **p<0.05; ***p<0.01

explanation is that people from the same hometown are more likely to have pre-existing relationships, which could generate more equal splits. This mechanism requires that friends are likely to refer and subsequently work with each other in a salon.

To test common dialect as an alternative mechanism, we estimated Equation 1 with two important independent variables, SameHomeTown_j and SameDielect_j, where SameDialect_j is equal to 1 if both employees speak the same dialect in transaction j. These two variables are jointly identifiable since, while employees who come from the same hometown must speak the same dialect, many employees who speak the same dialect come from different hometowns. For example, people who come from Xuanhua District, Zhangjiakou City and Gucheng County, Hengshui City will both speak Jilu Mandarin. With this regression, the coefficient of SameHomeTown_j was identified by comparing transactions with people from the same hometown to transactions with people from different hometowns while the coefficient of SameDialect_j was identified by comparing transactions in which workers come from different hometowns but speak the same dialect with transactions in which workers come from different hometowns and speak different dialects. If common language is indeed the main driver of the observed reduction in equality deviations, we would observe the coefficient of SameDialect_j to be significantly negative. Column (1) of Table 4 shows the result: it

is evident that the estimated impact of $SameDialect_j$ is extremely small and imprecise. In other words, among people who do not come from the same hometowns, whether they speak the same dialect does not impact the equality of their bargaining outcomes. This suggests that speaking the same dialect is not the main driver of the observed same-hometown effect.

To test pre-exisiting friendship as an alternative explanation, we restricted our samples to teams (i.e., pairs of employees) who have worked together for more than 25, 50, and 75 days. The underlying idea is that even workers from different hometowns are likely to become friends after working with each other for a long time. Therefore, if pre-existing friendship is indeed the key driver of the observed same hometown effect, we should see the effect diminish when we focus on teams in which workers have worked with each other for a long time and have had the opportunity to form friendships. We focused on 25, 50, and 75 days since the teams in our data had a median lifetime of 4.5 days (i.e., the two workers worked with each other for the first time less than 4.5 days ago), and a 75-percentile lifetime of 63.6 days. Columns (2), (3), and (4) of Table 4 show the results under different thresholds. It is evident that, even if we focus on the transactions with teams with more than 25, 50, or 75 days of experience, we still see an effect of coming from the same hometown. This suggests that the observed same-hometown effect cannot be explained by the pre-existing friendship explanation alone.

In summary, dialect is unlikely to explain the impact of having the same hometown on bargaining equality since, among employees who come from different hometowns, those who speak the same dialect do not reach a more equal bargaining outcome than those who speak different dialects. Similarly, pre-existing friendships are also unlikely to be the main driver of our observed effect since teams with a long history (and arguably consisting of friends) still reach a more equal bargaining outcome when the two workers come from the same hometown.

6.2. Robustness

In this section, we demonstrate that our results are robust if we expand our sample to transactions with more than two workers. We made three major changes to Specification 1 to conduct analyses on transactions with more than two employees. First, we set $textSameHomeTown_j$ to 1 if all employees in transaction j came from the same hometown and 0 otherwise. Second, we omitted the team rank, title, and gender control variables since, when the number of employees in a transaction becomes larger than two, the number of possible combinations of team demographics increases exponentially. Finally, we redefined our dependent variable. In particular, for transactions with more than two employees, we defined equality deviation as:

$$Equality Deviation_{ij} = |Cut_{ij} - FairCut_{ij}| \times AdjustmentFactor_{j},$$
(3)

$$\label{eq:AdjustmentFactor} \mbox{AdjustmentFactor}_{j} = \frac{4 \times \mbox{NumEmployees}_{j}^{2}}{\mbox{NumEmployees}_{j}(\mbox{NumEmployees}_{j}-1)+2}. \tag{4}$$

Table 5 Effect of Having the Same Hometown on Equality Deviation (More-than-Two-Employee Transactions)

	Dependent variable:				
	equalityI	Deviation	equalityDeviation2		
	(1)	(2)	(3)	(4)	
Same hometown	-0.017***	-0.011***	-0.081***	-0.052***	
	(0.004)	(0.003)	(0.018)	(0.015)	
Total commission	0.457**	0.493**	1.951**	2.115**	
	(0.215)	(0.214)	(0.969)	(0.965)	
(Total commission) ²	-0.174	-0.018	-0.722	-0.016	
,	(0.168)	(0.167)	(0.757)	(0.753)	
(Total commission) ³	-0.048	-0.120	-0.191	-0.515	
· ·	(0.142)	(0.144)	(0.639)	(0.649)	
(Total commission) ⁴	-0.001	0.033	-0.026	0.125	
,	(0.153)	(0.155)	(0.691)	(0.703)	
Time and Store FEs	Yes	Yes	Yes	Yes	
Individual FEs	No	Yes	No	Yes	
Observations	34,321	34,321	34,321	34,321	
\mathbb{R}^2	0.027	0.369	0.026	0.368	

Note: Standard errors are clustered at the employee level. *p<0.1; **p<0.05; ***p<0.01

where AdjustmentFactor_j is the adjustment factor needed to ensure that the average EqualityDeviation_{ij} is constant (i.e., always equals 1) regardless of the number of employees in a transaction if Cut_{ij} follows a uniform distribution between 0 and 1.

Table 5 shows the impact of having the same hometown on bargaining equality for teams with more than two employees. Since there are fewer transactions from teams with more than two employees compared to teams with two employees, the sample size is smaller in this table than Table 2. Columns (1) and (2) of Table 5 show the impact of having the same hometown on equality deviation, where equality deviation is measured by the original Equation 1. As discussed earlier, this specification suffers from a team-size bias. Columns (3) and (4) show the impact of having the same hometown on equality deviation measured by the new Equations 3.

Columns (1) to (4) show that our results are qualitatively similar when extending to transactions with more than two employees regardless of the measurement we used to define equality deviations. In other words, for transactions with more than two employees, we still see that the split is more equal when all employees come from the same hometown. Comparing Columns (2) and (4), we see that the adjustment factor increases the absolute effect size. This does not represent an increase in actual effect size since these two effect sizes are not comparable. This is because the adjustment factor is intended to make the distribution of dependent variables having similar average values regardless of the number of employees in the transaction by increasing the equality measurement for larger teams. Comparing the effect size in Column (4) with the aforementioned effect size on two-employee transactions, we can see that the impact of having the same origin on bargaining equality in transactions with more than two employees is directionally similar to that in transactions with two employees.

7. Discussion and Conclusion

In a setting in which teams of ethnically homogeneous Chinese workers sell prepaid-service cards to salon patrons and bargain over the resulting team-based commissions, teams with employees with the same microgeographic origin achieved more equal bargaining outcomes than other teams. In addition, this relationship persisted even in teams with members of differential status or power, suggesting that the social identity effect we observed survives strong countervailing forces such as formal status differences that are prevalent in organizational settings (Bunderson and Reagans 2011, Eckel et al. 2010, Chen et al. 2012). We also showed that the higher equality required precisely the same hometown. Nearby hometowns had no equality benefits over those from those across the country. Consistent with other work on "laoxiang guanxi," it was the specific hometown and not the region that created the common social identity.

In practice, self-managed teams are often entrusted to allocate tasks and assign credits and rewards (Shaw et al. 2001, Huckman and Staats 2011, Bamberger and Levi 2009, Jung et al. 2017). Because outcomes from these allocations are rarely observable in the field, researchers often rely on laboratory experiments to understand the process through which teams make reward-allocation decisions. Our setting offers a unique window into this process based on 34,645 instances of peer bargaining in a real organization for which bargaining outcomes can be accurately observed and measured. We provide the first field-based evidence showing that social identities based on common microgeographic origin play an important role in shaping how employees allocate rewards for teambased production. Thus, our results extend the body of laboratory evidence showing that group identification affects reward allocations in bargaining games (Bernhard et al. 2006, Goette et al. 2006, Chen and Li 2009). Because commissions from prepaid card sales make up more than 31% of workers' compensation in our sample and can influence future promotion decisions, our results suggest that prior laboratory findings generalize to field settings with high short- and long-term financial stakes.

We also contribute to the literature on when language might affect interactions within organizations. Because language is primarily a tool for communication, this literature has focused on communication-based mechanisms such as implications of language-based anxiety and communication barriers for organizational interactions (Feely and Harzing 2003, Luo and Shenkar 2006, Neeley et al. 2012, Hinds et al. 2014, Tenzer et al. 2014). Theories and empirical evidence in sociolinguistics (Edwards 2009), evolutionary anthropology (Cohen et al. 2012), developmental psychology (Kinzler et al. 2007, 2009), and cognitive neuroscience (Bestelmeyer et al. 2014) point to the primitiveness of language as a source of social identity. Our unique setting allows us to isolate any identity effect of language from its communication effect, because, although workers in our setting speak different dialects, they all have native fluency in Mandarin Chinese and, thus, have

no language-based communication barriers. Our results suggest that, when language differences do not cause communication-based anxieties or misunderstandings, these differences do not play an important role in determining the equality of bargaining outcomes. We note, however, that these common dialects may play other important (and unobservable to us) roles in daily work and social settings. We also note that dialects may play less significant roles in establishing social identity than do true language differences.

One limitation of our study is that we cannot observe the relative effort of members of each team. It is possible that the social identity of having a common hometown does not affect bargaining, but instead generates more equal effort and contribution that, in turn, justifies more equal splits. Therefore, the mechanism through which the social identity of common microgeographic origins relates to earnings equality might be some combination of more equal effort and more equal bargaining outcomes. We cannot differentiate between these two possible mechanisms.

Another key limitation is the difficulty of making truly causal claims. Although shift assignment is quasi-random, hiring and retention are not, so employees who are hired from the same hometown as an existing employee might have other common characteristics or skills that lead to more equal outcomes. We note, however, that we only see this relationship in cases with the exact same hometown and not with nearby hometowns, so this omitted variable would need to be city-specific and apply broadly across all of the same-hometown cities in our sample. Since we have 54 unique hometowns that produce same-hometown transactions, this confound would need to generalize across all of these. We also rely heavily on strong theoretical priors from existing research and cultural evidence on the importance of "laoxiang guanxi" in Chinese society (Fisman et al. 2018, Do et al. 2017, Fisman et al. 2020, Batjargal and Liu 2004, Kato and Shu 2016, Shen et al. 2019). The social identity explanation supports these priors and raises our confidence that our results are not explained by some other common characteristic in two workers from the same hometown. Truly causal claims would likely require a field experiment (Di Stefano and Gutierrez 2019, Chatterji et al. 2019) that randomly assign workers across locations and shifts, but even then, hometown, much like gender or ethnicity, cannot be exogenously assigned.

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