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Institutions and Work Incentives in Collective Farming in Maoist China

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This paper challenges the conventional wisdom that assumes widespread shirking and inefficiency in agricultural production under the collective system in Maoist China, and attributes these problems to egalitarianism in labour remuneration and difficulties in labour supervision. Drawing on interviews with 131 former production team members from 16 provinces, this paper re-examines the issue of work incentives by placing it in a historical and social context in which formal institutions, such as the different forms of collective organization, income distribution and state extraction, as well as informal institutions, such as indigenous social networks, communal norms and collective sanction, interacted with non-institutional factors, especially local geographical, demographic and ecological conditions, to constrain and motivate Chinese villagers participating in collective production. The complexity and fluidity of this context gave rise to a multiplicity of patterns of peasant behaviour in team farming, which accounts for the contrasting performances of rural collectives in different areas and periods.

Keywords: work incentives, agricultural collective, production team, Maoist China, institutions

INTRODUCTION

For decades, much of the imagination of the general public in China about agricultural production under the collective system during the Maoist era has been shaped by the state's repeated propagation of the legendary story about Xiaogang village of Fengyang County, Anhui province. It is said that the peasants at this locality, having endured years of poverty because of the inefficiency of collective farming and endangered by the persistent famine in the winter of 1978, took the audacious and heroic action of secretively dividing up the farmland of their production team among the 18 participating households for independent farming. As a result, the story goes, the villagers were dramatically incentivized to increase production because they could keep their harvests after fulfilling their shared duties in tax payment and sales of grain procured by the state. The next year, the villagers witnessed a miracle: total grain output in the village skyrocketed to more than 130,000 catties in 1979, or more than 3.6 times its output in the preceding year, and per capita net income in the village also increased to 400 yuan, or more than 18 times its 1978 level (*Renmin ribao*, 3 April 1994).[1] Encouraged by Xianggang's success, all other collectives of the county followed suit, and the household responsibility system quickly spread to the rest of rural China in the following few years. Economic reforms in the post-Mao years, according to the state's standard representation, began with the initiatives of the peasant masses, which in turn resulted from the inefficiency of the collective system in agriculture during the Maoist era. In fact, linking the performance of agricultural production under the collective

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[1] For dispute over the authenticity of the story, see, for example, Chen and Zeng (2004).

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system to the presence or absence of material incentives for individual members of a collective to satisfy their self-interest was at the core of the pragmatic economic planners' thinking. It was this logic of thinking that drove them to experiment with the policy of 'household production for contracted output' (*baochan daohu*) in the early 1960s, as a measure to rehabilitate agriculture that had been devastated by the Great Leap Forward; the revival of the same policy first in Anhui province in the late 1970s directly led to the nationwide implementation of the so-called 'household responsibility system' (HRS) in the early 1980s. For the reform leaders of post-Mao China, all other factors affecting agricultural production were almost a given, which they did not had much room to redefine or the capacity to change immediately, such as the state's demand for resources from agriculture or the existing land-to-population ratio in the countryside; it was the way to organize production and incentivize the farmers who were at their disposal and who could produce quick results at no cost.

Neoclassical economists who embrace rational choice theory interpret the issue of work incentives in collective farming essentially in line with the pragmatic leaders' thinking. It is assumed that Chinese farmers were no different from the individuals in any other economies who seek to maximize personal advantage by balancing costs against benefits. Collective farming in China was necessarily inefficient because, first, after the transition to advanced cooperatives in 1957, villagers lost the right to exit the collectives and therefore the constraining mechanism against shirking disappeared (Lin 1990; Lin and Yang 1998). More importantly, according to Justin Lin, under the collective system, 'supervision over farming activities was extremely difficult because of the particular nature of agricultural production. A farmer received the same fixed workpoints for his work every day regardless of the actual quality and quantity of the work he performed. The egalitarian distribution of income, as a result of this remuneration method, led to the low level of work incentives, hence the stagnation of productivity' (2008, 32).

There was plenty of evidence that 'free-riding' could indeed be a problem when the egalitarian method of labour remuneration was in use or when a team leader failed to perform his role as a supervisor, thus causing the dampening of team morale among 'the strongest and most respected workers' (Unger 2002, 91; see also Siu 1989, 229–32). Added to the problem of weak incentives in team farming was the peculiar method of income distribution within a collective, which divided the amount of grain distributed to each household into two portions: one based on the size of the family to guarantee its subsistence (hence called *kouliang*, or grain rations), and other based on its labour contribution to the team (hence *gongfen liang*, or workpoint grain); in addition, the team also paid a cash balance to each household at the end of a year if the cash value of its total annual workpoints was greater than the combined value of the two portions of grain it had received in the preceding year. The peasants had little incentive to work for their team when *kouliang* accounted for up to 70 per cent of the total amount of grain they received from the team, and when the year-end cash payment was small or non-existent (Oi 1989, 35–42, 135–7).

It should be stressed, however, that the egalitarian practices in labour remuneration and income distribution, which have attracted most of the attention in past studies, only prevailed during the most radical years of the Mao era, first at the peak of the Great Leap Forward (1958–60) and again in the first few years (1966–9) of the Cultural Revolution. In the rest of the collective era, a variety of methods were implemented in work evaluation and income distribution, as shown in this study. By linking a person's labour input closely with the income he or she received from the collective, these methods generated an incentive structure that was very 'materialistically' oriented (Huang 1990, 285). An analysis of the data of production teams from a commune of Hebei province in the 1970s suggests that the overall distribution of income from the team was 'proportionate to workpoints earned', that 'production team members responded positively to the expectation of greater remuneration for their work' and that peasants would have had a stronger incentive to work

in collective production if there was 'a greater link between work and payment' (Putterman 1993, 162, 175–6; see also Putterman 1987, 1988).

Despite the varying and even contrasting interpretation of work incentives in team farming in the existing literature on the agricultural collectives in Maoist China, however, researchers have tended to assume that the production team members were self-interested individuals, whose behaviour in production could be explained solely by looking at the microeconomic systems in labour remuneration and income distribution; for them, it was ultimately the economic arrangements within the team, or more precisely the degree to which pay was linked with work, that determined the farmers' performance in collective farming. This study, while acknowledging and therefore also focusing on the decisive role of the microeconomic mechanisms, calls for attention to a larger historical and institutional context in which the villagers performed their everyday tasks in team production. Central to this context – and to our comprehension of team members' choices of action – were two sets of institutions. One is the formal, visible institutions, such as the level and size of the 'basic accounting unit' of the hierarchical collective organizations, the portion of the collective's output to be extracted by the state, the use of different forms of workpoints to reward team members, the ratio between rationed grain and workpoint grain in income distribution, the access to modern agricultural inputs (chemical fertilizers, pesticides, improved seeds and machines), the availability of opportunities to earn income outside the collective and so on. Imposed or determined by the state on all rural collectives throughout the country, these institutions varied over the different periods of the Mao era. The other is the informal, hidden institutions, such as indigenous social networks, kinship ties, communal norms, collective sanctions, family practices, gender roles and so on. Unlike the official institutions that were widely found throughout rural collectives, these local, unofficial institutions were specific to each locality or production team. Equally important in shaping the context and team members' attitudes towards group farming were also non-institutional factors or local geographical and ecological conditions, especially the fertility of the farmland, the cropping pattern of a given area, the availability of natural resources, the ratio of population to arable land in a given locality and so on. It was the complex patterns of interplay between the formal and informal institutions and between the institutional and non-institutional factors that determined the villagers' dependence and expectation on their production team and shaped their incentives to work for the collective.

What follows is a preliminary study of the issue of work incentives in Chinese agriculture under the collective system, using the approach described above. The data that inform my analysis here are generated through in-depth interviews conducted in 2014 with 131 villagers of different provinces. The interviewers were undergraduate or graduate students and faculty members from seven different universities in Henan, Shandong, Jiangsu, Hubei and Anhui provinces, who randomly selected their interviewees from among their parents, grandparents, neighbours or acquaintances, but all of those interviewed had been production team members or cadres in the 1970s or earlier. Needless to say, villagers of different ages experienced agricultural production differently over the years of the collective era; interviewed 35 years after the ending of the collective system, their memories of the collective past varied, depending on their age group, their standing within a production team, and the conditions of the team *per se*. Not only did the different methods of labour remuneration and income distribution, which varied from year to year, have immediate impacts on their performance in collective farming activities, but their identity with, and dependence on, the collective also changed from place to place, because of the different types of social networking on which the team was established, and because of the different natural endowments that determined the team's productivity more than any other factors. In addition, a person's gender, family background, class status and role in the collective all played a part in shaping his or her experiences in team farming and memories thereof. This study, therefore, will take all these factors into consideration, to offer a multifaceted and balanced account of the everyday performance of Chinese villagers in agricultural production under the collective system.

THE WORKPOINT SYSTEM IN PRACTICE: TIME RATES VERSUS PIECE RATES

The time rate system was widely implemented in rural collectives from the 1950s to the 1970s. A standard practice under this system was to award each team member a certain number of workpoints for his or her labour contribution for a workday, which lasted for 8 or 9 hours during slack seasons and 11 or 12 hours during the busy season. The methods of awarding workpoints varied in different localities. In many production teams in Henan province, for instance, the time rate system was locally known as *lunshang*. Villagers here customarily divided a workday into three sessions (*shang*), the first being from 6 a.m. to 8 a.m., the second from 8 a.m. to 12 p.m., and the third from 1 or 2 p.m. to 5 or 6 p.m. The workpoints of an adult male during each of the three *shang* would be 2, 4 and 4, respectively (HN31); alternatively, labour during each of the three sessions was credited with 3 points for an adult male (HN15).[2] For a female adult, the workpoints for each of the three *shang* were 1.5, 3.5 and 3.5 points (HN6b). The actual number of sessions during a workday varied round the year. During slack seasons, there were only two long sessions. During the busy season, however, there could be an additional session around noon, in addition to the regular three *shang*; and an extra 3 points would be added for the midday session. Sometimes, the labourers were asked to do a long session in the early morning that started at dawn, such as catching cotton bollworms, which could only be done when there was enough dew on the cotton plant; otherwise, the worms would fly away when the dew evaporated under the sun (HN17).

In addition to the standard practice of giving a male 'full labourer' 10 points per workday (so that, therefore, a workday or *gong* equalled 10 points), another method of awarding workpoints known to local villagers as the 'small point system' (*xiaofenzhi*), prevailed in certain places in Henan and other provinces. Here, a workday equalled 20 points, and an adult male could normally earn 17–20 points per day (HN39), depending on the level of difficulty of the task performed; a person would make fully 20 points a day, for example, if his job was to pull a chart (HN14).

Under the piece rate system, a team member's workpoints were based on the quantity of the task he or she had finished. Unlike the time rate system, which only reflected the time an individual spent on collective farming, and therefore awarded the same number of workpoints to all workers who spent the same hours on a shared task, piece rates were typically applied to individual workers; team members who finished different amounts of work earned different numbers of workpoints in a given day. Alternatively, a task was assigned to a group of workers for a fixed number of total workpoints, to be divided equally among them once the task was done. Villagers called this method *baogong* (literally 'contracted workpoints') or group piece rates.

The criterion used in awarding workpoints, however, was subject to change under both time rates and piece rates. A team leader had to adjust the standards in labour remuneration according to the availability of labourers for a specific task or the level of difficulty of the task. For instance, he had to lower the time rates a little when there were more workers than were needed for the task, and vice versa (ZJ1). In another instance, the team leader gave farmers one point for every ten catties of grass gathered as fodder for animals in early spring, when grass was rare and tender; when grass flourished in the summer, however, he had to lower the rate to 16 catties of grass for one workpoint (HN17).

[2] The transcripts of interviews conducted for this project are cited in this paper in the format of two upper-case letters (referring to the province where the village of an interviewee is located), including AH (Anhui), HB (Hebei), HB (Henan), FB (Hubei), FJ (Fujian), FN (Hunan), GS (Gansu), GX (Guangxi), GZ (Guizhou), JS (Jiangsu), JX (Jiangxi), SC (Sichuan), SD (Shandong), SH (suburban Shanghai), SX (Shanxi) and ZJ (Zhejiang), followed by the serial number of the transcript.

THE PROBLEM OF SHIRKING IN TEAM PRODUCTION

Our informants frequently observed shirking as a common problem in collective farming under the time rate system. A former cadre of Nanzhangzhuang village of Shandong province complained that many of his fellow villagers, when working for the team, 'were just along for the ride [*courenao*] and not so serious on the task', despite his repeated warnings at the beginning of his tenure as the leader. Later, he recalled, 'almost all team members acted like this, including my family members, who lacked interest and shirked as well' (SD2). Other interviewees described their experiences in team farming as 'just whiled away the hours' (*hunshijian*) (FB6) or 'dawdled for just enough hours' (*hunman shijian*) (SC1). Instead of competing for doing more, they all 'tried their best to shirk and no one would be willing to work more than anybody else' (FB6). This attitude was known to the team members as 'be present but not hardworking' (*chugong bu chuli*) or 'once the sun sets, a full day of workpoints is earned' (*riluo gongman*) (HB7). Others described the poor performance under time rates as 'loafing on the job' (*moyanggong*), as best seen in the task of breaking large lumps of soil after the land was ploughed by a tractor. As a villager recalled, 'the lumps of soil after ploughing were so big that they had to be harrowed, and the harrow, with a person standing on it, was pulled by people or an animal. But there always remained some large lumps even after harrowing, which made sowing impossible. So they had to be crushed manually by a row of people with iron-toothed rakes. How then did they do the task? It could not be measured in pieces, so the problem of loafing occurred. When the team leader was present and supervising, they would strike a lump several times … [when the leader was absent] they only struck the soil randomly, and some of them would strike just once or twice and then walked away …' (HN17). When clipping the redundant branches of cotton plants, in another instance, those working on this task as a group would 'walk abreast while keeping chatting with one another and pruning the plants randomly. Once any of them found that she was lagging behind, she would catch up by doing a hasty and careless job' (HN17). Likewise, when weeding, an irresponsible worker would use a hoe to sweep over the grass without removing the latter at all. The villagers called this 'flying over the grass' (*caoshangfei*) (HB4). Even worse were the few loafers who sneaked away on the way to the field and then reappeared at the end of the day to join the crowd on their way back to the village; if no one else brought their trickery to the team leader's attention, they would receive the same points as other team members (GZ3).

In sharp contrast, when piece rates were used, team members performed very differently. Because the workpoint level was determined by the quantity of tasks completed, which the villagers described as 'the more one works, the more one earns' (*duolaoduode*), they all tried to finish as much as they could; 'slacking' (*toulan*), therefore, was not a problem under this system (HN17). For tasks such as 'harvesting wheat, picking beans, cutting sorghums, and gathering corns', when piece rates were in use, 'all appeared to be enthusiastic, and all competed for doing more', as Aunt Liu of Liuzhuang village, Henan province, recollected (HN13). Likewise, when fertilizing the land with manure under the *baogong* system, villagers competed for 'occupying' as many rows of a field as they could by raking the edge of a row as a sign that it had been occupied by someone (HN31). The same was true in transplanting rice seedlings when the piece rate system was applied, and farmers 'competed with one another for doing faster and more' (GZ3). The contrasting effects of time rates and piece rates were obvious to the villagers when these two different methods were applied to the same task, such as gathering wheat straws and grain from a ground after threshing, which could be done much faster if it was contracted to a group of people for a fixed number of workpoints than, on the other hand, being performed by all team members under time rates (HN50). According to an estimate by an elderly villager of Litaizhuang, Hebei province, an average farming task that would have required five labourers to finish in a given day under time rates could be done by only four people under piece rates (HB6).

But the piece rate system, while incentivizing the villagers to work faster and more, could also cause them to compromise the quality of the work they did; it was likely that they would work in a hasty and negligent way under piece rates in order to make more points, whereas under the time rate system they were more likely to pay attention to the quality of the job being done, when the pressure of speeding up was largely absent, unless one person lagged significantly behind all the others on the same task. Thus a few of our interviewees complained that, when the piece rate was applied, team members tended to 'do a careless job and ignore quality' (*ganhuo mahu, bujiang zhiliang*) (JX1, HN50). For Cui Niutou, a female villager of Zhangguo township, Jiangsu province, therefore, both the time rate and piece rate systems were flawed: 'when *duolaoduode* was not in use, those who used to work fast would slow down and loaf around; when *duolaoduode* was used, they worked extremely hard but did a hasty and perfunctory job and cheated for more workpoints' (JS2).

Despite the problems of slacking under time rates and negligence under piece rates as shown above, however, some of our informants insisted that those who were 'always shirking' (*yizhi toulan*) or 'irresponsible' were limited to the 'very few' (JX1), 'just one or two' in a production team (FB3), or 'only a few per cent' (FB4); most of the team members, they believed, were 'responsible' (*you zerenxin*), 'motivated' (*you jijixing*) or 'quite active' (*bijiao jiji*) in everyday production (e.g. HN46, JX1, JX2, JS2, FB3, FB4, ZJ1). When asked why the different individuals in the same team behaved so differently even when they were doing the same task, our informants attributed it primarily to the different personalities of individual workers. They described the slackers as those who were 'cunning' (*jiaohua*), 'slacking and loitering around when the cadre was absent or doing a sloppy job when, say, digging up the dirt' (ZJ1) or as those who 'had the gift of the gab and flattered the cadres so they could do less' (HN46). Some of the villagers appeared to shirk in farming activities simply because they had always been 'careless and annoying' (*dadalielie*) and prone to 'doing everything in a quick and casual manner' (JX2).

On the other hand, 'those who did a good job', observes a former production team leader in Chen village, Zhejiang province, 'were always the honest people' (ZJ1). According to an ordinary female villager of Zhangguo township, Jiangsu province, most of her fellow team members were 'pretty simple and guileless' (*bijiao pushi*) and therefore 'did their jobs earnestly'. So honest were the team members, she continued, that 'when picking cotton bolls', for instance, 'they would carefully take the residues of cotton from out of the boll' (JS2). In another instance from Yuanzhai village, Henan province, 'the mother of Qiusheng', said Yuan Zhenhao, a former director of the local Women's Federation chapter, was such a 'sincere and honest person' (*shizhai, laoshi de ren*) that, when turning sweet potato vines upside down, she would make sure that every plant was turned over and rearranged well, and 'if she found that someone next to her moved forward very fast and missed a plant, she would turn it over for her coworker'; in sharp contrast, Zhenhao complained, 'those who were crafty [*hua*] always did a sloppy job, never cared about the quality of their work, quit their work faster than anyone else when a break was announced, and resumed their task only after all others had started' (HN47).

Needless to say, all of the observations quoted above are anecdotal in nature; the limited number of interviews for this project also makes it impossible to generate any kind of statistical figures sufficient enough to make meaningful generalizations about villager performance in team production. Someone's personality, as the villagers repeatedly remarked, was indeed a factor influencing his or her behaviour in farming activities, but it alone cannot explain the varying and complex performances that the farmers displayed under different workpoint systems and over different times and places. Instead of drawing a clear-cut conclusion about work incentives in collectivized agriculture by selectively or randomly using the interviewees' answers, what follows is a systematic analysis that takes into account the most important factors constraining and motivating the farmers in everyday production. Some of these factors are intrinsic to team farming under the collective system,

including: (1) peer pressure and group sanctioning; (2) cadre supervision; (3) cadre abuse in task assignment and the awarding of workpoints; and (4) gender-based division and remuneration of labour. Other factors are external to the agricultural collectives, such as: (1) the microeconomic systems and policies imposed by the state on the production teams; (2) the geographical, ecological and climatic conditions of a given locality in which the villagers were organized for collective farming; and (3) the availability of modern inputs such as chemical fertilizers, pesticides, improved seeds, electricity and the use of machines.

PEER PRESSURE AND GROUP SANCTIONING

Except for a few tasks that were assigned to individual villagers and that were performed by each of them working alone, such as operating a tractor, herding the ducks or working at the piggery, most of the farming jobs were done by team members as a group. The number of group members varied from only a few to as many as dozens, depending on the manpower demanded by a specific task. Members of the same group for a shared task, usually of the same labour grade and sex, would receive the same number of workpoints under time rates or group-level piece rates as described earlier, and all of the members in the same group were held collectively responsible for the quality and quantity of the job they performed together. Any member who did a job that was significantly slower or worse than others in the same group would affect the overall performance of the group; therefore, it was likely that the slacker would be subject to various forms of sanctioning from the rest of the group, such as gossip, ridicule and even open complaints among his or her peers (GX1, FB1). Most group members, to be sure, chose to be silent in the presence of the loafer to avoid offending him or her, or only 'complained without naming the person' (ZJ3) or 'secretly complained to the team leader' (FB4). Nevertheless, as villager Fan of Yangaocun, Zhejiang province, pointed out, 'if someone did a job that was really too bad, others would criticize' (ZJ4). For instance, an outspoken member would warn the slacker 'Why are you so slow and absent-minded? Hurry up!' (HN12), and a reserved coworker would mildly remind the shirker 'Be a little faster. The earlier we finish it, the earlier we can have a rest' (FB4).

For the majority of team workers, slacking by any individual in their group was tolerable only if it occurred occasionally; however, if someone turned out to be a drag on a group task repeatedly, the slacker would have trouble next time when team members were asked to voluntarily band together for a certain task. Zhang Datie, a former brigade accountant from Dalu village, Hubei province, thus said, 'those who used to do a poor job often found that others were reluctant to group with them, and the slackers would earn fewer workpoints' (FB3). Note also the remark by Zhou Defang, a female villager from Huaixicun, Hunan province, when describing team members' reaction to slacking: 'It's likely that we would not say a thing when we found someone slowing down. However, next time when we were to form a group, no one wanted to work together with that person. And that person had to work alone, and it would be much harder for him or her to do the task alone' (FN1).

Another occasion when a slacker came under the pressure from his or her peers was when the team members were asked to evaluate their own performance and determine the workpoints they deserved for the task they just performed at the end of a day, under the practice of *pinggong jifen* (awarding workpoints through a public discussion of one's performance), which had been introduced in the early 1950s at the beginning of collectivization and remained in use for certain tasks. Thus, as Liang Xiaoxiu, a former Women's Federation director at Dashihe village, Henan province, described, 'when the crowd was summoned for a discussion, those who had worked together as a group would complain that such-and-such a person had done a poor job and should only be given such-and-such a number of points, say, 5 or 6 points. The accountant would then record

accordingly' (HN12). During the first few years of the Cultural Revolution, when the Dazhai-style workpoint method was introduced, a standard daily workpoint rate was determined each month, or every few months, for each team member through a public discussion (Unger 2002, 78–89). On this occasion, those who had shirked came under intense pressure because of the negative opinions about them, and they had to work harder next month so that they would have a chance to improve their standard rates next time the public evaluation was held; and the evaluation itself, as He Zhiwang, a former party branch secretary of Jiejiagou, Shanxi province, observed, was 'quite fair' in his village (SX9). Finally, at the end of a year, a meeting of all team members was usually held, in which the best-performing villagers were praised by the cadres and awarded with a certificate and small trophies such as a washing basin or a hand tower (SX9); those who had slacked in production, for their part, were likely to be censured at the meeting, attended by more than 100 villagers, an occasion on which the shirkers felt 'extremely embarrassed' (HN31).

Peer pressure, it should be noted, worked against not only the slackers but also those who performed exceptionally well. If a villager worked faster than all other group members on the same task, leaving the remainder far behind, the rest of the group would feel the pressure from the faster worker; for most of them, working harder than the majority of group members made no sense under time rates, because the person who worked faster would not receive more points than his or her peers. Therefore, instead of catching up with him or her, some of the group members would complain or become envious of that person (HN6b), ridiculing him or her with sarcastic remarks such as 'How silly you are! Why are you working so hard?' (SD3). Lei Suqing, a former Women's Federation director at Maolingcun, Shanxi province, thus described her own experience as an activist in the early 1970s: 'I was less than 30 years old at that time under the people's commune. To provide my family of seven with enough rationed grain, I did all kinds of backbreaking and laborious tasks, and faced lots of ridicule. I was despised by all those lazy and backward elements just because I was honest and hardworking. How could it be that the most perfect people were trodden down in that most idealist society?' (SX4).

The key to understanding the functioning of peer pressure in collective production lies in the following two realities about the villagers' social and economic lives. The first is a person's concern with his or her own 'face' (*maize*) or standing in the community, as our interviewees repeatedly mentioned in explaining their performance in farming activities. A production team was a small community of only 20–30 households, and the team members were mostly relatives, friends, neighbours or each other's acquaintances. A person's standing in the community or a small group in which he or she worked with others every day depended to a large extent on his or her conformity with the work norms under specific circumstances that had been established within the community. One such norm, for instance, was that all members of a group should proceed at roughly the same pace when working together on the same task under the time rate system; deviating from this norm by moving significantly faster or slower than others would cause uneasiness for the majority of the group members, because they would feel either pressured by the fast-moving person or dragged down by a shirker. The slacker himself, as a female villager of Dafanzhuang, Henan province, remarked, would also suffer 'losing face' (*diuren*) when all the others had moved ahead of him while he 'lagged too far behind' (HN31). Normally, members of the same group had to coordinate among themselves to make sure that they proceeded at the same pace, as Li Zhanzhang of Huazhuang village, Henan province, explained well: 'When working together as a group, those who worked faster would normally slow down a bit, waiting for those lagging behind to catch up. No one was willing to work more than anyone else; however, for the sake of face and workpoints, no one would work less than any others either. If there was indeed someone who worked really fast and well, others would remind him to slow down a bit and wait for the rest of the group, again for their own workpoints and faces' (HN29).

Another factor working behind peer pressure is the fact that all members of the same production team had a shared interest in ensuring the minimum level of labour efficiency in collective production. After all, they all depended on the production team for most of their income and means of living; flagrant shirking and the subsequent decline in production were against the interests of the entirety of the team members. In other words, the team members were brought together not only by a strong sense of identification with one another on the basis of close social ties within the same community, but also by their shared economic interest in improving the collective's production, which in turn gave rise to group sanctioning against overt, excessive irresponsibility in farming activities. As a result, the team members found themselves sandwiched between two contradictory forces: on the one hand, the discounted role of workpoints in determining income distribution within the production team, the egalitarian nature of time rates and the lack of effective quality control under piece rates discouraged the farmers from maximizing their labour input or improving the quality of their work; on the other hand, the need to save one's face within the closed community and concern with the overall well-being of the entire collective also prevented workers from slacking excessively. More often than not, the villagers' attitude towards collective production was a compromise between the two contradictory urges: most of them were unwilling to work any faster and any better than others, but they also wanted to make sure that they would not be an obvious drag on the task on which they worked as a group. Normally, they did a job that just met the customarily defined criterion of being 'so-so' (*mama huhu*) or 'just passable' (*kan de guo qu*) (SX1). This attitude, which was widely found among the team members, was well illustrated in our interviewees' comments (JX3, SX9, SD2).

THE ROLE OF PRODUCTION TEAM CADRES

Cadres as Supervisors

Among the several cadres of a production team, the head (*duizhang*) played a key role in labour management. He was responsible for assigning tasks to individual team members, determining the workpoint rate for each task, supervising team members' work and awarding workpoints for each member at the end of a workday. Central to the quality of villagers' performance in production was the team leader's supervision. Every day, after assigning the tasks, the head had to travel from one worksite to another, inspecting the performance of team members while joining them to work briefly on occasion; but most of time the head did not work at all. The head's presence had an immediate effect on team members' performance. As Wang Rongqi, a former villager of Dongying city, Shandong province, recalled, 'sometimes the head of the production team led us to work. When he was present, everybody worked seriously and followed him; when the head was absent, however, we relaxed a little bit sometimes' (SD5; see also HN14, HN6b).

It should be noted, however, that the team leader's on-site supervision was the exception rather than the norm in everyday production. Given that there were more than 100 members in an average production team and that they were assigned to different tasks at different sites every day, the head's presence at a certain worksite could only be momentary; sometimes he did not show up at all, especially when he had to attend a meeting and handle business outside the team. Most of time, team members worked routinely without the leader's personal monitoring, and the head (and sometimes the accountant of the team instead, if the head was out of the village) only inspected the villagers' performance at the end of a day. If satisfied, he would give the number of workpoints to each individual at the rate promised at the beginning of the day or the beginning of the task. Normally, the villagers did a job the quality of which was just as anticipated by both the workers and the team leader, and the latter did not have to check closely when giving out workpoints to team members.

The leader, however, did pay particular attention to the very few who had been notorious for their inclination to shirk (FB3). If dissatisfied, he would censure those who did a poor job and reduce the number of promised workpoints given to them; 'those who should have earned 10 points', for instance, 'were given only 8 points instead', as the aforementioned Liang Xiaoxiu recollected (HN12). From time to time, when the team leader found the quality of the job to be unacceptable, he would order the workers involved to repeat the job (*fangong*) (HN8, HN18, HN28a, HN29).

To what extent, then, was a team leader able to perform his duty as a responsible supervisor? First, his relationship with ordinary team members was by no means comparable to that between the owner/manager of a private firm and its employees. He could not fire any team members – a villager automatically obtained his or her membership by birth into the family of an existing team member – and he had to assign each of them a task every day as long as the member was willing to work; he could not deny any of them the right to work. For the team leader, almost all members of his team were also his family members, relatives, friends, neighbours or at least acquaintances. His reputation and position as the head lay in large measure in his ability to keep them happy; it was unlikely, therefore, that the team leader would enforce work disciplines as strictly as did a private business owner or supervisor, at the expense of his personal relationship with fellow villagers. After all, unlike the owner of a private firm, the leader did not directly and personally benefit from the increased efficiency and output of production in his team. The team leader, to be sure, did have an incentive to do a good job in managing the collective, because doing so not only enhanced his reputation among the villagers as a respectable leader, but also increase the chances for his promotion to higher positions at the brigade level. Nevertheless, the opportunities of upward mobility were rare, and a team leader's reputation among the villagers lay not only in his effective management of the collective but also in his ability to patronize his team members, given the fact that he himself was personally enmeshed in the web of all kinds of social ties within the community. All in all, what the team leader chose to do in everyday labour management was more often than not a compromise between his motivation to act as a diligent and responsible supervisor for his own reputation and upward mobility, on the one hand, and his attention to personal ties with fellow team members, on the other. He could not be so harsh towards them as to risk his relationship with them; nor could he be too delinquent in team management as to ruin his reputation among the villagers and lose his position as the team leader.

Abuse of Power

This brings us to the next question: how likely were the team cadres to practice favouritism in labour management? Whether or not a team leader abused his power directly affected the team members' attitude towards participation in collective production. If he assigned tasks and awarded workpoints in an impartial manner, the team members' labour input would be more positively linked with the workpoints they received, and they would have confidence in what they did and perform well; otherwise, if the leader assigned the team members that he favoured light tasks with preferential workpoint rates while appointing the rest of team members to more difficult tasks with the same or lower rates, the latter would lose their interest in working hard and with care, and would even rebel.

Some of our interviewees from different provinces observed the widespread problem of team leader favouritism. Wang Dengqin, a former accountant of Wangshuanglou village, Anhui province, thus recalled that, 'within the production team, the leader had the final say. He would assign his relatives, friends, and family members easier tasks, and tolerated their shirking. No one else supervised them. The team leader made decisions alone. He would assign the tough, dirty tasks to those he disliked; no one could refuse, and no one could rebel. He would castigate you if you did so' (AH3). This depiction of grassroots cadres as local bullies, or 'native emperors' (*tuhuangdi*), in relation

to the stereotype of ordinary villagers as docile, passive and powerless peasants, is consistent with the observations in some of the past studies on village politics in Maoist China (Kelliher 1992, 19–25; Sachs and Woo 1994; Zhou 1996, 30–3). Given the cadres' privileges over ordinary villagers, especially the team leader's decisive role in task assignment and the awarding of workpoints, there was surely always the propensity for them to protect the favoured members of the team at the expense of others. What we need to discuss, however, is the possible extent to which, and the circumstances in which, a team cadre abused power in labour management. Our interviewees' answers to this question show that a number of factors embedded in the village community or imposed by the government worked against overt, excessive abuse by the production team cadres.

The first is the cadres' concern with their own reputation among the villagers. As mentioned earlier, a production team, consisting of 20–30 households from the same locality, remained a community in which its members were brought together by the traditional ties of kinship, friendship and neighbourliness. The team leader's personal entanglement in this net of social relations, while causing him to protect those who had the closest relationship with him, also prevented him from excessive favouritism towards the most favoured individuals and overt discrimination against the rest of the community. After all, all team members were at least his 'acquaintances' (*shuren*); the leader, therefore, was as sensitive to team members' opinions of him as were ordinary villagers in their everyday interaction with one another. His standing as the leader of the community was based not merely on his job as the head of the team but, more importantly, on his reputation, or the villagers' recognition and respect of him, which in turn depended on his ability to manage the team and handle community affairs in an competent and impartial manner. A failure to do so would result in the villagers' open protest or rumours against him (e.g. AH3, JX3, SH2). Needless to say, personal fame and community recognition could function as a constraint against cadre abuse only when the community itself remained tightly knit by the indigenous social relations – most importantly, kinship ties; people would be less sensitive to public censure and rumours against them if such ties were undermined and the shared sense of belonging to the community was lost.

The second factor mitigating against cadre abuse is the various institutions imposed on production teams by the socialist state – most importantly, the recurrent campaigns against grassroots cadres' corruption and the right granted to the villagers to select team cadres. Among the many campaigns, the Socialist Education Movement in the early 1960s, or the 'Four Clean-Ups' (*siqing*, i.e. to clean up workpoints, accounts, warehouses and assets in a production team), had the most profound impact on both cadres and ordinary villagers. Almost all cadres at the brigade and production team levels came under repeated accusations of being 'unclean' in workpoint recording or managing the collective by fellow cadres or team members during the campaign, and had to repay the collective in cash or in kind for whatever they had embezzled. Therefore, when abusing power during and after the campaign, they could only do so in a 'secretive' manner (*toutoumomo*) or they ran the risk of being caught and exposed; after all, as the villagers of Hengchuanwan, Henan province, mentioned, 'the Four Clean-Ups had been conducted for years' (HN20). Although the villagers were usually reluctant to openly challenge the abusive cadres, this being especially true among those who had a 'historical problem' such as once serving as a local constable (*jiazhang* or *baozhang*) under the Nationalist regime prior to 1949, others whose 'history was quite clean' (*lishi bijiao qingchu*) would be bold enough to protest (FB1, FB2). In production teams where the leader was customarily elected by team members rather than appointed by the brigade, the villagers tended to be particularly pugnacious; they would expose the leader's scandal at a public meeting or even act together to force him to step down, if the latter was 'really excessive' (*queshi guofen le*) in wrongdoing, as the aforementioned female villager Zhou Defang, Hunan province, confirmed (FN1).

The third factor concerns the mechanisms of labour management that held cadre abuse in check. When determining and recording workpoints for team members, for instance, the leader

(alternatively, the accountant or the workpoint recorder) was subject to a number of established practices. Having repeated most of the farming tasks so many times over the years, the villagers knew well how many points they should receive for a specific task under time rates or what workpoint rate should be used for a task under piece rates; the room for cadres' arbitrary decision-making in awarding workpoints was limited. Normally, when recording workpoints, the cadre responsible for it had to loudly announce the number of workpoints for each team member before the crowd who had done the task together; each team member also kept a workpoint booklet, in which his or her daily workpoint earnings were entered by the cadre every day. The cadres' daily workpoint recording sheets were subject to team members' verification; every month, the accountant of the team had to publicize the monthly earnings of individual members on the bulletin board of the production team office. The villagers would not hesitate to dispute with the cadre if they found that their points were missing or lower than expected. Therefore, the procedures of workpoint recording, according to a former workpoint recorder of Zhangzhuang village, Henan province, were 'very strict', and it was difficult for the cadres to tamper with workpoint records because of close surveillance from the team members; after all, the latter saw the workpoints not just as the 'fruits of their labour' but also as their 'lifeblood' (*minggenzi*), which mattered more to their livelihood than anything else (HN17, JX2).

Given these circumstances, it is predictable that most team cadres had to avoid flagrant and excessive favouritism in everyday management of team production. Whenever they wanted to show a preference for someone they favoured, the cadres had to do it in a hidden and justifiable manner, and only sporadically. Former village teacher Wang Jinsheng from Henan province thus observed that favouritism as an 'occasional' phenomenon and 'could not be done conspicuously, otherwise people would rumour'. 'And it was always done under an excuse', he explained, 'for instance, the team leader would say that his father was an elderly man in poor health, so let him watch the melon garden. This way, his father would relax under shade while enjoying watermelon in summertime' (HB4). Likewise, Mo Guanghua, a former villager of Mashenqiao township in Tianjin municipality, observed that favouritism was 'neither apparent nor severe' in his team: 'after all, this kind of thing should not be made known, and they [the cadres] were fearful of it. So they could only show care for their own family members, relatives, and friends on rare and insignificant occasions, such as giving them a bit more when distributing goods or stealthily add a few points for someone who had a good relationship with the team leader even if he did not work at all but instead visited a fair on that day' (TJ1). Villager Zhai Xiangyuan from Shanghai municipality also observed that the cadres' 'favouritism' (*pianxin*) was limited only to instances such as 'adding an additional half an hour to an acquaintance when recording workpoints, or letting a favoured person do a light task such as measuring a scale, while sending a disliked person to a heavy task such as cleaning up the pigsty. These things did happen. But wrongdoings against fundamental principles were rare' (SH2). Many other interviewees agreed that favouritism in their collectives was 'occasional', 'hidden' or 'not so excessive' and 'not so blatant' (e.g. AH6, FB2, FB5, HN47, HN50, JX3, SX4, SX6, SX7).

FACTORS EXTERNAL TO THE COLLECTIVE

The foregoing discussion of the issue of everyday performance of team members in collective farming has focused on the factors internal to an agricultural collective, including the functioning of work norms through peer pressure and group sanctioning against deviation from the norms; cadre supervision and possible abuse of power in labour management; and gender roles in everyday participation in production. It should be emphasized, however, that none of these factors worked alone, in itself, in dictating the villagers' performance in production; how these factors affected the team members' attitude towards group farming was in turn subject to the conditioning of factors external to the

collective and beyond the control of the collective or its cadres and members. It was the interaction between the internal and external factors that shaped the efficiency and productivity of a rural collective, the identification of the villagers with the collective and their motivations for team production, and the cadres' management of the collective. Among the external factors, the most important was the state's policies on agricultural collectivization, labour remuneration and extraction of agricultural resources.

Policies of Collectivization

The efficiency of agricultural production under the collective system, like all other forms of cooperation, depended on the level of shared interests and the level of shared identity among participating members (Mayhew 1971; Hechter 1987, 1990).The members would have a strong incentive to work together and work hard if they had a shared stake in cooperation, if the public good produced through cooperation was greater than what they could otherwise produce individually, and if their contribution to a cooperative project was closely linked with the reward they obtained from it. More importantly, successful cooperation rested upon the prevention of shirking among its participants. Among the many mechanisms against shirking, the most important was group sanctioning, which in turn was based on the cultivation of a sense of group belonging or shared identity among the members. Underlying the development of group solidarity, however, were interpersonal networks, kinship ties, geographical proximity and other forms of affiliation that contributed to the growth of a shared commitment among group members with regard to their collective goals. The level to which agricultural production was collectivized, and the size of collective that was to be created, then, had a direct effect on the villagers' identification with the collective and performance in collective farming.

By and large, during the initial stage of collectivization, when they were grouped into 'mutual aid teams' (*huzhuzu*) in the early 1950s, and when each team member still completely owned his land and the harvest from the land, the villagers were motivated to work together and increase production precisely because of the high levels of shared interest and shared identity among them. The size of the team was small, usually limited to a few households in the same neighbourhood; and the team members were usually people who knew and trusted one another very well. In the words of some former mutual aid team members, they had been 'related households' (*guanxihu*) (SX5), they were households of the same descent group (*anzhao fangzu*) and had close relations with one another (*benlai guanxi jiu bucuo*, FB6), or they had long trusted and liked one another (*gejing'er*, HN11). More importantly, most household members joined the mutual aid team on a voluntary basis (AH4, HB2) or formed a team through private discussion (*sixia shangliang jiehe*) (FJ1), which was especially true in the initial phase of the mutual aid team (FB3); they excluded from the team those who had been 'troublesome and mischievous' (*tiaopi daodan*) in their eyes (AH4). The cadres of mutual aid teams were also selected by team members from those whom 'they trusted' (*zhide dajia xinren*) (HN44) and those who were 'competent' (*nengli qiang*) (FB3). Cooperation within a mutual aid team primarily took the form of 'exchanging labour' (*huanggong*) among team members in farming activities, and most team members appeared to be 'hardworking, responsible and enthusiastic' in production; this experience, in the memory of Wang Ruhai of Shijishi village, Shanxi province, caused the team members to form emotional bonds that would last for life. On the other hand, exchanging labour also allowed them to 'see through' (*kan bai le*) the few who were lazy and irresponsible, and they would despise the latter afterwards (SX5).

The villagers' problem with the collective began with the rapid and forced transformation of small mutual aid teams into the larger 'primary cooperatives' (*chujishe*) (each having dozens of households) in the mid-1950s. Although they joined the co-ops out of their newly established trust in the communist state, which had just benefited them with the land reform programme, or under

unprecedented pressure from the government (ZJ1, SX5), many co-op members, especially the middle-peasant households who had owned the largest amounts of land and draft animals, but had to turn in all of them to the co-op, were soon disappointed by the co-op's minimal payment or non-payment of 'dividends' as compensation for the collective use of their property (e.g. HN25). The villagers' resistance to collectivization became widespread, and fierce in some circumstances, when the primary co-ops were turned into the production teams of the even larger 'advanced co-ops' (*gaojishe*) (each having hundreds of households) in 1956 and 1957. For them, the biggest problem with an advanced co-op was the egalitarian method of income distribution among its production teams. As Guan Maili, a former brigade accountant of Guanzhuang village, Henan province, accurately described it, 'under the advanced co-op, some teams did well in production, and some did bad. Those who did well had to reallocate their grain to those who did bad, because grain was distributed equally. For instance, if your team produced 100 catties, and my team produced 50 catties, then your team had to share 25 catties with my team, so each team got 75 catties. From that time on, things became bad, because no one was willing to work hard; those who produced more had to share with others, so why do you have to work hard?' (HN33; see also HB5 and JX 6 for similar examples and comments).

The worst time for the villagers was, of course, the three years of the Great Leap Forward (1958–61), when co-ops were reorganized into gigantic 'people's communes' (*renmin gongshe*), each comprising as many as thousands of households. Although commune members were initially enthralled by the state's promise of an affluent para-communist society and therefore showed unprecedented zeal in collective work, they soon switched to shirking because of the physical exhaustion they all experienced due to the commune leaders' arbitrary and excessive assignments of tasks for unrealistic production targets and, more importantly, because of the lack of any substantial stake in working for the commune and the absence of any real sense of shared belonging among commune members. Production under the commune was militarized, with the farmers being grouped into 'battalions' (equivalent to a former advanced co-op or, later, a brigade) and 'companies' (equivalent to a production team) and subjected to the unitary command of the commune (a 'regiment') in everyday production (HN25). The commune members who worked together on the same task often came from different battalions or companies and did not know one another (AH1); sometimes commune members of different villages formed a single battalion, so they 'worked for this village today and for another village tomorrow' (HN33). The problems of shirking and poor management of the commune resulted in crop failure and severe famine throughout rural China in 1959 and the following two years. In response, the state had to replace the commune-wide unitary assignment of tasks and the unified method of income distribution within a commune with labour management and remuneration on smaller scales, which eventually stabilized at the production-team level after the Great Leap Forward, thereafter remaining unchanged until the end of the collective system in 1980.

Micro Economic Policies

In the post-Leap years, the production team, as an independent 'basic unit of accounting' (*jiben hesuan danwei*) in labour management and income distribution, was equal to a former primary co-op in size, comprising an average of 30 households, all from the same village, who were neighbours, relatives or at least acquaintances of one another; in the single-surname villages commonly found in south-eastern China, all team members were from the same descent group. The small size of the production teams, therefore, made it possible for members of the same team to form a sense of shared identity among themselves, a precondition for group sanctioning to work against shirking. The real challenge to a production team, then, was whether or not its members could develop a real sense of shared interest or, put differently, to what degree their labour contribution to the team was linked

with the income they received from it. This was again an issue that was beyond the villagers' control and was to be decided by a set of the state's micro policies pertaining to labour remuneration, income distribution and resource extraction.

It has been shown earlier how the state's policies on the use of different workpoint systems changed during the collective era and how the villagers responded to different workpoint systems in everyday production. It has to be emphasized, however, that workpoints alone did not determine the income that a member household would receive from its team. When distributing grain to team members, the production team had to conform to the state's policy on the ratio between 'rationed grain' (*kouliang*) and 'workpoint grain' (*gongfen liang*). Rationed grain was distributed to every household according to the number and ages of its members to guarantee their livelihood, regardless of the workpoints the household earned. But rationed grain was not free; it had to be paid for by the workpoints that the household had accumulated. It was only after deducting the value of the total amount of rationed grain that a household had received from the team that a cash payment could be made to the household at the end of a year for the remainder of the cash value of the workpoints it had received over the year. Households that failed to make enough workpoints to cover the rationed grain thus owed a debt to the team and became 'overspending households' (*chaozhihu*). Workpoint grain, on the other hand, was distributed according to the total amount of workpoints that a household had earned over the year. The villagers were sensitive to the state's policy on the rationed-grain to workpoint-grain ratio; they lost the incentive to work hard and shirked in collective farming when the proportion of workpoint grain was low (GNW (Guojia nongye weiyuanhui) 1981, 127–8) and vice versa.

The state's policy on the ratio between rationed grain and workpoint grain changed over time, depending on its ideological orientation, political agenda and industrialization strategy. When the state radicalized political life in the country and promoted egalitarian economic policies, or when it had to maximize its extraction of agricultural resources to fuel its ambitious programme of industrialization, it would increase the portion of rationed grain at the expense of workpoint grain, as seen during the initial phase of the Great Leap Forward, when the ratio of rationed grain to workpoint grain was officially set at 5:5, but in reality could be increased to 6:4 or even 7:3 by local government authorities. When the egalitarian policy caused commune members' loss of work incentive and widespread slacking, however, the state had to reverse the ratio by reducing the portion of rationed grain to 40 per cent or 30 per cent of the total amount of grain being distributed, as measures to incentivize the villagers and rehabilitate the devastated economy, as seen in the later phase of the Great Leap Forward and afterwards (GNW (Guojia nongye weiyuanhui) 1981, 108, 221, 333, 359, 382).

How much grain and cash income a production team could distribute to its members was determined not only by the overall performance of the team in production but also by the state's policies of extraction through the collection of agricultural tax (*gongliang*) and the compulsory 'unified purchase' (*tonggou*) of grain from the team at a price determined by the government, and significantly lower than the market price of grain. When the unified purchase programme was first introduced in November 1953, villagers in many localities responded by slaughtering animals and refusing to work in the following two years, in the belief that the state's procurement of grain was excessive and without any limit; for the villagers, it made no sense to work hard because, no matter how much they produced, the amount of grain they could keep for self-consumption after procurement was less than they needed for subsistence. In Songjiang county of southern Jiangsu province, one of the most prosperous areas in the country, for instance, the amount of grain that the state took away from this country amounted to more than 64 per cent of its total harvest, leaving only 406 catties per capita for self-consumption. Likewise, in the impoverished Dongtai county of northern Jiangsu province, villagers surrendered nearly 32 per cent of their harvest as taxes and procurement obligations, leaving only 331 catties per capita for self-consumption (Li 2006, 150, 153). Villagers throughout the

country resisted the programme, in the form of either secretive individual actions or overt, collective violence (AH1, AH4, HN23, JS1, FB4, ZJ1). The state conceded in March 1955 by enacting the so-called 'Three Fixed' (*sanding*) policies that guaranteed its 'unified sales' (*tongxiao*) of grain in a fixed amount back to the rural population and at the same time demanded that villagers meet their fixed targets in production and fulfil their reduced but fixed quotas in the state's procurement of grain, a policy that would remain unchanged for the rest of the collective era, reflecting the state's overall growth strategy, which prioritized heavy industry and defence at the expense of agriculture (Riskin 1987, 6; Bramall 2009, 87–9, 262–9).

The state's extraction greatly reduced the income that the villagers received from the collective, impeded their improvement of living conditions and negatively affected their motivation for collective production. Take the No. 11 team of Qin village, Dongtai county of Jiangsu province, in the 1970s: each year, the team turned over 11,800 yuan on average, or more than 40 yuan per capita, to the state through its payment of agricultural taxes and in fulfilment of procurement tasks, which was more than half the income that the team members received from the collective, or more than they received in the year-end cash payment from the team (Li 2009, 347). In the entire country, the total amount of agricultural resources extracted by the state through taxation and procurement from 1950 to 1976 was well above 600 billion yuan (Cui 1988; Lu 1998, 108). The villagers' willingness to work for the team was at its lowest in the late 1950s and late 1960s when the state maximized its extraction, causing a decline in the distribution of collective income to the rural population.

Natural Endowment and Modern Input

Finally, we also have to take into account the non-institutional factors external to the rural collectives, which influenced production and work incentives no less than the indigenous or state-imposed institutions discussed above. The most important of these was the geographical and ecological conditions of a given locality, which determined the cropping pattern and land productivity in the area more than any other factors. Huge differences existed in this regard between different regions in rural China. In the northern provinces such as Henan and Hebei, where the climate was relatively cold, precipitation was low and the irrigation system was poorly developed, production took the form of dry farming, which was limited largely to one cropping a year, mainly the cultivation of winter wheat, to be supplemented with the growth of 'coarse food grains' (*culiang*) such as maize, sorghum, tomatoes and sweet tomatoes. Overall, land productivity was low. Villagers in Henan, for instance, frequently commented that the output of wheat in their production teams was as low as 40–50 or 60 catties per mu (HN4, HN7), or ranged between 30 and 120 catties per mu (HN25, HN31, HN29) in the 1960s and most of the 1970s. This was in sharp contrast with production in the southern provinces, especially the middle and lower Yangzi region, where agriculture benefited from a well-developed irrigation system and fertile farmland. In the most productive provinces such as Jiangsu and Zhejiang, the land yield was in general twice that in North China (Guojia tongjiju 1984, 173). It was not uncommon for some production teams to produce as much as 600–700 catties per mu in Hunan province (FN1) or 700–800 catties per mu in Hubei (FB6) in the 1970s.

Central to increasing agricultural production, as the interviewed villagers repeatedly noted (e.g. HN21, HN22a, HN25, HN29, SX9), was the application of chemical fertilizers, which was very limited in the 1950s and 1960s (nationally, 0.37 million tons in 1957, and 1.94 million tons in 1965) but quickly increased in the 1970s (3.51 million tons in 1970, and 5.37 million tons in 1975), especially in the late 1970s (10.86 million tons in 1979, and 12.69 million tons in 1980) (Guojia tongjiju 2005, 69–70), thanks to the wide establishment of chemical fertilizer plants in almost

every county in the late 1970s and the early 1980s (HN22a). By the end of the collective system in around 1980, therefore, the output of wheat had increased to about 300 catties per mu in some villages in Henan province (HN46). The dramatic increase in the use of chemical fertilizers after the introduction of the HRS further pushed wheat production to 700 or 800 catties per mu in the 1980s and about 1,000 catties per mu in the 1990s (HN34, HN49). The introduction of other forms of modern input, such as the application of chemical pesticides, the increasing use of electricity and agricultural machines despite their limited scope in the 1970s, and the wide promotion of new strains of crops, especially the hybrid rice crop in central and southern China, also contributed to the phenomenal increase in agricultural production in the 1970s. Fan Jinxi, a former production team cadre in Yangaocun, Zhejiang province, for example, estimated that the introduction of hybrid rice resulted in a 50 per cent increase in rice production in his team (ZJ4).

CONCLUSION

It has been shown above that a multiplicity of institutional and non-institutional factors worked together to influence individual labourers' expectations on the agricultural collective and shaped their everyday behaviour in team farming. Also at work were the natural endowments specific to a given locality and other non-institutional factors. It is therefore the interplay between the various formal and informal institutional factors, and between the institutional and non-institutional factors, that determined the level of a peasant family's dependence on the collective for survival, dictated the behaviour of team members as individuals and as a group, and gave rise to different patterns of performance in collective farming.

Depending on the presence or absence of the factors discussed throughout this paper and the level of the effects of these factors on the members of a local collective, the work incentives of individual labourers in a given collective and the performance of different production teams varied significantly. The villagers would have the strongest willingness to work for their collective and the collective would have the best production records when the following conditions were present: the production team served as the 'basic accounting unit' in which labour management and remuneration took place and the team itself was reduced to the minimal size; the piece rate system was widely used to measure individual members' labour inputs; workpoints accounted for the largest share in grain distribution to individual households; no opportunities existed for team members to earn income outside the collective; the collective coincided with the rural community and the villagers' group identity was high; communal norms were strong in constraining the villagers against shirking; the collective was endowed with fertile farmlands and diverse natural resources; and chemical fertilizers and other modern inputs became available. Except for a relatively high level of population density, most of these conditions were more or less found in the collectives in the middle and lower Yangzi regions and other well-endowed localities in the early 1960s, when they recovered quickly from the calamities caused by the Great Leap Forward, and especially the late 1970s, when they saw an upsurge in production, reaching 850, 1,011, 1,052 and 1,394 catties per mu in Hubei, Hunan, Jiangsu and Zhejiang provinces, respectively, at the end of the collective era in 1980 (Chang and Luo 1981). It was not uncommon for the collectives in these areas to reward their members at the rate of 0.70 or 0.80 yuan for each standard workday (a *gong*, i.e. 10 workpoints) (FB6, ZJ4) or as high as 1 yuan for each *gong* (ZJ1; see also Huang 1990, 239). By and large, the villagers in these areas had enough to eat (three rice meals a day, though meat remained rare), and their living conditions had gradually improved by the late 1970s. Except for those highly entrepreneurial individuals aspiring for profit-making opportunities in non-agricultural sectors and therefore seeking to escape the local collective, the vast majority of the villagers in these areas, with a sense of security as members of a production team, were largely content

with the existing economic arrangements or at least were not yet in a position to challenge them; they had to wait until the early 1980s for the state above them to take initiatives to dismantle the collective system. Instead of ending the collective system, in the most prosperous areas of the coastal provinces, local government authorities in the late 1970s made serious attempts to strengthen the collective system by elevating the basic accounting unit from the production team to the brigade (see, e.g., Siu 1989, 238; Zweig 1989, 98–107). In other words, decollectivization in these areas was a result of top-down implementation of a political scheme imposed on rural collectives by the state, and engineered by the reform-oriented party leaders after Deng Xiaoping stabilized his personal control of the party–state in the early 1980s, and was determined to replace the collective system with family farming.

In sharp contrast, the members of a rural collective would have the lowest willingness to participate in team farming and the team would have the worst record in production when the following conditions were present: labour remuneration was de-linked from a person's actual labour input; income distribution to individual households was based mainly on their size; villagers were free to leave the collective and found other means for survival outside it; community ties were weak and traditional communal norms disappeared or no longer worked; the basic accounting unit was elevated to the supra-village level, making it difficult for villagers from different communities to develop any identity with the shared, gigantic collective; the locality was poorly endowed and liable to frequent natural disasters; and without access to modern agricultural inputs, farmers continued to cultivate in a traditional manner. Some of these conditions were commonly found in the northern, north-western and south-western provinces during the Great Leap Forward in 1958–60, and again during the Cultural Revolution in the late 1960s and early 1970s. Not surprisingly, annual grain yield in 1980 remained as low as 425 and 503 catties per mu in the two south-western provinces of Yunnan and Guizhou, respectively; and 474 and 518 catties per mu in the northern provinces of Hebei and Henan, respectively (Chang and Luo 1981). The income distributed to individual households was minimal, as evidenced in the fact that the cash value of workpoints was as low as 0.03–0.10 yuan per *gong* in a collective in Gansu province (GS1), 0.10 yuan per *gong* in a collective in Shanxi (SX1), 0.10–0.20 yuan per *gong* in Henan province (HN4, HN20, HN32, HN38, HN46, HN49), 0.17–0.30 yuan per *gong* in Hebei province (HB2, HB5) and 0.25 yuan per *gong* in Shandong (SD4). Throughout the collective era, villagers in these areas saw no significant improvement in their living conditions. They ate wheat for only about three months in a year (HB4) or only during the lunar New Year (AH3; HN31); throughout the year, they survived mainly on coarse food grains such as maize and sweet potatoes, and frequently endured hunger (HN14). It was hard, therefore, for these villagers to develop loyalty to their production team or to have confidence in collective farming; they were the most enthusiastic in dismantling the collective organization and implementing the HRS in the early 1980s, as epitomized by the legendary action of the peasants from Xiaogang village of Anhui province.

All in all, to make sense of the complexity of peasant behaviour in collective production, we need to take into account all possible institutional and non-institutional factors that interplayed to form a historical and local context in which Chinese villagers engaged in team farming as individuals or as a group. As a result of the interaction among those factors, villagers of different gender and age cohorts, as residents of specific localities with varying natural endowments, or as community members interwoven into the matrix of local social ties and subject to their norms, showed striking differences in team production under the ever-changing systems of labour remuneration and agricultural policies of the state. The complexity and fluidity of that context gave rise to a multiplicity of patterns of behaviour that varied from person to person, team to team and year to year. To equate the Chinese villagers with self-interested individuals responsive only to material incentives defined by the externally imposed microeconomic systems, and to overlook the much more complex context in which

they lived and worked, runs the risk of oversimplifying the realities of collectivized agriculture in Maoist China.

Shirking and low incentives in team farming, viewed in this light, could indeed be a serious problem in certain circumstances, as described above. The fact that agricultural production per land unit in the few years (1981–4) following decollectivization increased at the fastest rate (8.46% a year) in the history of the People's Republic of China (PRC) (compared to 2.9% a year from 1950 to 1980) (calculation based on data from Guojia tongjiju 1984, 40) suggests that the return to household-based farming did indeed offer the farmers a strong incentive to maximize agricultural production when they were able to control the harvest. However, in the following four years (1985–8), both the total grain output and per-land-unit production in the entire country stagnated and remained below the 1984 level; in the history of the PRC, a similar decline in agriculture only occurred during the worst years of the disastrous Great Leap Forward, from 1959 to 1961 (Guojia tongjiju 1984, 37, 40). This suggests that the farmers' increased incentives under the newly introduced HRS were effective only in the short term, and the potential for increasing grain yields could be quickly exhausted after the new system was fully implemented throughout rural China. The prolonged decline and stagnation in agricultural production during the heyday of the post-Mao economic reforms was surprising and indeed puzzling to the pro-reform economic planners, because it worked against a their fundamental assumption that decollectivization and hence the full release of farmers' enthusiasm for private gain under the new system would provide a perpetual and ultimate solution to the problems of inefficiency in agricultural production and poverty among the rural population. In fact, even the return to family farming does not provide the whole story with regard to the increased grain production of the early 1980s. According to Justin Lin's own estimate, the transition from production teams to the HRS accounted for only 46.89 per cent of the increased agricultural output in the whole country in 1978–84; most of the growth was made possible by the increased use of chemical fertilizers and the increased price of grain purchased by the state (Lin 2008, 80–3).

All these factors suggest that the poor performance of agricultural production under the collective system could not be attributed merely to the problems of farmers' low incentives; nor could we assume that shirking was the biggest problem in collective farming. The evidence included in this study, no matter how anecdotal it is, suggests that, except for the few years under the policies of radical egalitarianism, and except for those localities where the fertility of the land was very low, the link between work effort and income distribution within a collective provided team members with enough incentive to work hard for their subsistence needs under normal conditions. In other words, shirking and low incentives were not the only reason, and in many instances not even the primary reason, behind the perceived failure of collectivized agriculture in pre-1980 China. A discussion of the factors behind the 'failed' collective system in agriculture warrants a separate study; here, suffice it to say that they could be both institutional, the most important being the state's policies of extracting agricultural resources through taxation and procurement programmes and strictly confining the rural population to collectivized agricultural production; and non-institutional, most importantly, an unprecedented population pressure on the limited land resources that generated a huge pool of surplus labour without access to income-making opportunities outside the collectives. Therefore, true breakthroughs took place in increasing agricultural productivity and the income of rural population only after the surplus labour was diverted from agriculture to other economic sectors, mostly through rural industrialization (i.e. the mushrooming of township and village enterprises, or TVEs) and the massive outflow of migrant workers from the countryside to coastal industrial zones, which emerged in the early 1980s but accelerated after the mid-1980s and culminated in the 1990s, as best seen in the explosion of employment in TVEs after 1984 (Bramall 2009, 422).

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