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Abstract

In this working paper, I argue that disaster management in high Qing period can be better understood by simultaneously considering the historiographies of governing elites' metaphysical construction of disaster causation and their administration of disaster relief. For metaphysical construction of disaster causation, I highlight the concept of *moral meteorology* coined by environmental historian Mark Elvin that describes the prevalent ideology in imperial China that implicated human conduct, in particular that of governing elites, with manifestations of disasters. For disaster relief administration, I highlight the public granary system, and in particular, the role of ever-normal granary (*changping cang*, 常平仓) in disaster relief administration, also noting how its purpose extended beyond solely grain provision in the wake of disasters. The multipurpose granary system collapsed by the mid-nineteenth century under the weight of intensive demands from rapid changes in China's population, economy, and environment since High Qing period. Interestingly, the moral meteorological arguments exhorted by the governing elites were also waning, giving way to proto-scientific explanations for disaster occurrences. By juxtaposing ideological and administrative shifts during late imperial China as evidenced in their individual historiographies, I argue that these two streams of historiographical work are inextricably related and likely animated by two conditions. First is the general decline of the Qing regime. Second, decoupling moral conduct from frequent and disastrous extreme events was Qing governing elites' attempt to preserve their legitimacy. Finally, I propose that the approach of combining intellectual and administrative historiographies offers a useful general framework to examine the historiography of disaster management beyond that of High Qing period or even imperial China.

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In this working paper, I argue that disaster management in High Qing period can be better understood by simultaneously considering the historiographies of how governing elites understood disasters at the metaphysical level and the administration of disaster relief. During High Qing, the regime encountered rapid changes in population, economy, and environment. By governing elites, I refer to Qing emperors and their bureaucracy. While I do not present original empirical findings in this paper, the historiographical discussions represent my initial effort to contribute to a more sociologically grounded and historical accounts of disaster management in non-American and non-European contexts. In other words, I hope my paper offers a more situated reading of development in Chinese emergency management mechanistically through the particular lens of Western experience (Kuhn 2002; Thornton 2007).[1] Just as important, this paper counts as my attempt to continue an enduring tradition in sociology that attends to the sociological conditions in which disasters came to shape societies and also be shaped by societal shifts (such as Erikson 1978; Freudenburg et al. 2009).

Rather than focusing exclusively on either historical work that elaborates the ideological underpinnings of how Qing governing elites conceived, understood, and organized risks, or the administrative history of how specific disasters were managed, my efforts will be on arguing how both streams of historiographical research when combined has the potential to generate additional insights and stimulate more inquiries into the development of China's disaster management. This in turn contributes to the body of knowledge on how a "modern" Chinese emergency management comes to be what it is today.

[1] Kuhn's (2002) analyses of the influence of Qing political thinker Wei Yuan (魏源) on the literati of his time exemplify my aspiration for more nuanced thinking. Kuhn points out how Wei's political philosophy is often misinterpreted as being progressive and modern by Westerners. Specifically, according to Kuhn, a careful reading of Wei's writings in tandem with an understanding of the historical context would reveal that Wei was never in doubt that political reform should serve to enhance the authoritarian rule of the imperial state.

My paper proceeds as follows. First, to preface the discussion on these two aspects of disaster management, I sketch the economic, environmental, and socio-cultural landscape of late imperial China, emphasizing the reign of Kangxi, Yongzheng, and Qianlong.[2] This summary provides the context to understand the nature and dynamics of famine administration in that era.

Second, with respect to the ideological historiography of Chinese disaster management during high Qing period, I highlight Mark Elvin's (1998b) concept of *moral meteorology* as the prevalent understanding that Qing governing elites relied upon to relate human conduct to the manifestation of disasters. Moral meteorology can be understood as a "folk theory" of how the moral quality of human conduct can induce geological and weather repercussions. It therefore provides an interpretive lens through which the administration of disaster management that emerged during that period could be understood and rendered meaningful. At suitable junctures, I draw upon other historiographical studies, such as the development of neo-Confucianism (Hung 2009), the history of the literati (Kuhn 2002), and of the state (Thornton 2007) to support my arguments.

Third, I introduce the administrative historiography of disaster management in imperial China by highlighting the state granary system in famine administration and its accompanying bureaucracy, policies, and performance. The famine relief conducted by China's governing elites in response to natural "triggers" (e.g., earthquakes, floods, and droughts), including the role of ever-normal granaries (*changping cang*, 常平仓), would be categorized in modern-day terms as disaster response and recovery. To be elaborated later, I discuss how the purposes of the ever-

[2] Strictly speaking, Kangxi, Yongzheng, and Qianlong, were not the names of the emperors, but their reign periods. For example, the emperor of Kangxi reign period was Xuan Ye (玄烨). The reign periods for the three emperors were 1661-1722, 1722-1735, and 1735-1796 respectively.

normal granary extended beyond grain provision in the wake of disasters. Essentially, the granary system was also a state-designed mechanism to regulate prices in regional grain markets.

Finally, I conclude by making clear the connections between the moral meteorology of Qing governing elites and the granary system to underscore how they were inextricably related. Briefly, I argue that the famine relief efforts by the governing elites were partially but significantly motivated and sustained by moral meteorology. Unfortunately, sheer ideological power was not sufficient as a means to prop up such a complex and gargantuan system. Under the weight of intensive demand for resources and attention, the multipurpose granary system finally collapsed by mid-nineteenth century. Just as important, the collapse was coterminous with the waning hold of the prevailing moral meteorology among governing elites.

Contextualizing the Qing Regime

The first half of the Qing dynasty marked the greatest geographical expansion of empire since the Mongol domination (Yuan dynasty) during the thirteenth and fourteenth centuries, covering a landmass that was even more larger than modern-day China (Cohen 2000). The population also underwent tremendous growth, particularly during Qianlong's reign (1735-1796) when it expanded from 143 million in 1740 to 300 million in 1784, an impressive 110% increase less than half a century (Kuhn 2002).

Interestingly, a classic Malthusian crisis—in which the rate of population growth was anticipated to outstrip the rate of increase of food supply—did not manifest as a consequence of this tremendous societal change. In fact, not only food output did not fall behind population growth, the economy was also booming, particularly in the Yangzi Delta region (Pomeranz 2000). However, the dual pressures of demographic and economic expansion precipitated a series of

ecological crises, resulting in deforestation, hillside erosions, and floods (Elvin 1998a; Janku 2009; Kuhn 2002). For example, flood occurrence was frequent: there were 12 recorded instances in the final 20 years of the eighteenth century, with consecutive annual occurrences from 1796 to 1799 (Kuhn 2002).

Yet, the economic and population growth did not bring about a corresponding increase in the size of the state bureaucracy to manage the multiple facets of expansion. In other words, the governing elites had not prepared for the requisite complexity and resources, and therefore, unlikely built administrative capabilities to manage a bigger and more diverse population. As an indicator of its stagnation, the number of counties remained largely the same since the eleventh century when the population was only about 50 million, six times smaller than High Qing's (Kuhn 2002). Another indicator is the fiscal size of the imperial government. Estimates of state revenue from taxation in the eighteenth century likely never exceeded one per cent of total gross national product (Shiue 2005). Furthermore, given the mixed success of taxation reforms, particularly under the reign of Yongzheng, state coffers were not growing after a certain point, thereby imposing a material limit to any bureaucratic expansion to meet the needs of government (Thornton 2007). That said, the Qing state still managed to institute hydraulic infrastructure and public granaries to mitigate, prepare for, and respond to disasters such as droughts and floods, given its modest resources and its limited success in fiscal reforms during the mid-eighteenth century (Dodgen 1991; Hung 2009; Will and Wong 1991).

Apart from the administrative limitations on man and material discussed above, the stagnation in the state bureaucracy likely also suffered from self-imposed ideological constraints that could be partially traced to the enduring (and tautological) belief that frugal government was judged as "a cherished marker of a heaven-favored dynastic regime" among the cultural elites who

populated the imperial bureaucracy at all levels and local gentry (Kuhn 2002:23). It made sense for the Manchus, in establishing themselves as a conquest dynasty, to procure acceptance from Chinese cultural elites by deploying assiduously "indigenous" Confucian rationality. The cultural elites harbored notions of exclusivity including boundaries of officialdom, thereby restricting officeholders to those who were schooled just like them in the classics.[3] They further defined narrowly what constituted public interest. A normative or moral agenda permeated public life (Thornton 2007), crouched in the "righteous rhetoric of personal ethics" (Kuhn 2002:13) that rested on neo-Confucian morality. In particular, it was the strand that emphasized the collective over the individual and endorsed a rigid application of universal filial piety beyond the familial hierarchy to the relationships between a ruler, his officials, and his subjects, "grounded on absolute obedience from below and paternalist care from above" (Hung 2009:82).

Overlapping with Confucian sensitivities about morality, I highlight moral meteorology in the next section, the cosmic connections between moral conduct and natural disasters as the common stock of knowledge about cosmological beliefs and moral ideals in which the cultural and governing elites draw upon to conceive and organize disaster management.

Moral Meteorology as Ideology

Coined by environmental historian Mark Elvin, *moral meteorology* refers to using moral misconduct as explanations for causes of disasters. To elaborate, it underscores how the manifestation of disasters is a consequence of the moral deficiencies of people residing in a geographical area (Elvin 1998b). The specific beliefs and the ways in which they manifest are

[3] The sphere of exclusivity was astounding. According to Benjamin Elman, the proportion of the "classically trained" literati was never more than one per cent of the entire population. Also, less than one per cent of the cultural elites held administrative office during Qing regime. See p. 237 in *Elman, Benjamin. 2000. A Cultural History of Civil Examination in Late Imperial China. Berkeley, CA: University of California Press.*

highly situated. For example, in medieval Europe, the predominance of Christianity and the church as formidable institutions did not directly implicate the political elites and monarchy as the source to induce disasters, a portent of moral decay. Instead the cause was deemed to be based on the degenerative moral behavior of the more general populace. Additionally, the moral meteorology was also expressed through the church in the forms of disaster-related rituals and liturgies (Svensen 2009).[4]

However, when applied to imperial China, natural disasters as a portent while also similarly served as an indication of moral deficiencies, the causal root was founded on the moral conduct of the regime. The hierarchy of causal influence further followed this order of decreasing strength: first, it was the emperor, then his bureaucracy, and least of all, the common folk (Elvin 1998b). Not difficult to see, the notion that the conduct of governing elites (i.e., the emperor and his officials) were deemed to be the most consequential also deeply implicated the prevailing neo-Confucian orthodoxy of that era.

The act of placing themselves as the central shapers of meteorological phenomena served multiple purposes that might be contradictory in some occasions. As pointed out by Andrea Janku (2009), the conceptual maneuver was self-serving because by maintaining the mythical connection between morality and meteorology, the state necessitated the management of natural disasters under its continual purview. Understood this way, the concept of "nourishing the people" (*yangmin*, 养民) present in historiography of disaster relief administration is no longer an autonomous idea

[4] Alas, moral meteorology continues its hold on some quarters of the population in different societies even today. The specter of moral misconduct haunts recent disasters, natural (e.g., 2005 Hurricane Katrina, 2010 Haiti earthquake) and man-made (e.g., the MH370 and MH17 tragedies). For example, a Malaysian official attributed their tragedies to un-Islamic behavior, such as serving alcohol and exposing flesh. See http://www.ibtimes.co.in /mh370-mh17-tragedies-were-caused-due-un-islamic-behaviours-like-serving-alcohol-exposing-612933. Accessed on November 11, 2014.

but one that could be linked to more robust ideological and metaphysical foundation centered on moral meteorology and neo-Confucian rationality. To elaborate, *yangmin* was an expression of the paternalist care that governing elites were expected to impose on their subjects (Edgerton-Tarpley 2012; Will and Wong 1991).

To be clear, the "moral reading of disasters" (Janku 2009:233) while presented in the Confucian vocabulary of piety and paternalistic care during Qing rule—in which heaven-sent disasters (*tianzai*, 天灾) was causally tied to the legitimacy of the leaders, or the "mandate of heaven" (*tianming*, 天命)—preceded Confucianism and was deeply entrenched in Chinese mythology and history of high antiquity.[5] This could be demonstrated in three expressions. Elvin (199b) highlighted the first and most familiar expression, one which was a portent of moral decay, after the fact. Janku (2009) described the other two scenarios as trials and warnings. In one expression, natural disasters could be also interpreted as a heaven-sent trial of a ruler's ability to deal with crises, represented by the Great Yu (大禹) as the cultural hero in flood management. In the final expression, it could also serve as a warning for the ruler to further examine his moral integrity, thus providing an opportunity for him to accept personal responsibility for the people's welfare.

[5] Here, I quote Janku (2009) and Edgerton-Tarpley (2012) at length:

> The nine-year deluge at the time of the cultural heroes Yao and Shun, which the Great Yu, the first ruler of the Xia dynasty (considered to have lasted from ca. 2100 BC to ca. 1600 BC) finally brought under control; the tremendous earthquakes during the last years of that dynasty; the seven-year drought under Tang, first ruler of the Shang dynasty (ca. 1600 BC - ca. 1100 BC); successive floods during that dynasty, leading to five relocations of the capital city; and the devastating earthquake at the close of the Shang, which brought to an end the rule of the evil Zhou, the last Shang king (Janku 2009:233).
>
> Once (the Great) Yu "opened the passages for the streams" and "deepened the channels and canals," the people were able to obtain enough grain to eat, and the different states "began to come under good rule" (Edgerton-Tarpley 2012:4).

The combined 153 years under the reign of Kangxi, Yongzheng, and Qianlong marked the zenith of the rhetoric around moral causality in late imperial China, in which varying degrees of attribution were directed at different members of society (specifically the emperor, officials, and subjects) and multiple levels of government (e.g., provincial) (Elvin 1998b). For example, Kangxi emperor argued that the governing elites state-wide were directly responsible for an earthquake in 1679:[6]

> There has now occurred a large and sudden earthquake. The general explanation for this is that We (朕) are lacking in virtue...and that many of those whom We have employed to administer the government are not sincere or helpful. Central and provincial officials, you are unable to purify your heart-minds,...you deceive your superiors, act in your personal interests...or behave wantonly and oppress the people, turning right and wrong upside down, ...disrupting the harmony of Heaven above, and calling down this disaster (Elvin 1998b:219).

After Kangxi, Yongzheng and Qianlong further refined moral meteorology as a means to identify specific locales and their officials for praise or punishment using regional meteorological reports. The following decrees by Yongzheng and Qianlong respectively evidenced episodes of censorious treatment:

> There were abundant harvests everywhere last year throughout the province of Zhili. Only three administrative subdivisions, Xuanhua, Huailai, and Baoan, missed being fertilized by the rains. We thereupon entertained suspicions toward the officials and

[6] To construct his arguments of the moral meteorology of the ruling elites, Elvin examined the chapters on *Reverence for Heaven* (Jing Tian) in the *Sacred Instructions of the Qing emperors* from the reign of Kangxi to Daoguang. The entire collection is called the *Shichao shengxun* (*The Sacred Instructions of Ten Reigns* [1616-1874], 十朝圣训). See p. 215 and footnote 6 in Elvin's (1998b) *Osiris* article.

> commoners of these localities, fearing there might be causes for them to have called this down upon themselves (Elvin 1998b:226).
>
> If there are repeated disasters and famines in a particular area, then, since the heart-mind of Heaven is compassionate and loving, this will most certainly not be a case of punishment being sent down without cause (Elvin 1998b:228).

Despite the examples of moral meteorology espoused by the governing elites, there was no one monolithic and overwhelming rationality. As pointed out by Elvin (1998b), other theories of meteorology existed, such as the imbalance of yin and yang or acts of specific deities (e.g., God of Sea was responsible for coastal floods, not Heaven), and not uncommonly, had fused with the Confucian-based moral rationality. In addition, the physical environment could have created the conditions in which the concept of moral meteorology could take root. As Elvin (1998b) argues, moral meteorology was particularly convincing for the governing elites because of the highly variable weather in North China during late imperial period:

> Perhaps only high short-term variability can provide enough short-term coincidences—such as apparent responses to prayers—to sustain belief in the moral meteorological mechanisms (p. 215).

I argue that the influence of moral meteorology went beyond a theory of causation that explained why disasters happen in late imperial China. When welded with Confucian sensitivities of morality, moral meteorology served as an impetus for Qing governing elites to mitigate, prepare, and respond to disasters, manifested at the levels of both individual conduct of the governing elites and state action. Janku (2007; 2009) detailed at the individual level of how local history of disasters memorialized the moral exemplars of officials in the wake of natural disasters. For example, the

achievements of the Fenxi county magistrate, Yu Zhongde, in the late nineteenth century was described in the county gazetteer and a stele of the temple built in his honor (Janku 2009).

I have discussed the role that moral meteorology as a folk theory on causation of disasters also animated Qing governing elites to manage disasters. Next, I will discuss the practical and administrative aspects of disaster management, specifically the role of the granary system as an expression of state administration, especially during disaster response and recovery stages.

Enter the Ever-normal Granaries

To be clear, several methods used in Qing disaster management and in the case famine control were already known to the governing elites as early as the Song period (960-1279) several centuries ago. As Will (1990) points out, they included "surveys of the disaster and its victims, the regular distribution of grain, public soup kitchens" (p. 74). What was innovative and remarkable was that the Qing state exerted way greater influence at the local level in executing a relative successful state-managed famine administration at the expense of the local gentry.[7] Here, I focus on one prominent formal disaster response during late imperial China: Using the granary system to disburse disaster relief. To review the Qing granary system, particularly its disaster relief role, I consulted works by Will (1990), Will and Wong (1991), and Shiue (2004; 2005). I also referenced heavily book reviews by Rowe (1992), Macauley (1995), and Vogel (1995) on Will and Wong's (1991) now-classic *Nourish the People*.

[7] Will (1990) points out that this could be partially attributed to the Qing monarchy being keenly aware of how the local gentry undermined state authority near the end of Ming dynasty (1368-1644) that preceded its reign, and therefore had been systematically stripping the propertied class of its feudal privileges, and assiduously increased state involvement at local levels.

There were three main types of civilian granaries in the Qing system: (1) ever-normal granaries (*changping cang*, 常平仓), (2) charity granaries (*yi cang*, 义仓), and (3) community granaries (*she cang*, 社仓).[8] Of the three, only ever-normal granaries were under the purview of the government, managed by the local magistrates and their staff, and serving those residing near the county seats. Besides providing relief grain, the ever-normal granary system was also designed to be a buffer stock during non-disaster periods by regulating market prices through annual purchases and sales and distributing pre-harvest (or *soudure*) loans in spring, before the first crops of the year came in (Shiue 2004; Will and Wong 1991). In contrast, the charity and community granaries were usually located in towns or villages, supervised by the local people. These granaries were also relatively smaller, compared to the state-owned and bureaucratically managed ever-normal granaries. Most grain remained within the area where it was stored. In fact, less than one per cent of annual grain stocks were transferred to another province, or even elsewhere within the same province (Shiue 2004).

While the granary system was not an invention of the Qing state, it was revived by Kangxi and then significantly expanded during Qianlong's reign. At its zenith of administrative complexity between 1740s and 1770s, at least 12 provinces amassed at least one million bushels each, reaching a peak of 45 million *shi* (or *dan*) in the 1790s (Will and Wong 1991).[9] Vogel (1995) notes that during the period of the granary system's greatest success, most regional variations were in fact deliberate, attesting to its adaptability and capacity. As Macauley (1995) and Rowe (1992) further remark, Will and Wong's (1991) impressive administrative history of Qing granary system successfully challenged and debunked the received wisdom of previous historiographical accounts

[8] There were also granaries for military garrisons. For the purpose of this paper, I excluded them from discussion.
[9] See Will and Wong (1991), pp. 21-22 and Appendix Table A.1. *Shi* or *dan* is calculated in unhusked grain.

that assessed late imperial China to be crippled by ineffectual bureaucracy. The ever-normal granaries were designed to work through the market because the Qing government did not intend to upset the prevalent grain prices.

As succinctly described by Shiue (2004), the granaries require consistent and continual maintenance and investment in order to remain effective in stabilizing regional grain market prices, and performing disaster relief disbursal:

> Consistent investments in the maintenance and upkeep of the granaries would have been critical to their long-run operation. To prevent spoilage over years of normal harvest, county officials had to sell or loan (with interest) old grain from the previous harvest and use this money to acquire fresh grain for restocking through market purchases, or, by soliciting contributions from local residents. In years when relief was needed, county officials were supposed to sell the ever-normal granary stocks at reduced prices or distribute grain to the poor. If ever-normal grain was distributed outright for famine relief, then the local administration would be reimbursed by the central government (p. 105).

Grain relief disbursal itself also entailed a plethora of administrative procedures, including various audits, as well as checks and balances to reduce administrative malfeasance at the local level. As Will (1990) meticulously recounts, officials were expected to follow prescribed regulations that covered both routine and non-routine operations. For example, under a certain threshold of geographical size, problems were initially handled by local officials; when situations were deemed to be urgent, the palace memorial (*zouzhe*, 奏折), albeit exclusive to provincial

officials and above, would be deployed.[10] Alternatively, a special emissary who had the authority to prevail upon the magistrates or bypass the hierarchical channels would be sent from the court to supervise local famine administration. Kangxi also built on an existing Ming regulation to routinize reporting on grain prices, weather, and harvest conditions, further complementing the development of the granary system (Will and Wong 1991).

Conjoining Moral Meteorology and the Granary System

Different cultures craft particular answers to address perennial questions around "prevention, emergency aid, and reconstruction" (Mauch 2009:13). In this working paper, I highlight how the longstanding moral meteorology provided the ideological scripts and schemas for the Qing state to legitimize its involvement in disaster relief, building on and refining legacy granary administrative system toward disaster relief. In fact, the principle of disasters could not be attributed to natural forces, but were instead connected to the moral conduct of the governing elites, went beyond symbolism to shape expectations of imperial and bureaucratic responsibility (Edgerton-Tarpley 2012; Li 2007).

Notwithstanding the ideological scripts and schemas associated with the granary system, it was undoubtedly a highly resource- and attention-intensive enterprise to build, revise, and maintain such a gargantuan system that served multiple purposes, among which disaster relief was a critical function (Will and Wong 1991). In tandem the fiscal crisis brewing and coalescing from the early nineteenth century, the administrative rigor empire-wide was also fading. The increase in resources for the state bureaucracy failed to keep up with the expanding population, the

[10] The *zouzhe* system dramatically reduced the time taken for communication between the capital and provinces. According to Will (1990), the greatest speed recorded was "on the order of 800 *li* (400 km) in 24 hours," while the norm was about 300 *li* (p. 80).

increasing complexity of society, and pressing environment stresses from the mid-eighteenth century (Hung 2009). As Figures 1 and 2 demonstrate, grain price was not stable but followed a rising trend and the ration of disaster/famine relief offered was decreasing from mid-eighteenth century.

Figure 1. Grain Price, 1650-1900 (Hung 2011:25)

FIGURE 1.1 GRAIN PRICES IN THE LOWER YANGZI DELTA, 1650–1900 (*TAELS* PER *SHI*, TWENTY-FIVE-YEAR MOVING AVERAGE) (*SOURCE*: WANG 1992, 40–47)

Figure 2. Ration of Famine/Disaster Relief, 1700-1839 (Hung 2011:32)

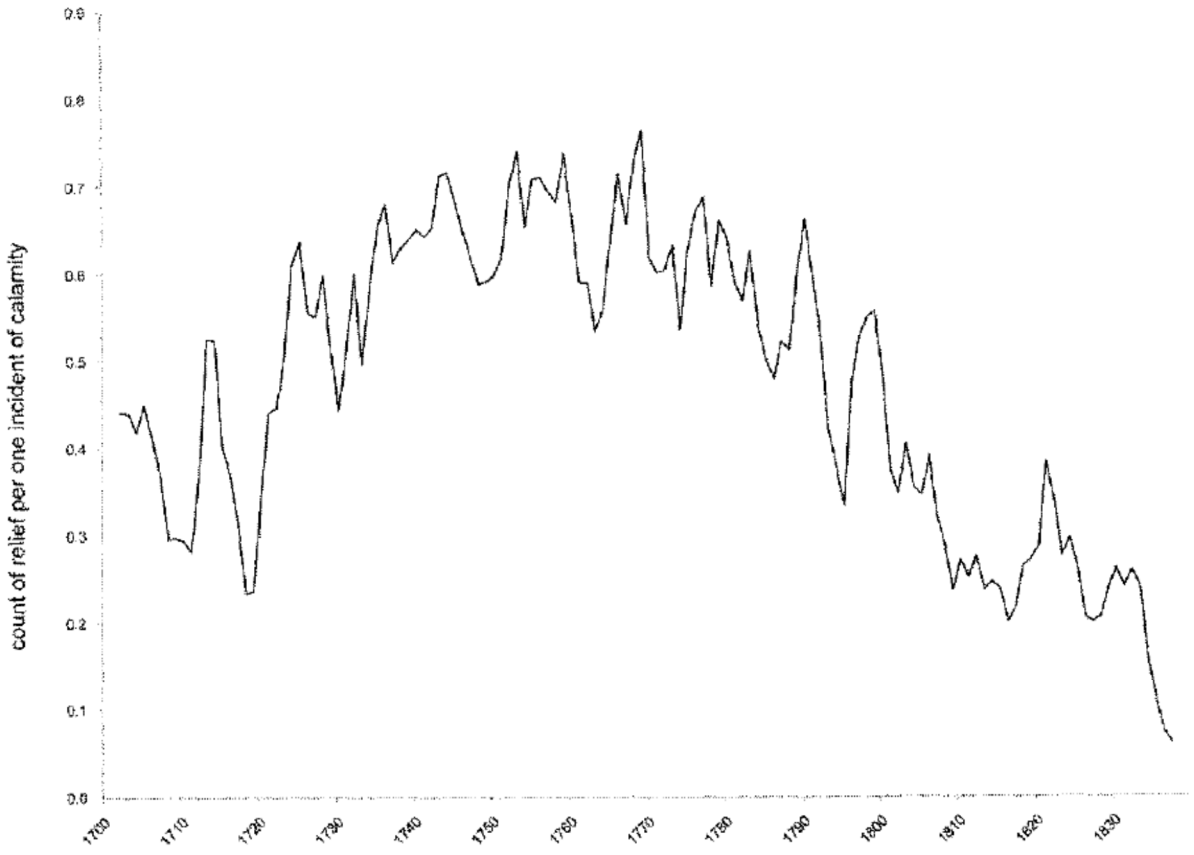

FIGURE 1.2 RATIO OF OFFICIAL RELIEF TO CALAMITY, 1700–1839 (FIVE-YEAR MOVING AVERAGE) (*SOURCE*: LI 1995, APPENDIX)

Interestingly, I observe that the strength of the moral meteorological rationality espoused by the governing elites seems to correspond to the strength of the granary administration and its function of famine relief. Specifically, the variant that linked local moral conduct to local calamities started to wane from the reign of Jiaqing (1796-1820). In its place, more administrative and pseudo-scientific reasons became more acceptable explanations of why disasters befell upon some locations. For example, during the reign of Tongzhi (1861 to 1875), instead of moral

misconduct, the emperor attributed the prolonged rains in 1871 to the "low-lying and swampy topography" at Shuntian, Baoding, Tianjin, and Hejian (Elvin 1998b:231). It is as if the governing elites were attempting to decouple government action from manifestations of disasters.

That said, while moral meteorology was losing its grip on the governing elites, this ideology had not completely faded away. Using the same 1871 rain example, the remedy recommended by the emperor was to correct any judicial mistake or misconduct that had imprisoned innocent persons. This still implied a moral solution to a meteorological problem.

Conclusion

By showing the interactions between moral meteorology and disaster management practices during late imperial China, I demonstrate how the ideational-ideological intersects with the materialistic-administrative. This integrative approach then offers a more complete and nuanced understanding of what could be constituted as disaster management by the state during that era.

I argue that this approach of combining ideological and administrative historiographies could become a general and meaningful framework to examine the historiography of disaster management beyond the high Qing period or imperial China. For example, specific to the United States, this integrative approach could be an interesting lens to examine the socio-historical context in which the concept of "victim" to characterize disaster survivors emerged and the extent to which it shaped the 1950 Disaster Relief Act and successive policies and practices in disaster relief (Tierney 2007).

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