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THE PRECARIOUS STATE OF FAMINE RESEARCH

Olivier Rubin

Abstract

In 2017 famine struck yet again. While famine continues to haunt many fragile countries, the paper reveals a faltering scholarly interest in famine research, particularly within the research tradition of development studies. Today, the research field is rather dominated by the research traditions of history and economics. Interestingly, the steepest decline in scholarly attention to famine coincided with Amartya Sen being awarded the Nobel Prize in Economics in 1998 in part for his work on famine. The paper points to three characteristics of famine research that might account for this rather puzzling development: (i) the field of contemporary famine research exhibits limited interest in theory-building; (ii) the field is impeded by inaccessibility to key research sites; and (iii) the field is weakened by a small and dispersed research community. The paper suggests remedies that might address these obstacles to contemporary famine research in development studies. To facilitate more theoretical development, scholars could engage with the recent call for a criminalization of famine, and the broader field of disaster research could be used as an institutional catalyst for scholars of famine.

Key words

Famine research; development studies; famine incidents; entitlement approach; theory-building.

1. Introduction

On February 20, 2017, the UN formally declared a famine for the second time in just seven years. It was declared in northern-central parts of South Sudan where between 100,000 and 200,000 people faced acute starvation (UN News, 2017a). The previous famine in Southern Somalia, which the UN declared in 2011, ended up killing 260,000 Somalis (Checchi & Robinson, 2013). The fatalities for the current famine have yet to be estimated, but, fortunately, they appear to be more limited as the famine has now subsided (IPC, 2017). However, these latest two famines provide a timely opportunity to assess the state of famine research. In the wake of the most recent famine in South Sudan, Alex De Waal, one of the leading scholars of famine, describes how great famines rather than vanishing entirely in the new millennium might, in fact, be returning (De Waal, 2017a). A record number of people across several fragile states such as Nigeria, Yemen, South Sudan and Somalia still live in areas that are on the brink of famine (Reliefweb, 2017; FAO, 2017). Despite hopes to the contrary, the new millennium has not ushered in a world free from famine.

These recent famines combined with an increased vulnerability to famine in several fragile states provide a sense of urgency to the discussion of the current state of famine research. Yet, no study has taken stock of famine research. Lately, some important publications have contributed to famine *analysis* (see Devereux, 2007a; Howe, 2010; Rubin, 2016; Howard-Hassman, 2016; De Waal, 2017b, 2018), but this paper will be the first to undertake a study of academic famine *research*. The difference is subtle but important. Famine analysis focuses on understanding the impacts of famine and the dynamics of famine causation, while this study of famine research investigates the characteristics of a particular academic field asking what are the trends and patterns of contemporary famine research?

This paper reveals a faltering scholarly interest in famine research, which particularly holds true regarding the research tradition of development studies. This line of study has displayed a rather steep decline in famine interest after the 1990s. The lack of research is puzzling in so much as famine continues to constitute a threat for many vulnerable people in the most impoverished and fragile countries in the world, as evidenced by the two latest famines in Somalia and South Sudan. To date, the 2011 famine in Somalia has constituted the most lethal disaster in the twenty-first century. Interestingly, the steepest decline in scholarly attention to famine coincided with Amartya Sen being awarded the Nobel Prize in Economics in 1998 in part for his work on famine. Rather than fuelling renewed interest in the topic of famine analysis, scholarly attention appears to have faltered in the wake of this prestigious award.

The paper outlines potential explanations for the apparent paradox of receding scholarly interest in famine despite it still constituting a serious development challenge and despite the existence of Sen's highly lauded entitlement approach for famine analysis. Theoretically, the entitlement approach struggles to address the political causes of contemporary famines, and the research field is characterized by limited theoretical debates of alternative approaches to the study of famine. Geographically, contemporary famines tend to occur in inaccessible and/or conflict prone regions. Epistemologically, famine research suffers from being a small research community that is characterized by a lack of academic programs dedicated to the study of famine and has limited offerings for academic conferences/workshops devoted to contemporary famine analysis. One implication is that articles on famine generate significantly less citations than development studies articles generally do. The paper points to possible remedies for these impediments to famine research. The current push for the criminalization of famine could catalyse increased attention to theory-building. Collaborations with humanitarian practitioners would not only facilitate access to remote regions but also provide important insights into the applied perspectives of addressing famine.

Making use of the well-established academic infrastructure surrounding disaster research might likewise provide a rewarding platform for scholars of famine.

The paper is structured as follows. The next section introduces the methodological reflections of using the Web of Science database as the primary source of data for this study. The paper then outlines the temporal and academic disciplinary trends in famine contributions and juxtaposes the faltering scholarly interest in famine research with the sustained threats of famine. The following sections discuss different entry barriers to famine research and outline possible ways to surmount them.

2. Data

The study will focus on academic famine research that has been through peer-review and is published by academic outlets. Famine research published in humanitarian reports and policy papers will therefore not qualify as academic famine research. Taking into account this larger pool of humanitarian activities and reports would surely have affected the identified patterns and trends of famine contributions. Confining the study to academic research is partly a pragmatic choice of limiting the scope of the analysis. Partly, it is driven by the stark qualitative differences between the two streams of famine contributions in terms of their prime purposes and key audiences. De Waal (2018: 21) recently noted that making humanitarian action to stop famine the prime focus of an inquiry risks producing a distorted understanding because those contributions frame problems by their purported solutions. Thus, developing common criteria for comparing and evaluating these two different streams of famine contributions appears a futile exercise. The quantitative analysis of estimating trends of scholarly interest in famine will be derived from academic famine articles in the Web of Science Social Sciences and Humanities Citation Index from the period 1960-2016. Data was primarily retrieved in month of July 2017. The more in-depth qualitative analysis will primarily rely

on *Planning Development* articles in the Web of Science but will also draw on other works of famine, most notably in the form of key monographs. There are several advantages to using Web of Science as a data source, which could help explain the database's popularity when conducting meta-studies of various subjects (see Fanelli *et al.*, 2017 and Zhu *et al.*, 2015 for an overview). Fundamentally, the database only includes international journals that meet specific academic standards with regards to publishing standards, editorial content, diversity of authorship, citation rates, etc. (Thomson Reuters, 2016). Although spanning many disciplines, the social science articles in the Web of Science are thus characterized by a certain degree of homogeneity in terms of structure, quality and length. An additional advantage is that every journal in the Web of Sciences is assigned to at least one of more than 200 subject categories that can often be aligned with particular research traditions (economics, history, political science, area studies and so on). The database thus allows for the tracking of academic articles on famine over time as well as comparing famine contributions across subject categories. The fact that one can extract a total population of articles from the database is also an important feature. In this concrete case, it allows for measures of *relative* academic attention by comparing famine articles to the total population of articles either in terms of years or subject categories. It is difficult to think of any systematic biases that might emerge by using articles in the Web of Science as a proxy for academic famine research. Arguments to the contrary would have to be based on the claim that other academic outlets differ substantially from that of Web of Science journal articles in terms of publication trends and content.ⁱ

3. Temporal and disciplinary trends in famine contributions

Famine research is a distinct field of research that relates directly to analysing famine dynamics. Famine here is understood as an idiosyncratic event identifiable by an excess mortality caused by mass starvation and diseases; an understanding shared by most scholars of famine (Sen, 1981; Howe & Devereux, 2004; Devereux, 2007b; Ó Gráda, 2009; Rubin, 2016; De Waal, 2018). Most scholars

of famine also agree that insights into historical and socio-economic processes are critical to understanding the dynamics of famines. These processes can either be captured descriptively by means of classifying different deteriorating stages of food crises (as in Howe & Devereux, 2004 and IPC, 2012) or they can be captured analytically in theoretical frameworks (as in Sen, 1981 and Howe, 2010, 2018). Regardless of approach, most scholars of famine share the view that famine is a distinct development challenge: the eradication of famine does not necessitate great strides in poverty alleviation, human development or improvements in general nutrition. Nobel Laureate Amartya Sen has repeatedly pointed to the fact that modern famines are ‘in fact, extremely easy to prevent’ (Sen, 1995:7). ‘For almost a century there has been no excuse for famine,’ ponders another scholar of famine, Alex De Waal (1997: 7). Cormac Ó Gráda (2009:10) argues that ‘famine prevention should be straightforward, even in the poorest corners of the globe.’ Preventing masses of people from dying of starvation demands such a limited redistribution effort that even the poorest of countries are able to carry the burden. In that sense, famine research can avoid the more complex questions of how to address more deep-rooted problems of poverty and chronic malnutrition. In his recent monograph on famine, De Waal (2018) explicitly emphasizes the need to distinguish famine from (chronic) hunger and malnutrition, arguing instead for a closer association with mass atrocities. The benefit of uncoupling famine research from chronic hunger, human development and poverty is that effective famine prevention is possible without necessarily having to wait for an increase in welfare. In that sense, contemporary famine research is clearly related to development and disaster studies while at the same time constituting a distinct field of research. The policies and solutions of famine often differ from the policies associated with alleviating chronic hunger (Rubin, 2016; De Waal, 2018). Due to the fact that famine research is so intrinsically related to the subject of famine, famine articles have been identified here as a subgroup of those explicitly referring to famine(s) in either the title, the keywords or the abstract in the Web of Science. Some famine research might not refer specifically to

famine, but instead subsume famine under other key terms characterizing extreme events such as ‘humanitarian emergencies,’ ‘complex emergencies’ or ‘protracted crises.’ While unlikely due to the distinctness of famine, I tested whether articles of complex/humanitarian emergencies or protracted crises contained research of famine situations regardless of whether they actually used the term ‘famine.’ⁱⁱⁱ Only a handful of articles, however, contained discussions/analyses of food security issues, and none of these articles analysed situations of famine without explicitly using the term ‘famine’ (see Pingali *et al.*, 2005; Flores *et al.*, 2005). Thus, the bias of exclusion by identifying famine research by the keyword of ‘famine’ appears negligible.

Figure 1 illustrates the development over time in the number of famine articles based on two different measures: (i) a broad-based measure that captures articles where famine has been referenced in either the abstract, title or keywords (punctuated line) and (ii) a narrow measure based on articles that have “famine“ in their title (dashed line). In both cases, the number of articles has been expressed per million of articles included in the Web of Science database to account for a general increase in number of articles over time from less than 100.000 article entries annually at the beginning of the 1970s to close to 400.000 a year today. The graphs thus reflect the *relative* academic attention to famine vis-à-vis all other imaginable academic issues.

--- Insert Figure 1 ---

The broad-based measure minimizes the bias of exclusion: articles that deal systematically with famine will also have mentioned the term in the title, the keywords or in the abstract. However, the classification method is susceptible to false-positives, where famine is indeed mentioned in the abstract, but where the article itself is almost exclusively devoted to investigating something else. From the qualitative investigation of *Economics* famine articles as well as *Planning Development* famine articles, it appears that this share of false-positives is noteworthy at around 13

percent for *Planning Development* articles and 27 percent for *Economics* articles.ⁱⁱⁱ The measure is also highly susceptible to biases caused by the increasing use of keywords in international journals, the introduction of Keyword Plus in the Web of Science, and an increased scholarly attention to these indexed services. Thus, most random keywords exhibit an increasing trend over time (although not with a similar pattern to that of famine), despite controlling for the increase in articles.^{iv} This bias can be addressed by classifying famine articles by the title alone. While exclusion biases are clearly more pronounced with this categorization (as this category is a subset of the former category), it appears to successfully address the bias of increased keywords usage. As a description of a trend, therefore, it appears a more robust measure. Both ways of expressing trends of academic attention are represented in Figure 1. While the two trends diverge after 1990, where keyword searches became institutionalized in the Web of Sciences, both trends indicate that famine attention in academia appears to have culminated in the late 1980s and the early 1990s. The development from the beginning of the 1990s onwards can at best be described as plateauing (the broad-based classification), but it appears more likely that attention to famine has in fact decreased (narrow classification). In the twenty years leading up to the new millennium, annually, 210 articles out of a million had famine in the title; in the first sixteen years of the new millennium, this number has been almost halved to 121 articles per million.

Before addressing potential explanations for this dwindling academic interest, it might be useful to disaggregate the trend in famine publication along disciplinary boundaries, which allows us to identify the disciplinary roots of famine research and track their development over time. In Figure 2, the publication trends of the six largest subject categories have been illustrated. The six subject categories are: (i) History; (ii) Economics; (iii) Area Studies; (iv) Planning Development; (v) Anthropology; and (vi) Political Science. These six categories capture approximately 2/3 of all famine articles in the social sciences and humanities in the Web of Science.

--- Insert Figure 2 ---

Two main findings can be deduced from Figure 2. Firstly, famine articles today appear to be dominated by the research traditions of history and economics. In the most recent period from 2010 to 2016, they produced almost twice as many articles as the four other research traditions *combined*. Secondly, the trend in famine articles in the *Planning Development* category has declined substantially. In fact, it is the only subject category to display a decline in this millennium. Had the publication trend instead followed the average trend of the five other subject categories, then 260 famine articles rooted in development studies would have been published in the period 2000-2016 instead of the 88 articles that were actually produced.

This decline in attention to famine carries other implications than just fewer famine articles. The fact that famine research today appears to be dominated by history and economics has some important academic consequences. Graziosi (2004) identified an archival and historiographical revolution in famine research during the 1990s where the collapse of the Soviet Union ushered in a liberal period of increased transparency and access to previously classified materials about famines. However, history belongs to the humanities; accordingly, it draws on different academic traditions and techniques than do most disciplines within the social sciences. The most obvious academic difference is that history does not investigate contemporary (or ongoing) famines. And while there might surely be lessons to be learned from understanding historical famines, the link to contemporary famine dynamics and concrete policy implications is often not accentuated in these studies. Contrary to history, economics is indeed a key pillar of social science research, and it has tended to have strong ties to policymaking and concurrent societal processes. A qualitative content-analysis of contemporary (2010-2016) famine articles rooted in the Web of Science Economics category reveals two important caveats in this regard. The first caveat relates to the fact that many economic articles on famine do in fact focus on historical famines. As much as 80 percent of the articles investigate

historical famines, identified by famines that have preceded the year of publication by a minimum of 30 years. While a historical perspective is necessary to gauge any intergenerational impacts of a famine (see below), most articles had limited direct links to present day, exemplified by their journal outlets: *Economic History Review*, *Explorations in Economic History*, *European Journal of the History of Economic Thought* to name a few. The second caveat relates to the fact that most contributions focus on the *consequences* of famine rather than on the *causes* of famine. Three times as many articles looked at the intergenerational and demographic consequences of famine as opposed to teasing out the causes of particular historical or contemporary famines. In fact, only 17 percent of the articles analysed contemporary famines by investigating either the causes of famine or the policy responses to famine, and these contributions were published in more peripheral economic journals such as *Food Policy*, *Journal of Agrarian Change*, and *Journal of Development Economics* (see Higgins *et al.*, 2015; Maxwell *et al.*, 2016; Tiba, 2011). The most severe implication of the dominance of economic and historical research in famine studies today relates to the fact that neither economics nor history are interdisciplinary research traditions. As the causes of famine are multidimensional, this author would argue that famine research would benefit from an increased involvement of interdisciplinary research traditions. One research tradition that draws heavily on interdisciplinarity is development studies (Sumner 2006; Pieterse, 2010). In other words, the current duopoly of famine research within the academic traditions of economics and history risks eroding important interdisciplinary insights to the field of famine analysis.

In conclusion, scholarly attention to famines has very likely declined during the last twenty-five years as evidenced by the drop in the relative number of academic articles on famine. The research tradition of development studies, in particular, has displayed a noticeable decline in famine articles. The consequence is not only less scholarly attention to famine research, but also limited disciplinary diversity in contemporary famine analysis caused by the dominating position of

the two research traditions of economics and history. An important question remains: does the faltering scholarly attention to famine make sense? There is an infinite amount of challenges facing humankind, and researchers – just as politicians – need to prioritize their attention to a limited set of issues at the expense of other issues. If famine is indeed a receding challenge in the 21st century, then this could explain both the dwindling academic interest and the shift towards studies of historical famines that has been apparent even within the *Economics* and the *Planning Development* subject categories.

4. The discrepancy between the challenges of famine and the research on famine

An obvious hypothesis would be that scholarly interest is driven by the frequency and severity of famines; major famines would then cause academic interest to flare up while the absence of famines would cause the interest to wane. Subjecting such a hypothesis to empirical testing is difficult. Famine has proven elusive to conceptualize and operationalize. Famines have been ignored and concealed by governments; they have been declared despite negligible supporting evidence and their mortality figures diverge substantially from one estimate to the next (De Waal, 1997; Devereux, 2000, 2007a; Rubin, 2009a). In addition, famine occurrence only translates to increased famine publications with substantial delays both because academic contributions usually take a long time to get published, but also because accurate information about famines is slow to emerge. The true extent of the Chinese famine of 1959-61, for example, did not surface in academia until the mid-1980s. Chinese leaders succeeded in concealing the true extent of the famine that caused 30 million deaths; the highest famine-related death toll ever recorded (Sen, 1993). To this day, the famine is just referred to as the ‘years of hardship’ in China and researchers are still not allowed to access information about the famine in the Central Party Archives in Beijing (Dikötter, 2010). The North Korean famine in the 1990s appears to follow a similar pattern. Although subject to more thorough investigations, the mortality estimates range from half a million to 3 million, and the dynamics of the famine are still

subject to ongoing investigations 20 years later (Haggard & Nolan, 2007; UN Human Rights Council, 2014; Howard-Hassman, 2016). These substantial time delays in terms of academic publication and information availability make it prudent to compare larger periodic movements rather than yearly variations.

The World Peace Foundation has tracked famine mortality from 1870 onwards as part of their Mass Atrocities Research Program (World Peace Foundation, 2017). Their database suggests that famine mortality has indeed receded in recent decades from more than 10 million fatalities per decade in the period just before the Second World War until the 1960s to around 3 million fatalities in the 1970s, and around 1 million fatalities in the 1980s, 1990s and 2000s, respectively. Expressing the fatalities in per capita would only magnify the downward trend: the risk of dying of famine has declined consistently throughout the decades (a major exception is the Great Chinese Famine 1958-61, which caused even decade averages to spike). However, century long trends have limited explanatory power with regards the sudden drop in academic interest from 1990s onwards. Here more detailed data on later decades is merited. Table 1 below compiles data on famine incidents and mortality based on different authoritative sources from the 1970s forward.

--- Insert Table 1 ---

To increase transparency, the table includes both the primary source of the fatality estimate as well as other sources with often vastly different estimates. This disparity is a testament to the difficulties of working with famine data even more contemporarily. If, for example, Devereux' estimate of the North Korean famine of circa 3 million fatalities is accurate, then the 1990s ends up with higher famine mortality rates than the 1980s, which is otherwise considered one of the most famine tormented decades in modern time. If, on the other hand, the estimate of 800,000 famine related death in the Democratic Republic of Congo is subsumed under conflict related deaths instead

of being caused primarily by starvation, then famine fatalities in the decade 2000-09 ends up being one of the lowest on record at around 25,000 fatalities. With these ambiguities in mind, it does appear that there are indeed fewer famines today compared to the 1970s and '80s but it is equally clear that both the 1990s and the 2000s have been marred with major famines fully on par with those in the '70s and '80s. Even assuming that there are fewer famines today compared to earlier decades (it is certainly true that the risk of dying from famine is lower due to population growth, see also De Waal, 2017b), these fewer famines would not necessarily constitute a plausible explanation for a declining academic interest in famine research. Fortunately, many development challenges such as poverty, malnutrition and infant mortality have improved over the last decades, but are still lingering threats for many vulnerable people in developing countries. And the relative attention to many of these issues has actually increased in Web of Science Social Science articles, as well as in the subset of *Planning Development* articles.^v The threat of famine should not only rely on a diachronic comparison, but should also rely on a synchronic analysis: how does the threat of famine fare in comparison with similar development challenges of today? In comparison with other major contemporary disasters, famines continue to constitute a major threat to both the lives and livelihoods of people in the poorest parts of the world. Table 2 reproduces the major disasters of the 21st century in terms of the death and destruction they have caused in individual countries.

--- Insert Table 2 ---

The table reveals that the 2011 Somalia famine was in fact the most lethal disaster of the 21st century with an estimated fatality of 260,000 people in a single country. The famine fatalities eclipse both the 2010 earthquake in Haiti and the 2004 Tsunami that hit Indonesia. The table also reveals that the three most lethal disasters only produced limited economic destruction. This trait is, of course, typical of disasters striking poorer regions. Famines, in addition, are among the few disasters to completely spare physical infrastructure. While the 2011 Somalia famine had a huge

impact on many people's livelihoods, the direct economic damages remain negligible and have to my knowledge not been estimated (for livelihood impacts, see Maxwell & Fitzpatrick, 2012; Fergusson, 2013; Jackson & Aynte, 2013). Major disasters in more developed regions usually have fewer fatalities and less impact on people's livelihoods, but they cause greater economic destruction. The 2011 Fukushima earthquake/tsunami in Japan is the most expensive disaster to date in the 21st century with economic damages in the excess of 200 billion US dollars followed by Hurricane Katrina that hit New Orleans in 2005.

Table 2 also includes a proxy for academic interest for these major disasters in the right column. The proxy is calculated as the yearly average Web of Science Social Science articles that have included the specific disaster in their title/abstract/keywords counting beginning from a year after the disaster until 2016. The scholarly disinterest in famine becomes painstakingly clear when contrasted with the academic interest in other disasters: an average of just three articles a year have displayed an interest in the Somalian famine. This could be compared to an average of between 30 and 40 articles a year that investigate other disasters. At the extreme, around 160 articles a year have been devoted to analysing different aspects of Hurricane Katrina. There is a clear tendency for disasters in developed countries to get more academic attention, but that dynamic alone cannot explain the huge disparities in academic interest that still exist between other major disasters in poorer countries and the 2011 Somalian famine.

Thus, while famines might be less of a threat today compared to the 60s and 70s, the disruptive consequences of famines can easily be compared to the worst natural disasters. Despite the enduring threat of famine, scholars of development studies appear to have their eyes set on other developmental challenges. The next section will address the scope of theoretical developments and refinements in contemporary famine research by conducting a qualitative analysis of key contributions.

5. Theory-building in famine research

In 1998, development economist Amartya Sen received the Nobel Prize in Economics as recognition of his important work on famines (Sen, 1981) and general welfare theory (Sen, 1970, 1973). Rather than being a catalyst for a renewed interest in famine research, however, the concrete theoretical footprint of Sen's analytical framework has been surprisingly modest. While Sen was certainly not the first to emphasize the importance of access to food (Indian Famine Commission, 1880; Nesor, 1965), he was the first scholar to systematically investigate the caveats focusing too rigidly on food availability, and subsequently he put forward a new theoretical framework for famine analysis. In his ground-breaking monograph, *Poverty and Famines* from 1981, Amartya Sen pointed to many famines that were not preceded by a fall in food production, but where the causes were mainly distributional. Accordingly, his argument was that causes of famines should not be approached as a problem of food availability, but as a problem rooted in a lack of *access* to food. Sen introduced the *entitlement approach* as a beneficial framework for analysing the distributional component of famines. Sen defined the entitlement of a person as 'the set of alternative commodity bundles that can be acquired through the use of the various legal channels of acquirement open to that person' (Drèze & Sen 1989:23). Entitlement failure would then occur when it is not possible for a person to acquire commodity bundles with enough food to survive. Such an entitlement failure can be caused by a collapse of endowments, reduced agricultural production, a collapse of purchasing power, or deficient state relief policies.

The Nobel Committee lauded how Sen's entitlement approach had enhanced our understanding of the economic mechanisms underlying famines (Nobel Media, 1998a). The committee specifically referred to his famous book from 1981 and to the fact that famine can no longer be explained by a shortage of food alone, noting that 'a profound understanding of famine requires a thorough analysis of how various social and economic factors influence different groups

in society and determine their actual opportunities' (Nobel Media, 1998b). In Sen's own Nobel Lecture, he also emphasized his work on famine by devoting a whole section entitled 'Poverty and Famine.' He explicitly referred to his entitlement approach and argued that 'an income-sensitive entitlement approach can provide a better explanation of famines than can be obtained through an exclusively production-oriented view' (Sen, 1998: 196). The importance of Amartya Sen's academic achievements cannot be stressed enough, it is extremely rare that scholars of development economics receive the Nobel Prize (Angus Deaton is a happy recent exception), and even rarer when the analytical focus is on a threat that is only relevant for the most vulnerable people in the world. However, Amartya Sen's entitlement approach has only been referred to in the title/abstract/keywords of 30 articles in the Web of Sciences Social Sciences Citation Index. As a comparison, his capabilities approach used to analyse vulnerability has been referred to in 501 articles.^{vi} Most scholars of famine do explicitly acknowledge Sen's basic ideas and empirical findings, but make little use of his theoretical framework. It is puzzling (some would say unheard of) that the theoretical approach, which contributed to earning Amartya Sen the Nobel Prize in Economics, has not enjoyed a wider recognition among his peers. The last section made it clear that it cannot be ascribed a lack of opportunity because famine has turned out to be a recurrent threat. So, the question naturally becomes why the entitlement approach never became a dominant framework for famine analysis?

The explanation of having a theoretical framework that has been so highly praised, but applied so little is twofold. One explanation relates to the widespread academic opposition to the entitlement approach from its inception (Rangasami 1985; Kula, 1987; Swift, 1989; Woldemeskel, 1990; Fortman, 1990; Patniak, 1991; Nolan, 1993). At the time, this critique comprised such a substantial share of the famine contributions that the Nobel Committee was forced to acknowledge it, but the Committee minimized its significance by arguing that 'even though a few critics have questioned the validity of some empirical results in *Poverty and Famines*, the book is undoubtedly a

key contribution to development economics' (Nobel Media, 1998b). To claim that the entitlement approach had only a few critics appears to be an understatement. While some indeed questioned the empirical validity of Sen's cases in *Poverty and Famine* (Kumar, 1990; Patnaik, 1991; McGregor & Cantley, 1992; Devereux, 1993; Tauger, 2003; Dowlah, 2006; Islam, 2007) many others had serious qualms with the theoretical framework itself. Elahi (2006, 2009) accused it of contributing to the process of landlessness and pauperization. Bowbrick (1986) argued that the approach leads to the wrong conclusion and that it might cause famine rather than preventing it. More than twenty years later, Bowbrick (2008: 18) still argued that the approach could lead to millions of deaths. Nolan (1993) repeatedly warned of the disastrous consequences the approach could have and deemed the approach 'analytically useless' (Nolan, 1993: 22). The purpose here is not to address the validity of these empirical and theoretical objections to the entitlement approach. Rather, it is to point to their existence. The entitlement approach has faced much opposition in academia. Naturally, one also needs to acknowledge the more favourable critiques of the framework, where scholars have refined and augmented the framework (see Watts & Bohle, 1993; Osmani, 1995; Gasper, 1995; Watts, 2000; Devereux, 2001; Prendergast, 2005; Sohlberg, 2006; Rubin, 2009c). However, even these scholars would be hard pressed to argue for the success of the framework; no matter the suggested conceptual improvements, the entitlement approach has simply not caught on in famine analysis.

The second explanation for the limited use of the entitlement approach relates to the changing nature of famines. The argument here is that the entitlement approach is inept at grasping the political aspect of contemporary famines and that no other commonly accepted analytical frameworks have emerged in its place. The socio-economic context surrounding the famines presented in Sen's *Poverty and Famine* is somewhat uncharacteristic of contemporary famines. In none of the empirical examples that Sen used to demonstrate the superiority of the entitlement approach – the 1943 Bengal famine, the 1974 Bangladesh famine, the 1972-1974 Ethiopian famine

and the 1971-74 Sahel famines – were features of institutional collapse, violent internal conflict and political control prevalent. However, today these features are strongly present in famines, and political causes have become increasingly prominent. Fragile institutions and violent conflicts are the primary causes of the 2011 Somalia famine, as well as the 2017 South Sudanese famines (Heaton, 2012; Maxwell & Fritzpatrick, 2012; Fergusson, 2013; De Waal, 2017a). The famine in North Korea during the 1990s was as close to famine-led genocide as those propagated in 1932-1933 in Ukraine and in 1958-1961 in China. Famines have become more directly linked to civil war, the absence or breakdown of legal structures, and political control. The fact that ‘the entitlement approach views famines as *economic disasters*, not as just food crises’ (Sen, 1981: 162, my emphasis) makes it inherently difficult to capture this political aspect of famines. Analysing the North Korean famine in the 1990s, the 2011 Somalia famine and the 2017 South Sudanese famine through an economic lens *only* appears to be insufficient. The entitlement approach still contributes with important distributional insights, but analytical attention to the political level appears imperative (Watts & Bohle, 1993; Keen, 1994; De Waal, 1997, 2000; 2017b; Devereux, 2007a; Banik, 2007; Rubin, 2009a, 2010). Amartya Sen himself became increasingly aware of the importance of the political level. But where his entitlement approach was a natural extension of his earlier works on welfare economics, his later famine works on politics do not share the same neoclassical point of departure. There is much evidence to suggest that Sen’s entitlement approach was indeed developed in ignorance of the largest famines of the twenty-first century (De Waal, 2018). While there is no discussion of the nexus between political systems and famine protection in *Poverty and Famine*, the merits of democracy in famine protection was the main theme of his 1982 Coromandel Lecture, and he further elaborated on this political element of famine causation in several subsequent publications (Sen, 1982, 1999, 2009). Many have been critical of Sen’s narrow focus on the merits of democracy, and argued for more refined theoretical frameworks to analyse famines at the political level (Watts & Bohle,

1993; De Waal, 1997; Devereux, 2007a; Howe, 2010; Rubin, 2016; Howard-Hassman, 2016). Howe has been particularly active in trying to produce alternative analytical frameworks that capture the political level (Howe, 2007, 2010, 2018). In 2007, Howe developed a typology, dubbed *the priority regimes approach*, consisting of six kinds of political processes that result in different famine outcomes: (i) neglect; (ii) by-product; (iii) trade-off; (iv) as means; (v) as an end; and (vi) political priority. In 2010, Howe introduced a systems approach to famine analysis (Howe, 2010). Here the synergistic and non-linear dynamics of famine were compounded into an analytical system with six different stage descriptors: watch, price spiral, aid magnet, media frenzy, overshoot, and peaks. He has recently further expanded on the systems approach by introducing a five-stage famine approach of pressure, hold, self-reinforcing dynamics, famine system, and re-balancing (Howe, 2018). Howe & Devereux (2004) and Haan *et al.* (2012) have both worked with accountability matrices in famine analysis as a means of identifying the various functions in famine prevention and assigning political responsibility for each function to named institutions. Rubin (2016) also approached famine analysis through the prism of responsibility by introducing the political accountability approach based on multistage analyses along the dimensions of interest and power using stakeholder-structured narratives and political mapping tools. Despite all their qualities, none of these attempts have produced widely used frameworks to the study of famine causation.^{vii} Most of these frameworks, of course, are of relatively recent descent, and only time will tell whether they become generally applied frameworks in famine research. The fact remains that presently there appears to be limited theoretical debate of what might (or might not) constitute fruitful frameworks for the understanding of famine.

6. Geographical and epistemological impediments to famine research

The limited conceptual development of analytical approaches is amplified by two other impediments to famine research. Geographically, one could hypothesize that the subject of famine is really a spurious variable when explaining the limited academic interest. The real constraining factor, an argument could be made, would be *where* contemporary famines take place. In other words, there are simply not many academic publications that address development challenges in Somalia, South Sudan or North Korea. Whereas famines previously occurred in great numbers in South Asia where reliable data was easily available, famines today take place in the most fragile and inaccessible countries in the world. The decline of famine research has thus little to do with scholarly interests and academic relevance, but everything to do with *accessibility*. Reliable data is extremely scarce in these fragile, conflict-prone countries, and researchers wishing to collect their own data (the research tradition of development studies, in particular, puts a premium on primary data collection) are faced with restrictions of movements, red tape and security concerns. In his book on politics in the Horn of Africa, De Waal (2015) highlights precisely this point, the difficulties of conducting political ethnography in these fragile states. Table 3 below provides strong support of this hypothesis.

--- Insert Table 3 ---

The table illustrates the number of articles categorized in *Planning Development* mentioning a select handful of Sub-Saharan countries compared with articles on South Sudan and Somalia, respectively. The publication pattern makes it clear that there is a geographical bias in the countries being scrutinized. It would be difficult to claim that the limited attention to Somalia and South Sudan can be explained by a lack of development challenges in these two countries. It is hard to think of other countries more prone to a plethora of development challenges such as famine, conflict, ethnic diversity, political instability, lack of human development and so on. Scholars in the 1970s and 1980s had easier access to the many distributional famines in otherwise functioning and accessible environments, compared to the current famines that are more strongly associated with violent conflict

and institutional collapse. The changing nature of famine and the difficulties of accessing information could also help explain the current inclination across many disciplines to focus on historical famines where information is more readily available. Still, the expanding research field of humanitarianism, borne out of exponential increase in the funding and operations of humanitarian NGOs, suggests that important ethnographic studies can indeed be undertaken under the most difficult of circumstances (Ticktin, 2014). A potential solution to the access challenge, therefore, would be stronger liaisons with scholars and practitioners in the field of humanitarianism; a point that will be expanded further in section 7.

Epistemologically, a cross-citation network analysis of famine authors in the Development Planning category from 1990-2016 indicates a healthy research environment (graphical network representation in the Appendix). The famine research environment is characterized by quite extensive cross-referencing and the absence of isolated self-referential research clusters. One can clearly identify leading scholars in the field but the field is characterized by a great deal of pluralism. Stephen Devereux, Alex De Waal and Amartya Sen are the most quoted authors and are also the ones most broadly and actively used by other famine scholars: 20 percent of articles quoted Sen together with one or another of the other famine scholars included in the sample; 13 percent quoted De Waal and 5 percent quoted Devereux. However, despite these beneficial paradigmatic qualities, the modest size of the research field is undeniable. Famine research simply does not carry the same weight in academia as compared to other fields of development research. There are hardly any centres for famine research, and there are few academic conferences on contemporary famine research.^{viii} In fact, the *Feinstein International Famine Center* at Tufts University changed its name to the *Feinstein International Center* because of a declining interest in academic study of famine.^{ix}

The extent to which research has an academic impact is often measured by the number of citations, and the credentials of individual researchers are increasingly being based on various

indices of publication numbers combined with citations. If famine research does not generate the same level of citations as other topics, researchers might diversify into other areas, thus contributing to a vicious cycle. This vicious cycle undermines the prospects of having an academic community dedicated to the study of famine with enough critical mass to be self-sustainable. To test the validity of this hypothesis, average citations of famine articles are compared with that of development articles in general in the Web of Sciences. Data has been collected on citations for every *Planning Development* article in the period 1990-2016. The average citations for an article in *Planning Development* is 13 compared to the average citations of 9 for a famine article in the Planning Development category.^x The difference of 4 citations is statistically significant and substantial, seeing that more than half the articles had less than 4 citations *in total*. As a robustness check, citations for articles with other related key words were also calculated, which further bolsters the conclusion that famine articles do indeed appear to get lower citations than do other relatable development topics such as food, vulnerability, disaster and climate change.^{xi} Admittedly, it cannot be ruled out that famine articles are of a lower academic quality and that this reason can explain the lower number of citations. Intuitively, however, it would seem reasonable to expect that the quality of articles is more or less randomly distributed unless famine research attracts less qualified researchers. One way to explore this is to keep the researchers constant but vary the article topics. As an example, Alex De Waal, one of the most prominent and productive famine researchers, authored 18 famine articles in the Web of Science during the period 1990-2016. Some of these were among the most cited famine articles in the Web of Sciences (see for example De Waal, 1993, 1990; De Waal & Whiteside, 2003). Here we will exploit the fact that he has also been a productive researcher on other development and humanitarian topics such as violence, health and relief aid. Despite the self-selection bias of being a prominent famine researcher, his famine articles actually cluster near the bottom of his more than 100 articles with regard to citations: there are twice as many famine articles in his bottom half (12 famine

articles) vis-à-vis his top half (6 famine articles). Another example takes a point of departure in Plümper & Neumayer's influential quantitative article in *World Development* on famine mortality, political behaviour and international aid (Plümper & Neumayer, 2009). The article's 14 citations (as of November 1st, 2017) places it in the top quartile of all the famine articles in Web of Science during the period 1990-2016. However, the number of citations is substantially less compared to two very similar quantitative articles in journals with approximately the same impact factor: one in *Annals of the Association of American Geographers* on the gendered impact of disasters in terms of life expectancy (Neumayer & Plümper, 2007) with 160 citations and one in *World Development* on earthquake mortality and political behaviour (Keefer, Neumayer & Plümper, 2011) with 38 citations. In this last example, the authors are the same; they write about similar themes (impact of disasters); they apply the same methods of econometric analysis; and they publish in largely the same outlets (in terms of impact factor). The most striking variation is the subject of their articles (independent variable of interest) and the marked differences in citations (dependent variable). In conclusion, the number of scholars dedicated to the study of famine is limited. There are few centres of famine research, no academic programs for famine research and few conferences for contemporary famine research. Hence, there are many push factors (few citations, inaccessibility to data and limited career opportunities in this field of study), but only a few pull factors. ^{xii}

7. Discussion: How to facilitate famine research

The trinity of (i) limited theory-building; (ii) inaccessibility to regions that are susceptible to famine; and (iii) a small and dispersed research community appears to hamper famine research. These challenges appear consistent with the identified drop in scholarly attention to famine and the limited use of Amartya Sen's famine approach. The paper will now point to some possible entry-points that

could overcome these impediments to famine research. These suggestions should be understood as points of entry for further discussions and are by no means exhaustive.

Entry-point: Theory-building and famine crimes

To gain greater theoretical traction, the field of famine research should embrace the recent surge in contributions arguing that famines should be analysed through a human rights approach where famines are treated as crimes against humanity, and where perpetrators of famine need to be prosecuted through international law (Marcus 2003; DeFalco 2011, 2016; Aloyo 2013; Kearney, 2013; Sankey 2013; Duthie 2014; Howard-Hassmann, 2016; Malk, 2017). The debate of the criminalization of famine was spearheaded by De Waal (1993, 1997) and Keen (1994) in the 1990s but was more or less dormant in the subsequent decade until revitalized by Marcus in 2003. These calls for famine criminalization, published mostly in international law and justice outlets, have begun to resonate in key international organizations. One of the most comprehensive investigations of non-violent human rights violations, for example, has been conducted by the United Nations Human Rights Council with respect to the North Korean famine (UN Human Rights Council 2014). The Commission concluded that party officials had committed crimes against humanity by implementing actions, decisions and policies known to have led to mass starvation, death by starvation and serious mental and physical injury (UN Human Rights Council 2014, 339). On several occasions, the UN special rapporteur on the right to food has pushed for famines to constitute a crime against humanity (UN, 2016; UN News, 2017b). Famine contributions could embrace the approach and contextualize the research conducted in such a human rights approach (see Howard-Hassman, 2016). However, expanding international law and the reach of the International Criminal Court (ICC) to prosecute famine crimes might prove difficult. There is a growing consensus on the limits of criminal law and the legitimacy of the ICC among many African states (Niang, 2017). Establishing and prosecuting agencies responsible for causing famine, may prove to be long, expensive and most likely an

unsuccessful exercise. Rather than embracing the approach, famine research could argue for more systemic analytical approaches to famine (see Howe, 2010, 2018). By implication, assigning individual criminal responsibility for a famine means downplaying other potential underlying causes of famine such as broader socio-economic and geopolitical systemic factors. Even contributions that highlight the importance of the political level do not only highlight the importance of agency, but also political systems and structures at different levels (Watts & Bohle, 1993; Devereux, 2007a; De Waal, 2017b; Rubin, 2016). Applying the lens of famine crimes to the 2017 famine in South Sudan, for example, appears to be too blunt an instrument to capture the dynamics of the myriad of underlying national and international factors that compounded to generate the famine. De Waal (2018) describes this recent development in famine criminalization research with an equal amount of enthusiasm and apprehension, lamenting the lack of taxonomy or theory development in the field (De Waal, 2018: 30). Regardless of whether famine scholars choose to embrace the criminalization approach or whether they subscribe to alternative approaches, the current push for criminalization of famine is a welcome opportunity for more theoretical reflections in famine research.

Entry-point: Collaboration with humanitarian agencies

As previously mentioned research into humanitarianism appears to flourish (Fassin, 2011; Ticktin, 2014). An obvious way to overcome the challenge of getting access to famine data is to liaise with humanitarian practitioners from local NGOs or international organizations. Thus, academic interdisciplinary should be extended to also include inter-institutional collaboration between academia and practitioners. Practitioners involved in relief operations in hostile environments will often have access to important networks. Without such institutional backing and expertise, planning and conducting fieldwork might be a daunting task for any individual researcher (keep in mind that often there will not be more than one researcher in a department interested in famine). Collaboration will help to cross-fertilize the theoretical approach to famine with an applied humanitarian approach.

A 2012 special issue on the Somalia 2011 famine constitutes good practice in terms of collaboration between academic and practitioners (Maxwell *et al.*, 2012). The issue consisted of several articles on the Somalia famine, and all but one were co-authored with local practitioners from international organizations FAO, FEWS NET, WFP, UNICEF among others. In fact, more scholars outside academia contributed to the special issue. This author's experience is that these organizations are more than happy to collaborate. They often lack the time and resources for such systematic analyses that are not a part of their core objectives. Many famine scholars already have strong links to the humanitarian relief sector. Stephen Devereux, Daniel Maxwell, Alex De Waal have all collaborated on many of their famine contributions, and have also, on many occasions, functioned as experts in these organizations. Paul Howe was employed by the WFP in different capacities throughout his academic authorship on famine. On the face of it, the fact that many key famine scholars are already linked to practitioners could make the call for collaboration somewhat redundant, the quintessence of preaching to the choir. However, the many existent collaborations are a testament to their importance. Famine research often *requires* these partnerships, and scholars wishing to engage with famine research, therefore, might face rather steep entry-barriers.

Entry-point: Engage with disaster research

Presently, the famine research community is small and dispersed. While there might be potential for building a stronger and more self-sustained research community long term, currently, the field of disaster research could prove to be a useful platform for famine research. Disaster research forms the backbone of more than 200 university programs (at both the master and bachelor level), and there are numerous international conferences on disaster research and emergency management (Rubin & Dahlberg, 2017). These conferences and university programs unite researchers, practitioners and policy makers, while international frameworks like Hyogo (UNISDR, 2005) and Sendai (UNISDR, 2015) provide common platforms for interpretations and research-based recommendations. Tapping

into this epistemological infrastructure appears to be a fruitful strategy for carving out a larger research community interested in famine research. Previously, famine research has not been strongly present at these disaster conferences. In the small sample of recent disaster conferences of which this author is aware, for example, there have not been any presentations or panels on famines (Northern European Conference on Emergency and Disaster Studies II, 2017; Disaster Management Conference, 2017; The Third World Congress on Disaster Management, 2017; and the International Disaster and Risk Conference, 2016). In general, most disaster conferences and networks tend to focus on the impact and responses to rapid onset disasters such as earthquakes, flash floods, Tsunamis and hurricanes. Compound disasters that are slow onset receive less attention. While slow onset famines are indeed distinct disasters with unique dynamics, famine research could still benefit from (i) the interdisciplinarity of disaster conferences; (ii) the strong link with policy and the inter-institutional research tradition; (iii) key theoretical approaches to disaster analysis such as the *pressure and release model* and the *access model* (Blaikie *et al.* 2014); and (iv) increased exposure to a broader range of academic areas. Carving out a space for famine research at these conferences by submitting papers and recommending panels would provide a useful platform for famine research.

8. Conclusion

This article purposed to investigate the state of famine research. One of the central findings was the discrepancy between a waning scholarly attention to famine and the fact that famine constitutes a recurrent threat in many fragile countries. The paper pointed to three explanations for this declining academic interest that was particularly manifest within development studies. First, there is limited theoretical development in famine research, despite famine frameworks paradoxically playing a role in earning Amartya Sen the Nobel Prize in Economics. Sen's entitlement approach has been

sporadically applied in famine research, which is of course very different from arguing that his basic ideas have not been hugely influential. Second, the paper found convincing evidence that famine research suffers from inaccessibility to key research sites. Add to this the ethical challenge of having a well-fed researcher laying claim to vulnerable people's scarce resources at a famine site. Third, the paper highlighted the challenge of having a small and dispersed research community and documented that famine articles receive fewer citations than do comparable papers in the field of development studies. The paper contributed potential remedies for each of these hurdles to famine research. To facilitate more theoretical development, scholars could engage with the recent call for a criminalization of famine. Collaborations with practitioners in the humanitarian field could be used to gain important insights and access. The field of disaster research could provide an interesting platform for famine scholars. Of course, these suggestions merely scratch the surface of how to build a stronger and more vibrant research community. Needless to say, other suggestions and perspectives of how to facilitate research in famine would be welcome, but more than anything this author would welcome contemporary famine contributions in any form.

ⁱ Comparing the number of yearly social science famine publications in the period 1960-2016 in the Web of Science Social Science Database with that of Scopus, another database that includes a broader variety of publications such as books, chapters and conference papers, results in a highly significant correlation coefficient of around 90 percent. Any conceivable bias from excluding books, chapters and conference papers is bound to be miniscule: only one famine publication in ten included in Scopus was in the format of either a book, chapter or conference paper as opposed to a journal article.

ⁱⁱ Articles in the *Planning Development*-category in the period 2000-2016 mentioning the singular or plural of the following three terms in the topic: 'complex emergency' (N=36); "humanitarian emergency" (N=26); and 'protracted crisis' (N=6).

ⁱⁱⁱ Out of all articles in the *Economics*-category in the period 2000-16 that contained the term 'famine' in the topic (N=159), 44 focused on other issues than famine (27 percent). Out of all articles in the *Planning Development*-category in the period 2000-16 that contained the term 'famine' in the topic (N=88), 12 focused on other issues than famine (14 percent).

^{iv} The following random keywords exhibited a relative increase over time (1960-2016) in the articles' topic: 'democracy', 'economic growth', 'food', 'hunger', 'gender', 'infant mortality', 'disaster' and 'poverty.' This holds true for both Web of Science Social Science articles in general and for *Planning Development* articles.

^v See endnote above.

^{vi} As of October 1st 2017, searches for the entitlement approach encompassed the following search terms 'entitlement approach', 'entitlement framework' and 'entitlement theory.' Double entries were deleted; as were articles with no reference to Amartya Sen.

^{vii} Howe's priority regimes approach, for example, has been referred to in just two Web of Science articles (Devereux, 2009; Howe, 2010) in the period 2000-2016 but has never been applied to a concrete case. Howe's 2010 systems approach has also had a few references but none have used the approach to analyse specific famines.

^{viii} I unsuccessfully applied for the Workshop 'Explaining Famines, Defining Responsibilities' that was held in 2017. Although the workshop had roots in the historical tradition, I thought the specified goal of discussing various environmental, social, economic, political or cultural factors that affect the outbreak of famines and subsequent relief initiatives also conformed well with contemporary analyses. However, all the accepted papers were historical. The most recent case presentation was from the last century: the account of the 1944 famine in Holland.

^{ix} Thanks to one of the anonymous referees at JDS for providing this insight.

^x The distribution is of course highly skewed with fewer than 5 percent of the articles accounting for more than 40 percent of the citations and with more than 50 percent of the articles getting four citations or less. Contrary to what one might think, newer publications (barring those published just a year or two before the cut-off year of 2016) tend to have just as many citations as older publications mainly due to a general increasing trend in citations.

^{xi} 'Famine' in title (N=84), mean 9 citations; 'food' in title (N=534), mean 16 citations; 'climate change' in title (N=226), mean 16 citations; 'vulnerability' in title (N=190): 15 citations; and "disaster" in title (N=289), 15 citations. All other keywords were statistically different from "famine" in the title on a 90 percent level.

^{xii} As a further indication of the limited career possibilities in famine research, a google search (November 2nd, 2017) for 'professor of famine' resulted in no hits. As a comparison, 'professor of disaster' resulted in 355.000 hits; 'professor of poverty': 1.710.000 hits; 'professor of earthquake': 107.000 hits; 'professor of flood': 136.000 hits; and 'professor of food security': 320.000. hits

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