Knowledge and Know-How
A New Model of Academic Freedom and Dissent in Non-Democratic States

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5/1/2012
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For scholars of political change, the Arab Spring movements constitute a major world event with both obvious short-term consequences and more elusive long-term and diffusion effects. This paper (a revised version of my 2012 Master’s thesis submitted to the University of British Columbia) contributes to the literature on regime change and political dissent by modelling the conditions under which one key group of elites (academics) are most likely to take-up an anti-state platform in the wake of a key world event such as the Arab Spring. Ultimately, the herein proposed model hypothesizes the relationship between the likelihood of an academic dissent movement and three country-level indicators: (1) the level of legal protections for academics, (2) feelings of relative economic, social, and academic deprivation by university faculty, and (3) the social and scholarly prestige associated with the social sciences and humanities (SSaH) in comparison with science, technology, engineering, and mathematics (STEM) disciplines. In addition to a literature review and formal model construction, the paper includes a focused discussion of a mixed-methods approach to the study of academic dissent in non-democratic countries. Bringing such methods as Cost-Benefit Analysis, qualitative interviewing, J-Curve modelling, and ex-ante hypothesizing to bear on the study of academic dissent, opens a previously understudied area of inquiry to rigorous empirical testing.
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Acknowledgements

First and foremost, I thank my supervisor – Dr. Lisa Sundstrom – for her patience, support, and for encouraging me to step outside my comfort zone with this project. Special thanks also go to Dr. Kim Yi Dionne for ongoing mentoring. Early drafts benefitted from comments and discussions with Drs. Robert and Elizabeth Hancock, Jennifer Duggan, Yana Gorokhovskaia, Catherine Hecht, Kristi Kenyon, and Priya Bala-Miller. I am also indebted to the faculty and staff of UBC’s Department of Political Science – particularly Drs. Anjali Bohlken, Fred Cutler, Antje Ellermann, and Macartan Humphreys (visiting professor) – for supporting my studies and intellectual growth.
I. Introduction

In December 2010, a wave of anti-government protests broke over the Arab World, bringing with it international scrutiny, unprecedented media exposure, and significant political change. Autocratic governments were overthrown in Tunisia, Egypt, Yemen, and Libya and nearly all surrounding states experienced some form of civil resistance in 2011. Unique in its scope and in the widespread use of new technologies and social media to organize protestors; the Arab Spring appears to have fundamentally altered the relationship between effected states and civilians, and between non-democratic governments and dissidents the world over. While the immediate snowball and learning\(^1\) effects of early protests in Tunisia and Egypt are evident in the quick succession of anti-government movements across the region, the long-term and dispersive consequences of the Arab Spring remain to be studied. Of particular interest for the purposes of this paper are those cases wherein the ideas and rhetoric of the Arab Spring movements inspired or were strategically used by intellectual elites to critique the incumbent regimen in surrounding and distant non-democratic countries.

For university-based lecturers in autocratic and partially-democratic countries, referencing the Arab Spring in domestic reform-minded discussions with students and colleagues is an act at once expected of them as intellectual elites and dangerous given the precarious relationship between non-democratic states and universities. Despite the threat to autocratic rule posed by successful anti-government protests in 2010/11, the response by non-democratic governments to academic investigations of the Arab Spring protests has been mixed. In one case, Blessings Chinsinga, a professor of political science at the University of Malawi’s Chancellor College was

\(^{1}\) In this context, learning effects are characterized by the observation and adoption/adaption of protest methods.
questioned and publically reprimanded by the Inspector General of Police for likening the worsening fuel and foreign exchange crises in Malawi to pre-revolutionary conditions in modern Egypt and Tunisia. Soon after, Dr. Chisinga was fired, the University of Malawi Registrar indefinitely closed its Polytechnic and Chancellor College campuses, and Malawian President – the late Bingu wa Mutharika\(^2\) – accused several lecturers of stirring anti-government sentiment by discussing the Arab Spring with students. Subsequently, the state postponed local elections, took out an injunction against country-wide pro-democratic protests in July and August 2011, and expelled the British High Commissioner who remarked that then-President Mutharika was becoming increasingly erratic, autocratic, and blind to reason.

The Malawian government’s response to a perceived ‘academic threat’ in 2011 was unique in that it entailed a direct public and publicized clash between university lecturers and the state. In other countries where informed academic elites might also draw credible parallels between pre-Arab Spring conditions and the domestic political and economic environment, there has been no transparent academic dissent or reactionary state suppression of academic freedoms. Taken in conjunction with the rich literature on democratic norm diffusion and regime domino effects (see, for instance: Gleditsch & Ward, 2006; Jaggers & Gurr, 1995; O’Loughlin, Ward, & Lofdahl 1998), the study of academic responses and government counter-responses to pivotal world events such as the Arab Spring has the capacity to enhance our understanding of dissent movements and possibly regime change in the 21st Century. This paper brings the literatures on regime change, democratic learning, academic dissent, and academic freedom to bear on the study of contemporary state-intelligentsia relations in non-democratic countries. Essentially, I aim to situate the response of academics to the Arab Spring and government counter-responses within a broader understanding

\(^2\) President Bingu wa Mutharika died on 5 April 2012 after suffering a heart attack at his home in Lilongwe.
of elite dissent in repressive regimes. To that end, I herein describe the conditions under which academics are most likely to draw upon anti-government movements in another country to frame, analyze, or critique perceived flaws in their own domestic government. Malawi and Jordan serve as preliminary case studies. Three interrelated hypotheses are laid out to explain both the use of regime-critical rhetoric and protest participation by academics in the wake of the 2011 Arab Spring as correlated with: (1) the strength of legal protections for university-based academics, (2) the expected versus actual social and economic benefits of professorial status, and (3) the relative prestige at the university level of social sciences and the humanities (SSaH) versus science, technology, engineering, and mathematics (STEM) fields. Because academics do not exist in a vacuum, I acknowledge the important role played by the state in averting an observable outcome – an academic dissent movement. Indeed, as the expectation of state oppression can pre-empt any public expression of dissent, the state may not even have to act in order to deter dissidents. Ultimately, the purpose of this research is to propose a compelling model of academic dissent and state suppression of academic freedom following a key event in world history.

The paper proceeds as follows. Section II justifies the proposed line of enquiry by reviewing extant literature on state-university relations in non-democratic countries, education and democracy, and academic dissent in the 20th and 21st centuries. Section III further discusses gaps in the literatures, expands upon the three hypotheses, and presents an original model of academic behaviour in response to key events in world history. Section IV engages with the literature on ex-ante hypothesizing and describes methodological approaches to the study of academic dissent. Section VI discusses and concludes.

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3 Appendix 1 summarizes findings from preliminary case-study research in Jordan and Malawi.
II. Literature Review

2.1 State-University Relations and Academic Freedom

Interactions between universities and states are most often described as a series of power struggles: over funding, over legitimacy, over autonomy. Such long-running tensions between state and university actors are largely rooted in variable interpretations of academic freedom and provide the framework by which contemporary academic dissent movements can be understood. In this sub-section, I discuss scholarly definitions of academic freedom and reflect on how different actors operationalize the concept in order to assert dominance over one another.

The most widely-accepted definition of academic freedom was set down in 19th Century Germany to describe Humboldtian research-oriented universities wherein the “ideas of Lehrfreiheit and Lernfreiheit – freedom to teach and to learn” were considered inviolable (Altbach, 2001, p.206). In contemporary scholarly rhetoric, Lehrfreiheit is used to describe the rights of academics to set their own curricula, to lecture without direct interference or censorship, and to instruct any group of students – regardless of their race, gender, age, religion etc. Lernfreiheit refers to the freedom of academics to define their own research agendas, investigate any question of interest, and also the right of students to attain an education without fear of systematic discrimination. These early definitions have since been termed “narrow” (Altbach, 2001) and yet variants of the Humboldtian model “are still discernible within European universities and beyond, and will be familiar to academic staff, who need no convincing of the centrality of the concept to their everyday working lives” (Karran, 2009, p.268). Indeed, freedom to teach and freedom to learn are conceptually embedded in the constitutions of most modern research institutions. However, while some Western universities have adopted practical protections for university lecturers, students, and
administrative staff; academic freedom remains conceptually vague and thus does not carry the force of law in most countries. Instead, states and universities both draw upon the nebulous concept of academic freedom as a means of establishing autonomy from and ultimately dominance over one another.

For example, the ‘ideal’ of academic freedom has been employed by university administrators to shut state actors out of institutional decision making processes such as deliberations over admissions policies and curriculum development. Even in countries where the government provides a substantial portion of a university’s endowment and where institutes of higher learning are disorganized or poorly self-regulated, government interference in institutional politics is often framed by academics as being in direct and unlawful violation of academic freedom norms. When operationalized to critique state interference, academic freedom is generally defined as the negative right of academics:

...the freedom of the teacher or research worker in higher institutions of learning to investigate and discuss the problems of his (sic) science and to express his conclusions, whether through publication or in the instruction of students without interference from political or ecclesiastical authority (emphasis added) or from the administrative officials of the institution in which he is employed, unless his methods are found by qualified bodies of his own profession to be clearly incompetent or contrary to professional ethics. (Arthur Lovejoy, quoted in A˚kerlind & Kayrooz, 2003, p.328)

Here, individual academics and their contemporaries are given sole purview over what it is appropriate for academics to teach, research, and learn. Thus, when the concept of academic freedom is used rhetorically or legalistically by academics or universities, it is most commonly defined as a negative right to non-interference (ibid, 2003). Conversely, when the concept of academic freedom is drawn upon by states, it is most commonly defined as a positive ‘freedom to’
engage in appropriate activities rather than a negative ‘freedom from’ certain obstructions⁴. In this way, non-democratic states which have historically undermined university institutional autonomy can frame their interaction with academics in terms of the benevolent granting of liberties (i.e. to teach, to learn, to self-govern). Furthermore, non-democratic states may attempt to circumscribe the activities considered ‘appropriate’ for academics by incorporating university-based scholars and other intelligentsia into government power structures. Altbach finds that in countries such as North Korea, Syria, and Iraq, “universities are considered to be an integral part of a governmental apparatus that is itself repressive, (and so) restrictions are built into the academic and political system – rather than being caused by social unrest or political crises” (2001, p.211). In such cases, academics are compelled by a positive obligation to the state to produce status-quo reinforcing work and to teach and research under considerable constraints. Thus, where academic freedom carries no normative power, the state has no need to publically threaten, intimidate, or curtail the activities of intellectual elite who are already effectively co-opted into the political system.

Despite the successful neutralization of academics by certain non-democratic states, the concept of academic freedom is perhaps best described by Louis Menand as “an expression of self-interest”; as a means for academics to maintain firm boundaries between fields and control intellectual space (1996, p.9). He further contends that “freedoms are socially engineered spaces in which parties engaged in specified pursuits enjoy protection from parties who would otherwise naturally seek to interfere in those pursuits” (Menand, 1996, p.3). The claim that universities invoke academic freedom in order to curb external interference is strongly supported in existing literatures (see, for instance: Haskell, 1996; Karran, 2009; Marginson, 1997), and such findings suggest that the

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⁴ A˚kerlind & Kayrooz (2003) discuss understandings of academic freedom by social scientists in Australian universities as a collection of positive and negative liberties. For a more general description of positive and negative freedoms, refer to the Two Concepts of Liberty (Berlin, 1969).
concept of academic freedom exists mostly in response to the prevailing threat that states pose to universities. For example, referring obliquely to the interference of states in academic affairs, Menand makes the case that

...freedoms are socially constructed and socially maintained, their borders are constantly patrolled, and on both sides. Those on the inside are vigilant about external threats of interference; those whose interests naturally impel them toward intervention are keen to find some means of influencing behavior inside the protected space (1996, p.3).

Particularly with regards to interference in the Social Sciences and Humanities, non-democratic states are often presented in scholarly literature as the natural enemies of academically free universities. In developing countries, the World Bank has long promoted the idea that governments “should be confined broadly to drawing up a coherent policy framework” and that universities should largely be left to self-govern and even self-fund (Tilak, 2006, p.237). However, some scholars (e.g. Tilak, 2006; Marginson, 1997) have since argued that exposing universities in developing countries to unpredictable market forces without considerable oversight and protection by the government could render these institutions vulnerable and unsustainable. What’s more, there is no conclusive evidence to suggest that university self-governance and funding structures which exclude the state are better off academically or financially than primarily state-operated institutions. For instance, private donors may be as intrusive as states in institutional decision making processes. This was the case with former Malawian President-for-Life Dr. Hastings Kamuzu Banda who used private rather than state funds to manipulate the University of Malawi to “aggrandize the culture of... his own ethnic group, the Chewa... at the expense of other ethnic communities” (Kerr & Mapanje, 2002, p.81). Li-Chuan Chiang concludes from a comparative study of universities in England and Taiwan that funding diversification does not consistently produce institutional autonomy. Instead, she finds the relationship between diversified funding and university autonomy to be highly contextualized and often dependent upon the ‘good will’ of the
government which must decide whether to release universities from unnecessary regulations (Chiang, 2004, p.208). Assuming that non-democratic states are largely self-interested, the decision of whether to release academics from regulations and thus permit institutional autonomy must be made with consideration for the threat that universities may pose to state/regime stability. I now consider the relationship between education and democratization or economic liberalization with reference to the threat posed by academics to non-democratic regimes.

### 2.2 Education and Democracy

Education has often been identified as a pre-requisite for democratization. Seymour Martin Lipset famously claimed that, allowing for variation in institutional arrangements, education “comes close to being a necessary condition (for democracy) in the modern world” (1959, p.80). This argument is central to modernization theory which seeks to identify the economic and social preconditions for democracy and democratization. Lipset concludes that education is necessary for democratization because individuals with higher levels of education are “more likely to believe in democratic values and support democratic practices” (ibid, p.79), and because education presumably broadens men's outlooks, enables them to understand the need for norms of tolerance, restrains them from adhering to extremist and monistic doctrines, and increases their capacity to make rational electoral choices (ibid, p.79).

To temper this finding, Lipset refers to the earlier work of John Dewey in correlating the character of an education system with its net effect on democratization. In Dewey’s words, a “desirable” democratic society “must have a type of education which gives individuals a personal interest in social relationships and control, and the habits of mind which secure social changes without introducing disorder” (Dewey, 1916, p.115). Thus, even according to modernization theorists, net increases in education levels are not sufficient to produce democracy without simultaneous
increases in education quality and in the ability of educational institutions to socialize students towards democratic political participation.

Glaeser, Ponzetto, and Shleifer further expand upon Lipset’s conclusions by proposing a causal mechanism of socialization to explain the relationship between education and democracy (2007). They argue that democracies enjoy broad based support because both the costs of participation and the benefits of capturing the political process are low. Conversely, dictatorships hold a narrow but strong social foundation because both the costs of popular political participation and the benefits of elite power capture are high. Accordingly, they hypothesize that the correlation between education and democracy exists because schools indoctrinate their students, teaching them that political participation is good and necessary (ibid. p.82). More specifically, Glaeser et al. contend that, “schooling lowers the costs of social interactions more generally” by socializing students so that they are better able to interact and collaborate productively (ibid. p.82). Essentially, they propose a model by which education raises the benefits of civic participation and improves the utility of broad-based democracy by raising the benefits and lowering the social costs of mass political participation. The theoretical claims of Glaeser et al. (2007) and Lipset (1959) are grounded in a strong literature substantiating the empirical relationship between democracy and education (e.g. Barro, 1999; Glaeser, La Porta, Lopez-de-Silanes, & Shleifer, 2004).

On the contrary, Acemoglu et al. (2005) find no evidence for a causal relationship between within-country variation in levels of education and the likelihood of a democratic transition. They argue that “a causal link between education and democracy suggests that we should also see a relationship between changes in education and changes in democracy” and that the cross-sectional
correlations observed by proponents of modernization theory may be “driven by omitted factors” influencing both education and democracy in the long run (Acemoglu, Johnson, Robinson, & Yared, 2005, p.2). Thus, because Acemoglu et al. do not observe a positive correlation between change in education levels from 1970 and 1995 and Freedom House democracy scores over the same time period; they conclude that there is no clear causal relationship between democracy and education.

Ultimately, ongoing debates over the relationship between democracy and education have not appeared to penetrate the public consciousness or significantly detract from national and international funding for education programs in autocratic or partially-democratic states. While governments and international organizations are concerned with the pre-conditions for democracy, the apparent relationship between education and economic development is sufficient to inform funding and policy decisions. In particular, contemporary scholarship has identified positive correlations between higher (tertiary) education and technological-catch up (Bloom, Canning, & Chan, 2006), individual employment outcomes (Teal, 2011), and potential income (Psacharopoulos, 1985). However, as with the relationship between education and democracy, the correlation between education and income/development appears substantial and significant in cross-sectional analysis but insubstantial and insignificant in time-series analysis (Teal, 2011, p.iii55). For instance, over time some 40% of graduates from Chilean universities “lose money on their (personal) investment in higher education” (The Economist, 2012). Ultimately, as findings about the relationship between education and development or democratization are inconclusive, the source

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5 Acemoglu, Johnson, Robinson, and Yared (2005) suggest that the joint evolution of economic and political development may cause scholars to observe a spurious correlation between high levels of education and high levels of democratization in cross-sectional data (p.9).
6 Acemoglu, Johnson, Robinson, and Yared (2005, p.9) do allow for long-run effects over a period of 50-100 years.
of tension between governments and universities is likely rooted in historical disputes between these two bodies. Of particular interest are struggles over institutional autonomy, academic freedom, control of knowledge generation, and legitimacy. Accordingly, the next section presents a brief history of academic dissent in the 21st century with special reference to anti-government movements that originated or gained momentum in universities.

2.3 Academic Dissent in the 20th and 21st Century

The richest literature on academic dissent since the 20th century addresses anti-war and reform-minded rhetoric by American lecturers, researchers, and university students. In the United States, university-centered protests have commonly occurred in conjunction with a major world event or controversial policy change. For example, scholars identify influential university-based state-critical movements in response to the Selective Service Act of 19179 (Cowen, 2006; Gruber, 1972), the Vietnam War (Barton, 1968; Heineman, 1993), academic McCarthyism (Frug, 1987; Schrecker, 1986), and right-wing conservatism after the 9/11 terrorist attacks (Bird & Brandt, 2002; Giroux, 2006). More generally, American university-based protests in the 20th and 21st centuries have been classified according to the characteristics of their leaders and primary participants. Thus, drawing upon the experiences of US universities and their denizens, it is possible to classify academic dissent movements as either student or elite initiated/led.

2.3.1 Student-Initiated and Student-Led Movements

Student-led protests involve mass mobilization of university-based youths and often appeal to the insecure futures of students. For example, John Israel describes Chinese student movements between 1895 and 1949 as stemming from insecurity over the modern value of classic courses of study.

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9 The Selective Service Act was passed by the government of President Woodrow Wilson and allowed the government to draft military servicemen between the ages of 21 and 31 (in 1918, expanded to age 21-45)
study for career-minded youths (1968). Indeed, many students face relative deprivation and frustrated expectations due to individual-level disparity in post-graduation outcomes (e.g. income, job attainment, social status)\(^{10}\). Frustrated post-graduation expectations are ideologically central to student-led movements because they are compelling problems shared by a large number of students and thus serve as a key ‘frame’ for protests (Keniston, 1967; Wedge, 1969). In the language of prominent theorists David Snow and Robert Benford, social movements “frame, or assign meaning to and interpret, relevant events and conditions in ways that are intended to mobilize potential adherents and constituents, to garner bystander support, and to demobilize antagonists” (1988, p.198). I posit that student-leaders primarily employ diagnostic framing that “involves identification of a problem and the attribution of blame or causality” (Snow & Benford, 1988, p.200). However, Snow and Benford correctly note that, with diagnostic framing, “while consensus is often achieved within a movement with respect to problem identification, attributional consensus is less frequently realised or is more problematic” (ibid., p.200).

Ultimately, students have been found to play an important role in social and ideological movements in the United States (Jennings, 2002; Munson, 2010) and abroad (Brammer, 1967); perhaps because they have been socialized to successfully engage in collective action as Glaeser, Ponzetto, and Shleifer (2007) posit. However, and this is no small point, student-led dissent movements are not de-facto democratic or liberal/left-leaning. For example, Glaeser et.al find “the evidence that students organize to participate in collective action – democratic or anti-democratic – (to be) much more compelling than evidence of their preference for democracy” (ibid., p.78).

\(^{10}\) Here, I refer to James Davies J-curve theory of revolutions and social unrest. Davies posits that unrest occurs when there is an intolerable gap between “expected need satisfaction” which increases constantly/linearly and “actual need satisfaction” which follows a J-curve model and may plummet suddenly in response to exogenous shock (Davies, 1962). The explanatory power of Davies’ progressive relative deprivation theory is empirically tested in a variety of contexts, including: America’s Black Urban Riots (Miller, Bolce, & Halligan, 1977) and Northern Ireland’s Political Violence 1922-85 (Thompson, 1989). For further discussion, see the methods section, below.
Furthermore, scholars have confirmed that – notwithstanding the apparent left-bias of academic elites and institutions (Fosse & Gross, 2010)\(^{11}\) – students are historically active in both liberal (Brammer, 1967) and conservative (Munson, 2010) movements.

Though based in elite institutions, student-led protests generally take on the characteristics of mass protest rather than elite academic dissent. For instance, students mobilize in public fora (e.g. on college campuses, through newspapers and radio stations), utilize the techniques of popular protest (e.g. picketing, walk-outs), and activate additional dissidents through their common identity as youths or citizens. As a result of mobilizing a large number of student dissidents and often lacking a clear leadership hierarchy, many student-led movements inadequately engage in prognostic framing – the purpose of which is “not only to suggest solutions to the problem but also to identify strategies, tactics, and targets. What is to be done is thereby specified” (Snow and Benford, 1988, p.201). The mass-not-elite features of student-led protests suggest that they are conceptually distinct from other forms of academic dissent (see: Table 1, p.15), particularly from the elite-led movements discussed next.

### 2.3.2 Elite-Initiated and Elite-Led Movements

Elite-led dissent movements are unlike student-led protests in both form and function. Whereas student movements appeal to personal feelings of status-deprivation and the common identity of protestors, elite anti-government movements may instead be rooted in the positive obligation of university-based academics to initiate reforms when in possession of ‘special’ and credible regime-critical knowledge. Such was the case in Latin America at the turn of the 20\(^{th}\) Century where

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“professors were considered valuable social critics, and they were accorded special protections of speech and writing on all topics” (Altbach, 2001). Such appeals to the positive obligations of university faculty suggest a clear connection between academic dissent and academic freedom. Indeed, when academics mobilize against the state uniquely as academics – rather than collectively with other social or economic elites – the struggle over academic freedom is consistently central to their dissent rhetoric.

For example, Immanuel Wallerstein argues that universities must necessarily be overtly critical of the social and political status quo for “thus is freedom preserved (by the strength of those dissenting) and enhanced (by the vigor of their dissent)” (1971, p.718). To further justify the engagement of academics in collective expressions of dissenting opinions, he suggests that the primary role of the university “is neither professional training nor general education... it is in fact perpetually to question the truths of the time whether they are the truths of the universe or of the social consensus” (Wallerstein, 1971, p.717). Indeed, according to Wallerstein, academic freedom is sustained by academic dissent, academic dissent is a crucial expression of academic freedom, and so the role of university faculty is to pursue academic freedom by engaging in academic dissent. Thus, whether motivated by genuine social obligations or by the struggle to control the process of knowledge generation and dispersion, academic dissent and academic freedom are mutually reinforcing.

Based in elite institutions, led by elites, and often motivated by elite-aims (such as: self-assertion, power-struggles with the state, or control of knowledge and intellectual domains), elite-initiated/elite-led academic dissent movements are functionally distinct from student-initiated/student-led movements. Academic faculty mobilize in more private fora (e.g. academic publications, faculty and staff meetings, classrooms), utilize the techniques of elite-protest (e.g.
direct engagement with state elites, efforts at policy change, small-scale solidarity protests), and may activate additional elite dissidents (e.g. university administrators, non-university social and economic elites) or disciples/pupils (e.g. students). Thus, even when academics mobilize in response to relative deprivation rather than positive social obligations, they more successfully employ prognostic framing – identification of “strategies, tactics, and targets” – than student-led movements (Snow and Benford, 1988, p.201). This is likely because university faculty are a smaller and more elite group than students and are better able to move systematically from diagnostic to prognostic framing with the guidance of a select leadership. Additionally – as a condition of their employment status, income, and age – academic elites individually wield greater social and political influence than students and often have more world-exposure. Accordingly, academics may have greater opportunity to both observe and identify antagonists, and imitate or adapt effective dissent strategies. The success of an elite-led dissent movement is thus correlated both with the strength of ideological considerations (i.e. positive social obligations) and with the effectiveness of prognostic framing techniques whereby antagonists are identified and strategies of dissent are communicated.

Table 1 presents a simplified comparison of elite- versus student-led academic dissent movements along three dimensions of interest: fora, techniques, and additional dissidents activated.

**Table 1: Characteristics of Elite-versus-Student Academic Dissent Movements**

<table>
<thead>
<tr>
<th></th>
<th>Student Initiated and Student Led</th>
<th>Elite Initiated and Elite Led</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fora</strong></td>
<td>College campuses, student-run newspapers, campus radio stations</td>
<td>Academic publications, faculty and staff meetings, classrooms, opinion editorials</td>
</tr>
<tr>
<td><strong>Techniques</strong></td>
<td>Picketing, walk-outs, social media</td>
<td>Direct engagement with state elites, efforts at policy change, small-scale solidarity protests</td>
</tr>
<tr>
<td><strong>Additional Dissidents Activated</strong></td>
<td>Through common identity as youths, students, or citizens</td>
<td>Elites (university administrators, non-university social and economic elites), disciples (students)</td>
</tr>
</tbody>
</table>
Finally, it should be noted that the characteristics of elite- and student-led academic dissent movements – as laid out in Table 1 – are not entirely black and white. Some student-led movements may mobilize intellectual elites or directly engage with government actors, and some elite-led movements may polarize the masses or utilize such techniques as picketing and walk-outs. In brief, the trends described here are not without exceptions. However, while academics may mobilize against the state as elites or as mass dissidents (i.e. in ways similar to students or non-intelligentsia elites), the incidents of interest for this model are those wherein the characteristics of dissenting action are unique to academics in their role as university-based scholars. Thus, while some academic-led movements may be popular in nature, these are not accounted for within the model.

2.5 Unique Contributions

Drawing on the above literature review, the herein hypothesized relationship between academic dissent and state suppression holds constant two previously discussed systemic features: (1) a storied history of academic dissent in the 20th and 21st century, and (2) a key event in world history calling attention to the state’s obstruction of academic and universal freedoms. With these systemic controls in-place, this paper makes three unique contributions. First, it draws on previously unconnected literatures on academic freedom, modernization, political change, and elite dissent to explain why some states are compelled to engage in open suppression of university-based dissidents following a key event and others are not. Second, it conceives of a relationship between a series of country and university-level pre-conditions and the presence-or-absence of academic dissent following a key event. Finally, the paper details a series of analytic methods which could be used to advance research in this area. Section III employs the above literature review about the relationship between states and university-based academics to hypothesize about preconditions to academic dissent following a key world event such as the Arab Spring.
III. Thesis and Hypotheses

Drawing on the above review of literatures on academic freedom, the effect of education in developing countries and autocracies, and academic dissent in the 20th and 21st centuries, I now present three original hypotheses to explain the presence or absence of academic dissent movements in non-democratic countries after a key world event. First, I posit that when a country has some institutionalized legal protections for university employees, academics are more likely to participate in dissent movements. Second, when the expected economic benefits of professorial status are high and the actual social benefits are also high but the actual economic benefits are low, academics are more likely to engage in anti-state rhetoric and activities. And third, when a country’s academic sphere is dominated by science, technology, engineering and mathematics (henceforth: STEM) research, academics are less likely to participate in anti-state protests. Conversely, when a country’s academic sphere is dominated (in terms of social prestige, enrolment statistics, and research output) by scholars of the social sciences and humanities (henceforth: SSaH), academics are more-likely to participate in anti-state dissent. Sections 3.1-3.3 examine these hypotheses in more depth and jointly comprise a testable model of academic dissent in non-democratic states. The model is summarized in Table 4.

3.1 Hypothesis 1: Strength of Legal Protection for University-Based Academics

Hypothesis 1 is motivated by the above review of literature on the relationship between states and academics with regards to the definition and operationalisation of academic freedom. As mentioned in Section 2.1, academic freedom does not carry the force of law in most countries. Exceptions include Germany, the United States, New Zealand, and the United Kingdom (Barendt, 2010; Upson, 2008); however, examples of codified legal protections for academics are essentially
unique to Western democratic states. Inadequate or nonexistent protections render academics in non-democratic states vulnerable to overt oppression by state agents who have a vested interest in curtailing both outright academic dissent movements and low-level anti-state discourses. Even where academic freedom is formally protected\textsuperscript{12}, the rule of law may be weak and states may routinely violate academic freedoms with the ostensible aim of upholding other precedents (i.e. if an academic violates a law against slandering the regime). Ultimately, the cost of dissent is higher for university-based scholars in states which do not formally define or defend academic freedoms. Taking academics as rational actors, the increased cost of academic dissent must be balanced by increased benefits for dissenters\textsuperscript{13}. For example, academics may ask whether the act of critiquing the government will yield greater protections of Lehrfreiheit and Lernfreiheit, lead to regime change, and/or stimulate or accelerate democratization. Ultimately, if academic freedom is not credibly protected by law and dissenting academics in non-democratic states are at high risk of government crack-down, the likelihood of outright academic dissent is considerably reduced. The technical aspects of a modified cost-benefit analysis are laid in Section 4.1, below.

3.2 Hypothesis 2: Frustrated Social and Economic Expectations

Hypothesis 2 is grounded in both the Social Movement Theory and academic freedom literatures (see: Section 2.4). Specifically, the herein posited relationship between relative deprivation and the likelihood of an academic dissent movement is rooted in diagnostic and prognostic framing techniques \cite{Snow & Benford, 1988; Snow, Rochford, Worden, & Benford, 1986}. Because a universal feature of education is that it is expected to be positively correlated with social and economic status, inadequate social and economic outcomes are commonly framed as a key

\textsuperscript{12} As is the case in Jordan (see: case studies, Section V)

\textsuperscript{13} Costs and Benefits are referred to herein according to Present Value (henceforth: $PV_{\text{Cost}}$ or $PV_{\text{Benefit}}$) which accounts for the present value of future benefits according to some discount rate.
incentive for the educated elite to dissent. As modernization theorists correctly identify, levels of higher education are positively correlated in cross-sectional analysis with levels of economic development at both the state and individual levels (Bloom et al., 2006; Psacharopoulos, 1985; Teal, 2011). Though scholars question the significance of this relationship in time-series studies (Teal, 2011) and in light of confounding factors (Griliches & Mason, 1972)\(^{14}\), future income effects are cited as a primary justification of higher education investments by both individuals and governments. For example, the United States Census Bureau reports that average lifetime earnings increase substantially with educational attainment. Indeed, full-time workers with Doctoral or Professional Degrees earn, on-average, three-times more in their lifetime than high school graduates (Day & Newburger, 2002).

In addition to popular rhetoric about the relationship between education and income, there is a parallel expectation that increased education will yield increased social status. Simply put, educational attainment and university employment have historically been associated with high social standing. However, global economic crises have threatened the social prestige of academics in countries where university lecturers and researchers earn an uncompetitive wage. For example, in modern-day Russia where social status is tied to earnings and university employees are poorly paid, the academic profession has lost social prestige. Discussing this historical decline of academic social status, Anna Smolentseva notes:

In imperial Russia, while the financial position of academics was not high, the profession enjoyed relatively high social status, especially in the case of university professors. A comparable level of social prestige was associated with the academic profession during the Soviet period, when science and education were considered priorities for the economic and social development of the country. Unfortunately, much has changed since then. (2003, p.411)

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\(^{14}\) Griliches and Mason suggest that the relationship between education and income may be rendered spurious by the relationship between education and ability and between ability and income (1972)
The changes observed by Smolentseva effectively capture one crisis faced by academics the world over: the decline in actual economic and/or social status. In this thesis, I hypothesize that academics are more likely to participate in dissent movements when there is an intolerable gap between expected and actual social, academic, and/or economic status. Academic status disparity is measured by expected research output versus actual research output. Scholars who produce significantly fewer publications than regional and international colleagues are likely to experience frustrated expectations and perceive a more intolerable gap between expectation and reality.

Ultimately, I hypothesize academics are more likely to initiate protests: (1) when education and professorial status are popularly associated with increased economic status but academics are not paid at competitive rates, (2) when the social status of academics has been historically high but has declined, (3) when academics are paid at rates insufficient to sustain their relative social standing, and (4) when expected scholarly output is not consistent with actual scholarly output.

*Figure 1: J-Curve - Social and Economic Status of Academics (see: Davies, 1962, p.6)*
Figure 1 illustrates Hypothesis 2 according to the Davies’ J-Curve model (1962, p.6) by showing how, over time, the disparity between expected and actual social and economic status increases until the gap is intolerable and academics engage in overt dissent. My analytic approach to measuring and studying the gap between expectation and reality with regards to the social, academic and economic status of university scholars is specified under heading 4.2 of the methods section below.

3.3 Hypothesis 3: Academic Dominance of STEM versus Social Sciences and the Humanities

Drawing upon the above (Section 2.2) discussion of the relationship between education and democracy, Hypothesis 3 links the likelihood of academic dissent to the dominance of potentially ‘regime-critical’ fields of study in non-democratic countries. Essentially, this section refines the argument by modernization theorists that education is a necessary condition for democratization; and instead posits that certain academic disciples are more likely to engage in regime-critical rhetoric and certain disciplines are more likely to produce dissidents in non-democratic states.

Academic disciplines and fields of study are conventionally grouped into three categories: social sciences (e.g. economics, political science), humanities (e.g. history, philosophy), and STEM (e.g. natural sciences, engineering). With respect to the relationship between forms of knowledge generated by these different fields, Maurice Kogan observes that:

...the classic 'hard' forms of science have sustained their capacity to generate autonomy and power within academe by virtue of their cognitive self-containedness and exclusivity. In parallel to them, softer forms of knowledge gain power by persuasiveness and social utility or "social robustness". Knowledge, however, that gains power by virtue of its "social robustness" or relevance to the external world may not have that power translated into credibility and influence within the social community of science. (2005, pp.26-27)

Thus, Kogan implies that ‘hard’ knowledge - so defined by degrees of mathematicisation – is often accepted as de-facto credible and, by virtue of its self-containedness and exclusivity, may be politically useful but is rarely politically threatening. As ‘hard’ knowledge is empirically validated
through replicable experiments, states are generally compelled to accept changes to the status quo and adapt policy accordingly. For example, scientific evidence that atomic testing and fallout was associated with environmental degradation and serious health complications forced governments in the 1950s and 60s to re-evaluate their nuclear testing programmes (Brooks, 1984; Meyer, 1993). In short, states are hard pressed to credibly and rationally deny the legitimacy of ‘hard’ knowledge. Conversely, softer forms of knowledge which gain “power by persuasiveness and social utility” (ibid, p.27) are both more politically threatening and often more plausibly deniable. Kogan’s spectrum of Hard to Soft knowledge is laid out in Table 2.

**Table 2: Spectrum of Hard-Soft Knowledge (Kogan, 2005, p.14)**

<table>
<thead>
<tr>
<th>HARD</th>
<th>SOFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Science</td>
<td>Experimental/Connoisseurial</td>
</tr>
</tbody>
</table>

What is not shown in Table 2 is that states are more likely to engage in debates over or indeed reject experimental or phenomenological knowledge which undermines the status quo and threatens the stability or acceptability of government policy. Thus, academics in possession of ‘softer’ knowledge are more likely to participate in academic dissent movements for two primary reasons: (1) because these forms of knowledge are powerful because of their social utility and thus, where they challenge the status quo, gain power when shared and adopted, and (2) because ‘soft’ knowledge generators are more likely to face direct state opposition and oppression and thus have more cause for dissent than ‘hard’ knowledge generators. What’s more, the social sciences and the humanities lend themselves to directly engaging with current events in a manner that may be – or at least be perceived as – state-critical. On the contrary, professors in hard science fields are far less likely to draw on current events in the course of teaching or conversing with colleagues. Accordingly, when a country’s academic sphere is dominated (in terms of social prestige, enrolment
statistics, and research output) by social sciences and the humanities (SSaH), academics are more-likely to engage in dissent. Table 3 illustrates the herein hypothesized relationship between hard-soft knowledge, likelihood of an academic dissent movement, and national academic discipline dominance. Relevant indicators of field dominance are described in Section 4.3, below.

**Table 3: Likelihood of Academic Dissent by Field Dominance and Knowledge Type**

<table>
<thead>
<tr>
<th>LIKELIHOOD OF ACADEMIC DISSENT</th>
<th>LOW</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE OF KNOWLEDGE</td>
<td>(HARD SCIENCE)</td>
<td>(HERMENEUTIC &amp; PHENOMENOLOGICAL)</td>
</tr>
<tr>
<td>FIELD DOMINANCE</td>
<td>STEM</td>
<td>SOCIAL SCIENCES and HUMANITIES</td>
</tr>
</tbody>
</table>

3.4 Model

Drawing on the three hypotheses described above, the central claim of this paper is that the involvement of academics in anti-government protests in the wake of major world events such as the Arab Spring is conditional on the strength of institutional and legal protections for university academics, on the expected versus actual benefits (social and economic) of professorial status, and on the dominance of science, technology, engineering, and mathematics (STEM) fields compared with the social sciences and humanities (SSaH). The more general argument is that academics are most likely to mobilize in response to key events when they: (1) are sufficiently protected from violent state suppression/reprisal, (2) have frustrated expectations, and (3) are in possession of state-critical ‘soft’ knowledge. One important assumption is that a single academic dissident acting alone would not be capable of instituting change and thus the positive utility of dissent is contingent upon a critical mass of participants. Thus, each of the herein discussed hypotheses relates to group incentives and utilities for dissent, rather than individual incentives and utilities. The model of academic dissent in non-democratic countries is illustrated in Table 4 wherein the
likelihood of an academic dissent movement is correlated with each of the above-stated hypotheses. It is important to note here that no single hypothesized condition is sufficient to explain the occurrence of an academic dissent movement. Rather, the three hypotheses are intended to collectively account for variation in the likelihood of academic dissent (see: Figure 6)

Table 4: Model of Academic Dissent by Hypotheses 1-3

<table>
<thead>
<tr>
<th>ACADEMIC DISSENT MORE LIKELY</th>
<th>H1. Legal Protections</th>
<th>H2. Frustrated Expectations</th>
<th>H3. Field Dominance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACADEMIC DISSENT MORE LIKELY</strong></td>
<td>Some legal protections – academics protected from many arbitrary violations of academic freedom but not fully protected, high incentive to participate, ( PV_{Benefit} &gt; PV_{Cost} &gt; 0 )</td>
<td>Intolerable Gap – high social, academic, and economic expectations, low social and economic status attainment</td>
<td>Dominance of SSaH – 1. Funding asymmetry (more to STEM, high incentive to participate), 2. Hermeneutic &amp; phenomenological knowledge gains power through social and political utility, 3. Current events teaching (diffusion effects)</td>
</tr>
<tr>
<td><strong>ACADEMIC DISSENT LESS LIKELY</strong></td>
<td>No legal protections – academics at risk of extreme violence and oppression by state agents, ( PV_{Cost} &gt; PV_{Benefit} &gt; 0 )</td>
<td>Tolerable Gap – Social, academic, and economic outcomes consistent with expectations, only slight disparity between expectations and reality</td>
<td>Dominance of STEM – current events de-emphasized, funding consistent with STEM dominance, STEM fields do not challenge knowledge status-quo</td>
</tr>
<tr>
<td><strong>ACADEMIC DISSENT LESS LIKELY</strong></td>
<td>Many legal protections – academics highly protected from state, low incentive to participate ( 0 &gt; PV_{Benefit} &gt; PV_{Cost} )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IV. Methods

In this paper, I propose a mixed methods approach to the study of academic dissent in non-democratic countries after a key world event. This methods section is important both as a foundation for the preliminary findings discussed in Section V and as a response to the burgeoning social science literature that warns against statistical cherry-picking and ex-post hypothesizing. In particular, a new generation of scholars have endorsed protocol registration for observational studies and human behavioural research (Casey, Glennerster, & Miguel, 2011; Lancet, 2010; Loder, Groves, & MacAuley, 2010) to bind the hands of researchers. Loder, Groves and MacAuley summarize the primary concerns motivating the call for increased transparency:

At present, consumers of observational research cannot easily distinguish hypothesis driven studies from exploratory, post hoc data analyses. Researchers do not routinely disclose the number of additional analyses performed. Nor is there any satisfactory way to know whether the research questions or methods of statistical analysis diverged from those initially planned. It has been observed that there is “little or no penalty” for data dredging and selective reporting. (2010, p.375)

Indeed, because success in funding and publishing research in the social sciences hinges on the presentation of interesting and significant results, researchers may feel systemic pressure to scrape the barrel for ‘big findings’ at the expense of procedural accuracy. Strict protocol reporting could increase the scientific accuracy of results by committing researchers to ex-ante hypotheses and replicable procedures. However, there is some concern that protocols and reporting might “stifle creativity and delay the communication of important insights” (Lancet, 2010, p.348) by hindering the ability of researchers to learn and adapt during project execution. Accordingly, as social

15 If adopted in the social sciences, protocol registration might resemble the CONSORT (Consolidated Standards of Reporting Trials) statement which was developed to improve reporting of randomized controlled trials (RCTs) using a checklist of 22 items including participant descriptions, specific objectives and hypotheses, sample size, randomization sequence, etc. (See: Moher, Schulz, & Altman, 2001, p.3; Altman et al., 2001, p.665).
scientists move towards the adoption of protocol reporting, it is necessary to constantly weigh the benefits of increased transparency against concerns of reduced flexibility and innovation.

What follows is a consideration of unique methodological approaches to testing three primary hypotheses. By laying out a clear plan of research and analysis, this paper takes the preliminary steps towards a protocol report which would precede large scale research on patterns of academic dissent in non-democratic countries (see: directions for future research, Section 5.1).

4.1 Cost-Benefit Analysis – H1: Strength of Legal Protection for Academics

Cost-Benefit Analysis (CBA) is a classic method for predicting or instructing the behavior of rational actors. For instance, CBA might be applied to the purchase of a new computer wherein the buyer must weigh the costs (e.g. price) against the benefits (e.g. better performance, more features). For the purposes of this paper, the actor or group of actors (university-based academics) are expected to rationally weigh the benefits of dissenting behavior (e.g. likelihood of policy or regime change) against potential costs (e.g. state repression, job loss). Hypothesis 1 posits that the strength of legal protections for academics is instrumental to their decision to dissent. In CBA terms: when academics are protected by the law from overt state oppression, the costs of dissent go down and the net present value (NPV) of dissent increases. Figure 2 presents a basic formula drawn from finance wherein the net present value of an investment is determined by the present value of the investment with consideration for the current value of future benefits (r = discount rate).

\[ NPV = \sum_{t=0}^{n} \frac{(Benefits - Costs)_t}{(1 + r)^t} \]

Using the above formula, Cost-Benefit analysts will generally recommend the investment (e.g. the purchase of a new computer) over an alternative investment (e.g. the purchase of a tablet PC) or
the status quo (e.g. no new device) when the present value of benefits is higher than the present value of costs\textsuperscript{16}. Figure 3 adapts this basic formula to include legal protections for academics as a factor negating the costs of academic dissent.

\textit{Figure 3: NPV of Dissent - Costs, Benefits and Legal Protections}

\[
NPV_{dissent} = \sum_{t=0}^{n} \left( \frac{Benefits_{dissent} + Legal\ Protections - Costs_{dissent}}{(1 + r)^t} \right)
\]

In order to move from the basic NPV formula (Figure 2) to a CBA of academic dissent (Figure 3), it is necessary to make four general assumptions about the involved actors. First, that non-democratic states prefer the status quo to a policy of political reform and are willing to use force or the threat of force against dissidents. Accordingly, the marginal cost of academic dissent is high due to the status-quo orientation of repressive states. Second, that the cost of academic dissent is both higher in all non-democratic states than in democratic states and greater than zero in all non-democratic states because even where the letter of the law protects academics, the rule of law may be weak. This assumption is discussed in more detail in Section V with reference to legal protections and the effective rule of domestic law in Malawi and Jordan. Third, that academics have some interest in asserting themselves against non-democratic states during a period of transition stimulated by a key event and that stronger interests increase the marginal benefits of academic dissent. Finally, that formal (codified or precedential) legal protection of academic freedom will limit the ability of states to oppress university faculty and lower the costs of dissent. Drawing on these assumptions, I posit that the effect of legal protections on the likelihood of participation is parabolic rather than

\textsuperscript{16} When comparing the investment against the status quo, the investment is recommended when \( PV_{benefits} > PV_{costs} \) (also expressed as: \( NPV_{dissent} = PV_{benefit} - PV_{cost} > 0 \)). When comparing investment 1 (e.g. computer) against investment 2 (e.g. tablet PC), a recommendation will be made if \( NPV_1 > NPV_2 > 0 \) or \( NPV_1 > 0 > NPV_2 \). This analysis weighs the \( NPV_{dissent} \) against the status quo and therefore argues that dissent will occur when \( NPV_{Dissent} > 0 \) according to equation presented in Figure 3.
linear. Whereas the cost of academic dissent in states with no legal protections is very high because of the threat of government retaliation; the benefit of participation in states with strong legal protections is low because academics are already insulated and guaranteed unique protections. The parabolic nature of this relationship is illustrated in Figure 4.

*Figure 4: Parabolic Relationship between Legal Protections and Likelihood of Academic Dissent*

To test the explanatory power of Hypothesis 1 (as modeled in Figure 4), I propose a systematic classification of domestic and international legal institutions pertaining to academic freedom. Specifically, I call for the institutional “status” of a country’s legal protections for academics to be classified according to the following rubric. On a scale from 0-8: states with no legal protections for academics have scores between 0 and 2, states with some legal protections have scores between 3 and 5, and states with many strong legal protections for academics have scores between 6 and 8 (See: Figure 4 and Table 5). The resulting country-scores will then be regressed against the presence or absence of an observable academic dissent movement. In establishing the legal protections scale, domestic laws and precedence will be given the greatest weight as international agreements may be weakly binding on the behavior of member states. For instance, Schachter notes that:
... a treaty or international agreement is said to require an intention by the parties to create legal rights and obligations or to establish relations governed by international law. If that intention does not exist, an agreement is considered to be without legal effect ("san portée juridique"). (Schachter, 2012, pp.296-297)

Thus, as international agreements may include legal provisions but lack legal force, this model weights them less strongly than domestic law and domestic legal precedence.

### Table 5: Classification of Legal Protections for Academics

<table>
<thead>
<tr>
<th>No Legal Protection for Academics (0-2) ( (PV_{\text{Benefit}} &lt; PV_{\text{Cost}}) )</th>
<th>Some Legal Protection for Academics (3-5) ( (PV_{\text{Benefit}} &gt; PV_{\text{Cost}}) )</th>
<th>Strong Legal Protection for Academics (6-8) ( (PV_{\text{Benefit}} &lt; 0) )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domestic Law</strong></td>
<td>Academic Freedom not mentioned in domestic law</td>
<td>Domestic legal protections for university (e.g. institutional self-governance)</td>
</tr>
<tr>
<td><strong>International Agreements</strong></td>
<td>Academic Freedom not mentioned in international law State not signed to agreements which have conditions protecting academics</td>
<td>State signed to international institutions that have some legal protections for academics State receives some conditional aid to help pay for or reform education systems</td>
</tr>
<tr>
<td><strong>Legal Precedence</strong></td>
<td>No history of legal protections for academics (e.g. past reinstatements)</td>
<td>Some legal precedence of protection for academics</td>
</tr>
</tbody>
</table>

To capture the change in ‘likelihood’ of academic dissent (as illustrated along the Y-Axis in Figure 4), I intend to measure the strength of academic-led dissent movements in a country in terms of such indicative activities as: anti-government or state-critical rhetoric in publications, academic organization of public protests, and arrest rates. Key to this analysis is the assumption that that there is a critical mass of participants and investment in dissent beyond which overt dissent will occur and before which academic-led dissent movements cannot get off the ground. The concept of critical mass is also central to Hypothesis 2 as modeled in the following section.
4.2 J-Curve Analysis – H2: Frustrated Expectations

The J-Curve model was developed by James C. Davies in support of his claim that “revolutions are most likely to occur when a prolonged period of objective economic and social development is followed by a short period of sharp reversal” (1962, p.5). Davies draws on mostly qualitative and observational data from three case studies: Dorr’s Rebellion in 19th Century America, the Russian Revolution of 1917, and the Egyptian Revolution of 1952. In each of these cases, he finds that gradual and hard-won social and economic benefits were suddenly snatched away, lost, or reversed in the years or months immediately preceding political and social upheaval. Thus, the J-Curve is fundamentally a means of illustrating the concept of relative deprivation – defined by pre-eminent scholar Ted Gurr as: “actors’ perception of discrepancy between their value expectations and their environment’s apparent value capabilities” (Gurr, 1968a, pp.252-3). In the context of this paper, perceived value expectations of academics might include but are not limited to: legal protections of academic freedom, institutional self-governance, social status for academics relative to other elites, and wages comparable to the earnings of other elites (i.e. mid-high level civil servants), and research outputs comparable to regional colleagues/competitors.

Hypothesis 2 proposes that academics are more likely to engage in dissenting activities when their value expectations become intolerably different from reality. To test the strength of this hypothesis, it is necessary to consider methods for measuring frustrated expectations and testing the causal relationship between the likelihood of academic dissent and the magnitude of relative deprivation felt by academics. For instance, with the aim of causally linking frustrated expectations with violent civil conflict, Gurr states that “the severity of relative deprivation is assumed to vary directly with the modal strength of anger in the affected population” (ibid, p.255),

17 In Figure 1, relative deprivation is represented as the gap between expectation and reality.
where determinants of the strength of anger include but are not limited to: “the intensity of commitment to the goal or condition with regard to which deprivation is suffered or anticipated” (ibid, p.259) and “the perceived distance between the value position sought or enjoyed and the attainable or residual value position” (ibid, p.261). Ultimately, Gurr operationalizes the concept of relative deprivation using six indicators of persistent deprivation\(^\text{18}\) and a further seven of short-term deprivation\(^\text{19}\) (Gurr, 1968b, pp.1109-12). Conversely, Tsebelis and Sprague argue that relative deprivation is not directly measurable as it is “at bottom a psychological state based on a comparison operation either with other individuals or with prior perceived personal states (subjectively remembered)” (1989, p.548). Their claim about subjectivity and perception captures one difficulty faced by scholars attempting to empirically measure psychological and social phenomena. However, they do suggest that “the value of retaining relative deprivation is that it provides a psychological and motivational bridge between the more objectively measurable basic concepts” such as government coercion or foreign intervention, “and the behaviour of the individuals who act out revolutionary events” (Tsebelis & Sprague, 1989, p.549). Because the value of relative deprivation is instrumental to the herein presented model, I propose the use of qualitative interviews in addition to the quantitative/empirical methods adapted from Gurr’s work.

With the aim of improving the explanatory power of the relative deprivation model, Tsebelis and Sprague propose a compelling conceptual addition to Gurr’s work wherein “revolutionary activity releases the frustrations resulting from being relatively deprived and has the additional effect of reducing relative deprivation” (1989, p.549). In doing so, they concur with Gurr that the

\(^{18}\) Gurr’s Indicators of Persistent Deprivation: (1) Economic discrimination, (2) Political discrimination, (3) Potential separatism, (4) Dependence on foreign capital, (5) Religious cleavages, and (6) Lack of educational opportunity

\(^{19}\) Gurr’s indicators of Short-Term Deprivation: (1) Short term trends in trade value [1957-60 vs. 1950-57], (2) Short-term trends in trade value [1960-63 vs. 1950-60], (3) Inflation [1960-63 vs. 1968-61], (4) GNP Growth Rates [1960-63 vs. 1950], (5) Adverse economic conditions [1960-63], (6) New restrictions on political participation and representation by the regime, (7) New value-depriving policies of governments [1960-63]
occurrence of revolutionary activity (here: public dissent by academics) is positively correlated with the number of relatively deprived and the magnitude of deprivation. However, Tsebelis and Sprague add that when the magnitude of relative deprivation reaches critical mass and results in revolutionary activity, frustrations are released and the magnitude of relative deprivation begins to decline. The dynamic nature of this model suggests that frustration and dissenting action are constantly in flux, as illustrated in Figure 5, below.

*Figure 5: Dynamic Model of Relative Deprivation and Dissenting Action*

![Figure 5: Dynamic Model of Relative Deprivation and Dissenting Action](image)

For the purposes of this paper, I argue in favour of a dynamic model of relative deprivation and dissenting action by academics. Thus, in time-series analysis, periods when the critical mass of participants and dissenting fervour are sufficient to incite intense and overt dissent (T1 and T2 in Figure 5) should be followed by a short-term net-decline in feelings of relative deprivation.

In addition aggregated-but-subjective measures of relative deprivation captured through qualitative interviews, I propose the creation of an H-Index score ratio to compare publication and
citation rates in SSaH with those of STEM fields\textsuperscript{20} as well as with the H-Index score ratios of nearby countries. The purpose of comparing individual country-case H-Index disparity ratios with those of regional neighbours as well as with international averages is to investigate the relationship between frustrated academic expectations and the likelihood of academic dissent. Specifically, I hypothesize that where the disparity in H-Index scores between STEM and SSaH is regionally and internationally low but domestically high, academics in SSaH disciplines will experience higher levels of relative deprivation (as measured by expected versus actual academic productivity) and therefore be more likely to participate in dissent. Equally, when the disparity in H-Index scores is domestically low, academics in SSaH disciplines experience lower levels of relative deprivation and are less likely to dissent. Thus, the H-Index ratio serves as a measure of relative productivity and combines theory supporting Hypotheses 2 and 3 to enhance the claim that academics in the social sciences and humanities – who have both the means (knowledge type) and opportunity (nature of teaching and conversing about these fields) to criticize the state – are more likely to engage in academic dissent when unable to achieve their academic expectations.

4.3 Comparative Analysis – H3: Field Dominance of STEM vs. SSaH

Hypothesis 3 posits that the likelihood of academic dissent is negatively correlated with the dominance of science, technology, mathematics, and engineering (STEM) disciplines at the university level. Of the three hypotheses, H3 is perhaps the least challenging to measure. I propose a comparative (both cross-sectional and time-series) analysis using 3 general measures of field

\textsuperscript{20} The H-Index, originally proposed by Physicist John Hirsch, is a measure of individual scientific research productivity (i.e. the number of publications) and impact (i.e. the number of citations per publication), whereby: “a scientist has index $h$ if $h$ of his or her $N_p$ papers have at least $h$ citations each and the other $(N_p − h)$ papers have $\leq h$ citations each” (\textit{Hirsch, 2005}, p.1). Because co-authoring is more common in STEM fields, academics in such disciplines produce a higher number of annual publications, receive more citations, and are expected to have higher average H-Index scores. For this reason, country-level H-Index scores for Social Sciences and Humanities will be divided by overall H-Index scores to yield a more comprehensive measure of disparity between research productivity in SSaH and STEM fields.
dominance: enrollment statistics, funding distributions, and publication count ranking.\textsuperscript{21} Table 6 illustrates the hypothesized relationship between these three measures of STEM dominance and the likelihood of an academic dissent movement.

\textit{Table 6: Indicators of STEM Dominance and Likelihood of Academic Dissent}

<table>
<thead>
<tr>
<th>Indicator 1: Enrollment Statistics</th>
<th>Indicator 2: Funding Disparity</th>
<th>Indicator 3: Net Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textbf{ACADEMIC DISSENT MORE LIKELY}</td>
<td>Low enrollment disparity or larger number of students enrolled in SSaH</td>
<td>Low funding disparity more funding to SSaH</td>
</tr>
<tr>
<td>\textbf{ACADEMIC DISSENT LESS LIKELY}</td>
<td>High enrollment disparity in favor of stem STEM</td>
<td>High funding disparity in favor of STEM</td>
</tr>
</tbody>
</table>

Section V reinforces the relationship between the three hypotheses and academic dissent in non-democratic countries, brings together the main themes of the paper, and concludes with directions for future research.

\textsuperscript{21} National publication counts by field to be ranked internationally with each country of interest’s place in the ranking to be compared between SSaH and STEM fields.
Figure 6: Likelihood of Academic Dissent by Hypotheses 1-3

- **HYPOTHESIS 1**
  - **Non-Democracy**
    - Some Legal Protections
      - Intolerable Gap (J-Curve)
      - Tolerable Gap (J-Curve)
  - **Democracy**
    - Strong or Weak Legal Protections
      - Intolerable Gap (J-Curve)
      - Tolerable Gap (J-Curve)

- **HYPOTHESIS 2**
  - Intolerable Gap (J-Curve)
    - SSaH
    - STEM
  - Tolerable Gap (J-Curve)
    - SSaH
    - STEM

- **HYPOTHESIS 3**
  - SSaH
  - STEM

- **DISSENT**
  - Very Likely
    - Somewhat Likely
    - Not Likely
V. Conclusions

Two key questions have informed the scope of this paper. The first – under what conditions do academics in non-democratic countries engage in dissent? – is addressed in Sections II and III, above. The pith of the argument made therein is that the concept of academic freedom is wielded by academics and states alike as a means of establishing dominance through exclusive possession of elite knowledge. Furthermore, that academics will fiercely defend their freedoms against non-democratic governments when the costs of dissent are sufficiently low and both the benefits and incentives are attractively high. According to Hypothesis 1, the costs of dissent are sufficiently low when there are some legal protections for academics that constrain the state from outright intimidation or violence against university faculty. Hypothesis 2 posits that frustrated social, economic, and scholarly expectations incentivise academics to engage in anti-state rhetoric. Finally, Hypothesis 3 introduces the notion that scholars in the social sciences and humanities (SSaH) – whose methods and means pose the greatest threat to the state-enforced status-quo – are more likely to engage in dissent when academia is not wholly dominated by science, technology, engineering, and mathematics (STEM) fields. Figure 6 clearly illustrates the relationship between these three hypotheses and the likelihood of academic dissent in a non-democratic country. Specifically, the likelihood of dissent increases with the number of country-level pre-conditions such that a movement is very likely to occur in conjunction with a major world event such as the Arab Spring when all three hypothesized conditions are present, and not likely to occur when one or no conditions are present.

The second underlying question – what methods are appropriate for investigating the relationship between country-level pre-conditions and academic dissent? – is primarily taken up in
Section IV. In order to explain variation in the occurrence of academic dissent following a major world event that calls elite attention to inequalities or inadequacies in domestic governance techniques, I propose the use of Cost-Benefit, J-Curve (relative deprivation), and comparative analyses. A mixed-methods approach – combining qualitative and quantitative techniques with formal modelling – is most promising insofar as the purpose of this research program is to yield rigorous and generalisable results.

5.1 Limitations and Directions for Future Research

Three limitations of this paper offer insight into future directions for research. First, this paper does not explicitly examine the role of the state in suppressing the occurrence of an observable outcome – an academic dissent movement. In brief, it may appear upon further investigation that some countries have a high likelihood of an academic dissent movement but that no movement occurs. In these cases, it might be reasonable to assume that government actors forcibly prevented academics from speaking out – using either carrots or sticks to stifle anti-state dialogues. What’s more, given that the model refers to academics adopting and adapting anti-government rhetoric following successful revolutions in similarly un-free or undemocratic states (e.g. the Arab Spring), it is reasonable to assume that non-democracies would be on high-alert during such times and thus particularly willing to subversively subdue dissidents within their own borders. While this model does not explicitly theorise about state reactions to academic dissent, any future research would have to account for non-democratic governments as actors working to maintain the status quo. For instance – with reference to Hypothesis 1 – legal protections may remain fairly constant over time; however, states may be more willing to ignore or controvert the law immediately after a successful anti-government movement in a neighbouring country. With regards to Hypothesis 2, governments may also work to improve material conditions (and thus reduce feelings of relative deprivation) for
high-risk groups (e.g. academics, economic elites, students) immediately following a key world event as a means of de-incentivising a dissent movement. Examples of the state’s reaction to the threat of academic dissent are provided in Appendix 1, below.

Second, because this line of enquiry is relatively new, the focus of this paper has been on justifying the topic, grounding hypotheses in systematic theory, and proposing methods of research rather than on the consideration of null or “straw man” hypotheses. Thus, in addition to accounting for the state’s reaction to both key world events and the threat of academic dissent as a factor in determining the presence of an observable outcome; future research could introduce rival hypotheses informed by field research in the area. For example, additional explanations for variation in the likelihood of an academic dissent movement could include: (1) a domestic history of academic dissent providing the techniques and ideological framework for future movements, (2) the historically informed expectation of state oppression of elite dissent, (3) unionization of academics as instrumental in encouraging a critical mass of dissidents, or (4) the strength of networks of dissent.

Finally, and perhaps most obviously, with the exception of the preliminary research laid down in Appendix 1, this paper does not apply the methods discussed in Section IV or engage in a wide range of case studies to answer conclusively for the explanatory power of the model. Essentially, this paper has sacrificed immediate empirical rigor in favour of theoretical precision and substantive originality. As an extension of the pilot project detailed in Appendix 1, the clearest direction for future research is to apply the methods discussed above and thus to test the model using original data. To that end, this paper is best considered as the first in a line of papers addressing the relationship between the likelihood of academic dissent and the social, economic, and political conditions of non-democratic states.
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Appendix 1: Case Studies and Preliminary Research

The purpose of this preliminary analysis is to further establish above illustrated model (Figure 6) as credibly capable of explaining variation in levels of academic dissent between non-democratic countries. Essentially, the aim is to move from theoretical and methodological rumination to real-world application. Though – due to restrictions discussed in the conclusion, above – the pilot analysis cannot meet the rigorous standards set out in the methods section; this preliminary research serves both to situate the model in real-world observations and to invite future research on this topic.

A1.1. Case Studies Selection – Identifying Non-Democracies

The science and art of defining democracy has long eluded scholars. One long-running debate is over the use of dichotomous versus scaled measures. Many prominent scholars (e.g. Huntington, 1991; Linz & Stepan, 1996; Przeworski, 1990; Przeworski & Limongi, 1997) have argued that the democracy-autocracy paradigm is more valid and reliable than graduated measures. Indeed, a dichotomous approach is conceptually useful because it allows for a clear threshold of liberalization and reform; beyond which a country can be classified as democratic. Conversely, Zachary Elkins argues that “dichotomous measures appear both methodologically regressive and lacking in validity,” whereas “graded measures have superior validity and reliability” (2000, p.293). In making this claim, Elkins joins scholars such as Dahl, Rustow, and Tilly for whom democracy cannot and should not be measured as existing beyond a threshold of procedural liberalization (Dahl, 1989; Rustow, 1970; Tilly, 2007). Instead, they conceive of democracy as a dynamic purpose, as an active process, or – Rustow argues – as “the tenuous middle ground between imposed uniformity (such as
would lead to some sort of tyranny) and implacable hostility (of a kind that would disrupt the community in civil war or secession)” (1970, p.353).

Though this paper includes references to both ‘democracies’ and ‘partial democracies’; I adhere to the methodology of Hadenius and Teorell who employ a continuous measure of democratization but support the preliminary use of a dichotomous approach in order to establish a broad authoritarian “family” (Hadenius & Teorell, 2006, p.5). To that end, I group countries into two rough groups: (1) contemporary, established western democracies for which this model holds less significance and (2) all other states (e.g. partial/incomplete democracies, autocracies etc.), which are the primary units of analysis. A distinction is made between historical and contemporary Western democracies because some of the examples of academic dissent and state oppression of academic freedom presented in this paper have been drawn from 20th Century America. Accordingly, there are a wide range of available country-cases in which to test the herein proposed model.

A1.2 Case Selection – Malawi and Jordan

Neither Malawi nor Jordan is an established, Western-style democracy. Malawi has a history of somewhat-benevolent autocratic rule under its post-independence leader – Dr. Hastings Kamuzu Banda – who ruled as president-for life from 1961 to 1994. Successive Malawian Presidents Bakili Muluzi (1994 – 2004) and Bingu wa Mutharika (2004 – d.2012) made significant inroads to the liberalization of Malawi’s economy and modernization of its political system; however, reversals towards the end of Mutharika’s tenure tarnished the country’s international reputation. Preliminary
findings presented below centre around public clashes between academics at the University of Malawi and late-President Mutharika’s administration from 2010 until Mutharika’s death in 2012\textsuperscript{22}.

Similar to Malawi, Jordan has a nuanced and occasionally sordid history of democratization and reversal. King Abdullah II bin Al-Hussein ascended to the throne upon the death of his father in 1999, and has since expressed a keen interest in liberalising Jordan’s constitutional monarchy. However, scholars have long claimed that the Hashemite Kingdom is a facade (Alkadiri, 1998; Milton-Edwards, 1993) or frozen democracy (Kamrava, 1998), and that any political or economic liberalisation is carefully controlled by the monarchy and for the monarchy. For example, Curtis Ryan and Jillian Schwedler posit that Jordan is “an example of a new sort of hybrid, one in which the regime continues to proclaim its commitment to democratization while elected parliaments are made increasingly irrelevant to governance and political freedoms are harshly constrained” (2004, p.140). Thus, King Abdullah II is similar to President Mutharika in that both have committed themselves to democratic rule and both have carefully controlled the liberalization process to their benefit – as is indeed typical of hybrid and competitive authoritarian regimes.

Sections A1.3 and A1.4 move from a general understanding of political climates in Jordan and Malawi to a discussion of how each of the primary hypotheses applies to these country-cases. Special attention is paid to the likelihood of an academic dissent movement occurring after or in conjunction with the 2010/2011 Arab Spring.

\textsuperscript{22} As Malawi is entering a time of major political change at the time of writing, this paper does not presume to predict the future of academic freedom and dissent under Mutharika’s successor – President Joyce Banda.
A1.3 Case Study: Malawi

A1.3.1 Malawi – H1: Some Legal Protections for Academics \( PV_{\text{Benefit}} > PV_{\text{Cost}} > 0 \)

Malawi offers few formal domestic legal protections for academics, as evidenced by the government’s historic ability and willingness to infringe upon the basic freedoms of university faculty. The 2011 arrest, detainment, and dismissal of Blessings Chinsinga (see: Introduction) is only one incident in a long line of overt violations of standard academic freedoms. David Kerr and Jack Mapanje detail some particularly insidious behaviour by President Banda’s early administration, including: imprisonment of academics, deportation of expatriate intelligentsia, phone tapping, and even the arrangement of mysterious-but-fatal automobile accidents involving members of the opposition (2002). They further observe that “the power of this system lay in its intermediate and shadowy nature,” and that a combination of overt threats and subterfuge were sufficient to “ensure an atmosphere of distrust and terror” (ibid, p.79). In none of the historical or contemporary clashes between the government and academics has Malawian domestic law been sufficient to protect university lecturers from the long arm of the state.

Though domestic law is weakly protective of academics, Malawi relies heavily on funding from international donors such as the: World Bank, International Monetary Fund (IMF), United States’ Agency for International Development (USAID), and United Kingdom Department for International development (UKAID or DFID); all of which ostensibly place a premium on the preservation of freedoms\(^23\). Indeed, during Malawi’s latest academic freedom crisis (2011), the United Kingdom withdrew financial support from the Malawian government in response both to the

state’s unlawful treatment of university lecturers and to the expulsion of the British High Commissioner by President Mutharika. Because the UK is Malawi’s largest source of bilateral aid, the threat of withdrawn funding might have been sufficient to restrict government behaviour and thus protect academics from further outright intimidation or oppression by the state. The peaceful academic freedom demonstrations that took place in Zomba Town\textsuperscript{24} on May 27, 2011 are evidence of the government’s later reluctance to publically arrest or infringe upon the freedoms of academics. One logical explanation for the state’s change in behaviour between Chinsanga’s arrest in February and the unobstructed demonstrations in May is the increase in international exposure and donor-pressure to conform to – and reinforce – international standards of academic freedom. According to Hypothesis 3, the threat of punishment by important international donors served as an inducement for the Malawian government to maintain academic freedom, and thus as a factor in reducing the cost of academic dissent such that: $PV_{Benefit} > PV_{Cost} > 0$. Simply put, Malawi’s reliance on bilateral aid with both outright and tacit conditions places it within the 3-5 range on the legal protections scale (Table 5) – near-or-at the apex of the parabolic relationship between legal protections and academic dissent. Thus, according to Hypothesis 1, Mutharika’s Malawi was more likely than not\textsuperscript{25} to experience an academic dissent movement.

A1.3.2 Malawi – H2: High Expectations, Low Attainment

While academics in Malawi have fought an uphill battle for international renown, they have long held elevated national social and economic status due to the high value placed on post-secondary degree attainment in East African communities. Indeed, African academics have historically held important positions in colonial and post-independence regimes as government advisors and

\textsuperscript{24} Zomba Town is located in the Zomba district of southern Malawi. Now the district administrative capital, Zomba was the first colonial capital of Nyasaland and houses the University of Malawi’s Chancellor College campus.

\textsuperscript{25} The likelihood of academic dissent compared here against the null-hypothesis (i.e. against no dissent movement)
arbiters of state-accepted truths and elite knowledge. With crackdowns on government corruption under the Washington Consensus, and the subsequent drive for intellectual and institutional independence of universities and their faculty; many academics were compelled to withdraw from direct involvement in government affairs and policy making in the mid-to-late 1990s (Samoff, Bidemi, & Carrol, 2006; Teferra & Altbach, 2004). Though deemed beneficial for the generation of independent and credible knowledge, the separation between African states and universities has deprived scholars of supplementary government income. What’s more, African academics herded out of government offices lost the social and economic status-boost associated with having direct influence over policy making.

As the fight against corruption in Africa has been characterized by hard-won progress and sharp reversals, the associated declines in socio-economic prestige of academics have been erratic and gradual. Thus, identifying a point at which Malawian academics might declare the gap between expected and actual socio-economic status to be intolerable is nigh-impossible without extensive qualitative research. Even so, a simple comparison shows that spending on tertiary education as a percent of total education spending in Malawi increased from 15.26% in 2001 to 29.79% in 2010 and then declined slightly to 26.63% in 2011 (The World Bank, 2011). Though far from conclusive, the observed pattern of a gradual increase in economic prosperity over a long period followed by a short reversal is symptomatic of the J-Curve model outlined in Section 4.2. What’s more, decline in

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27 The Washington Consensus describes the package of reform conditions imposed on aid to developing countries from the 1970s to the 1990s, including but not limited to: economic liberalization, privatization, and deregulation.
28 I.e. interviews with university faculty on their economic, social, and academic status.
29 From 2010 to 2011, spending on secondary education as a percent of total education spending in Malawi increased from 24.09% to 30.40% and spending on primary education as a percent of total education spending decreased very slightly from 34.76% to 34.64% (World Bank, 2011). These findings indicate that tertiary education was unique in taking a 3 percentage point decrease in funding as a percent of total education spending.
total funding for universities in 2011 came at a time when Malawi was suffering serious fuel and foreign exchange shortages – both of which are correlated with reduced quality of life\textsuperscript{30}.

In addition to evidence of reduced spending on tertiary education in Malawiani and declining national economic conditions, preliminary analysis suggests that Malawian academics in social sciences and the humanities have – between 1997 and 2010 – consistently experienced frustrated academic expectations relative to both domestic STEM – and international SSaH – academics. From a simple comparison of the H-Index ratios presented in Table 7\textsuperscript{31}, it is clear that Malawian academics in SSaH disciplines are some of the least productive regionally and internationally in terms of publications and citations. Thus, with reference to preliminary measures of relative deprivation and to the theoretical arguments laid out above in support of Hypothesis 2; Malawian academics are highly likely to engage in academic dissent with the aim of reducing the intolerable gap between social, economic, and academic expectation and reality.

\textit{Table 7: Malawi H-Index Disparity – STEM versus SSaH}

<table>
<thead>
<tr>
<th>Country</th>
<th>Averaged SSaH H-Index</th>
<th>All Fields H-Index</th>
<th>H-Index Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malawi</td>
<td>6</td>
<td>69</td>
<td>0.087</td>
</tr>
<tr>
<td>United States</td>
<td>174.5</td>
<td>1,229</td>
<td>0.142</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>109.5</td>
<td>750</td>
<td>0.146</td>
</tr>
<tr>
<td>Canada</td>
<td>84.5</td>
<td>580</td>
<td>0.146</td>
</tr>
<tr>
<td>Tanzania</td>
<td>13.5</td>
<td>83</td>
<td>0.163</td>
</tr>
<tr>
<td>Mozambique</td>
<td>5</td>
<td>43</td>
<td>0.116</td>
</tr>
<tr>
<td>Zambia</td>
<td>8</td>
<td>59</td>
<td>0.136</td>
</tr>
</tbody>
</table>

\textsuperscript{30} For example, fuel shortages lead to a reduced ability to travel and communicate and minimal foreign exchange reserves leave income earners incapable of purchasing stable foreign currencies thus devaluing their income as the Malawian Kwacha is devalued on the international market.

\textsuperscript{31} To calculate this disparity, I took each country’s national H-Index score for “social sciences”, added it to the national H-Index score for “humanities”, and divided the total by 2. I then took the averaged H-Index score and divided it by the national H-Index for all fields and compared the resulting ratio with that of three English speaking Western democracies: Canada, the United States, and the United Kingdom and with Malawi’s three neighbours: Tanzania, Mozambique, and Zambia. All data can be found at: SCImago, 2007
A1.3.3 Malawi – H3: History and Social Sciences and Humanities Strength

Despite cuts to tertiary education funding in 2011 (see: Section 5.2.2), enrollment rates are at an all-time high in Malawi. Whereas only 3584 students were enrolled in tertiary programmes in 2000 (2596 men and 988 women), the number of students more than doubled by 2010 – to 10296 (6385 men and 3911 women) (World Bank, 2011)\(^{32}\). Of a total 3179 students enrolled in full- and part-time study at public and private tertiary institutions in 1999, 2823 were enrolled in “humanities and arts”, 1292 in “social sciences, business and law”, 356 in “education”, 0 in “science”, 1041 in “engineering, manufacturing, and constructing”, 490 in “agriculture” and 356 in “health and welfare” (UNESCO, 2011)\(^{33}\). Given that the number of students enrolled by programme vastly exceeds the stated total number of students enrolled, it is necessary to assume that there is considerable crossover between disciplinary classifications, and/or that students were enrolled in multiple degrees but only counted once. For the purposes of comparing by-field enrollment rates in Malawi with those of Jordan (see: Figure 7), enrollment statistics are presented by field as a percentage of the summed disciplinary totals.

The above reported enrollment statistics show that there is no significant asymmetry between enrollment in SSaH and STEM fields in Malawi; especially considering that many students enrolled in tertiary STEM programs in Malawi are in pursuit of practical training rather than theoretical and research-oriented training in preparation for academic work in their field of interest. The stated emphasis on practical training and skill acquisition in Malawian tertiary education is borne out both by the large number of students enrolled in fields such as “engineering,

\(^{32}\) Unfortunately, the World Bank’s Education Statistics data set does not present by-field enrollment statistics for Malawi in the 21\(^{st}\) century as it does for Jordan. As a supplement to this data, the UNESCO Institute of Statistics reports by-field enrollment rates for Malawi in the year 1999. For comparisons with Jordan, see: Figure 7.

\(^{33}\) UNESCO data on annual net enrollment rates correspond with numbers reported by the World Bank which provides some external validity to these findings.
manufacturing, and construction” and “agriculture”, and by various studies of higher educational outcomes in Malawi (see, for instance: Chikasanda, Otrel-Cass, & Jones, 2011; Hall & Thomas, 2005). Conversely, I expect that faculty positions in the social sciences and humanities, which are historically associated with social prestige and job stability, are more desirable in Malawi than newly available private sector work in these fields. Qualitative research would be necessary to further validate the assumed appeal of faculty appointment for SSaH scholars.

Despite the high disparity between Malawi’s averaged social science and humanities H-Index and its total H-Index (see: Table 7); Malawi ranks well internationally in terms of the number of SSaH discipline publications (N=168, rank=88/220)\(^3^4\), and less well in terms of the total number of publications (N=2499, rank=107/236) between 1996 and 2010 (SCImago, 2007). Thus, according to Hypothesis 3, and with respect to both net research productivity and social desirability (as measured by enrolment statistics) of academic positions in SSaH fields, Malawi has a medium-to-high likelihood of experiencing an academic dissent movement.

**A1.4 Case Study: Jordan**

**A1.4.1 Jordan – H1: Academic Freedom Laws Weakly Enforced** \((\text{\(PV_{\text{Cost}} > PV_{\text{Benefit}} > 0\)})\)

The Jordanian constitution contains unique provisions for academic freedom and the associated freedoms of press and speech. Specifically, the following laws are enumerated under Chapter 2 – “Rights and Duties of Jordanians”\(^3^5\) – of the Hashemite Kingdom’s Constitution:

Article 6:

\(^3^4\) For comparison with regional neighbors on the total publications and social sciences publications measures: TOTAL: Tanzania (N=6059, rank=79/220); Zambia (N=1970, rank=112/236); Mozambique (N=1041, rank=131/236) SOCIAL SCIENCES: Tanzania (N=409, rank=65/220); Mozambique (N=82, rank=107/220); Zambia (N=129, rank=129/220). All data can be found at: (SCImago, 2007)

\(^3^5\) The Jordanian Constitution can be found in full at: [http://www.kinghussein.gov.jo/constitution_jo.html](http://www.kinghussein.gov.jo/constitution_jo.html)
(ii) The Government shall ensure work and education within the limits of its possibilities, and it shall ensure a state of tranquillity and equal opportunities to all Jordanians.

Article 15:
(i) The State shall guarantee freedom of opinion. Every Jordanian shall be free to express his opinion by speech, in writing, or by means of photographic representation and other forms of expression, provided that such does not violate the law.
(ii) Freedom of the press and publications shall be ensured within the limits of the law.
(iii) Newspapers shall not be suspended from publication nor shall their permits be revoked except in accordance with the provisions of the law.
(iv) In the event of the declaration of martial law or a state of emergency, a limited censorship on newspapers, publications, books and broadcasts in matters affecting public safety and national defence may be imposed by law.

Article 19:
(i) Congregations shall have the right to establish and maintain their own schools for the education of their own members provided that they comply with the general provisions of the law and be subject to the control of Government in matters relating to their curricula and orientation.

While the above stated freedoms are constitutionally guaranteed, the Jordanian government has frequently infringed upon the rights of academics to freedom of speech and press. For example, Jordanian law permits the state to punish journalists and scholars for slander, defamation, or libel against government officials or the royal family. According the US Department of State:

The law provides punishment up to three years' imprisonment for insulting the king, slandering the government or foreign leaders, offending religious beliefs, or stirring sectarian strife and sedition. In practice citizens were generally able to criticize the government, although they reportedly exercised caution in regard to the king, the royal family, the GID, and other sensitive topics such as religion. (2009)

Essentially, while Jordanian law provides protections for academics, said laws are rarely upheld and academics must tread carefully when engaging in discussions which could be perceived as regime-critical. For this reason, Jordan’s academic climate is best described according to Altbach’s system as having either: “Significant limitations and periodic crisis,” as in Egypt and Algeria; or, “Tension in the context of limited academic freedom,” as in Nigeria or Ethiopia (2001, pp.211-213). On the 0-9 scale described in Section 4.1, Jordan would rank in the 1-4 range, on the left-hand slope of the parabolic relationship between the strength of academic-specific legal protections and the
likelihood of an academic dissent movement. While Jordan possesses strong formal domestic legal protections for academics, there are no apparent obstacles to the state’s violation of these laws. Particularly, as Jordan relies less heavily upon conditional bilateral aid than Malawi, external governments and donor agencies have less influence over the execution of Jordanian law. Simply put, according to Hypothesis 1, the costs of academic dissent in Jordan are high enough to mitigate potential benefits, such that: $(PV_{\text{Cost}} > PV_{\text{Benefit}} > 0)$. Accordingly, Jordan is less likely than Malawi to experience an academic dissent movement because the Jordanian government is only weakly constrained by domestic and international laws with regards to academic freedoms.

A1.4.2 Jordan – H2: Congruence between Expectation and Reality

Universities and their employees have been more successfully and sustainably integrated into modern clientelist and top-down political structures in the Middle East than in modern-day Africa. Whereas there was a strong backlash against academic involvement in government affairs in the aid-dependent former colonies of sub-Saharan Africa, Middle Eastern authoritarian states such as Jordan have largely sidestepped such reforms. Thus, even university admissions and hiring boards are rife with clientelistic practices, as noted by Ellen Lust:

In *Middle Eastern and North African* countries with little transparency and weak rule of law, finding a mediator (or *wasta*) between the citizen and the state is key. Individuals wanting to enter university (emphasis added) or obtain government licenses, public housing, employment, or a broad range of other state resources know that they must often find someone to help them accomplish their goals. (2009)

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36 Jordan has recently accepted assistance from international donors in response to the global economic downturn. According to the CIA, “in 2011 the government approved two economic relief packages and a budgetary supplement, largely to improve the living conditions for the middle and poor classes. Jordan’s finances have also been strained by a series of natural gas pipeline attacks in Egypt, causing Jordan to substitute more expensive heavy fuel oils to generate electricity. An influx of foreign aid, especially from Gulf countries, has helped to somewhat offset these extra-budgetary expenditures...” ([https://www.cia.gov/library/publications/the-world-factbook/geos/jo.html](https://www.cia.gov/library/publications/the-world-factbook/geos/jo.html), accessed: 17/4/2012). Despite recent changes, the Jordanian government has worked hard to maintain domestic supremacy and still receives less aid as a percent of the government’s total budget than Malawi’s 36% ([https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html](https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html), accessed: 17/4/2012).
Client-agent relationships formed to facilitate social advancement ultimately reinforce broader patrimonial structures that link university employees with state officers. In other words, students pay or offer allegiance to university employees in return for admission and those university employees pay benefits forward to government agents in return for political or social prestige and access to state-level decision making processes. The practice of paying for access to a higher social, political, or economic strata is fairly ubiquitous under autonomous authoritarian regimes and underpins the influence of government policy over ostensibly ‘free and independent’ institutions such as universities. Moreover, when allowed to flourish, successful clientelistic systems increase the social prestige associated with positions of authority in such institutions insofar as faculty and administrative elites bring together students and burgeoning intelligentsia with established state agents. For this reason, Jordanian academics do hold a position of relative social prestige and are unlikely to experience frustrated social expectations unless they are shut-out of the patrimonial system as academics have increasingly been in bilateral aid dependent African states.

Though socially and historically prestigious, Jordanian universities have suffered from serious budget deficits in the past decade. While financial strain is a particular burden on researchers who are unable to keep up with the demand for new technologies and techniques, wages have been negatively impacted across the board. For example, Daniel del Castillo observes that “the starting salary for a professor at a public Jordanian university is about $1,100 (USD) per month, less than half what faculty members can get in the United Arab Emirates, Kuwait, or Saudi Arabia” (2004). As a further result of budgetary constraints, Jordanian universities are increasingly resource poor and therefore unable to construct modern scientific-research and archival facilities or renovate existing buildings. Resource and financial inadequacies have further stimulated the mass exodus of qualified academics to neighboring countries and abroad (ibid. 2004). This ‘brain drain’ is
especially pronounced in STEM disciplines because – despite the above-stated financial troubles – Jordanian post-secondary training in these fields is considered internationally competitive. Thus, while universities in Jordan struggle to attract top research scholars, they are considered capable of producing strong academics whose employment and income prospects are better abroad than domestically. In any case, it is reasonable to assume that Jordanian academics experience significant economic frustration due both to their regionally and internationally non-competitive pay-grade and to the country’s more general financial crisis.

Finally, with regards to the academic expectations of faculty in SSaH disciplines, Jordanian universities appear to be internationally competitive\textsuperscript{37}. For instance, in addition to the emphasis on scientific and technological advancement discussed in Section A1.4.3, below; Jordanian universities have developed a strong liberal arts tradition – particularly in Arabic language and cultural studies. Indeed, the first president of the University of Jordan – Professor Nassir al-Din al-Asad – was also the first chairman of the Department of Arabic Language and Literature (2012). A comparison of H-Index ratios (see: Table 8) shows that Jordan is internationally and regionally competitive in terms of the ratio between total research productivity (All Fields H-Index) and SSaH research productivity (Averaged SSaH H-Index).

\textsuperscript{37} Much more so than Malawi, see: Section 5.2.2, above.
Table 8: Jordan H-Index Disparity – STEM versus SSaH

<table>
<thead>
<tr>
<th>Country</th>
<th>Averaged SSaH H-Index</th>
<th>All Fields H-Index</th>
<th>H-Index Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jordan</td>
<td>10</td>
<td>66</td>
<td>0.152</td>
</tr>
<tr>
<td>United States</td>
<td>174.5</td>
<td>1,229</td>
<td>0.142</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>109.5</td>
<td>750</td>
<td>0.146</td>
</tr>
<tr>
<td>Canada</td>
<td>84.5</td>
<td>580</td>
<td>0.146</td>
</tr>
<tr>
<td>Iraq</td>
<td>4</td>
<td>31</td>
<td>0.129</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>25</td>
<td>106</td>
<td>0.236</td>
</tr>
<tr>
<td>Syria</td>
<td>8</td>
<td>50</td>
<td>0.160</td>
</tr>
<tr>
<td>Israel</td>
<td>60</td>
<td>368</td>
<td>0.163</td>
</tr>
</tbody>
</table>

In addition to the comparisons illustrated in Table 8, Jordan has a much higher H-Index ratio (0.152) than Malawi (0.087, see: Table 7), indicating that Jordanian academics in SSaH disciplines might experience lower levels of academic relative deprivation than their Malawian counterparts. Indeed, because the average regional ratio difference for Malawi (0.051) is much higher than for Jordan (0.02)\(^3\), I posit that – when comparing their productivity with that of neighboring countries – Malawian academics in SSaH experience greater feelings of relative deprivation than Jordanian academics in the same discipline.

Ultimately, with regards to net feelings of relative deprivation, I expect Jordanian academics are expected to vary significantly depending on their valuation of: social status and job prestige, economic attainment, and comparative academic productivity. According to Hypothesis 2, if social and academic expectations are most important to Jordanian academics, the likelihood of an academic dissent movement will be low. However, if economic expectations are most important, the likelihood of dissent will be quite high – even comparable to that of Malawi. Determining which

\(^3\) The regional H-Index ratio difference is calculated by averaging the difference between the country-of-interest’s H-index ratio and that of each of its neighbors. For example, the formula for Malawi is:

$$H I \text{ Index Ratio Difference} = \frac{\sum_{i=\text{country}} (H_{I_{Malawi}} - H_{I_i})}{N}$$
of three general interests – social, economic, and academic – are of greatest importance to Jordanian academics could be the subject of future qualitative studies. Preliminarily, I expect that social and academic expectations are more important to framing of uniquely academic dissent movements. Indeed, I posit that economic expectations framing – in the absence of academic and social expectations framing – might encourage academics to mobilize collectively with other economic elites, rather than exclusively as academics.

A1.4.3 Jordan – H3: Technology Boom and STEM Strength

Jordan is one of many Arabian Gulf countries to have experienced a scientific and technological revolution in the past 20 years. According to the website for Jordan’s Embassy in Washington, DC:

> With its relatively limited natural resources, Jordan relies heavily on the human element for its economic and social progress. Due to the quality of the services provided in the country and its wealth of educated and talented people, Jordan is achieving internal success and is also able to export human expertise and skilled manpower to other countries in the region. In order to tap Jordan’s human talent, the promotion of science and technology is at the top of both public and private sectors’ priority lists. (2012)

The general emphasis on science and technology by the Jordanian government and its subsidiaries has brought increased international renown to experts in STEM disciplines, even in light of economic difficulties faced by Jordanian universities. Conversely, with the exception of Arabic language and cultural studies, SSaH fields are under-represented in terms of enrollment and funding. Of a total 266881 students enrolled full and part-time studies at Jordanian public and private tertiary institutions in 2009, 40913 were enrolled in “humanities and arts”, 72598 in “social sciences, business and law”, 35842 in “health and welfare”, 37715 in “engineering, manufacturing, and construction”, 34226 in “science”, 32613 in “education”, 4745 in “agriculture”, and 8229 are uncounted/unclassified (UNESCO, 2011). Jordan’s field-wise enrollment rate distribution paints a very different picture from the data on Malawi, as illustrated in Figure 7.
As is evident from Figure 7, in comparison with Malawians, a smaller proportion of Jordanian students opt to study “Humanities and Arts” and a larger proportion study “Science” or “Health and Welfare”. The unexpectedly large proportion of Jordanians enrolled in the “Social Sciences, Business, and Law” could be credibly explained by wide range of disciplines that this category
covers. What’s more, given the emphasis in Jordan on innovation, it is reasonable to assume that a large proportion of students in this category are studying business rather than a social science39.

In addition to a general emphasis on STEM disciplines as measured by government statements and enrollment statistics, Jordan is more ‘STEM dominated’ than Malawi as measured by the insignificant difference between total publication count ranking (N=14719, rank=61/236) and social science publication count ranking (N=493, rank=62/220) (SCImago, 2007)40. Whereas Malawi’s social science ranking is 19 places higher (88/220) than its total ranking (107/236) – indicating that SSaH disciplines are domestically prominent in Malawi – Jordan’s social science ranking is one place lower (62/220) than its total ranking (61/220). Under the methodological discussion of Hypothesis 3 in Section 4.3, I argue that academic dissent is more likely when national international publication count rankings are higher in SSaH than STEM disciplines. Thus, with consideration for enrollment distributions and publication count rankings, Jordan is unlikely to experience an academic dissent movement.

A1.5 Pilot Research and Model Applicability

As the purpose of the above model is to explain variation in levels of academic dissent in non-democratic countries following a key world event, the natural conclusion to this preliminary research is a discussion of the model’s explanatory power in Malawi and Jordan. In brief: an academic dissent movement is more likely to occur in Malawi than in Jordan. What’s more, in comparison to the null hypothesis, a uniquely academic dissent movement is highly likely in Malawi.

39 Though interesting, the data presented in Figure 7 should be taken with a ‘grain of salt’ as comparisons cannot be made by country-year due to limited data availability. Should future research be conducted in this area, it would be beneficial to collect up-to-date data on by-field or by-faculty enrollment for all countries of interest.

40 For comparison with regional neighbors on the total publications and social sciences publications measures: TOTAL: Israel (N=186281, rank=22/236); Saudi Arabia (N=36780, rank=50/236); Iraq (N=3330, rank=97/220); Syria (N=2892, rank=99/236) SOCIAL SCIENCES: Israel (N=7331, rank=15/220); Saudi Arabia (N=510, rank=59/220); Syria (N=57, rank=122/220); Iraq (N=40, rank=129/220)
and unlikely or only somewhat likely in Jordan. Insofar as it is possible to draw conclusions from two incomplete case studies, the preliminary evidence presented above is generally supportive of the herein proposed model. Adapted from the original model outline in Table 4, above; Table 9 summarizes the three hypotheses as they apply to Malawi and Jordan.

Table 9: Model of Academic Freedom Applied to Jordan and Malawi

<table>
<thead>
<tr>
<th></th>
<th>H1. Legal Protections</th>
<th>H2. Frustrated Expectations</th>
<th>H3. Field Dominance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACADEMIC DISSENT MORE LIKELY</strong></td>
<td><strong>Malawi</strong> (HIGH) – domestic law does not protect academics but international bodies capable of forcing norm compliance, benefits exceed costs: ($PV_{Benefit} &gt; PV_{Cost} &gt; 0$)</td>
<td><strong>Malawi</strong> (HIGH) – gap between social, academic, and economic expectations and reality intolerable</td>
<td><strong>Malawi</strong> (HIGH) – SSaH socially prestigious, publication-count rank higher for SSaH than total, history of SSaH academics engaging in state-critical rhetoric</td>
</tr>
<tr>
<td><strong>Malawian academics engaged in state-critical rhetoric in 2011 by likening pre-revolutionary conditions in Tunisia and Egypt to those in Malawi, and the model is credibly capable of explaining the subsequent clash between university lecturers and Mutharika’s government. Specifically, Malawi’s academic dissent movement is modeled as a function of: (1) national reliance on</strong></td>
<td><strong>Malawi</strong> (HIGH) – gap between social, academic, and economic expectations and reality intolerable</td>
<td><strong>Malawi</strong> (HIGH) – SSaH socially prestigious, publication-count rank higher for SSaH than total, history of SSaH academics engaging in state-critical rhetoric</td>
<td></td>
</tr>
<tr>
<td><strong>ACADEMIC DISSENT LESS LIKELY</strong></td>
<td><strong>Jordan</strong> (LOW) – academics at high risk of state oppression, international bodies not capable of enforcing norm compliance, costs exceed benefits: ($PV_{Cost} &gt; PV_{Benefit} &gt; 0$)</td>
<td><strong>Jordan</strong> (MEDIUM) – Social and academic economic outcomes consistent with expectations, relative economic deprivation</td>
<td><strong>Jordan</strong> (LOW) – state emphasizes importance of STEM, congruence between SSaH and total publication-count ranking</td>
</tr>
</tbody>
</table>

**Malawian academics engaged in state-critical rhetoric in 2011 by likening pre-revolutionary conditions in Tunisia and Egypt to those in Malawi, and the model is credibly capable of explaining the subsequent clash between university lecturers and Mutharika’s government. Specifically, Malawi’s academic dissent movement is modeled as a function of: (1) national reliance on**
conditional aid, (2) a large gap between social, economic, and academic expectations and reality, and (3) the frequency and significance of anti-state rhetoric by SSaH scholars. Conversely, the non-occurrence of a uniquely academic dissent movement in post-Arab Spring Jordan is modeled as a function of: (1) the state’s willingness and ability to violate domestic academic freedom protections, (2) congruence between social and academic expectations and reality, and (3) clear STEM dominance. In the case of Jordan, the presence of relative economic deprivation might be sufficient (i.e. a large enough gap between expectation and reality) to incentivise dissenting academics were it not for the state’s ability to suppress anti-government rhetoric that might be considered slanderous to, for example, the royal family. While causally inconclusive, these case studies support this paper’s central claim: that there is a correlation between the likelihood of an academic dissent movement and (1) the strength of legal protections for academics, (2) feelings of relative economic, social, and academic deprivation, and (3) dominance of STEM versus SSaH disciplines.