MAPPING THE INTELLECTUAL STRUCTURE OF MIDDLE EASTERN STUDIES

MAPPING THE INTELLECTUAL STRUCTURE OF MIDDLE EASTERN STUDIES: AN AUTHOR CO-CITATION ANALYSIS

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LAY ABSTRACT

The focus of my dissertation is on knowledge production: Middle Eastern Studies (MES) as produced in English from the mid 20th century onward. This dissertation uses the clusters of influential MES scholars to ask whether the there is an academic left-right separation the network and whether the personal backgrounds of scholars' co-citations (based on the relative frequencies with which pairs of authors are cited together by citing documents) explain the clustering.

The co-citation network hints towards the presence of three clusters, but not along the lines of scholars' political tendencies. Knowledge about the ME as whole is produced by scholars with different personal and academic backgrounds, but the Turkish and Israeli studies clusters are more homogeneous. Other subfields, such as Iranian or Arab studies, are not large enough to draw any definite conclusion, but scholars with stronger associations to Iran and Arab countries are mostly absent in the network.

ABSTRACT

The focus of my dissertation is on Middle Eastern Studies (MES) as produced in English from the mid-20th century onward. The historians of MES talk about a post-Saidian divide in the field between academic-left and -right. When examining this divide, the common practice has mainly been to focus on how political developments affected MES. This work analytically transcends the political surface and ask whether the two clusters can be observed in the mapping of MES. It then explores the properties of this intellectual map, and asks how, in the overly political field of MES, 'the social' and 'the cognitive' aspects of knowledge production interact.

To map MES this work uses Author Co-Citation Analysis (based on the relative frequencies with which pairs of authors are cited together by citing documents). The research population comprises 202 influential scholars who have produced knowledge in English about the cotemporary period or recent history of the ME. Google Scholar was used as the source of citation data, and the node attributes, along with the scholars' political and paradigmatic tendencies, were collected from their online profiles.

The map shows no indication of a polarization in the field but shows differences between *insider* and outsider inquiries and verifies the local situatedness of the process of knowledge production. The network hints towards the presence of at least three clusters, but not along the lines of the scholars' political and paradigmatic tendencies. Knowledge about the ME as whole is produced in a cooperative endeavor among scholars with different geographical connections, but in the case of Israel and Turkey, the clusters are more homogeneous. The intellectual map also points towards the silenced voices: those who are strongly associated with Iran and Arab countries and shows how geopolitically hegemonic sites of knowledge production act as barriers against the formation of an *in-between discursive space*.

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ABBREVIATIONS

ACA **A**uthor **C**o-citation **A**nalysis
GAs **G**eographical **A**ssociations
GS **G**oogle **S**cholar
ME The **M**iddle **E**ast OR **M**iddle **E**astern
MES **M**iddle **E**astern **S**tudies
PPTs **P**olitical and **P**aradigmatic **T**endencies
SSRC The **S**ocial **S**cience **R**esearch **C**ouncil

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1: INTRODUCTION

The focus of my dissertation is on Middle Eastern Studies (MES) as produced in English from the mid-twentieth century onward. Area studies scholars and policy makers, unsurprisingly, have long been, and remained, attracted to the ME, throughout the 20th and 21st century. For the past century, the ME has been a war-torn region, has lacked any lasting stability and has been impacted by imperialism and political turmoil.

In the early 20th century, the ME was wrenched and disoriented after, first, the disruption, and then the eventual destruction, of the Ottoman Empire. This destruction was the source of many externally inspired changes described by some as modernization or westernization, and by others as (more neutral) transformation. World War I in the ME brought various agreements and treaties to the region regarding the disposition of Ottoman territories and divided the Ottoman-Arab regions between France and Britain. The decades after the war, from the establishment of the mandate system to the end of World War II and the creation of Israel, were signified by Arab unpreparedness for a post-Ottoman era and the leaders' attempts to gain independence for their new states. It was during this era that many ME rulers sought after selected technological improvements and modernizing their armed forces, transformations that steadily accelerated and spread to other domains. The era saw the reform programs of Ataturk and Reza Shah, along with the British and French dominance on Arab states, the rise of Saudi Arabia, and the birth of Israel (i.e., 1948). The dominant political ideology in the interwar era included the idea of Ummah (i.e., Islamic solidarity), Arab nationalism, and regionalism in general. The post-WWII ME witnessed Turkey's restoration of civilian government, the 1953 coup in Iran followed by the 1979 revolution, Arab states and their relations with Israel during the Nasser era, and the emergence of the PLO (Palestine Liberation Organization). Also, oil producing states and the creation of new and vast wealth resulted in many social and technological changes, and some argue, prevented political change in many

occasions (e.g., Hafiz al-Assad and Saddam Husain dominated their countries for over three decades). Towards the end of the 20th century, what some scholars call the resurgence of Islam, and the emergence, or evolution, of political Islam became a central issue in the region; around the same time when the Islamic Republic of Iran was created. The resurgence was a new historical pattern that influenced the already complicated Arab-Israeli war and peace processes in the 70s and 80s, and the Israeli invasion of Lebanon in 1982. During these years, the ME witnessed eight years of Iran-Iraq war followed by the Iraq's invasion of Kuwait. In the last three decades the ME continued to make headlines with Intifadas and the rise and fall of the Oslo peace process, the American policy in the region following the Gulf War, the post 9/11 events in the region and the invasion of Iraq, the 2011 Arab uprisings, the collapse of Syria, Yemen and Libya into civil wars, and finally the perceived risks of Iran's nuclear program.

As stated, this dissertation focuses on the process of knowledge production about the ME in English. Considering a century of conflicts, movements, and foreign interference how can the political dimension of scholarship on MES be ignored? How can the assumption of political neutrality for the knowledge that has been produced about the ME be held? Who are the MES scholars? Who have been teaching and writing about the region in English, and how is their scholarship related to their positioning toward the turmoil in the region? These questions are not directly addressed in this dissertation, but they form the basis of the work.

STATEMENT OF THE PROBLEM

MES as a social scientific discipline started growing after WWII. Just as 19th century Orientalism was connected to the growing European colonisation, the growth of MES in the US was related to the country's rise as a global superpower and the US increasingly deep involvement in the region. It was at this time that new social scientific studies of the ME began to attract unprecedented and substantial public and private funding in the US, with modernization as the dominant paradigm at the time (Bill, 1996; Lockman, 2009; Winder, 1987).

Most historians of MES agree that after two decades, when MES was experiencing "the greatest expansion of Middle Eastern Centers and Programs" (Alexander, 2002), the field faced many challenges. By the early 1970s, modernization theory grew less resistant to collapse when it failed to explain socio-political changes in the ME like Lebanon's civil war and the rise of fundamentalism in Iran (Lockman, 2009); the assumption of a unified Middle East was being challenged (Mitchell, 2004); the claim that area studies could unify social sciences was under attack (Geertz, 1994); social science was losing interest in area studies (Mitchell, 2004); the field's silence on political issues in the field, such as Israeli-Palestinian conflicts, was becoming problematic (Saunders, 2013); and MES as an institution was under

attack from the right, as there was no policy-relevance in university-based MES research (Kramer, 2001). The book Orientalism (Said, 2004), a critique of the West's representation of the East, was published in this confused and chaotic environment.

Post-Saidian MES scholarship, as described by many historians of the field, is ever more political and politically —and perhaps as a result paradigmatically— polarized. The polarization is reflected in the history of the field, or an evaluation of its current state, as narrated by scholars with different perspectives. Scholars from the opposite sides of the academic left and right spectrum, along with those in the middle, argue that most of the controversial questions that dominated the field after Said's critique of Orientalism have had no resolution and resulted in the creation of a divided field. Critical and conservative MES scholars alike believe that, from the last few decades of the 20th century onwards, the bulk of expertise on MES has been ignored in policy making, and that a growing gap has appeared between policy-oriented research, foreign policy and the media on the one hand, and most academic MES on the other.

What formed this gap is a matter of controversy. The gap is said to have been triggered by dissatisfaction on the part of many MES scholars and students with the US policy towards the region, or the radical politicization of the campus and the alienation of policy makers as a result of the production of works that are radically critical of US policies towards the region; a scholarship so radical that is unable to produce policy-relevant research in essence. In addition to the post-Saidian policy-oriented vs. critical divide, some scholars, admitting that statistics are hard to obtain, observe that the demographic contours of MES have changed since the beginning of the last quarter of 20th century, incorporating more women and scholars who are from the ME.

In writing about this gap, the common practice for MES historians, from left, center and right, has mainly been to focus on political settings in and out of the region. Frequently, they aimed to examine how the lasting instabilities in the ME, as described at the beginning of this chapter, along with their reception in and implications for the West, affected the funding patterns and production, dissemination and reception of knowledge about the ME, mostly in the US. Taking their works as my starting point, and acknowledging their merits, especially the pioneering works of Zachary Lockman, I move beyond these political settings in order to examine the intellectual network of MES from inside.

Following Collins's social theory of intellectual change (2009), I intend to look at the factors internal to the intellectual network of scholars to explain the current state, as well as the changes, in the field. As Collins's framework suggests, the construction of ideas about the ME in the West is first and foremost embedded in

(the social structure of) the communication network of ideas. Although I plan to study the political and paradigmatic tendencies of MES scholarship and individual scholars, I see these tendencies as embedded in the scholarship itself. Here, I do not follow the wars, agreements, modernizations processes, and the rise and fall of political figures; instead, I study the scholarship itself and extract the political and paradigmatic tendencies from within the field, i.e., as the tendencies are reflected in the communication network of ideas in MES. I also claim that the existing historical narratives, in their attempt to explain the polarized state of MES, are insufficiently attentive to the micro-sociological explanation of the actions of the individual producers of knowledge and fail to offer an investigation of the relations among MES scholars in the field.

I attempt to narrate the history and describe the current state of the field, by drawing its intellectual network and mapping the intellectual structure of the field of MES, using co-citation analysis. Using the intellectual network, I ask whether the gap between academic-left/pro-Saidian/ critical vs. academic-right/ against Said/ policy-oriented is observed in the communication network of ideas (as reflected in co-citations). I then ask whether social and educational backgrounds of individual scholars (e.g., the extent of their connections to the region, educational backgrounds or institutional affiliations) can (partly) explain the clustering of, or prominence in, the intellectual network. I also investigate whether and how these social and educational backgrounds are related to the scholars' positioning towards the turmoil in the region and the scholarship produced. Moreover, I describe the demographic changes in the field, explore whether the possible demographic changes are a post-Saidian phenomenon, and whether they widened the gaps in the intellectual network.

CHAPTER OUTLINE

Chapter 2 extends the discussion above by reviewing the literature that narrates a history of MES or evaluates its current state, leading to a statement of the problem and research questions.

Chapter 3 lays the methodological foundations of the work. The chapter presents the idea that in the sociology of scientific knowledge (SSK), post-1970s, the subjects of research are frequently placed in the perspective of both social and cognitive structures, bearing in mind that the relationship between the two (social and cognitive) is contingent, not one-to-one. The chapter then explains that the empirical explanation of MES as a socio-cognitive phenomenon is where this dissertation lands methodology, asking how in the overly political field of MES, 'the social' and 'the cognitive' interacted in producing knowledge about the contemporary ME in English.

The chapter then goes on to explain the methodological assumptions of (co-) citation analysis, the research method used for this work. Co-citation analysis observes scientific knowledge through the lens of its publications and assumes that the intellectual map of MES can be drawn by examining textual interactions among members. The scholarly texts produced in MES are multidimensional and the objects of analysis are composites of irreducible elements, including groups of MES scholars, sets of documents, and their content. New texts are continuously produced and a selection mechanism (i.e., citation) continuously stirs the new and old publications: the dynamic that forces the system to evolve. The structure is shaped based on the act of citation and the patterns of being cited: micro actions that de- and re-construct the structure. Thus, the selection mechanism through which the findings are recognized and/or (in)validated should be studied and specified (Leydesdroff, 1993). In this system, scholars/authors, articles, research materials, institutions, and theoretical contexts, are all analytically differentiated but empirically intertwined. They interact and create the emergent structure of scientific communities (or the organization of knowledge).

Chapter 4 introduces Author Co-citation Analysis (ACA) and outlines the research methods employed. ACA maps oeuvres of MES, and by implication, the people who produce them, through a representative slice of its literature (McCain, 1986; White & McCain, 1998). ACA is used to reveal the intellectual structure of a discipline; that is, it identifies the relationship among authors, finds subgroups, and observes how these subgroups are related to one another.

After a short description of ACA, the chapter introduces the research population and the time frame under consideration: that is scholars who have produced interdisciplinary knowledge about the contemporary period (at the time of publication) or recent (social) history of the ME in English, between 1950 and 2015. Definitions of the ME vary considerably, and the chapter explains that this dissertation takes one of the most expansive definitions. One of the important steps in ACA, the selection of units subject to study, is then discussed in detail; explaining how 22 MES journals were selected and how the 99^{th} percentile of citations of each journal was used as the definition of highly cited scholars, resulting in the selection of 211 influential MES scholars. The chapter then explains why Google Scholar was used as the data source, how cited-by documents were extracted, and how a cocitation matrix was obtained and normalized. The chapter clarifies how, for each of these 211 selected authors, attributes such as age, place of birth, training, institutional affiliations and academic productivity were derived. In addition, using the works of the selected authors, and/or their media presence, their political and paradigmatic tendencies were identified and charted. The final section of Chapter 4, before moving on to two data analysis chapters, introduces the analytical strategies and graphical representations employed.

This first analysis chapter, Chapter 5, explores the personal and intellectual backgrounds of highly cited scholars, unfolding the sample and disclosing its diverse, yet systematically selective, characteristics. This chapter looks at the 211 authors as independent units and does not see them as connected to each other through co-citation ties. Univariate, bivariate and multivariate analysis in the chapter answers questions such as what are the personal and intellectual backgrounds of highly cited MES scholars, how diverse has the influential MES scholars' place of birth been since the 1950s; whether certain regions and countries are systematically absent in training and employing the MES scholars; whether there is a relationship between the scholars' political and paradigmatic views and their geographical associations to the ME and outside regions; and whether scholars' productivity and impact are a function of their geographical associations. The chapter also explains how, in analyzing the origins, training, and work of these scholars, the data guides us towards four distinct regions— (1) outside of the ME, (2) Turkey, (3) Israel and (4) the rest of the ME.

Chapter 6, the second analysis chapter, moves on to relational data of the co-citation network. Observing the influential MES scholars as they related to one another, the chapter performs community detection, asks whether having the same cognitive (e.g., political and paradigmatic tendencies) and/or social (e.g., geographical association) attributes pulls the scholars closer to each other and away from others; which nodal attribute best explains the observed clustering tendencies; and what are the factors that influence whether a scholar is located in the more connected hubs of the network. A first look at the weighted edges suggests the presence of three clusters, and that scholars have clustering tendencies based on their geographical associations to the four regions (Israel, Turkey, the rest of the region and outside of the region). The chapter also answers key questions about the prominence of scholars, e.g., who are the most visible actors in terms of location at the centre of clusters, who are the actors that are visible because of connecting separated clusters to one another, and what are the relationships among prominence, geographic associations, and political and paradigmatic tendencies.

In the concluding chapter, I first summarize the empirical results. Scholars like Kramer and Lockman, observing the organizational and macro structure of scientific knowledge production about the ME, observed a political polarization. However, looking at the process through the lens of a co-citation network, there is no indication of such polarization. The co-citation network, instead, reveals the presence of three clusters, formed partly by the scholars' geographical associations. The political and paradigmatic tendencies of scholars is influenced by their geographical associations, and in certain cases cross-fertilization occurs among scholars with different geographical associations, in the process of

internationalization of the production of knowledge on the ME. But when it comes to producing knowledge about Israel and Turkey, the clusters are more homogeneous, both in terms of scholars' biographical backgrounds and their political and paradigmatic tendencies. The intellectual map also illustrates the geopolitically hegemonic sites of knowledge production and dissemination and systems of representation. The scholars trained or residing in Middle Eastern countries, except for Israel and Turkey, have little to no voice in the social scientific knowledge that is produced about the contemporary ME in English.

In the second section of the concluding chapter, I move the analysis to another level and attempt to interpret the empirical results through the lens of Randall Collins's theory of interaction rituals and Neil Gross's theory of intellectual self-concept. I explain how this dissertation fills a methodological gap by more closely examining the process of knowledge production at the innermost level of the field. I also briefly talk about the intellectual network of ideas, attention space and the structured possibilities in this space, and suggest that Gross's idea of the operationalization of intellectual self-concept directs us to an extension of this project to incorporate a mixed method approach. I conclude this chapter by describing what a follow up study to this research would look like.

CHAPTER :2 MIDDLE EASTERN STUDIES IN ENGLISH FROM THE 1950S ONWARDS

THE RISE OF AMERICAN MIDDLE EASTERN STUDIES

The focus of this thesis is on MES as produced in English from the mid-twentieth century on. MES, as I use it in this work, can be traced back to Oriental (and later also Islamic) studies. It spans from ancient Greece and Rome to Western Christians in medieval Europe, when the development of the idea of a West, as fundamentally different from an East, began to take shape. MES in the 20th century, up until WWII, is considered a continuation of 19th century Orientalism with the same key theme persisting; that is, a philological orientation that views Islam as a distinct civilization, which is now in crisis due to its confrontation with the modern advanced West (Lockman, 2009).

The history of MES, or an evaluation of its current state, has been reported by several scholars. Zachary Lockman in his two books, *Contending Visions of the Middle East* (2009), and *Field Notes: The Making of Middle East Studies* (2016) in the United States, narrates the history of MES from a critical point of view, and Martin Kramer's book, *Ivory Towers on Sand* (2001), narrates the same history, but takes a polemical stance. In addition to these two scholars, several others have published articles and book chapters to review, criticize or comment on this history in the past two decades (e.g., Bilgin, 2006; Khoury, 2000; Mitchell, 2004). By reviewing the history of MES from the mid-twentieth century on, this chapter

highlights some of the similarities and differences in the many ways this history has been narrated.[1]

In 1955, Hamilton Gibb, a prominent scholar of Islamic studies, left Oxford to accept a position at Harvard. As Lockman (2009, p.112) argues, this was "emblematic of several major developments in the field" that were marked by the growing influence of American area studies—and in particular MES scholarship—relative to European. The social sciences were already clearly divided in American academia at this time, and the European practice of studying the modern ME did not qualify as social science in the US. Nevertheless, American universities did not have area studies experts to work in the new or expanded centres. As such, they started recruiting colonial ethnographers and senior Orientalists from Europe, including scholars like H.A.R. Gibb from Britain, and Gustave von Grunebaum from Austria (Lockman, 2009; Mitchell, 2004; Winder, 1987). This was a move towards the intersection of two different approaches to producing knowledge about a specific geographic area. MES, as practiced in the US, gradually moved away from focusing primarily on textual and philological studies, religious analysis of medieval Islam, architecture, and other humanistic fields to analyzing the ME as a changing subject, and to focusing on various aspects of Middle Eastern societies including class, gender, power relations and politics, ideology, social change, movements, and democratization. Also, instead of studying late antique and medieval ME, the focus shifted to early modern and contemporary ME (Cumings, 2002; Mitchell, 2004; Valbjørn and Bank, 2010).

As Kramer (2001) argues, while the founders of MES in the US understood Oriental studies to be a humanistic endeavor, they also recognized the prestige attached to social sciences. Kramer asserts that there is still a division of labour between American and European MES: in order to explain the contemporary ME, American MES scholars supplemented the practical knowledge of the regional history and language with social-scientific theories and methodologies, leaving the "demanding labour of philology and textual analysis" (p.7) to the Europeans.

Just as 19th century Orientalism was connected to the growing European colonisation of Muslim lands, the growth of MES in the US in the second half of

[1] Although the subjective stances of the scholars influence the way in which the history of MES is narrated, the levels of scrutiny undertaken in the historical analyses reviewed were distinctly different. I have treated all of these studies as serious intellectual exercises, yet, I think, specifically, the work of Martin Kramer in *Ivory Towers on Sand: The Failure of Middle Eastern Studies in America,* which is published by the Washington Institute for Near East Policy, a pro-Israel think tank, is far from academic. However, Martin Kramer's work, frequently cited in this chapter, is the only substantial work that narrates the history of MES from an academic-right perspective, and including it was essential for a comprehensive portrayal the polarized nature of the field today. I will not criticize Kramer's work, as it is beyond the scope of my research.

the 20th century was related to the US's rise as a global superpower and the need for a larger pool of experts. This occurred during the period when decolonization was accelerating, which caused the ME to become politically unstable, and the US was getting deeply involved in the region. It was at this time that the new social scientific studies of the ME began to attract unprecedented and substantial public and private funding in the US (Bill, 1996; Lockman, 2009; Winder, 1987).

From the late 1940s through the 1960s, the American federal government did not support education or university-based research in the social sciences and humanities, so private foundations, such as the Rockefeller, Carnegie, and Ford foundations, stepped in to fill the gap and provided abundant funding for research and teaching in area studies. It especially made a difference when Ford Foundation started investing in overseas development projects in the ME and South Asia, offering multimillion dollars grants to area studies programs in the US to promote peace and progress, and to stop the spread of communism. As early as 1946, the Social Science Research Council (SSRC) formed a committee on World Area Research, offering travel grants, sponsoring conferences, and providing funding to study regions of concern vis-a-vis American policy. Leading American universities that had established area studies centres during the war sought to preserve and expand these centres and programs in the post-war period, at first mostly through private funding (Berman, 1983; Vestal, 1994).

At around the same time, i.e., the early 1960s, the federal government, responding to the fear of a widening scientific gap between the US and the Communist Bloc, began to publicly support education and passed the National Defense Education Act (NDEA). Title VI of this act provided financial support for foreign language, teaching and research in area studies and increasing public awareness through outreach programs. Title VI increased through the 1960s, and then gradually, but unevenly, declined (e.g., a cut from 2,344 fellowships for language and area studies training in 1967 to 1,640 in 2003) (Vestal, 1994). Although Title VI was initially introduced for the purpose of defense education, it later changed and carried no defense obligation (Kramer, 2001).

Scholars, however, disagree about the importance of the role the Cold War played in the creation and development of area studies in the US. On the whole, Bruce Cumings (2002) sees area studies as a product of US-Soviet hostility, citing the close collaboration among universities, foundations, and intelligence services in the US at the time. This perspective, Lockman (2016) says, makes sense; however, he points out that the Cold War does not offer a comprehensive explanation for the state of MES at the time and the changes that occurred later. MES, as a new knowledge production and dissemination body, was formed well before the Cold War, and "it was […] SSRC and ACLS [American Council of Learned Societies] leaders, not government officials, who during and immediately after the war were

primarily responsible for turning those visions into reality" (Lockman, 2016, p. 259).

Additionally, Mitchel (2004) argues that the development of area studies was not simply a reaction to the Cold War, but that it was "integral to the larger attempt to create a sovereign structure of universal knowledge –itself part of the project of a globalized American modernity to which the Cold War also belonged" (p. 86). This means, Mitchel (2004) claims, that the history of area studies is not the history of the Cold War; rather, it is the history of the development of social science in the 20th century, as well as its future.[2] Mitchel offers several examples to show that the attempt to form a social scientific study of the ME, and a move towards "'organic' and 'synthetic' study of the social evolution of the contemporary Middle East" (p.80) started long before the Cold War. Among the examples that Mitchell offers are bringing Philip Hitti from American University of Beirut (AUB) to Princeton in 1927, the expansion of research on the contemporary issues in the region in the early 20th century at AUB itself, a comprehensive survey of the Western impact upon the Arab world and Turkey since 1800 in 1930s London, commissioned by the Royal Institute of International Affairs (which became a blueprint for the development of what would come to be called area studies (Mitchell, 2004)), and the foundation of the Oriental Institute of the University of Chicago by Egyptologist James Henry Breasted in 1919, with a vision to transform the field "from a philological into a historical discipline in which art, archaeology, political science, language, literature and sociology, in short all the categories of civilization shall be represented and correlated" (Winder, 1987, pp. 43-44). Lockman (2016), however, argues that Mitchell's account is inaccurate and that the program of the development of MES in the US was not shaped in the prewar US (e.g., in the 1930s by Gibb and Bowen's work *Islamic Society and the West*). As Lockman's archival research shows, the SSRC's vision of MES is not much influenced by prewar studies in the US and has fundamentally different roots.

By the late 1960s, MES had used the abundant and secure funding to become professionalized, and the SSRC had had a Near and Middle East Committee for a decade. In addition, several universities had either established or expanded centers for MES: New York University, Harvard, University of Michigan, Princeton, John Hopkins University, Portland State College, University of Texas, University of Utah, University of California—Los Angeles, University of California—Berkeley, Georgetown, Columbia and University of Pennsylvania. Some of the centres were

[2] It should, however, be noted that from WWII to the 1970s, social science research expanded in an unprecedented way in America, and there is a controversy over whether this contested expansion could be recognized as a specific type of social science produced as a result of this period, and could be called 'cold war social science' (Solovey & Cravens, 2012).

more traditional, mostly focusing on Islamic studies, language, and literature, and others were connected to disciplinary departments like political science and history (Lockman, 2009; Mitchell, 2004).

In 1966, the Middle East Studies Association (MESA) was founded, but it was not the first scholarly association for MES scholars. Three associations were established prior to MESA: (1) the American Oriental Society was founded in the 1840s, but it was traditionally Orientalist and played a negligible role in the development of MES after the war; (2) the Middle East Institute, established in 1946, was influenced by business interests and typically reached out to policymakers, journalists, businessmen, and the general public; and (3) the American Association for Middle East Studies, which had a short life span that only lasted throughout the 1950s and 1960s (Lockman, 2009). In 1966, to fill this gap, the foundations of the Middle East Studies Association (MESA) were laid, and today it is the largest association in the field (Teti, 2007). MESA gradually became the voice of the academic left in MES, so much so that the organization named Said an honorary fellow. Said, in 1993, was pleased with MESA and the extraordinary ideological transformation in the studies of the ME, which had been "dominated by an aggressively masculine and condescending ethos" (Said, 2012a, p. xxi) at the time of the publication of Orientalism.

In the late 1960s and early 1970s in the US, when MES was experiencing "the greatest expansion of Middle Eastern Centers and Programs" (Alexander, 2002), area studies, and MES in particular, faced several issues (Mitchell, 2004). Modernization, the dominant paradigm at the time, grew less resistant to collapse when it failed to explain socio-political changes in the ME like Lebanon's civil war and the rise of fundamentalism in Iran; at the same time dependency theory was rising in Latin American studies, and would later be imported to other regions of area studies, including MES. Mitchel (2004), however, argues that, in analyzing the crises that area studies faced in the late 60s and early 70s, the narrative should not be organized around a linear account of rise or fall of theoretical frameworks like modernization and dependency. Modernization and the critique of modernization co-existed in the 1950s in MES, a decade a so before the appearance of dependency theory in the field of Latin American studies. Vitalis (1996) agrees that theoretical rivalries did not drive the overarching narrative of the field; the narrative was driven by meta-theoretical forces, he says. He uses the example of the belated incorporation of dependency theory in Egyptian studies in the 1970s—when President Sadat abandoned Nasser's populism—to show that changes in the predominant theoretical perspectives were merely a tool for the competing intellectual politics of the field.

All in all, by the early 1970s, the assumption of a unified Middle East was being challenged (Mitchell, 2004); the claim that area studies could unify social sciences

was under attack (Geertz, 1994); social science was losing interest in area studies (Mitchell, 2004); the field's silence on political issues in the field, such as Israeli-Palestinian conflicts, was becoming problematic (Saunders, 2013); and MES as an institution was under attack from the right, as the there was no policy-relevance in university-based MES research (Kramer, 2001). The book, *Orientalism,* was published in this confused and chaotic environment.

EDWARD SAID

In almost all assessments of the field, scholars agree that the publication of Edward Said's *Orientalism* is a clear signpost in the history of the field. Critiques of Orientalism did not start with Said, but, as Kramer (2001) says, Said gave ideological coherence to them. Said did not emerge from MES departments; he was born in Palestine, grew up in Egypt, did his degrees at Princeton and Harvard in English Literature, and started working as a professor of English and comparative literature at Columbia (Said, 2012b). It was in the late 1960s when Said, as he himself puts it, started to "think, write, and travel as someone who felt himself to be directly involved in the renaissance of Palestinian life and politics" (Said, 2012c, p. xv). Said gradually evolved into a major literary theorist as well as a public intellectual and political activist, and, together with his colleague, Ibrahim Abu-Lughod, he was elected as an independent to the Palestine Liberation Council (Said and Abu-Lughod, 1988).

Said published three major books relevant to MES: *Orientalism* in 1978, *The Question of Palestine* in 1979, and *Covering Islam: How the Media and the Experts Determine How We See the Rest of the World*, in 1981. In his works, he investigated critical topics such as the "West's" patronizing representation of the "Orient", the traumatic disposition, subordination, and suppression of Palestinians, and the precarious and distorted coverage by media in the United States of the rest of the world.

Before Said, *Orientalism* was used to refer to Oriental studies in the traditional European sense, or to art works with Oriental themes; Said's works, though, resurrected the term. Orientalism, for Said, refers to a certain representation of the Orient by Europeans, and later Americans, that can take many forms. This representation, Said argues, does not emerge out of nowhere, but is bound up with, and produced and disseminated by, power in a Foucauldian sense. Orientalism, Said argued, was a discourse, not merely an academic discipline, based on a dichotomization: an ontological and epistemological distinction between the *Orient* and (most of the time) the *Occident*, which were represented as two fundamentally different entities (Said, 2014). Said also understood Orientalism to be "the corporate institution for dealing with the Orient … a Western style for dominating, restructuring, and having authority over the Orient"

(p.3). Unlike Foucault, however, Said did not insist on the "determining imprint of individual authors upon the otherwise anonymous collective body of texts constituting a discursive formation like Orientalism" (Lockman, 2009, p. 23).

Said believed that MES in America had retained the Orientalist outlook developed in Europe. The European tradition of Orientalism was "accommodated, normalized, domesticated, and popularized and fed into the postwar efflorescence of Near Eastern studies in the United States" (Said, 2014, p. 295). Although he acknowledges the shift from the European philological tradition to the American social-scientific tradition that had taken place, he contended that "the core of orientalist dogma persists" (Said, 2014, p. 302).

In the conclusion of *Orientalism*, alternative scholarship, or the answer to Orientalism, is discussed. The answer, he assures the reader, is not an essentializing Occidentalism. By reviewing some critical projects of the 1970s, Said confirms the possibility of valuable alternative visions and vigilant conscious scholars. An alternative approach to MES, according to Said, is self-aware, self-critical, has a (oppositional) critical consciousness, and questions the applicability, relevance, and validity of the notion of a distinct culture (Said, 2014). He says:

> I would not have undertaken a book of this sort if I did not also believe that there is scholarship that is not as corrupt, or at least as blind to human reality, as the kind I have been mainly depicting. Today there are many individual scholars working in such fields as Islamic history, religion, civilization, sociology, and anthropology whose production is deeply valuable as scholarship. The trouble sets in when the guild tradition of Orientalism takes over the scholar who is not vigilant, whose individual consciousness as a scholar is not on guard against idées reçues all too easily handed down in the profession. Thus interesting work is most likely to be produced by scholars whose allegiance is to a discipline defined intellectually and not to a "field" like Orientalism defined either canonically, imperially, or geographically. (ibid, p. 312)

CRITIQUES OF SAID'S *ORIENTALISM*

Orientalism has had a lasting impact in the US, and it became the canonical text of the newly founded discipline of postcolonial studies. As such, it has attracted many critics and advocates. Bernard Lewis, one the most outspoken critics of *Orientalism*, does not really engage with the substance of the book, maybe because he does not have enough in common with Said to begin and sustain a conversation. Said had an exchange with Lewis in the August 1982 issue of *The New York Review of Books*, which, rather than a communication, was "a declaration of orthodoxy" (Alexander, 2002, p.153). Lewis saw the *Orientalism*'s

defect as stemming from individual scholars and could never accept Said's premise that Orientalist scholarship is shaped by its context and is a (power-laden) discourse (Lockman, 2009). Lewis also insisted that such attacks were not new, and that the difference between earlier critiques and Said's is that Said chooses his targets arbitrarily, ignores major players in the field, magnifies marginal figures, and does not stay within the limits of scholarly debates; that is, Said's critique is ideological, against Zionism, and committed to Marxism (Lewis, 1982). In response, Said pointed to Lewis' own ideological underpinnings, emphasizing the fact that he was very politically engaged and passionately biased against Arab causes, in such places as the US Congress. Said mentioned the "remarkable coincidence between the rise of modern Orientalist scholarship and the acquisition of vast Eastern empires by Britain and France" (Said, Grabar & Lewis, 1982), and that Lewis fails to deal with this coincidence. He also talked about the mission of specialists like Lewis by the State Department to brief embassies on US security interests. Addressing the problematic reading of his work by Lewis, Said insists that, while *Orientalism* is not a conspiracy and the West is not evil, the context in which people talk or write about the Orient, in academic settings and otherwise, cannot, and should not, be suppressed (Said, Grabar & Lewis, 1982).

Lewis is just one of the critics who failed to begin and sustain a conversation with the content of Said's argument; Martin Kramer is another case in point. Approximately twenty years later, Kramer (2001), in a sense, would repeat Lewis' criticism that Said did not keep the political and the professional separate, reinforced his pro-Palestinian passion with scholarly works, and that "the appeal of *Orientalism* resided, in part, upon its combination of political polemic and literary excursion" (p. 28).[3]

Many scholars offered more substantial critiques of *Orientalism* that actively engaged with text. Said has, for example, been criticized for his relative lack of knowledge about the development of MES, ignoring, or not acknowledging, the debates already taken place in the field, and failing to make a distinction between the centre and periphery of the field (Ashcroft & Ahluwalia, 2008). Rodinson

[3] Orientalism, as Said conceptualizes it, introduces ambiguity into reading the text, by using three different (yet interdependent) themes referring to the same concept. Orientalism in the book refers to a historical specificity, a way of viewing 'the Orient' separated from 'the Occident', or an ontological stance which creates a dichotomy with fixed conceptions of culture, race, and politics. The term also refers to a body of knowledge or an academic discipline that includes all teaching about 'the orient'. Finally, it refers to a historically and materially constructed concept by corporate institutions to deal with 'the Orient', as a form of hegemony and legitimized power (Mani & Frankenberg, 1985). It is such ambiguity that propels certain critics of Said, like Kramer and Lewis, to read the work from the point of view of politically engaged public intellectuals. Among other points, these critics argue for the possibility of 'pure' scholarship (Said, Grabar & Lewis, 1982) that separates politics from knowledge and cast doubt on the validity of Said's text.

(Rodinson & Veinus, 2002), cited positively by Said, saw *Orientalism* as a work of great merit that could help us question the sources and connections of many Orientalists' ideas and to recognize their many prejudices and presumptions. However, Rodinson (Rodinson & Veinus, p. 131) is critical of "[Said's] excessive statements", his not being thoroughly familiar with Orientalism as a field as an English major, and his tendency to ignore cases, such as the studies of Chinese or Indian civilizations, that receive little to no attention in his interpretations but are nonetheless part of the field. Malcolm Kerr (1980), in his substantial review of *Orientalism*, claims that the American scholars that Said quoted in his book were not a representative sample of MES scholars in America at the time. There were many American scholars of Arab and Muslim origin, Kerr says, who were omitted from Said's analysis and discussions. Although Kerr acknowledges that *Orientalism* offers rich materials, he says the analytical framework of the book is over-generalized to the point of being reductionist.

Other lines of criticism have, among other things, focused on Said's marginalization of the critiques of Orientalism that appeared before 1979—especially those informed by political-economists (Lockman, 2009)—his use of jargon-drenched language, his tendency to ignore evidence that does not confirm his theory (i.e., the discursive formation of Orientalism) (Brennan, 2007), and his careless employment of a Foucauldian methodological framework (Ashcroft & Ahluwalia, 2008).

MES IN THE PAST THREE DECADES

Islam and Islamism

One of the most controversial questions that kept dominating the field after Said's critique of Orientalism was how to study Islam and how to explain the continuing growth of Islamism in the region. Numerous publications have been produced that try to explain Islamism in different societies in the region from the 1970s on, as well as how, in the last few decades of the 20th century, Muslim societies have increasingly rejected secularism and have instead attempted to create a so-called "real" Muslim society.

The explanations that scholars like Lewis and Friedman (so-called *neo-Orientalists*) provided for Islamism in the 1990s were consistent with their writings from the mid-20th century. They build their arguments on a number of essentializing and static concepts, such as *the essence of Islam* or the *cultural activities of Muslims*. Islamism, Lewis (1990) argues, is a historic reaction of Muslims against Judeo-Christian heritage, especially since "the Muslim has suffered successive stages of defeat" (p. 49) at the hands of the West, since, roughly, the 18th century.

On the Left, or, to use Lockman's (2009) terminology, the *liberal camp*, scholars disagree with the view that the rise of Islamism is a "resurgence". Instead, the Left tends to see it as a thoroughly modern phenomenon and a product of the 20th century. For example, the Shia concept, *velayat-e faqih* (Governance of the Jurist), introduced and discussed by Ayatollah Khomeini, is a new invention, not a return to tradition (Abrahamian, 1991). Furthermore, these scholars insist that there is no single *modernity* or *Islamism*; they each represent a set of phenomena. New Muslim societies were being built using modern concepts such as the nation-state, democracy, and political parties, and different forms of Islamism were emerging in different socio-political contexts. Adherents of this approach, especially in the 1990s, were invested in the policy-relevant question of whether certain relatively moderate readings of Islam, as represented by groups, movements, or parties, were (more) compatible with democracy (see Esposito, 1997; Eickelman, 2000; Owen, 2002; Zubaida, 1993). Moreover, the concept of *civil society*—which refers to active networks and associations that are above the individual level but that are not part of the state—is one of the core concepts to which many liberal scholars have turned their attention. These scholars are mostly focused on the weaknesses of civil society in Arab and Muslim lands and asked whether Islamist groups should be considered a part of civil society in these regions. The overall picture of the formation of civil society, at least for a decade or so in the 1990s, was optimistic and promoted the inclusion of moderate Islamists (Bellin, 1994; Tessler, Nachtwey & Banda, 1999).

In response, scholars on the more conservative side of the spectrum, especially those who are closer to politically-engaged public intellectuals, argued that the effort to outline civil society and the potential for Islamic democracy was too optimistic. Kramer (1993), discussing the surge of Islamism, says that critical scholarship of MES chose to ignore it at first and then failed to explain it when it could no longer be ignored. He criticizes Said for seeing Islam just as a concept created by and for Orientalists. In Kramer's view, Said traced Islamism back to Western prejudice and failed to see it as a potential force, stronger than either the Left or the Right. In the mid-1990s, Said said that what he most regrets is that his book has come to be seen as a defense of Islam, "by suppressing half of my argument" (Said, 2014, p. 332). This was interpreted by some as an implied confession that Said was not able to foresee the rise of Islamism, and that it was easy for insiders (i.e., Middle Easterners) to see the critique of Orientalism as a confirmation of the suspicion that MES scholars in the West were agents of their governments (see American Academy of Arts and Sciences, 1994).

More recently, it has become more difficult to legitimately regard the majority of the academic literature on Islamism as polarized[4]. Today, academic scholarship on Islamism asks questions like what explains the divergence between different forms of political Islam, how are moderate and radical Islamism negotiated among Muslims, and whether moderate political Islam influences the trajectory of democratization. Addressing Islamism in the middle and more academic side, scholars like Jonathan Fox, addressing Islamism, argued that international politics and relations should take religion into account. Fox empirically studies the multiple ways religion influences politics and international relations, and how religious phenomena like political Islam and fundamentalism can cross borders. Reviewing the relationship between religion and violence, he acknowledges that most of this literature is focused on Islam. He says that Muslims, out of proportion to their population, are involved in most conflicts, especially inter-religious conflicts.

Globalization: The End of Area Studies?

One of the discourses that partially redirected MES and area studies funding packages in the 1990s was the discourse related to transcending national boundaries and the study of the dynamics of globalization. The SSRC and ACLS (American Council of Learned Societies) disbanded all eleven of their co-sponsored regional committees in 1996, objecting that area studies failed to sustainably produce "adequate cross-regional or thematic research development initiative" (Lockman, 2016, p. 250). In response, several MES scholars (e.g., Lila Abu-Lughod, Armita Basu, Ali Mirsepassi, and Timothy Mitchell) acknowledged the force of globalization, but emphasized the need for area-based knowledge in a globalizing world and the necessity of understanding the mutually constitutive relationship between the local and the global (Bilgin, 2004).

Although some MES scholars at least acknowledged the force of globalization and tried to work more closely to other "comparative, cross-disciplinary and quantitative methodologies and theories" (Khoury, 2000, p. 117), it cannot be assumed that this institutional change had a lasting or profound impact on MES. Since the 1970s, the discourse of globalization has been just one of several forces playing a critical role in the transformation of MES; indeed, there were other influential forces, such as the disabling critiques of Orientalism and modernization theories, the emergence of women's studies and the way it challenged the predominant categories across fields, and the poststructuralist, postmodernist, and cultural and linguistic turn of the 1980s (Lockman, 2016). Although the Ford and Mellon foundations and the SSRC allocated funding to support globalization

[4] Among public intellectuals and in the media, however, the perspectives on political Islam are still quite contested (see for example Göpffarth & Özyürek, 2021 & Jeldtoft, 2016).

and international studies, Lockman (2009) claims that area studies scholars did not give up and that the budget cuts were not as damaging as once imagined. MESA stayed active, information and ideas were exchanged through numerous listservs, journals, and websites, and some new major funding initiatives in support of area studies were introduced (Volkman, 1999).

Scholars and the State: Influence on Policy

It is hard to know whether the knowledge produced in MES has been useful to government officials, as there are many challenges involved in answering this question. After years of fine-grained historical analysis of MES, Zachary Lockman (2016) concludes that, overall, "it was probably not very useful" (p. 262). Even the works of the minority of MES scholars who strived to be policy relevant did not have a causal impact and, at best, legitimized the policies. There were scholars, like John Louis Esposito and Augustus Richard Norton, whose ideas verged on policy relevance and critical scholarship, but their ideas were described as optimistic by Lockman (2009) or substantially wrong by Kramer (2001).

Critical and conservative MES scholars alike believe that, from the last few decades of 20th century onwards, the bulk of expertise on MES has been ignored in policy making, and that a growing gap has appeared between foreign policy and the media on the one hand, and MES on the other. However, what formed this gap is a matter of controversy. The gap is said to be triggered by dissatisfaction on the part of many MES scholars and students with US policy towards the region, the radical politicization of the campus and the alienation of policy makers as a result of the production of works that are radically critical of US policies towards the region, Project Camelot (the military-sponsored project in the US, with mostly Latin American target countries, but also included Iran, Egypt and Turkey in the ME), Richard Nixon's attempts to eliminate support (i.e., Title VI funding) for all area studies programs, and the 1979 and 1981 RAND Corporation reports that pointed towards the irrelevance of MES to policymaking (Abelson, 2006; Kramer, 2001; Horowitz, 1965; Lockman, 2009; Lockman, 2016; Teti, 2007).

Over time, the vision shared by policymakers and many MES scholars faded. Gradually, a new generation of scholars emerged after the Arab-Israeli war, the Palestinian uprising, and the Vietnam War that condemned established scholars for what they perceived to be collaboration with the American government. This, Kramer (2001) says, created a set of coordinated campaigns "against government-sponsored research" (p. 88) around 1980. These scholars refused to apply for funding from intelligence sources or sources that had limiting conditions and they were no longer willing to conduct research using funding packages that had service requirements for military, intelligence, and foreign policy agencies. It should be noted that it was acceptable (ethically and politically) to almost all, even the most radical ones, to get funding from the federal government through the US

Department of Education (Lockman, 2009). However, Kramer (2001) claimed that this sensitivity regarding the sources of funding was limited to the American government; scholars did not have any issue accepting funding packages from Arab and Iranian governments, as the same standard of disclosure did not apply to all sources of funding.

Although it might not be clear whether some MES scholars are not willing to conduct policy-relevant research or whether the government is not willing to engage with the critical perspective, Nathan Alexander (2002) argues that the Saidian paradigm could not, in essence, produce policy-relevant scholarship. The critique of Orientalism characterizes the whole field as a "flickering phantasm" (p. 158), sees the West as racist and imperialist, and pays no attention to, or denies, the existence of an Islam or Orient other than through the Western perspective. Kramer (2001) also says that MES theories should explain, predict, and solve problems, and, to that end, the existing social order should be taken as a given. To this end, critical approaches are rendered irrelevant.

Kramer (2001) says that MES scholars had a chance again in the 1990s to be involved in policy-oriented research, but missed it. After the Gulf War, the MES establishment used the public interest and campaigned to attract more federal funding, that is expanding Title VI. This campaign was led by the SSRC. In 1992, Congress introduced new funds that were trimmed down from the original proposal and contained some limitations; for example, this funding would be allocated to Americans abroad and would be in part administered by the research institutions overseas. MES scholars, Kramer believes, used these funds to once again conduct research projects that were irrelevant to policy making.

The number of privately funded think thinks rose from the 1970s onwards to fill this gap and inform American foreign policy. They achieved much greater influence than academics with regards to shaping US foreign policy from the 1980s onwards (Abelson, 2006). Different types of thanks tanks either emerged or got involved and became very active in the field of policy-relevant research on the ME. Some, like the Carnegie Endowment for International Peace or the Council on Foreign Relations, were established a long time ago, and others, such as RAND Corporation became contractors after WWII to fund military and intelligence research. Then, the 1960s witnessed the emergence of so-called advocacy think thanks that combined marketing techniques with policy research. By the year

2000, there were hundreds, if not thousands, of policy think tanks across the US (Abelson, 2006; Lockman, 2016).[5]

Think tanks mostly promoted what Kramer (2001) calls "timely, reliable and persuasive ideas" (p. 107), and other voices, especially after 9/11, have been marginalized not only in the policy world, but also in the media. Also, MES scholars have had a limited impact on public opinion (especially post 9/11), and the dominant discourse has been shaped by think tanks. During events such as the 1990-91 Gulf-crisis, most talking heads were from think tanks or public policy schools or were retired military personnel; this trend was amplified after the September 11 attacks and the 2003 Iraq war (Abelson, 2006; Lockman, 2009). In his paper on the changes in MES after the September 11 attacks, Lockman (2007) asserts that the well-funded and orchestrated attacks against MES after 9/11 were unprecedentedly nasty, "based almost exclusively outside the academy" (p. 344) and imposed political criteria on public funding for MES. Kramer (2001), on the other hand, says that the isolation of MES scholars from policy and media was self-imposed. While think tanks gradually managed to establish public credibility through the media, MES scholars were treating outreach casually, although a portion of Title VI funding should have been devoted to outreach. MES scholars in academia, he believes, did not ponder the process of the emergence of these talking-heads and instead reinforced the gap by calling them "pseudo-authorities [or] instant experts" (p. 106). Scholars like Roger Owen, an MES scholar at Harvard, have responded to such criticisms by stating that Washington's political parameters regarding the ME are too narrow, and that the media is too prone to bias for the critical perspective to have any influence by running outreach campaigns (Kramer, 2001). This, Lockman (2009) argues, had the unintended

[5] To further develop this argument, one can refer to the impressive literature on US think tanks. Thomas Medvetz, for example, in his 2012 book Think Thanks in America, develops a systematic theoretical approach to the phenomenon of both think tanks and policy expertise.

He sees the field of think tanks in the US as a hierarchical space occupied by networked organizations, granted different levels of economic, cultural and social capital (built on Bourdieu's idea of fields and capitals). He also sees think tanks as having a hybrid character, placed at the intersection of academia, businesses, industries, media, politics and bureaucracy (built on Gil Eyal is idea of interstitial spaces). On the basis of this framework, Medvetz argues against defining think tanks as independent policy research institutes.

The argument in this chapter could be further investigated based on this literature. Although Medvetz, along with most of the similar works on the US think thank, does not directly explore policy research on the ME, he and they shed light on the roles of such institutions in the field of MES, and show deeper insight into the concept of 'scholar' (used frequently in this dissertation) in this field. The works of Medvetz, and similar literature, provide tools to categorize and situate the players active in the field, including but not limited to, intellectuals, academics, expert activists, and technocrats.

consequence of "narrowing the range of opinions deemed legitimate" (p.253), possibly on both sides. As a result of this divide, MES Scholars, even some in the liberal camp (as used by Lockman (2009)), have talked about the unfortunate polarizing consequences of *Orientalism* and how there now exists such a thing as a "wrong" political position among MES scholars (Gallagher, 1994a).

Critiques from the right became increasingly radical after the 9/11 attacks. Scholars like Martin Kramer and Daniel Pipes, with projects like Campus Watch, harshly criticized MESA for its lack of diversity in teaching and research, considering certain of its views on the ME, Islam, and US policy in the region to be "esoteric", "irrelevant", and "unacceptable" (Middle East Forum, 2002).[6] Media picked up this critical view and went so far as to put pressure on universities to consider the political views of MES scholars before offering them a position. This was seen by some scholars as an assault on the integrity and independence of their institutions. Although many scholars expressed concerns about the challenges to academic freedom after the 9/11 attacks, intensified Israeli-Palestinian conflicts and the (at the time forthcoming) Iraq war prevented the universities from maintaining a firm resistance to these pressures. Joan Wallach Scott (2002), however, offered cases of college and university presidents who "eloquently and successfully" (p. 50) defended academic freedom in their institutions.

At the beginning of 21st century, members of MESA, more than before, were accused of being, publicly or behind closed doors, too critical of US policy in the region, especially its pro-Israel policies, and of not being sympathetic enough to that country. So, in 2007, critics from the right, having been alienated from MESA for around four decades, established the Association for the Study of the Middle East and Africa (ASMEA) as an alternative to MESA (Karni, 2007).

Demographic Changes

Lockman (2007, 2009, 2016), admitting that statistics are hard to obtain, observes that the demographic contours of MES have changed since the beginning of the last quarter of 20thcentury, incorporating more women and scholars who are from the ME. He argues that scholars from ME background or origin know the

[6] As mentioned in Footnote 5, a follow up study to this research is to decompose the concept of 'scholar', and differentiate among MES scholars in various roles. Scholars like Kramer and Pipes have ties to the American foreign policy establishment and often deep commitments to Israel. Although, as activists they are more committed to the 'journalistic' and 'power' fields (in Bourdieu's term), they still strive to increase their distance from non-academic writers such as David Horowitz. On the Campus Watch website, they "set the record straight [… about] falsely alleged connection to David Horowitz […]"; and state that "a cursory glance at our website would have shown, CW [i.e., Campus Watch] is a project of the Middle East Forum, a research institute in Philadelphia that is in no way connected to the David Horowitz Freedom Center, or any other enterprise anywhere" (Campus Watch, 2017).

languages, have a deep familiarity with ME societies, and potentially have links with local scholars; conversely, non-ME scholars have the advantage of critical distance. In addition, the post 9/11 surge of interest in the ME and Islamic studies resulted in larger enrolments and, as a result, greater employment opportunities for recent PhDs (Lockman, 2007). This demographic change, Lockman and Mitchell (2004) believe, had a positive influence on the quality of knowledge produced by MES in the US and has resulted in methodological and theoretical innovations, especially by making better use of indigenous sources. This shift allowed many practitioners of MES to free themselves from "the chronic sense of intellectual backwardness, exceptionalism, inferiority and isolation that had once been so widespread among its senior figures" (Lockman, 2016, p. 254), and to become more self-confident and to produce empirically rich works that were theoretically sophisticated.

Kramer (2001), too, discusses this demographic change. In the 1970s, when funding for MES was scarce and budgets were cut, the critique of Orientalism became a tool that Arab and Muslim scholars used to get jobs. The number of MES scholars of Middle Eastern heritage increased from 3.2% in 1971 (Richard D. Lambert, Language and Area Studies Review, as cited by Kramer, 2001) to "possibly half" (Kramer, 2001, p. 35), (i.e., around 50%) according to MESA's president in his 1992 address. Kenneth W. Stein (1988) describes this tendency to qualify teachers based on their Middle Eastern heritage as a consequence of an overly politicized and Middle Easternized MES (p. 64).

The Relationship between the Social Sciences and MES

The transformation of US area studies into a social scientific discipline was not a smooth or linear one. Although the field of area studies, as has been practiced in the US since the 1950s, offers a set of skills and expertise built mostly upon the disciplinary methodology of the social sciences (and less so, the humanities), the relationship between area studies and the social sciences has nevertheless been controversial. Area studies took its modern—somewhat social scientific—form in the US, and together with social sciences they faced related, if not identical, difficulties and crises. The field of area studies, however, has always remained in the periphery of social sciences, and their relationship has not been an easy one (Lockman, 2016).

As with other fields of area studies, MES has changed directions and undergone transformations, and, ultimately, the kind of knowledge produced by MES was not what the founders and leaders had expected or hoped. Back in the 1930s, relating area studies and the social sciences did not pose a "practical or theoretical problem" (Mitchell, 2004, p.80). British Orientalists, such as Gibb and Bowen, considered the contemporary ME to be a whole entity; that is, the Islamic world formed a unified object that the Western Orientalists, with their "organic

knowledge of the ME" (Mitchell, 2004, p. 80), were equipped to decipher. At Oxford, where Gibb taught, distinct disciplinary domains like economics, political science, and sociology were not yet organized as separate faculties (Mitchell, 2004).

In the middle third of the 20th century, however, academia pictured the world not as a network of empires, but as series of nation states. Nation states became the universal unit of analysis, and social knowledge became nationalized. This, along with the professionalization of social science, resulted in a view of the world as "a series of discrete national economies, societies, cultures, and histories" (Mitchell, 2004, p.84). Around the same time, area studies experts tried to overcome the narrowness of disciplinary focus and retain the sense of a whole by taking nation states as their unit of analysis and by nationalizing social knowledge in an attempt to create a general science of society. Some, especially at the beginning of the emergence of MES in the US, also noted that societies needed to reach a dynamic stability in order to think of domains like economics, politics, and culture as distinct; in traditional and transitioning societies, such divisions of labour among spheres are premature and simply a matter of convenience (see, for example, Halpern, 1962). This was against the trend of professionalization in the social sciences in the US, when the social sciences were a force to divide the labour among disciplines. The idea of nationalized social knowledge and single country expertise is narrow in its own sense, and it is the reason why, as Bill (1996) argues, US political scientists have failed to grasp the complexities of the ME from the mid-20th century onwards. He says that, with the exception of some cross-national/cultural research, the bulk of works concerning the ME are reluctant to generalize about the region or are constrained by their resources and skills to do so.

Area studies were seen, Mitchell (2004) says, as a testing ground for the universalization of the social sciences and for cleansing social scientific theories of their (problematic) Western provincialism. Bilgin (2004) also acknowledges the division of labour between area studies and disciplinary knowledge, but he also suggests that the setting is hierarchical and based on a generalist/particularist dichotomy.

Since the Cold War, many social scientists (especially political scientists) on both sides of the academic left and right have criticized area study specialists for working "within a closed box and therefore in isolation from important comparative, cross-disciplinary, and quantitative methodologies and theories" (Khoury, 2000, p.117). In response, many studies (e.g., Lockman, 2016; Wallerstein, 1996; and Mitchell, 2003) point in different ways to the epistemological shifts of the 1980s, and how they questioned the epistemological and methodological underpinnings of disciplinary knowledge. Thus, "if area

studies lacked a hard core, so did the disciplines" (Lockman, 2016, p. 252), and the basic concepts upon which the social sciences are built (e.g., the social, the political, culture) cannot be taken for granted and must be continuously grappled with.

As Bilgin (2006) points out, although the intellectual structure and development of MES is dependent on the prevailing understanding of theory, a narrow understanding of theory can either mean getting firmly established in disciplinary oriented social sciences or, alternatively, getting closer to its Orientalist legacy. Bilgin finds both scenarios highly problematic and calls for a broader historical and contextualized understanding of theory that involves theorising from Middle Eastern experiences. Bilgin also says that, although MES scholars in the U.S. have had to respond to, among other issues, the methodological and theoretical issues raised by social sciences (e.g., accusations of being unsophisticated), these issues might be of little relevance outside the U.S., "where the political context is very different and the disciplinary hold of the social sciences is not as strong" (p. 576). Similarly, Mitchell's (2004) hope for MES is not for it to provide case studies or data for the social sciences, but to "provincialize" them, which is a hope shared by Zachary Lockman (2016).

STATEMENT OF THE PROBLEM

As discussed by Lockman, Kramer, Mitchell, and many other scholars cited in this chapter, MES, in the past three decades, has faced several challenges. Almost all the issues MES has faced in the last three decades, both related to content and form, have polarized the field. Polarities such as think tanks and university-based research, academic and policy relevant research, liberal/critical and conservative tendencies, and optimism or pessimism about the demographic changes in the field.

Although what drives the polarization is a matter of controversy, MES historians, irrespective of their political and paradigmatic tendencies, have focused on macro and structural explanations, such as political settings in and out of the region, to explain the polarization. I aim to move beyond this macro level, to examine the intellectual network of MES from inside. If, however, following Randol Collins (2009), we assume that the construction of ideas about the ME is first and foremost embedded in (the social structure of) the communication network of ideas, this network is understudied. My question is, by looking at the scholarship itself –the individuals who produce this scholarship, the textual dimension of it, and how the texts are related—is the field polarized? I do not follow the wars, agreements, or the rise and fall of political figures; instead, I study the scholarship itself and extract the political and paradigmatic tendencies from within the field, i.e., how the tendencies are reflected in the communication network of ideas in

MES. The question is, whether, drawing an intellectual map of MES, the field is as divided along the described political and paradigmatic lines as argued by the historians of the field? Have, as observed by the practitioners, the demographic changes taken place and how did it affect the divisions in the field?

It is important to recognize that there are three embedded levels of analysis (Collins, 2009) in the process of knowledge production about the MES: (1) individual scholars, (2) organizational structures, and (3) the socio-economic and political contexts which sustain the organizations. Although historians of MES have mostly focused on and analyzed the second and third levels, this dissertation aims to fill a methodological gap by more closely examining the process of knowledge production at the inner-most level of the field: the significance and clustering of the individual scholars as reflected in the textual dimension of knowledge production.

CHAPTER 3: METHODOLOGICAL APPROACHES TO STUDYING THE STRUCTURE OF SCIENTIFIC KNOWLEDGE

INTRODUCTION

Scientometrics, the research method used for this work, assumes that the intellectual map of a field, or the structure of a scientific community, can be simplified by examining textual interactions between members. The main goal of this chapter is to reflect on this methodological assumption. To this end, the chapter will begin by taking a step back and discussing some of the epistemological and methodological debates in the field of the sociology of scientific knowledge. From there, it will present on overview of the methodological challenges involved in using bibliometric research to intellectually map a given field of study.

Investigators from different disciplines have examined the process of knowledge production, dissemination, and training; this group includes sociologists, historians, anthropologist, political scientists, and philosophers. The agenda for these investigations was laid out by scholars like Thomas Kuhn (2012), who introduced the ideas of paradigm shifts and scientific revolutions, Robert Merton (1973), who detailed the ideas of the normative structure of science, and Karl Popper (2005), who developed the foundational idea of empirical falsification. The line of work that this dissertation focuses on—the structure of scientific

communities [7] and macro-level intellectual networks—is a growing field that belongs to the above-mentioned body of literature.

Examinations of scientific knowledge from a sociological perspective have provided a wealth of historical and recent evidence to support the epistemological claim that scientific knowledge is socially constructed. However, this statement is theoretically insufficient, as it assumes a one-to-one relationship between the cognitive (or intellectual) and social dimensions of scientific knowledge and overlooks their substantial co-variability. Much attention has been paid to the problems associated with multidimensionality in the sociology of scientific knowledge, especially from the 1970s onwards. Scientific knowledge is multidimensional in the sense that the social and the cognitive are intertwined; therefore, all units of analysis in the sociology of scientific knowledge are socio-cognitive. According to Leydesdruff (2011) most of the studies conducted in the sociology of scientific knowledge after 1970 are neither limited to the organization of a scholarly community, nor have they been purely epistemological explanations of theoretical frameworks in a field (cf. Crane, 1969 and 1972; Whitely, 1984; Hesse, 1980). Subjects of research in the sociology of scientific knowledge are now usually viewed through the lenses of social and cognitive structures, despite the relationship between the two (social and cognitive) is contingent, not one-to-one.

This chapter begins by expanding this discussion and explaining how the predominant paradigm in the sociology of scientific knowledge has moved beyond this social-cognitive dualism. The second section of this chapter takes a closer look at the methodological basis for studying the structure of scientific communities. To this end, two different methodological approaches to studying the structure of scientific knowledge are introduced, followed by a discussion of how sociological theories are not straightforwardly adaptable to and usable with scientometric concepts, techniques, and indicators. Although the use of bibliometric data has been a growing trend in the social sciences, it is critical to assess the theoretical underpinnings and interpretations of these ever more complex models. The third and final part of this chapter details this work's methodological framework, which is based on the ideas of Loet Leydesdroff and his team. As will be shown, the objects of analysis in this study are composites of irreducible elements, including groups of scholars, sets of documents, and their content. Ultimately, these dimensions are intertwined but analytically independent.

[7] The two terms, the structure of scientific communities, and the structure of scientific knowledge, are used interchangeably in this chapter.

THE SOCIOLOGY OF SCIENTIFIC KNOWLEDGE: THE SOCIAL & THE COGNITIVE

Traditionally, the sociological study of scientific knowledge has accepted and widely adopted the dualism between the social and the cognitive. In the post WWII era, the sociology, philosophy, and history of science has been dominated by the social-cognitive (or internalist-externalist) debate (Shapin, 1992), which centers on the question of how social contexts influence production, dissemination, and training with regards to scientific knowledge. During this period, the dualistic juxtaposition of the internal, rational, cognitive, or intellectual and the external, political, or social was simply taken for granted (Collins, 1983; Shapin, 1995).

According to Shapin (1991), over the centuries, public opinion and philosophical discourses have conceived of scientific knowledge as *transcendent* and *genuine* in the sense that its domain was removed from the political and the practical. Merton's (1973) survey of the sociology of scientific knowledge revealed the field to be one that is concerned with showing how social factors influence mental productions and condition the cognitive dimension of scientific knowledge (both in terms of form and content). In other words, this field's original dominant framework sought to find the bridges between the social and the cognitive. In this view, studying the social—for example, the political and economic dimensions of knowledge production—allowed sociological studies of science to show how "its truth, objectivity, universality, and power were compromised" (Shapin, 1995, p. 299) and how external factors (i.e., non-cognitive dimensions) contaminate the very essence of authentic science.

A series of empirical studies showed that many hard scientific claims, especially mathematical and physical, are influenced by social concerns (e.g., MacKenzie, 1978; Pinch & Bijker, 1984). Barber (1962)[8], a student of Merton, discussed the systematically dichotomized sets of factors that influence science. He says:

> We may conveniently group the factors we shall mention which are, it should be noted, not all of equal importance necessarily, into two rough categories: the internal and the external factors. The internal factors include those changes which occurred within science and rational thought generally; the external include a variety of social factors.

Barber argues that a scientific scheme's conceptual strength influences its autonomous status (i.e., the stronger the intellectual framework, the less influenced by the religious, social, political, and economic). Shapin (1991) has

[8] Originally published in 1952

called this Mertonian-inspired framework a landmark in the development of the social (i.e., external) vs. the cognitive (i.e., internal) dichotomy.

Since around the 1980s, however, the dominant discourses in the sociology of scientific knowledge[9] have freed themselves from the improprieties of the social-cognitive duality.[10] Indeed, this dualism has been challenged by the sociologists of science, including Bloor (1984), Latour (1987), and Mulkay (2014), mostly based on the Kuhnian-inspired sociology of scientific knowledge. This taken-for-granted duality had become a misrepresentation of the sociology of scientific knowledge's conceptualization of the social dimension. At present, the sociology of scientific knowledge predominantly seeks to demonstrate that knowledge is constitutively social; the social dimension is an essential condition, not a contamination, of knowledge production, dissemination, and transfer. The sociology of scientific knowledge did not intend to question the legitimacy of rational, objective, evidential, and universal knowledge; rather, it aimed to question the validity of individualist frameworks for interpreting the process of knowledge production. Scientific knowledge is regulated by itself, not through social norms, or what Merton calls the "ethos of science." In a sense, the regulative norms governing scientific knowledge are, in essence, the same as those governing knowledge itself. The question, then, is: how are the social and cognitive dimensions co-produced? In its attempts to interpret scientific knowledge, the sociology of scientific knowledge has moved away from individualism and towards a collective approach to interpreting scientific knowledge. Scientific knowledge (and any other type of knowledge for that matter) is the distribution of knowledge among knowers, which means that it is dependent on their relationships (Barnes, 1988).

The difference between traditional and more recent (relativist or realist) sociological studies of science is an epistemological one. When the duality exists, the assumption is the effects of social factors and their biases should be avoided, and the authentic goal is a vigorous pursuit of authentic answers. When the duality does not exist, the sociology of scientific knowledge lean towards a realist perspective (as opposed to philosophical rationalism) and claims that judgments about scientific knowledge are local and contingent, thus opposing the view that there is an unambiguous set of methodological criteria informing these judgments (Barnes, 1982; Shapin, 1995).

[9] The term, "sociology of scientific knowledge," refers to a largely (at the time) British speciality, while the term, "sociology of science," refers to an American one (Collins, 1983).

[10] In cases like Latour's actor-network theory, this would refer to the distinction between human and non-human actors (i.e., actants).

This line of argument leads to a localist understanding of knowledge. This perspective empirically and theoretically evaluates scientific knowledge as a situated phenomenon, and it is based on the concept of situated knowledge. While the narrative of universality and objectivity deflects attention away from locality, knowledge, and scientific knowledge, local knowledge carries the marks of the specific locales in which it is produced. The local sites, the shaping of the personal spaces of knowledge production and creativity (e.g., one's private lab, office, city, or countries) are frequently translated from one site to another (Jöns, Meusburger, & Heffernan, 2017; Shapin, 1991). I will return to this argument in Chapter 7, which presents a detailed discussion of how the backgrounds of MES scholars influence their political and paradigmatic tendencies.

THE STRUCUTRE OF SCIENTIFIC KNOWLEDGE: INVISIBLE COLLEGE & EPISTEMIC CULTURE

The structure or organization of scientific knowledge, the focus of this dissertation, is a widely studied topic in this field. There are two distinct methodological approaches to analysing the structure of scientific knowledge. One line of work in this field focuses on the structure of scientific communities; this is mostly achieved through network and quantitative analysis and typically avoids investigating the content of the fields they study (e.g., Crane, 1969; Price, 1963; Wagner, 2009). I take the concept of the invisible college to be a building-block of this stream. The second stream focuses on the micro- and macro-level epistemic formations that shape these studies, mostly through deep and close observations, beliefs, and practices in scientific communities. These typically qualitative works do not hesitate to investigate the content of the fields, along with the practices of individual specialists and the structure of scientific communities (e.g., Cetina, 2009; Lamont, 2009). Most of the work that uses the first approach is tied to an epistemologically dualistic understanding of the social and the cognitive (as explained in the previous section), while works following the second stream mostly acknowledge that knowledge is constitutively social.

de Solla Price (1986) first used the term, "invisible college," to refer to groups of scholars producing knowledge and exchanging information from geographically distant institutions. The concept of the invisible college describes a group of scientists who create and use channels for day-to-day communications and to exchange their works—both published and in progress—and to organize sporadic yet regular meetings. As de Solla Price uses it, the invisible college refers to the structures of scholarship as observed through published documents (products of scholarship), social processes as observed in informal communications (the actual communication process), or both (Lievrouw, 1990).

Following de Solla Price's lead, the concept of the invisible college has become a fertile analytical tool that has led to many insights and controversies. Researchers such as Crane (1969), Crawford (1971), Gaston (1970), and Fisher (1966) examined formal and informal scientific communications and networks in the 1960s and 1970s. Some, like Crane, avoided analyzing the intellectual content, preferring instead to strictly focus on the networks of communications; others, like Fisher, thoroughly studied the content of the cases, while also analyzing the patterns of scientific publications, affiliations, and how schools of thoughts are shaped. Crane (1969; 1988) conceived of invisible colleges as fleeting or lasting entities and examined the possibility of a systematic domain of informal communications and personal influence. She suggests that social circles among scientists form through a set of direct and indirect ties, as well as through formal and informal channels of communication. Furthermore, Crane also studied the underlying motivation and urgency for the ties shaped outside of ones' immediate social circle(s). These ties would later be named, "weak ties", by Granovetter (1983). Crane adds that, although it may not be well instituted, a social circle becomes visible through patterns of publications.

Decades after its appearance in de Solla Price's work, the concept of the invisible college is still subject to some definitional ambiguity and has been used to refer to different phenomena. The general definition of invisible colleges as clusters of scholars with similar or mutual research interests has led to some controversy about whether it is conceptually distinct from terms like "innovation cliques" (Van Rossum, 1973), "social circles" (Crane, 1969), or even "subject specialties" and "subtopics." In an attempt to enhance definitional clarity, Paisley (1968) described invisible colleges as a part of a system of scholarly communication; other entities in this system include, but are not limited to, organizations (i.e., universities and colleges), work teams, reference groups, and professional associations. As Paisley puts it, invisible colleges are conceptually close to reference groups in the sense that they consist of scholars with mutual or similar specializations; however, unlike reference groups, invisible colleges tend to be more local and involve direct access (e.g., meetings and co-authorship). Whreas Mulkay, Gilbert, and Woolgar (1975) found the boundaries between these concepts to be too unclear and permeable, and Paisley (1972) understands the main difference as being the invisible college's tightly closed community. Conversely, Cronin (1982) views the invisible college as unstable and expensive to maintain as an informal communication channel, while Zuccala (2006) considers it to be a multidimensional construct with three components: social actors, subject speciality, and information use environment. Nonetheless, empirical works on invisible colleges have all found that they feature a certain degree of patterned behaviour in a loosely organized social system mostly consisting of high levels of communication among scholars (Zuccala, 2006).

Around the 1990s, some scholars adopted methodological triangulation in response to concerns about the invisible college's validity as a construct. For example, Lievrouw, Rogers, Lowe, and Nadel (1987) collected grant applications (to do a co-word analysis) and bibliometric data (to conduct co-citation analysis), administered a sociometric questionnaire (to do a factor analysis), and conducted interviews (for in-depth qualitative analysis) in order to study the social network of American biomedical scientists studying lipid metabolism. Similarly, Sandstrom (1998) combined bibliometric, sociometirc, and interview data to develop an optimal foraging model to investigate how scholars seek and use information during the knowledge production process. Sandstrom used bibliometric mapping to examine the cohesiveness of the field and to identify sub-topics, as well as interviews to conduct in-depth analysis of peripheral and central nodes in the map and their information foraging behaviour. This approach revealed that the rejection of irrelevant information forms boundaries in a co-citation map.

As explained above, not all studies that use the invisible college construct, or a variation of it, employ positivist or empiricist foundations. However, in a broad sense, the studies described above can be compared with those using a more interpretivist methodological approach to studying the structure of scientific communities and knowledge. In this second stream, understanding the structure of scientific knowledge is generally embedded in studying the process of knowledge production.

A clear example of the more qualitative and interpretative approach to studying the intellectual structure of scholarly communities is Cetina's (2016) conceptualization of epistemic cultures, which refers to the "interiorized processes of knowledge creation" or "different machineries of knowing" (pp. 65 & 66). The notion of epistemic cultures challenges the conception of knowledge as unitary and promotes fragmentation and epistemic diversity within the realm of science of knowledge:

> [I]f the focus in the early studies was on knowledge construction, the focus in an epistemic culture approach is on the construction of the machineries of knowledge construction. Cultural specificities arise, one assumes, when domains of social life become separated from one another – when they curl up upon themselves and become self-referential systems that orient more to internal and previous system states than to the outside environment. Science and expertise are obvious candidates for cultural divisions; they are pursued by specialists separated off from other specialists by long training periods, intense division of labor, distinctive technological tools, particular financing sources, and so on. The notion of an epistemic culture takes up where this assessment leaves off. It brings into focus the content of the different knowledge-oriented lifeworlds, the

> different meanings of the empirical, specific constructions of the referent (the objects of knowledge), particular ontologies of instruments, specific models of epistemic subjects. Epistemic unity, then, is a casualty of the cultural approach to knowledge production. (Cetina, 2016, p. 68)

Historically, distinct epistemic cultures with peculiar features have emerged in various scientific disciplines. Cultural definitions of non-agents/objects is a feature of epistemic cultures[11]. In fact, it goes beyond mere definitions: subjects and objects and their reconfiguration in relation to their social and natural environments merge into the conception of lifeworlds, which is itself articulated in the concept of epistemic culture. In addition, the entities of epistemic culture—that is, the subjects, scholars, or authors—and the communications between them belong to epistemic cultures and are established differently in different cultures. The object-relations regime is another feature of an epistemic culture that refers to the ability to gain access to targeted objects and to adopt strategies for enacting and understanding empirical inquiries (Cetina, 2016).

In theorizing the cultural conception of knowledge, scope matters. Epistemic culture is reflected at two levels: (1) micro settings of labs and or other local settings of knowledge practices; (2) macroepistemics form in unbounded places of knowledge, distributed locations, and, at times, on a sizeable scale. Macroepistemics do not produce a single outcome, and lifeworlds are repeatedly merged within them. Cetina (2016) moves beyond epistemic cultures and introduces the more general concept of knowledge cultures, which she defines as "culture[s] in which specific knowledge processes are embedded" (Cetina, 2016, p.73). This enables the assertion that different cultures have different sciences and technologies (Abir-Am, 2001; Arvanitis & Vessuri, 2001), or investigations of local knowledge/folk knowledge/non-Western knowledge vs. "Western science".

Empirical studies using this approach move beyond the peculiarity of the studied cases and use the epistemological and methodological bases of epistemic culture to generalize empirical data and generate theories. In observing the conflict between high-energy physics and astronomy, Heidler (2017) provides an in-depth empirical analysis of two likely conflicting epistemic cultures. As he puts it, "in a narrow sense the epistemic culture can be described purely on the level of the epistemic strategy" (p. 4), but in a broader sense, epistemic cultures can be compared on several dimensions, including: epistemic strategy (e.g., generation of data, theoretical approach, and how theory is related to empiric); instrumental concepts; collaboration style; and social legitimacy (e.g., public and media interests and political prestige). Heidler further explains that these

[11] Overlooking the misleading fallaciousness of the concepts, as objects and subjects, can both be active and passive.

features/dimensions, which are implicit in everyday scholarly practices, can be made visible through the use of a comparative methodology.

When two epistemic cultures come into contact with one another and begin to become growingly interdependent, differences along one or more of these dimensions can lead to conflicts between them. These conflicts can be major if the differences are significant and encompass several dimensions (Heidler, 2017). Two cultures can be dependent on one another in terms of technical procedures or in terms of goals and strategy. Among the different types of dependency, strategic dependency (Whitley, 2000)—which is the integration of goals and strategy—can lead to fierce competition and conflict between fields. The conflict and competition between two cultures can produce an amplifying or destructive effect. Based on his case study of the conflict between astronomy and high-energy physics, Heidler argues that the unchallenged assumptions about knowledge production is the critical issue at the core of the conflict between these two cultures. To demonstrate this, Heidler analyzed the dimensions of both cultures/disciplines quantitatively (through bibliometric studies) and qualitatively (through interviews and historical analysis). His results showed that, although both cultures share some similarities—for example, some of their stated goals, their use observations to answer questions, and similar instrumental concepts—they also possess many stylistic differences, such as collaboration size and epistemic strategic differences. I will come back to the idea of interdependent, yet conflicting, epistemic cultures again in Chapter 7.

SCIENTOMETRICS

As mentioned in the previous section, invisible colleges and epistemic cultures are not straightforwardly specifiable and operationalizable into scientometrics concepts, techniques, and indicators. A number of key issues pose fundamental epistemological and methodological challenges to the structural study of scientific knowledge, including: the complexity of the relationship between social and cognitive factors; avoiding, or otherwise engaging with, the content of knowledge; the comparative advantages and disadvantages of using quantitative or qualitative methods to study formal/informal communications among scholars; and the possibilities and challenges of imaging and analyzing the structure of scientific knowledge. Leydesdroff and his team have discussed the theoretical basis of scientometrics—the research method of this dissertation–and clarified the methodological stance of scientometrics approaches to studying the structure of scientific knowledge (e.g., Leydesdorff 1993, 2001; Lucio-Arias & Leydesdroff, 2009; Wagner & Leydesdorff, 2005). Leydesdroff (2001) argues that, through the lens of scientometrics, scientific knowledge is a multidimensional given, moving beyond the internal/external dichotomy. He argues that the analytical

independence of the social and the cognitive domains does not necessarily mean that they should be treated as two separate domains,[12] and that the adoption of scientometrics can enable interaction and dynamic feedbacks among the two.

Scientometrics contains elements from both streams of literature that study the structure of scientific communities. Like the more interpretive studies, scientometric studies do not hesitate to analyze the content of the texts, though they usually use quantitative and network analysis techniques. Scientometrics takes micro actions and investigates how, using the language of Cetina (2016), *macroepistemics* and knowledge cultures are shaped through them. However, unlike more interpretive approaches, scientometrics usually stays away from studying the process of knowledge production.

Scientometrics sees the process of scientific communication and the structure of scientific communities as a phenomenon that is amenable to measurement. The structure of scientific communities evolves as a result of scientific communication, which itself evolves from, is embedded in, and is contingent upon the cognitive and social aspects of knowledge production, dissemination, and training (Lucio-Arias, 2010; Cetina, 1981, Whitley, 2000). In scientometrics, scientific knowledge and its structure are understood as discursive phenomena, with scientific communication as its driver in the sense that all present communications are based on, or deviate from, previous communications.

Along with its social and cognitive dimensions, the textual dimension of scientometrics research is considered to be one of its core conceptual building blocks. These three dimensions of the network of scientific communities (i.e., cognitive, social, and textual) are mutually interdependent. Lucio-Arias (2010) argues that, in modeling the dynamics of scientific structure, the social and cognitive backgrounds are intertwined. They interact and evolve, continuously conditioning each other, and that this process is retained and reflected in the textual dimension of knowledge.

The unit of analysis in the sociology of scientific knowledge, which depends on the approach used, can include: research practices; knowledge claims and their validity (usually in studies on the philosophy of science); chronological scientific events in social contexts (usually in historical reconstruction science studies); and documents, their textual attributes, and their relations (usually in the works by information scientists). Scholars with drastically different perspectives have observed scientific knowledge through the lens of its publications (e.g., Kuhn, 2012; de Solla Price, 1986). Kuhn, for example, looks at historical discoveries and

[12] Separate domains of the philosophy and sociology of science, as a Mertonian framework suggests.

paradigm shifts, while Price uses the textual dimension and the dynamics among texts to operationalize scientific developments.

Documents, their attributes, and their relationships are the main units of analysis in scientometrics. Scientific knowledge is formalized into publications, and the assumption of scientometrics is that the textual dimension of knowledge production is "a functional simplification of scientific communications" (Lucio-Arias, 2010, p. 142). When the units of analysis are documents and their relations, a self-referential network is created in which the submission of a new document provides variation, and the selection mechanism (i.e., citation) becomes the main dynamic through which the network/system evolves (Amsterdamska & Leydesdorff, 1989; Leydesdorff, 1998). Publications are crucial formal events in scientific communications; through them, new results are distributed and added to the network, and previous publications are validated or disproved, which in turn paves the way for new research and publications. It is through this publication network that the loops of articulation of research questions, writing, validation, and then again, the formulation of new questions operates. The structure is shaped based on the act of citing and the patterns of being cited: micro actions that de- and re-construct the structure. Thus, the selection mechanism through which the findings are recognized and/or (dis)validated should be studied and specified (Leydesdroff, 1993).

According to Leydesdroff (1998), to study the dynamics of the network of scientific knowledge there are two orders of analysis. In the first order, authors/individual scholars are the node and their relations (e.g., scientific collaboration) are the links. In this order, access to resources, electronic mailing lists, funding, and informal communications are factors that influence network dynamics, both as enabling and constraining conditions. In the second-order design, however, discursive knowledge is shaped by, or reflected in, the communication between, or linkages among, texts. In the first-order dynamic, texts are written, revised, and linked to literature the scholar deems relevant; while in the second order, however, the communicating scholars are mostly replaced by their peers, communicating through the contents of the texts. What stirs the system is the constant circulation of new and old publications; in fact, publications are the autopoietic operations warranting the integrity and progression of scientific knowledge (Fujigaki, 1998).

The second order's process of communication (i.e., textual communications) produces subsystems through self-organization and differentiation. Although these subsystems are hierarchically nested at first, they do not stay as such and frequently evolve into separate clusters, becoming their own self-referential systems. As new knowledge is developed, the existing structure is re-written at the macro level via differentiation, which occurs through the (re)grouping of texts.

Researchers, funding systems, executive managers, and other similar agents condition the substance of communication in the first order; conversely, discursive knowledge is shaped through the dynamics of textual communication in the second order (Leydesdorff, 2001; Lucio-Arias, 2010)

The first and second orders are analytically differentiated but empirically intertwined such that the development in each layer is reflected in the other two. Agents, such as scholars/authors, articles, social resources, instruments, research materials, institutions, and theoretical contexts, all interact and create the emergent structure of scientific communities (or the organization of knowledge).

If one agrees that scientific knowledge is a historical socio-cognitive phenomenon, then its multidimensionality should be empirically explained rather than merely being considered an ontological or epistemological condition. Leydesdroff (2001, p. 33) puts it this way:

> Indeed, the sciences have been socially constructed. But this is a meta-theoretical insight: it is true by definition. In any empirical design, however, the socio-cognitive edifice of science is only partially reconstructed by socio-cognitive interactions during the period under study.

Thus, empirical designs must engage with the spatiality and temporality of socio-cognitive interactions in the process of studying the structure of scientific knowledge.

In light of the above discussion, the foundations of Author Co-citation Analysis (ACA), the empirical design of this study, must be outlined. Introduced in 1981 by White and Griffith, ACA “maps oeuvres, and by implication, the people who produce them … [mapping] a field through a representative slice of its literature” (White & McCain, 1998, p. 327). In this study, ACA is used to illustrate the intellectual structure of MES; that is, it selects a group of authors, identifies the relationship among them, finds subgroups, and observes how these subgroups are related to one another. ACA is used as a tool to observe and analyze the structure of MES in English, as a scientific community. By selecting MES scholars and looking at their intellectual and social backgrounds, this research shows how the intellectual map of MES is contingent upon the cognitive and social aspects of knowledge production.

ACA looks at how MES scholars interact on a textual level and how their interactions are conditioned by their intellectual and social backgrounds. In other words, it seeks to explain how the cognitive and social backgrounds of these scholars continuously (re)arrange their positions on the intellectual map of MES. The unit of analysis in this study is the relationships between documents, as a

simplification, or reflection, of communication among MES scholars. In ACA, what derives the structure is the selection mechanism, which shapes the intellectual map—the *second-order design* of MES, as explained earlier. The act of citing and who is being cited by whom are micro actions that constantly (re)construct the intellectual map of MES. Scholars from different socio-cognitive backgrounds (from the Middle East and outside, trained in and outside of the regions, working on a variety of topics and from different political and paradigmatic approaches) are being cited, and subgroups are being shaped through a selection mechanism. This method, and the detailed steps of how it is operationalized, is explained in the next chapter.

CHAPTER 4: AUTHOR CO-CITATION ANALYSIS (ACA)

WHAT IS AUTHOR CO-CITATION ANALYSIS?

Bibliometric techniques (also referred to as scientometrics or informetrics) utilize quantitative tools for studying scholarly communications (Leydesdorff, 2001). Bibliometric techniques take either individual authors or scholarly documents (e.g., journal articles, journals, books) and quantitatively—and at times qualitatively—analyze the aggregated data. Citation and co-citation analysis are the two established bibliometric techniques. Citation analysis is based on the number of citations a (set of) document(s) has received, and co-citation analysis identifies intellectual linkages and maps a stream of literature. Co-citation analysis illustrates how a body of literature coheres and diverges, how it is heterogeneous or clustered, and how it changes over time. Bibliometric coupling, co-word analysis, document co-citation analysis, and author co-citation analysis (ACA) are subcategories of this technique that are based on the frequency with which pairs of authors or documents are cited together (Eon, 2008).

ACA is done by "counting the frequency with which any work of an author is cited to any work by another author in the references of citing documents" (Liu, 2011, p. 19). When a document cites authors A and B, a tie between A and B is formed; the higher the number of documents that cite both A and B, the stronger the tie between them. In employing ACA, the assumption is that the relationship between two scholars can be assessed based on the frequency with which they are co-cited; the higher the number of co-citations, the more related their works are. There are various types of relationships between citing and cited documents. The citing author can use citation positively (e.g., to review the previous literature, to approve a finding, or to give credit) or negatively (to criticize, to disclaim, or to dispute) (Smith, 1981). The Frequency of co-citation is a measure of proximity or

closeness between two scholars. Repeatedly co-cited authors may be competitors, or they may share the same perspective, but they are not in the state of mutual neglect (Liu, 2011). The soundness of ACA mapping, no matter how theoretically and methodologically rigorous, should also be assessed by the scholars, practitioners, and all others who are involved in MES, a point which is further discussed in the concluding remarks of this work.

DEFINITION OF THE DOMAIN UNDER ANALYSIS

The research population comprises influential scholars who have produced interdisciplinary knowledge about the cotemporary period (at the time of publication) or recent (social) history of the ME in English. This includes, but is not limited to, subjects like class, ethnicity, gender, power, international relations, foreign policy, civil society, social history, ideology, politics, social change and movements, political economy, economic growth and development in the ME. Therefore, scholars whose work covers the early and late medieval ME and subjects like textual and philological studies, religious analyses of Islam, and architecture are excluded. I also eliminated the specialized MES journals focusing on economy, finance, and law.

I intend to explore the intellectual structure of MES between 1950 and 2015. As explained in Chapter 2, this period was selected due to the organizational changes that have taken place since the late 1940s.

The fact that this work systematically excludes non-English publications is not to suggest that those are not important. I took English as the language of international communication because the focus of this work is on the communication of ideas; that is, I explore whether and how different images of the ME, as sketched by MES scholars with different intellectual and social backgrounds, interact with each other. Without making the decision to limit this study to the English language, it would have been very hard to control for language skills. The citing scholars, native English speaker or otherwise, are able to read in English, assuming that if one cites a work written in English, one has read it in English. It should be noted that, even though all cited works are in English, the citing works are written in many different languages. Thus, when a document cites authors A and B, the document itself can be in any language, but the cited works by authors A and B must be in English.

SELECTION OF UNITS SUBJECT TO STUDY

The first step in an ACA is the selection of the co-citation objects. Though there are several approaches for selecting co-citation objects, in most ACA research projects, authors are selected by their citation within a delineated database

(Gmür, 2003). To choose the scholars, I compiled a list of the key scholarly journals in MES and selected the scholars with the most citations from each journal. A detailed description of this process is presented in the following sections.

The Definition of the Middle East

MES scholars, both the founders and their successors, have not been too concerned about defining the geographic space that the field focuses on, and, as such, they have been working with increasingly fuzzy boundaries (Lockman, 2016). This definitional ambiguity stretches to other scholarly fields and outside the scholarly world. Although addressing this ambiguity and the controversies it has provoked is beyond the scope of this project, choosing an operational definition remains a methodological issue. Frequently referred to as MENA (Middle East and North Africa), the region almost always includes Arab-majority countries; however, countries like Iran, Turkey, and/or Israel have been excluded from the region by some international organizations (e.g., the World Bank and the International Monitory Fund). I will adopt a generous definition of the ME (or MENA) that includes countries in the centre and the periphery of the region with long-standing historic ties with one another. In this project, the ME encompasses the following nation-states: Bahrain, Cyprus, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Oman, Palestine (the West Bank and the Gaza Strip), Qatar, Saudi Arabia, Sudan, Syria, Turkey, United Arab Emirates, and Yemen (Fischer, 1993; Tabutin, Schoumaker, Rogers, Mandelbaum, & Dutreuilh, 2005). Later in data cleaning process, I made the decision to also define the scholars who were born in, or received their degrees from, Morocco, Algeria and Tunisia as ME.

Figure 1: The Middle East as defined in this dissertation (dark green), plus a few additional countries of origin or the countries where the degrees were awarded for the added highly cited scholars (light green).

Journal Selection

Journals were selected with the goal of being topically and regionally comprehensive in order to ensure that the final list of scholars as adequately and accurately as possible represent the subject area to be studied. Using the SCImago

Journal & Country Rank (SCImago, 2007), I created a list of 47 social scientific and humanities journals that had a variant of the following words or phrases in their titles: *Orient*, *Middle East*, *Islam*, *Arab*, and the names of the ME countries. The distribution of the main (geographic /subject) area of interest of the initial list is presented in Table 1 below, and the name of these journals is presented in Appendix A.

Table 1: The initial list of journals.

Main Area/Subject	Frequency
ME	19
Arab	5
Iran	4
Islam	4
Israel	4
Orient	3
Palestine (or Israel-Palestine)	3
Turkey	3
Iraq	1
Libya	1

Of these 47 journals, 24 were excluded after further analysis. The reasons for their exclusion varied. Many were excluded for the limited number of results or very low h-indices in Google Scholar (GS). A small number of results or a low number of citations influences the stability of the aforementioned list of highly cited scholars. For example, the search query, `source:"Palestine-Israel Journal"`, which is the title of one the journals, returned 769 results in GS, with the most highly cited document in the journal receiving 31 citations, and a total of 1,959 citations altogether (query ran on 13 Jan. 2018). Likewise, the search query, `source:"Palestinian Refugee Studies"`, the title of another journal, returned only 53 results (query ran on 13 Jan. 2018). In addition, a few journals were excluded because their subject matter substantially differed from the above-noted study domain. The vast majority of papers in the journal *Der Islam*, for example, focus on literary traditions, archival materials, and archaeological evidence (Der Islam, 2012). Similarly, the *Journal of the Economic and Social History of the Orient* only covers "the period from ancient times until the beginning of the nineteenth century" (JESHO, 2016, p.1). Moreover, the journals *Review of Middle East Economics and Finance* and *Iranian Economic Review* were excluded because their disciplinary focus is too narrowly defined, and the main areas of interest of the majority of their highly cited scholars were not limited to the ME. Finally, the journal *Libyan Studies* was initially selected and the journal ID 'R' was assigned to it. Even though the journal covers a broad range of subjects, including

archaeology, geography and the social sciences, the highly cited authors were all archeologists, which ultimately resulted in the exclusion of this journal (and, hence, the journal ID 'R').

The final list of selected journals contained 22 titles, which are presented in Table 2. As can be seen, there are eight country-specific journals (one on Iran, three on Israel, one on Palestine, and three on Turkey), two on the Arab world in general, one on Islam, and eleven on the ME as a whole. The oldest one, *The Muslim World*, was first published in 1911, and the newest ones, *Middle East Law and Governance* and *Middle East Development Journal* have been publishing since 2009. The mean length of publication as of 2015 is 31.5 years, and the median is 26 years.

Table 2: The final List of Selected Journals.

ID	Title	Since	Area	# Slctd Schlrs
I	The Muslim World	1911	Islam	22
E	The Middle East Journal	1947	ME	16
F	Middle Eastern Studies	1964	ME	21
L	Iranian Studies	1967	Iran	12
A	International Journal of Middle East Studies	1970	ME	24
N	Journal of Palestine Studies	1971	Palestine	18
B	Middle East Report	1973	ME	10
K	Arab Studies Quarterly	1979	Arab	11
T	Journal of Israeli History	1980	Israel	3
C	Middle East Policy	1982	ME	10
Q	New Perspectives on Turkey	1987	Turkey	6
R	Insight Turkey	1991	Turkey	6
G	British Journal of Middle Eastern Studies	1992	ME	11
D	Middle East Quarterly	1994	ME	7
P	Israel Affairs	1994	Israel	7
O	Israel Studies	1996	Israel	12
M	Turkish Studies	2000	Turkey	20
H	Journal of Middle East Women's Studies	2005	ME	5
J	Contemporary Arab Affairs	2008	Arab	3
U	Middle East Journal of Culture and Communication	2008	ME	2
V	Middle East Law and Governance	2009	ME	2
W	Middle East Development Journal	2009	ME	3

The list contains a wide range of peer-reviewed journals. Some examples include: the official publication of the Middle East Studies Association (MESA), *International Journal of Middle East Studies*, a social-scientific-oriented journal,

and one of the most prestigious in this field; *Middle East Studies*, which, compared to the *International Journal of Middle East Studies*, is more interdisciplinary, less rigorously scholarly, and more accessible; *The Middle East Journal*, which publishes works on political development with especial attention to policy making interests; *Middle East Report*, which, in addition to articles, publishes interviews and reports with a leftist orientation; *The Muslim World*, which focuses on the Islamic identity of ME societies; and the journals, *Middle East Policy* (published by the Middle East Policy Council) and *Middle East Quarterly* (Published by the Middle East Forum), which are policy-oriented, less rigorously academic, and freely express their political agenda (Mirsepassi, 1995).

GS Metrics provides a top 20 list of publications ordered by their h-median and five-year h-index. I compared the list of GS top publication for Middle Eastern and Islamic Studies with my own list in order to test the validity of my selections. The GS Metrics that I have used here are based on the indices in June 2017 (Google Scholar Metrics Help, 2017). Of the top 20 publications, the following eight were not included in my list of selected journals: *Bulletin of the American Schools of Oriental Research*, *Contemporary Islam*, *Islam and Christian–Muslim Relations*, *Journal of Arabian Studies*, *Journal of Muslim Minority Affairs*, *Levant*, *Middle East Critique*, and *The Journal of North African Studies*. In seven cases, the journals either had different aims and scopes than the domain of this study (e.g., they were mostly focused on diasporic Muslims and Islam in the West, Islam in South East Asia, or historical and philological analysis), or they did not have enough published issues at the time of the study to be able to extract a reliable list of highly cited authors. For example, the journal, *Levant*, covers studies dealing with the Palaeolithic–Ottoman ME, "from a range of disciplinary perspectives including anthropology, archaeology, history and heritage studies" (Levant, n.d.). But in the case of *The Journal of North African Studies*, the publication meets the criteria.[13]

Using the search query, `source: ["title of the journal"]`, and utilizing the software, Publish or Perish (Harzing, 2018), I created a dataframe for each journal that contained all the records in GS with title of the journal as the source. The records in each dataframe that were published before the first issue of the journal were removed. In cases like *Israeli Studies* and *Iranian Studies*, the exact title of the journal was more likely to be part of another source with a similar name, so more intensive data cleaning for the purpose of disambiguation was required.

[13] I learned about this journal after the process of journal and author selection was over. Because of time constraints, I cannot include it at this point. I will, however, add the highly cited scholars in this journal to the sample and will re-run the analysis for the subsequent publications.

Author Selection

I exported the dataframes created for each journal to an ISI/WoS format, and I then imported them to a Sci2 Tool (Sci2 Team, 2009) in order to implement the Author Paper Network algorithm for the aggregation of the dataframe by authors. The variable, "Cite", in each dataframe logged the number of citations each record (i.e., author) received. The algorithm created a dataframe with three main variables: authors, number of works, and times cited. The field, "authors", had to be further cleaned (mostly mechanically) for author name disambiguation.

Using the times cited data, the 99% quantile of citation was selected as the definition of highly cited scholars for each journal. Table 2 shows the number of authors selected per journal, and Appendix B contains the means, SDs, medians, and the 99% quantiles of the citations for each journal. The number of selected highly cited scholars for each journal (i.e., the scholars that received citations equal or greater than the independently marked benchmark for each journal) varied between a minimum of one scholar for the journal, *Insight Turkey*, and a maximum of 25 scholars for the *International Journal of Middle East Studies*. Selected scholars reached the benchmarks either by having one or two highly cited records in a journal, or by having several records in a journal with the aggregated number of citations reaching the benchmark.

In 23 cases, recurrent names appeared in the top 1% of highly cited authors. For example, for the journal, *Insight Turkey*, the names of five (out of six) selected authors had already appeared as being highly cited in *Middle East Policy*, *Middle Eastern Studies*, *Arab Studies Quarterly,* and *Turkish Studies*. For a list of these recurring names and the journals they appeared in, refer to Appendix C. Moreover, although Edward Said and Bernard Lewis were among the highly cited scholars in the selected journals, they are not included in the sample. Said and Lewis' very high number of total citations would further prolong the already lengthy data collection process. Finally, Eleanor Shouby (E11; *The Middle East Journal*) was excluded from the list as there was almost no information about him online. He has a highly cited article "The influence of the Arabic language on the psychology of the Arabs" in *The Middle East Journal* in 1951, but apart from this information there he has a very limited online profile in English or Arabic. So, in total, the sample size in the current study is 202.[14]

[14] Three of the scholars with total citations over 12000 are also excluded from the current sample: Ella Habiba Shohat (N8; Journal of Palestine Studies), Timothy P. Mitchell (B14; Middle East Report) and Lila Abu-Lughod (H10; Journal of Middle East Women Studies). Because of time constraints, the data analysis started while the final stages of data collection were still in progress, and the data for these scholars was not available at the time. The sample and data analysis in the subsequent publications will include these scholars.

GS Metrics provides a list of the highest h-indexed articles that presented new research (determined by GS's automatic indexing system) in the area of Middle Eastern and Islamic Studies. The latest data is based on the h-indices as of May 2017. Of the 12 scholars who wrote these nine articles (excluding the article on the representation of Muslims in the media) 30% (n=4) were included in the list of 211 highly cited scholars.

It should be noted that, although the generated list of selected authors represents the diversity of many different traditions, disciplines, and sub-areas of interest in the field, it is by no means comprehensive. The list does not claim to include—and it was not the intention of the present study to include—all the key players in the field. The selected authors form a reasonably representative non-random sample of highly-cited scholars in MES.

Although I have adopted strategies to be inclusive, several substantial scholars are not on this list. There is a possibility that the sample is biased against MES scholars who tend not to publish their works in area studies or multidisciplinary journals. Several studies have shown that the research evaluation system is journal-based, and that judgments about the value of a work are influenced by the journal in which it is published (Chavarro, Tang, & Ràfols, 2017). For example, journals like *Foreign Affairs*, *World Politics*, or *Orbis* are more prestigious than most (if not all) MES journals, and several major MES-related articles are published there. The list-selection process was also probably biased against scholars who have published influential books/ book chapters but have not actively published articles in MES journals. Finally, it should be noted that prominent scholars who are published in a language other than English are also excluded from this list.

For a complete list of the selected scholars refer to Appendix D.

CHOICE OF DATA SOURCE

Among the three main sources of citation data today—GS, Web of Science (WoS), and Scopus—this study uses the first one. WoS, which was the only comprehensive source available until early 2000s, is a commercial product and covers WoS listed journals going back to 1900. Scopus, also a commercial product that was introduced in 2004, has a more comprehensive geographical coverage than WoS, which has an improving North American bias. GS, also introduced in 2004, does not provide a list of its sources, but its coverage is wider than other bibliometric sources (Harzing, 2013).

Although GS's coverage has made some academics skeptical, its wide coverage is the reason why GS was selected as the bibliometric source of this project. GS provides a more comprehensive and up-to-date picture of citation networks for the social sciences and humanities, and Middle Eastern Studies in particular. GS's

coverage is broader, more comprehensive, and includes English and non-English citations in and to many of the publications in WoS- and Scopus-listed records, in addition to non-WoS or Scopus journals and other types of scholarly documents (Aguillo, 2012; Harzing & Alakangas, 2016).

Since GS does not publicize its sources, the breadth and (academic) quality of its coverage has been tested through trial and error. In longitudinal studies, de Winter, Zadpoor, and Dodou (2014) and Harzing and Alakangas (2016) found that GS exhibited a significant retroactive expansion compared to WoS. This explains why more recent studies of GS have reported better coverage. Meho and Yang (2007) found that GS missed 40.4% of the citations that WoS and Scopus found, whereas WoS and Scopus missed 61.04% of the citations found by GS. Gehanno, Rollin, and Darmoni (2013) have shown that the GS can be the first choice for a systematic literature review due to its high coverage. In addition, GS's coverage of scholarly documents in languages other than English is not at all comprehensive, but it is broader than that of WoS and Scopus (Noruzi, 2005; Meho and Yang, 2007). This is important for this research, since, as mentioned above, although the cited works had to be in English to be included, the citing works could be in any language.

GS does not perform as well for older publications, because the electronic versions of older publications, along with the publications that cited them, are less likely to be posted on the web. There is evidences that shows that WoS produces more citation counts than GS for pre-1990s data (Pauly & Stergiou, 2005; Meho & Yang, 2007). This project does not apply a longitudinal ACA analysis to monitor the changes in the co-citation network over time and is instead focused on the cross-sectional data. Since many journals are still in the process of posting back issues to the web, it is safe to assume that this time lag has a considerable effect on the validity of a longitudinal analysis.

Not all fields are covered evenly, but the social sciences, arts, and humanities are among those that have benefited from broader coverage in books, book chapters, conference proceedings, and wider range of journals (Bar-Ilan, 2008; Bosman et al, 2006; Kousha & Thelwall, 2007; Kousha & Thelwall, 2008). In the social sciences and humanities, a limited number of journals are ISI-listed; since the publication patterns in these fields are different, excluding other types of publications, such as books, book chapters, and reports, has a more significant impact on (co)citation analysis. Among the journals that were selected for this study –for the purpose of identifying the highly cited scholars—6 (out of 22) are not covered by WoS. Although non-US- and UK-based journals are underrepresented in ISI-listed publications, this underrepresentation is greater in the case of the social sciences and humanities (Archambault, Vignola-Gagné, Côté, Lariviere, & Gingrasb, 2006). Furthermore, according to Harzing (2013), even though scientists average 17.5

times more citations than social sciences and humanities scholars in ISI, this difference is reduced to 1.5 in GS. Additionally, studies have shown that more than five years can elapse before a social scientific or humanities working paper or conference proceedings gets published in a journal (Harzing, 2013), and that is why GS's broader coverage of these types of documents becomes more crucial. In the case of MES, some publications have policy impacts and are more likely to be cited in policy reports, which are mostly covered by GS but not by ISI or Scopus. A large portion of scholarly publications in the social sciences and humanities are published in national scholarly journals, book chapters, or monographs (Sivertsen & Larsen, 2012), and GS data, though not fully comprehensive, are more inclusive in this respect (Harzing, 2013).

To some extent, the skepticism over the extent to which GS sources are scholarly is the result of its wide coverage. Since the list of GS's sources is not public, it is challenging to evaluate the scholarly nature of GS sources (Vaughan & Shaw, 2007). Nevertheless, GS'more inclusive approach to scholarly documents works in favor of this project as, in a field like MES, the discourses are shaped in a broader policy and academic setting.

Compared to WoS and Scopus, the main disadvantage of GS is a general lower quality of data. GS's data processing occasionally creates nonsensical results; for example, the name or initial of an author may be displayed at the beginning of the title of the record, the author category may be incorrectly replaced with other categories, or the data that may lack a publication year (9% according to de Winter, Zadpoor, and Dodou, 2014). The robustness problems especially appear for the records that are not as highly cited (Harzing, 2013). In addition, GS results are limited to the 1,000 most cited papers. This means I had to run dated queries to breakdown the results into fewer than 1000 records, when the results of an `author: [name of the author]` exceeded 1,000 or when a document received more than 1000 citations. This resulted in the possible exclusion of records that lacked a publication year (only for the cases with fewer than 1000 results). GS's behaviour in cases like this was not consistent. Furthermore, the accuracy of the GS estimates for the total number of records for each query varied significantly; I will provide a numerical description of the number of estimated and retrieved results in the next chapter. GS underestimates the citation records of authors with diacritics, apostrophes, hyphens, and prefixes in their names, but this is also the case for WoS and Scopus (Harzing, 2013). In this project, for most authors with special characters in their names, I ran several different queries to ensure maximum inclusion. Another common issue in the sources of citation data is duplicates and the aggregation mechanism, i.e., aggregating different loggings of the same title. Harzing (2013) and Belew (2005) show that GS's aggregation mechanism, though flawed, works better than that of WoS. This can be a source

of major error for an ACA, as the same citing source might be logged as two different documents, a problem which leads to an undercounting of co-citations.

Two types of errors that especially impact ACA are false-positive and false-negative citations. When document A is cited by B but not C, a false negative occurs if B is not listed in A's "cited by" list; conversely, a false positive occurs if C is listed there. de Winter, Zadpoor, and Dodou (2014) reported that 1% of GS citations are false positive, but they add that this error is not prevalent for journal articles. Rather, they note that the vast majority of false positives occur with theses or unknown document types. These researchers did not quantify the false-negative errors, but they reported that optical character recognition increases the chance of false negatives in GS.

GS, despite its vast coverage, does not offer adequate advance search features. Therefore, with the same search strategy, many irrelevant results are produced that require extensive human filtering (Giustini & Boulos, 2013). Although this problem is not as acute when performing an `author:` search (i.e., author name matching), I nevertheless spent extensive time cleaning the results for searches of popular names. In the cases of very common names, I added an initial to my search term, and in cases where an initial and last name resulted in more than 2,000 records, I used the author's first and last name as a last resort.

GS, due to arrangements in place with publishers, is not able to provide a process for bulk access to their citation information (Research Excellence Framework; 2015), which severely limits the options for using GS in many (co)citation analysis projects. The data collection process for this project was labour intensive, taking approximately 1200 hours. Altogether around 350,000 citations were retrieved. These estimates are based on following PoP's (Harzing, 2018) recommended maximum request rate, plus an average of one hour per scholar for the creation of a 'works by' dataframe, plus about three weeks (40 hours per week) for journal and author selection. Further details about the data retrieval methods used are offered in the next section.

SEARCH AND EXTRACTION OF RECORDS

In the next step, I retrieved the "cited by" records from GS and created a "cited by" dataframe for each scholar using the "works by" dataframe that had been created for each scholar in the previous step. I ran a GS query for all of the English language records in the "works by" dataframe were cited once or more in GS, and I extracted those records that cited these works. Thus, a "cited by" dataframe was created for each scholar that aggregated all of the records in GS that had cited that scholar up to that time.

As mentioned above, while the citing work could be in any language, all the cited works were limited to English language scholarship. Since the data collection process occurred over a two-year period beginning in 2015, I removed the records with publication year ≥ 2016. I, however, kept the records with no publication year.

I used several packages and Mozilla and Google Chrome add-ons to make automated queries on GS and to extract and parse data, including Zotero (Roy Rosenzweig Center for History and New Media, 2017), Sci2 (Sci2 Team, 2009), Publish or Perish (Harzing, 2018), iMacro (iOpus, 2017), a modified version of the Python package scholar.py (Kreibich, 2017), and AutoMat (HelpSystems, 2017).

As mentioned earlier, GS does not provide an API or bulk access to its data. The maximum number of results per page on GS is 20, and it has a maximum request rate, which is an empirical value (i.e., a value determined based on experiments or observations by researchers). When the number of page requests exceeds a certain amount, a CAPTCHA has to be solved, and if the number of requests exceeds the maximum limit (this includes both performing queries with many results and issuing several queries in short succession), the IP address will be blocked. In order to unblock an IP address, cookies on the internet browser must be erased. To avoid frequent, temporary blockage (having to continually erase cookies and/or solve CAPTCHAs), I used different VPN services that received GS data through over 50 different IPs. I also spread the queries over the day, used computers in different locations, and enabled remote access to them. I followed PoP's (Harzing, 2018) recommended maximum request rate, which was 15 requests per minute and 120-150 requests per hour (Adams, 2016).

CALCULATION OF CO-CITATION REFERENCES

To create an absolute frequency matrix, the "cited by" dataframes of authors i and j (i≠j) were compared and the number of common values in the two dataframes were counted. In each "cited by" dataframe, I merged the variables, "author" and "title", removed all space characters, and counted the number of exact matches between the two variables. The absolute frequency author co-citation matrix was formed by counting the number of matches between the two authors. This matrix is a 202x202 undirected network, with the main diagonal (i.e., self-tie) undefined. Initially, in order to explore the changing patterns in the network, five different networks were generated, consisting of "cited by" records up to 1979, 1989, 1999, 2009, and all records. But, since I limit the analysis and discussion to cross-sectional models, only the network that included all the records was utilized.

Knowing that there are duplicate citation records in GS (i.e., different loggings of the same document), I wrote codes to return not just common, but also similar,

values of the two vectors. A comparison of the output of the code with that of the `intersect` (i.e., exact match) function in `R` showed that, although my code caught more positive results, it was not sufficiently optimized, especially considering the extra cleaning required to catch the false-positive results. So, I used the `intersect` function to retrieve the exact matches.

CALCULATION OF SIMILARITY OR DISTANCE MEASURES

In ACA, to normalize the data, the absolute frequency matrix is converted into a relative frequency with a similarity measure. The choice of a similarity measure is a practical matter as well as a theoretical one, as the differences among measures can be quite large. Eck and Waltman (2008) studied and compared the properties of the frequently applied similarity measures to co-citation data and argued against the application of Pearson correlation as a similarity measure for most analyses. Instead, they suggested an interpretation of co-citation matrix as probability distributions and introduced a few frequently applied similarity measures for probability distributions that lead to similar interpretations. Here I chose Bhattacharyya distance for simplicity. Using the Bhattacharyya distance, the similarity between authors i and j ($B(i,j)$), where c_{ik} and c_{jk} are co-citation counts (for k≠i,j), is calculated as:

$$p_{ik} = \frac{c_{ik}}{\sum_{k' \neq i,j} c_{ik'}} \qquad \text{and} \qquad p_{jk} = \frac{c_{jk}}{\sum_{k' \neq i,j} c_{jk'}}$$

$$B(i,j) = \sum_{k \neq i,j} \sqrt{p_{ik} p_{jk}}$$

$B(i,j)$ varies between 0 and 1. It has "a value of 1 if and only if the probability distributions given by the p_{ik}'s and p_{jk}'s are identical ... [and] a value of 0 if and only if these distributions are nonoverlapping" (Eck and Waltman, 2008, p. 1656).

SCHOLARS' ATTRIBUTES

The node attributes were collected from the scholars' online profiles. Where available, I gathered information from academic CVs on institutional websites. To obtain attributes that were not available via online CVs or, in rare cases, when there was almost no information on the institutional websites, I used the following sources, which are listed by order of preference: Wikipedia, Google Video (mostly YouTube and Vimeo), obituaries, Google News, and, as a last resort, social media. For cases where the desired information was available from multiple websites, I never encountered any discrepancies in the data.

The following are the attributes that I collected: first, middle, and last names; gender; dead or alive; year of death, if applicable; year of birth; place of birth;

current or last affiliation (institution and country); previous affiliations; institutions and countries they received their degree(s) from; keywords; the region of interest; GS h-index; the number of citations received; and the year of first and last available publications.

For cases where the date or year of birth was not available, other available data was used to estimate the age of the scholars as of 2015. For example, when the first year of post-secondary education (PSE) was available, that year minus 18 formed the basis for the estimated year of birth. In total, in 69% (n=139) of cases the year of birth is exact, for 25% (n=51) the year of birth is estimated based on the first year of PSE or less accurate data (e.g., the first year of Master's degree - 22), and, finally, in 6% (n=12) of cases age is missing as there was not enough information to get a reasonable estimate of the year of birth. Using age group enhances the validity of my estimates. An alternative to age is the year of first available publication on GS, but, as discussed, the quality of publication year data in GS is not high, especially in the case of less-cited works. In the vast majority of cases, the first available publications on GS are not among the highly cited ones.

In 76% (n=153) of cases, the place of birth was available online, and for 21% (n=43) the place of birth was inferred or plausibly assumed based on available data. For example, for a scholar who was called "Palestinian" in an interview on YouTube or another who was referred to as "Turkish-American" in Wikipedia, along with a non-native English accent in an interview, the place of birth would be recorded as Palestine or Turkey, respectively. Similarly, a scholar would be inferred to be born in Israel if s/he has a Jewish-sounding name, exhibits a non-native accent in a talk available online, has many publications in Hebrew on GS, and has received all her/his post-secondary degrees in Israel. Finally, in 3% (n=6) of cases, the available information was insufficient or inconsistent to inform a plausible assumption.

The "previous affiliation" field was collected in the form of a qualitative variable. Many MES scholars, especially those who have not completed their degrees in the ME or have never been affiliated with an ME institution, tend to live in the ME for short periods of time in different capacities, for example, as visiting professors, post-doctoral students, language trainees, or research residencies. This variable, in addition to recording institutions with which scholars were previously affiliated, documents the positions as such. Although this variable was not directly used or analysed, it was beneficial for deriving the variable, "Political and Paradigmatic Tendencies" (explained below), estimating the scholar's place of birth (when exact data was not available), or recording additional idiosyncratic characterises like being a former pastor, prime minister, or political prisoner.

I used word frequency to derive the "keywords" variable. In most cases, this variable was derived from the title of the records by the target scholars in GS and

was limited to those records that received at least one citation. In cases where the number of the records by the target scholars was fewer than 20 or the results were too general and uninformative, I used the titles in the "cited by" dataframe to derive keywords. I looked at the top ten most frequent single words in addition to the top ten most frequent two- and three-word phrases and selected between two and seven keywords among them that best described the scholar's area of interest.

The region of interest was then derived using the keyword variable. In cases where the name of a single country, an area or city in a country (e.g., Istanbul), a famous figure from a country (e.g., Fathollah Gullen), or a term related to a country (e.g., intifada) was among the keywords, the region of interest was selected accordingly. In the rest of the cases, the regions of interest were recorded as the ME; this includes cases where the name of more than one country/area/figure was included in the list of keywords. Palestine, Israel, and Lebanon were exceptions because of the interwoven nature of the scholarship in these countries and were considered a single region of interest.

I calculated the GS h-index based on the "works by" dataframe of each scholar. The h-index of a scholar is the largest h such that at least h records (English or otherwise) in that targeted scholar's "works by" dataframe were cited at least h times each. Since the data collection process took place over an 18-month period, some scholars had a greater chance of accumulating citations.

There are two ways to specify the total number of citations each scholar received: the first would be to report the total number of citations in the "works by" dataframe (summing the "cite" variable), while the second would be to report the number of rows in the "cited by" dataframe. As mentioned above, the accuracy of the GS estimates for the total number of records for each query varied significantly; hence, the two numbers are rarely the same. In 50% (n=100) of the cases, the number was the same or had a disparity of 10 citations or less. The mean disparity was 38 (sd=67) and the median disparity was 11. Cases with a disparity of >100 were investigated for data collection error.

Since the validity of the publication year in GS is questionable, continuity was used to validate the first recorded publications; namely, the earliest publication of a scholar was not selected as the first publication if there was a minimum chronological gap of five years between it and the next record in the "works by" dataframes. Finally, publications with zero citations were excluded.

The variable age was calculated as the scholar's age in 2015 or their age at death if they had passed away prior to 2015.

As mentioned earlier, although Algeria, Morocco, and Tunisia are not included in the ME as defined above, the region of birth of six scholars born in these countries was marked as the ME. There were also scholars who got their degrees in Algeria, Morocco, and Tunisia who were also marked as having obtained degrees in the ME.

The "Political and Paradigmatic Tendencies" Variable

As suggested in Chapter 2, the historians of MES, regardless of their training, allegiance to different schools of thought and interpretive differences, have talked about a political and/or paradigmatic clustering in the field. Although different terms are used to describe the clustering (e.g., policy-oriented or new-orientalism vs. liberal, pro-Saidian, anti-hegemonic, or critical), the underlying idea remains the same. In an attempt to test political/paradigmatic clustering in the field, this project uses the content of the scholars' highly cited works, their appearance in media and news outlets, and their research interests to categorize them based on their interpretive differences into different political and paradigmatic tendencies.

Among the highly cited works of the selected scholars (in the "works by" dataframe), between one to three works that were helpful in identifying and charting the political and paradigmatic tendencies of individual scholars were selected, and the abstract, first paragraph, or first and last paragraphs of each were extracted. In addition, news and video search queries using the full name of the scholars were performed to find and record their possible reactions to the events in the ME. Finally, relevant notes from their bio, where available, were extracted and recorded. Using data from these sources, scholars were divided into four groups based on their political and pragmatic tendencies.

Before moving on, two methodological points should be raised. Firstly, creating the variable, "political and paradigmatic tendencies (PPT)", results in challenging "the [Mertonian] strictures on the examination of the content of scientific knowledge" (Collins, 1983, p 269). The issues of the contingent relationship between social and cognitive domains of knowledge production, and whether the sociology of scientific knowledge should be hesitant in analyzing the content, is extensively investigated in the previous chapter. Determining the PPT of scholars is more about examining the direction of scientific inquiries, and less concerned about the substantive content of scientific knowledge. Also, it is worth repeating here that the multidimensionality of knowledge production and the contingent relationship among the institutional, social and cognitive structures of scientific knowledge is embedded in co-citation analysis.

Secondly, categorizing scholars based on their paradigmatic orientation implies definite boundaries among different paradigms. However, the paradigmatic traditions, and the quality of scholarly allegiance to them, are not as clear cut as

delineated here. A qualitative analysis might find the nuanced differences between scholars in the same category to be interesting and informative. Categorizing individual scholars' political beliefs and paradigmatic thinking styles involves major reductionism, abstraction, and simplification. In addition, categorization as such, though perhaps a useful analytical tool, overlooks the possible changes in tendencies over the course of a scholar's career and intellectual journey. Although categorization and accentuating the outlines brings the main differences into sharper focus and can be used as an analytical tool to test a hypothesis, the reductionism of categorization should be addressed and reflected on (Leydesdorff, 2001). The impossibility of drawing steady boundaries among scholars based on their political and paradigmatic tendencies will become more transparent once the four categories are introduced and described.[15]

Radical Lefts

The first group is a radical left group, composed of Marxist political economists, critics of post-colonialism, neo-liberalism, imperialism, and (new) Orientalism, and those who work on Israel-Palestinian conflict with a pro-Palestinian/anti-Israeli tendency. Many disciplinary backgrounds are represented in this group, including anthropology, political science, political economy, gender studies, and sociology. Here I provide some examples of their subjects of interest.

In the area of social class analysis, scholars in this group are interested in the emergence of socio-economic classes, (along the pre-existing regional, religious and ethnic divisions), class vis-à-vis movements and revolutions in the region, and the role of "the masses" in shaping social history (A1, A4, G2). There are also critiques of imperialism, post-colonialism, neo-liberalism, and (new) Orientalism that focus on, among other topics: the hegemony of capital markets in Turkey during the age of globalization (A17, A23); civil society's response to colonial encounters in the region (B3); reconceptualising gender in the ME in neo-liberal restructurings and colonial wars (B5); democracy-promotion policies of the EU and the US in the region and the rise of the New Right in the US (G8, G1); tracing European hegemony and Western liberalism (A2, B13, and A17); "Muslim rage", terrorism, and the non-violent majority of Islamist movements (E3, A4); the influence of Western Orientalists on different aspects of life in the contemporary ME (A2); and Academic freedom after September 11 (N13). Work on the Israel-Palestine conflict from certain paradigmatic views is another crucial defining element of this group. Scholars in this group study intifada as a social movement (A16); the controversial and contradictory effects of international and political aid (B3, N3); Palestinian statehood (B4, B11, N7); Palestinian refugee camps and

[15] Of course, the *assigned* PPT (i.e., PPT claimed by others) of each scholar might be different from one's *asserted* PPT (i.e., claiming their own PTT).

alternative narratives of Palestinian memory, society, and history (B7, N4, B10, O9); Israel's exploitation of water resources (B9); Israeli censorship (B10); insider critiques of politics in Palestine (G4, N12); Palestinian coping strategies (G6); the consequences of Israel's ideology on Arab minorities (N5); the history of the occupation and Zionist nation building (N6, N9,N15, O7); and the experiences of the Palestinian-Arab minority in Israel (O6, O7).

The scholars in this group are active with regards to community outreach, media appearances, political activism, and policy development and analysis. For example, these scholars have: mediated talks between Hamas and Fatah and worked towards conflict resolution in general (N2, N14); collaborated with NGOs and policy makers working with Arab families and youth in the region (B5); worked to protect the human and civil rights of the Palestinian minority in Israel (O5); published opinion columns and essays arguing for the establishment of a Palestinian state alongside Israel (O11); been active members of the Communist Party (G2); or been members of Algerian independence study groups (G2).

Many scholars in this group are outspoken critics of American and Israeli policies, criticizing, for example, the US's backing of both Arab dictatorships and the Israeli occupation in the region (C8, E10, N1). In one case, after getting awarded a tenure track, the scholar and their university were subjected to a series of protests for the scholar's anti-Israeli point of views (E9). It is worth noting that, in many cases, these scholars are also critical of the administration of the Palestinian authority, Hamas, and Fatah, while sharing anti-occupation and pro-Palestinian politics. In addition, many of the radical group are Israeli and/or are currently affiliated with universities in Israel, who generally see current Israeli policy as a threat to Israeli democracy and Israel's ability "to remain the national home of the Jewish people" (Gavison, 2017) (O5).

Center Lefts

The most discernable and differentiating characteristics of center lefts are their work on the notion and roles of "civil society" in the ME and their critique of essentialism and polarization. As Mona El-Ghobashy (A5) says in an interview "[moving away] from thinking, 'Oh, your elections aren't free and fair, you're not a democracy,' to realizing that a majority of the world operates in these sort-of gray areas" (Schwatrz, 2009). The unpolarised evaluation and analysis of the events in the region includes, but is not limited to, subject areas such as wars, political activism, women, and religion. Beyond their academic careers, some are active critics of Middle Eastern regimes/government, mostly from an insider point of view, and some are exiled or were politically imprisoned. Also, compared to radical lefts, they are more likely to appear in the media and contribute to the public debate on the ME.

In terms of their critique of essentialist and polarising visions, they, for example, work on offering a more complex portraits of the conflicts in the region (C9), the unrigidity of political categories such as democracy, secularism and fundamentalism (A5, A21, A24, B6), the complexity and dynamic nature of Islamic thoughts, law, activism, and societies (A7, A13, A25, B12, C6, C7), (Muslim) women, patriarchy and (secular/Islamic) feminism in the contemporary ME (A8, A22, B8, F21, G9, H1, H2,H3, H4, H5), and new media in Muslim World (A25, C9). Many also work on the civil society, and its elevation and revitalization (A9, G3, F17). Also, in their critiques of Middle Eastern regimes/government, they work on topics such as inequality and neighborhood segregation (E4) or research Turkish Kurds (F17).

Some scholars with central left tendencies frequently appear on in the media and are widely interviewed on the topics related to the ME, such as ethnicity, religion, and US foreign policy (A5, B6, C6). And some of them are also active in policy world, serving positions in the White House (C6) or are active in international development organizations (G3).

It should be noted, however, that there are scholars with critical position towards Western practices in the region, who are not categorized as radical and center lefts. For example, although Stephen Walt (C1) and John Mearsheimer (C5) frequently discuss issues like the negative effect of the Israel lobby on American interests or criticize the expansion of the US military presence in the region, they are not categorized as a center or radical left because of their different theoretical foundations (see for example Mearsheimer & Walt, 2006)[16]. Also, some scholars, such as Ira Lapidus (A13), who discuss the impact of imperialism, but the anti-imperialist discourse does not seem to be driving their arguments, are categorized as center (and not radical) left (see for example Lapidus, 2002). Finally, there are scholars in this category whose works fit this definition of central left but have a critical view towards leftist activism. Valentine Moghadam (H3), for example, is critical of left's enthusiasm for the Arab Spring and opposed to any kind of Islamist movements. She explains that "it's really on the basis of my experience in Iran that

[16] See for example this quote taken from the Tony Judt's (2006) op-ed on the book *The Israel Lobby and U.S. Foreign Policy*:

> BUT above all, self-censorship is bad for the United States itself. Americans are denying themselves participation in a fast-moving international conversation. Daniel Levy (a former Israeli peace negotiator) wrote in Haaretz that the Mearsheimer-Walt essay should be a wake-up call, a reminder of the damage the Israel lobby is doing to both nations. But I would go further. I think this essay, *by two "realist" political scientists with no interest whatsoever in the Palestinians* [emphasis added], is a straw in the wind.

I have come to be totally suspicious of and opposed to any kind of Islamist movement" (Khalek, 2017).

Liberals

Liberal scholars work on a wide range of issues, such as internal politics, foreign policy, international relations, gender, economics, religion, and terrorism, but with mostly "realist" presumptions about the region. The "realist" tendency in liberals leads them to idea that a peaceful and cooperative ME, progressing towards democratic peace and a better "developed" region, is possible and/or desirable. Some scholars categorized as "liberal" in this sample, may, in some of their works, articulate critical priorities, but considering entire oeuvre, they mostly contributed to the liberal discourse.

In their works on foreign policy and international relations, they work on the need for changes in foreign policy mostly among ME countries (C3, F2, F20, I7, R1) and partnership with European/Western countries (F2, F20). They also work on internal politics and issues such as factors affecting democracy in the region (A6), political demands and representation of ethnic groups and religious groups (A6, I6), religion and secularism (O2), and the Americanization of ME societies (O8). In economics, the scholars categorized as liberals in this sample, have, for instance, studied OPEC (C2), and in gender studies they have, among other topics, worked on how infertility affects male and females (H8).

Among liberals, many are actively involved in policy-oriented research for governments and international organizations. They advise regional and Western government on issues related to the region (A6, P3), appear frequently on leading media outlets (P3), and have even served as ministers or prime-minister (C2, R1).

Conservatives

As will be more extensively discussed in Chapter 5, conservatives form a minority group within MES scholars, and the field is dominated by scholars whose political and paradigmatic tendencies are either liberal or are to the left of the political center. Only 12% (n=24) of the scholars in the sample were categorized as conservatives.

Conservative scholars, more than other groups, have ties with governments in the region and outside, to work on issues like "proliferation of militant Islam", "widespread terrorism" and "security". They, at times, advocate for Zionism and closer Western ties with certain countries in the region (e.g., Israel, Turkey and Saudi Arabia). Also, several conservative scholars promote essentializing notions of (racial/religious) identity in their works. Patai and DeAtkine (1973) (D11), in *The Arab Mind* offer a cultural-psychology of "Arabs"; a book widely criticized for the simplistic and essentialist views of "Arabs". Also, Riaz Hassan

(I3) while acknowledging the impacts of colonialism as the primary historical source of human development deficit in Muslim societies, says "most of the causes of the present predicament in which Muslim countries find themselves must be attributed to the cultural features and practices which now prevail in them" (2003, p. 142). Similarly, Elie Kedourie (F1), in his book, *Democracy and Arab Political Culture*, essentializes an image of the region by asking, why "despotism or religious fundamentalism continue to control the Middle Eastern countries" (2003).

Conservatives study, for example, the globalization of Jihad and terrorism in Europe (C10, D4), Israel national security and Israeli interests (D1, D5, F8), the causes and implications of the changes in the Israel Defense Forces (IDF) (P1), Iran as a threat to global security (D9, D10, L4, O3), the Islamization of ME societies (F15).

Timur Kuran (A12), among the most highly cited conservative scholars, has recently appeared in the media to argue that Turkey has benefited from free trade, and although new American tariffs will affect Turkey negatively, the country "should avoid taking steps that will inflame American public opinion" (Jovanovski, 2018). Kuran's thesis, in general, is that Islamic institutions are not well-suited to a dynamic capitalist economy. In his book, *The Long Divergence: How Islamic Law Held Back the Middle East* (2012), he argues that neither colonialism and geography nor incompatibility between Muslim attitude and capitalism slowed down the economic growth in the ME; but Islamic legal institutions, starting around the tenth century did.

Among conservative scholars many have frequent media presence and are engaged in policy relevant research. They, for example, have advised government on matters relating to Islamism and terrorism (C10, D8), have established conservative or right-leaning think tanks (D8, F19), and have served in military (D11).

ANALYSIS AND GRAPHICAL REPRESENTATION

Chapters 5 and 6 are focused on the analysis of the data. Chapter 5 asks who are the highly cited MES scholars and utilizes the collected attributes to describe and analyze the personal and intellectual backgrounds of these Scholars. Chapter 6 uses the co-citation data, along with the attributes, draws an intellectual map of MES and applies network analysis to explain how the scholars are connected to each other.

In the first analysis chapter, I use the `R` package `car` (Fox & Weisberg, 2019) to describe, transform and visualize univariate and bivariate data. Then, to show how each scholar's PPT is associated with their geographical connection, I used the

packages `nnet` (Venables & Ripley, 2002) and `splines` (R Core Team, 2018) to fit multinomial log-linear models. Also, to show how GS h-index is associated with institutional rankings, the year of first appearance on GS, gender and regional association I used `R` to fit a linear regression model. I also used the `effects` package (Fox & Weisberg, 2019) to create the effects displays for the models created.

In the second analysis chapter, Chapter 6, after providing general descriptions of the network, I discuss the issue of clustering: whether having the same cognitive (e.g., PPT) or social (e.g., geographical association) attributes pulls the scholars closer to each other and away from others. Here, I used the packages `statnet` (Handcock et al., 2018), `network` (Butts, 2015), and `igraph` (Csárdi et al., 2018) to visualize and analyze the network data, running algorithms such as k-cores, spinglass, walktrap, and modularity.

I then divided the network into two parts: (1) connected hubs and (2) their margins, and asked, who are the scholars located in the more connected part of the network. To answer the question, I fit binomial linear regression models.

In the final section of Chapter 6, the idea of prominence is analyzed: seeking to detect who are more visible in the co-citation network. Using the same packages mentioned above, degree, betweenness, and eigenvector centralises are explored and visualized. In order to summarize the concept of prominence in the network into a single variable, I used `R` to apply Principal Component Analysis. I then used linear regressions to evaluate the association between prominence and geographic associations, and PPTs.

CHAPTER 5: THE PERSONAL AND INTELLECTUAL BACKGROUNDS OF HIGHLY CITED MES SCHOLARS

INTRODUCTION

This first analysis chapter is focused on unfolding the sample and disclosing its diverse, yet systematically selective, characteristics. The chapter opens with a section that briefly introduces the youngest and oldest scholars and details their ages and genders. This section is followed by a discussion of the scholars' places of birth, with a focus on the unbalanced representations of countries and regions, notably how many of them are from North America, Turkey, and Israel, while very few come from the rest of the ME. The sections on institutional affiliations and degrees outline the diversity of institutions where these scholars have trained and currently work, while pointing towards the systematic absence of certain countries and regions. In these sections, I also point towards the important role the US has played in offering PhDs to these scholars; however, there I also discuss a common category of scholars who have neither obtained a degree in the US, nor are affiliated with an American university. The next section, informed by those preceding it, introduces the concept of geographical association. In this section, I explain how, in thinking about the origins, training, and work of these scholars, the data guides us towards four distinct regions— (1) outside of the ME, (2) Turkey, (3) Israel and (4) the rest of the ME.

The chapter then moves on to briefly touch upon the intellectual journeys these scholars have embarked upon. This discussion is a limited, yet intriguing, qualitatively longitudinal look into the process of becoming a highly cited scholar in MES. I divide their intellectual journeys into three common choices and provide

examples to illustrate each. This topic has considerable potential and will be expanded in my post-doctoral research.

In the final descriptive part of the chapter, I introduce two sets of variables, each containing two closely and strongly correlated variables: (1) the GS h-index and total number of citations, and (2) first year of appearance on GS and year of birth. In this section, I explain why the GS h-index and first year of appearance on GS are the preferred variables for modeling.

The chapter ends with the presentation of two regression analyses. The first analysis shows how the scholars' PPT is associated with their geographical association, first publication on GS, and gender. This analysis demonstrates a statistically significant relationship between the interaction of gender and geographical association and PPTs. The second regression analysis shows that the GS h-index is associated with institutional rankings and the year of first appearance on GS, but not with gender or regional association.

AGE & GENDER

The majority (73.2%, n=147) of sampled MES scholars are male, with an average age of 63 as of 2015. The distribution of birth years is very close to symmetric, with no obvious outliers. The distributions of age among male and female scholars are very similar, with males having a slightly wider range; years of birth range from 1928 to 1978 for females and from 1920 to 1988 for males (**Table 3** & **Figure 2**).

Table 3: The numerical summaries of year of birth; total and by gender.

Statistic	Total	Females	Males
Mean	1952	1954	1952
Standard Deviation	13	12	13
Minimum	1920	1928	1920
25th Percentile	1944	1945.5	1942.5
Median	1953	1954	1953
75th Percentile	1962	1962	1961.5
Maximum	1988	1978	1988
Missing	5.9% (n=12)	7.3% (n=4)	5.4% (n=8)

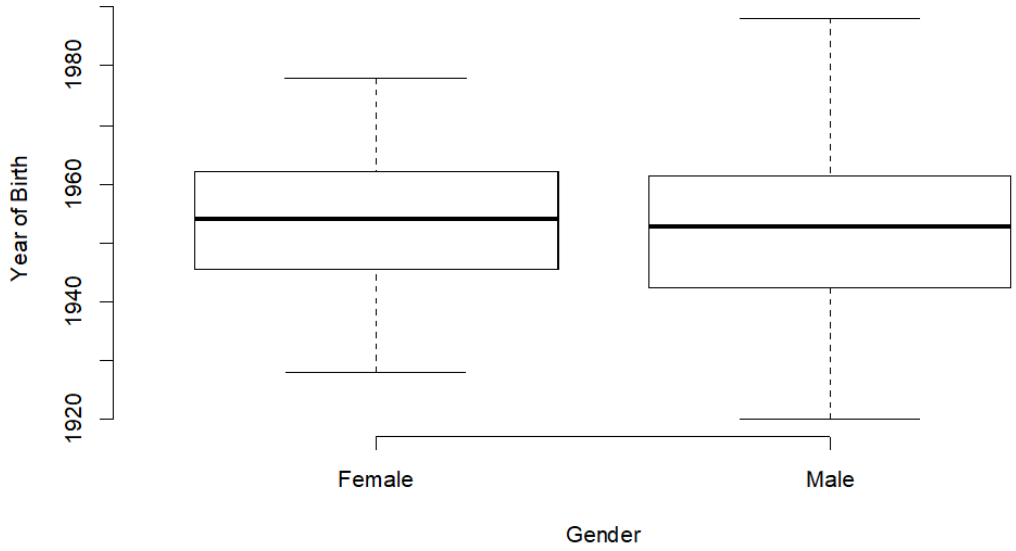


Figure 2: The year of birth boxplots, grouped by gender

Among the "oldest" scholars are Jahangir Amuzegar (C2) and Fauzi Najjar (G7), both of whom are deceased. Amuzegar, as an economist, was an established figure in both the academic and the political/administrative realms. He was born in Iran in 1920 and obtained his undergraduate degree from the University of Tehran and his PhD from the University of California-Los Angeles. He served as Iran's Minister of Commerce and Minister of Finance in the 1960s, and was an executive director of the International Monetary Fund. His brother, Jamshid Amuzegar, was the Prime Minister of Iran in the 1970s (Tavakoli-Targhi & Mehran, 2015). His most highly cited publication, *Iran's Economy under the Islamic Republic*, details the difficulties of managing a complex and rapidly changing oil-based economy, "attempting to combine Islamic orthodoxy with the exigencies of the dominant international system of global free enterprise" (Amuzegar, 1997, p. 424).

Fauzi Najjar, among the largely academic figures in the sample, was born in 1920 in Lebanon and was partly educated in the region, obtaining his BA in political science from the American University of Beirut. He then did his master's and PhD at the University of Chicago. He was a retired distinguished professor at Michigan State University, and during his career he worked on subjects such as Islamic fundamentalism and Islamic political philosophy, among others (Lansing State Journal, 2015). Among his most influential works is the paper "The Arabs, Islam and Globalization," in which he discusses "the cultural implications of globalization

for Islam as viewed by Muslims, in particular the Islamists, who express the greater suspicion of this development and, instead, seek to promote an Islamic 'universalism', that, in their view, is superior to any cultural paradigm imposed by the Christian West" (Najjar, 2005, 92). Amuzegar and Najjar's h indices are 10 and 20, respectively, while the average h-index is around 17.

Among the youngest MES scholars are Michael Hoffman (V1), Svante Cornell (F19), and Mona El Ghobashy (A5). Michael Hoffman is one of the few social scientists in the sample who utilizes quantitative methods in his research. He was born in the US where he was also educated and currently works. He received his degrees from the University of Notre Dame and Princeton University, and he is an Assistant Professor of Political Science at the University of Notre Dame. Hoffman's areas of interest include religious practices and politics and attitudes towards democracy in the region. He was under 30 years old in the year 2015 (estimated) (Hoffman, 2017). In his most recent work, "The Youth and the Arab Spring: Cohort Differences and Similarities," the first wave of the Arab Barometer Survey is used to show the patterns of political attitudes and behaviours across cohorts (Hoffman & Jamal, 2012).

Svante Cornell's research is primarily policy-oriented. He was born in 1975 in Sweden, and he received his BA in International Relations from Middle East Technical University in Ankara and his Ph.D. from Uppsala University in Sweden. He is the co-founder and head of a Stockholm-based think tank, the Institute for Security and Development Policy, which takes the Caucasus and northern tier of the Middle East as a major geographic area of focus. While his main geographic area of interest goes beyond the ME, his interests inside the region mostly center on Turkey. He is among the most cited scholars in the sample, with an h-index of 33, which falls at the 95% percentile (Svante, 2017).

Finally, Mona El Ghobashy was born in Cairo but raised in New York City from the age of 8. She obtained all of her degrees from Columbia University and is an Assistant Professor of Political Science at Barnard College-Columbia University (Schwatrz, 2009). Her work on the organizational changes in Ikhwan, "The Metamorphosis of the Egyptian Muslim Brothers" (El-Ghobashy, 2005), was published in 2005 and had received 157 citations by 2015, which made her one of the highly cited scholars in the International Journal of Middle East Studies. However, her h-index was 6, which was among the lowest in the sample.

As of 2015, eleven scholars (5%) in the sample had passed away, and I am aware of two who have passed away since (Şerif Mardin (A24) and Jahangir Amuzegar (C2)) (see Appendix E). Among the deceased are Edward E. Azar (N14) who is one of the academic scholars in the sample who extended his career beyond academia. He was a Lebanese-American scholar last affiliated with the University of Maryland

and died of cancer in 1991 at the age of 53. Azar was a leading figure in the field of conflict resolution and worked with major institutional entities to launch diplomatic initiatives in the region (The New York Times, 1991). In his article, "The Conflict and Peace Data Bank (COPDAB) Project," he explains how his team has used research to try to advance theories and improve skills relating to the observation and analysis of "the events which lead to war, instability, and international tension as well as about events which lead to equitable interdependence, integration, peace, improvement of quality of life, reduction of colonialism, and so on" (Azar, 1980, p. 143).

Graham Usher (N7), a journalist, died in New York in 2013 at the age of 54 and is one of the four scholars who did not obtain a PhD. He obtained his undergraduate degree from Sussex University, and he was the first Palestine correspondent for the Economist. According to a blog post on the Economist's website (The Economist, 2013), he was at first skeptical about whether he could fit in with the Economist's style and views, especially since his "father had been a union-activist printer, and Graham had held militantly left-wing views ... In the early 1990s he moved to Gaza to teach English. From there he started writing for a specialist magazine, Middle East International, and, soon after that, for The Economist too".

For a complete list of scholars who have passed away see Attachment E.

PLACE OF BIRTH

Most scholars (58%, n=117) were born in the ME: 20% (n=40) in Turkey; 8% (n=16) in Israel; 30% (n=61) in the rest of the ME; and 40.0% (n=78) outside of the region. The 78 scholars who were not born in the region are mostly North American (60%, n=47) and European countries (36%, n=28). The USA (n=46), Turkey (n=40), Iran (n=17), Israel (n=16), Palestine (n=9), Egypt (n=9), and the UK (n=7) together constitute the top countries of origin (n=144, 71%). As the following map displays (Figure 3), although the sample represents 33 countries, some of the Arab countries in the region have far fewer representatives in the sample. There are, for example, very few scholars born in Syria (n=2), Iraq (n=5), and Saudi Arabia (n=1).

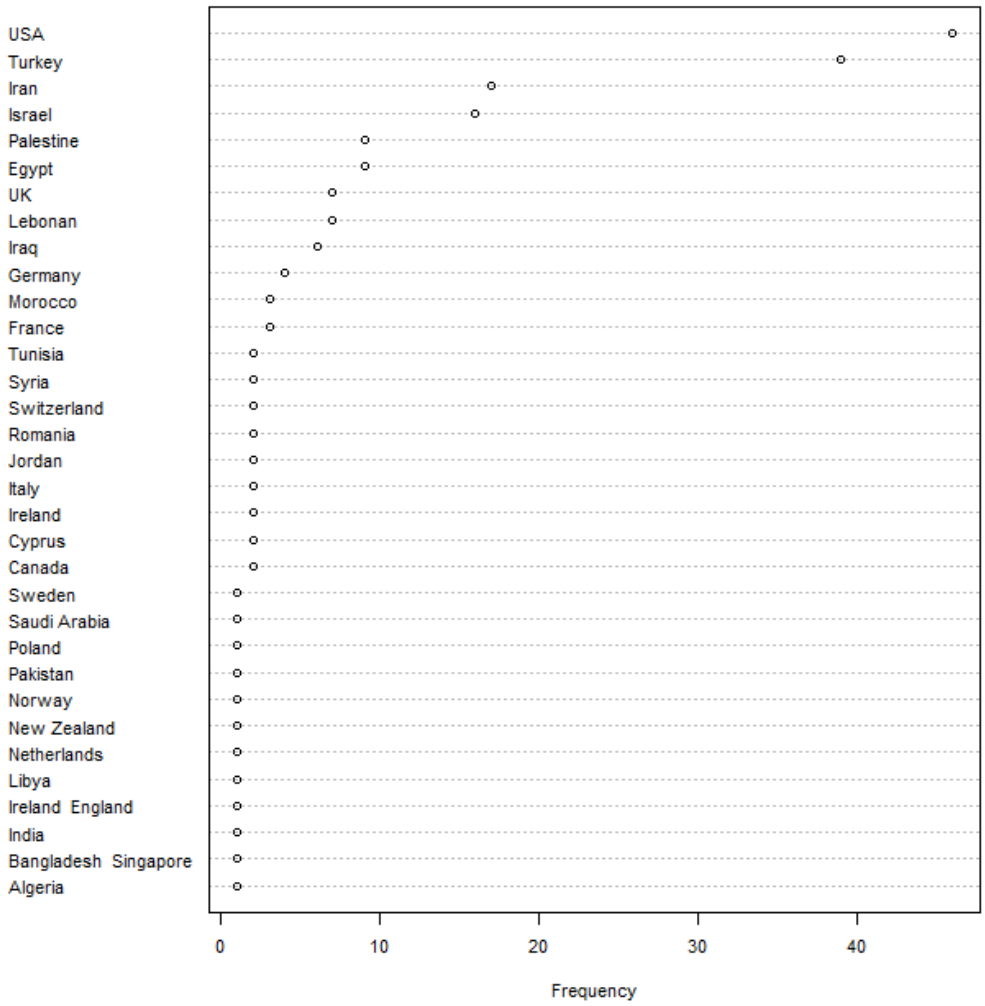


Figure 3: Dotchart of the countries of birth (there are two scholars with uncertain place of birth, i.e., "Ireland/England" & "Bangladesh/Singapore".

INSTITUTIONAL AFFILIATIONS

As the following map illustrates, in terms of institutional affiliations, the scholars in the sample represent 143 different institutions in 27 countries. The USA (41%, n=83), Turkey (19%, n=39), Israel (11%, n=22), and the UK (5%, n=11) are the top four countries where the scholars work, representing 76% of the sample. It is worth noting that the scholars who are affiliated with institutions in Turkey, and those who were born in that country, entered the field later than their counterparts. On average, the scholars working in Turkey are 5.2 years younger than their counterparts in the US, 6.7 younger than the ones in Israel, and 11 years younger than the scholars in the UK ($F=2.897$, $df=4,185$, $p<0.05$).

In total, there are 47 institutions in the ME that have representatives in the sample. However, most of these institutions are represented by only one scholar each (64%, n=30), while certain cases, including Sabancı University (n=6) and Boğaziçi University (n=6) in Turkey or Bar-Ilan University (n=6) and Ben-Gurion University of the Negev (n=5) in Israel, are each represented by five or six scholars. Also, Columbia University (n=5) and University of California-Los Angeles (n=3) are the universities outside of the region represented by three or more scholars (Figure 4).

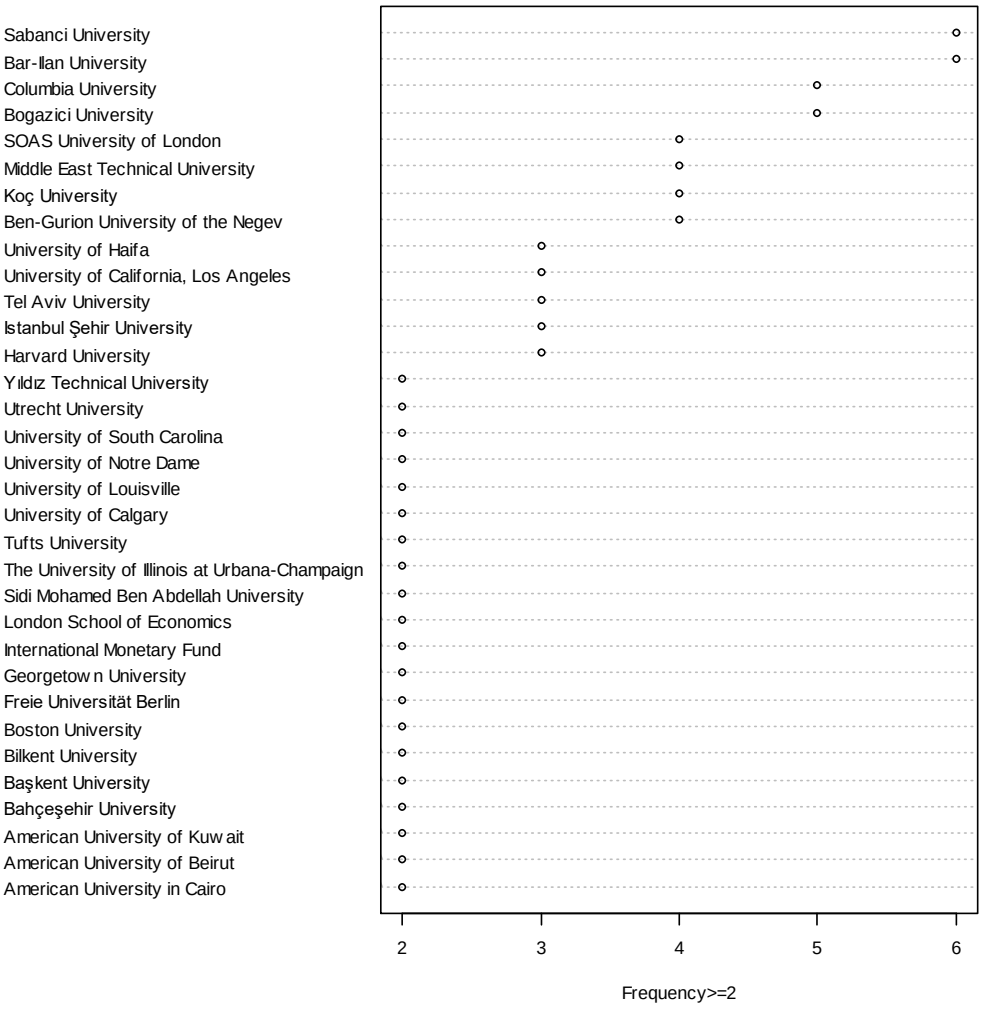


Figure 4: Dotchart of institutions that have two representatives or more in the sample.

Among the available university ranking systems, I selected the 2018 Times Higher Education (THE) World University Rankings in order to record the ranking of the sampled scholars' institutions in 2015. Universities in this ranking system are

evaluated across teaching, research, international outlook, and reputation. In 18% (n=36) of cases, a scholar's academic institution was not included in the THE ranking system, while 11% (n=23) of scholars were not affiliated with academic institutions. In addition, institutions with ranks ≥ 200 in the THE system are placed within a range; in these cases, the mid-ranges are taken as the rank. For the 143 cases for which rankings were available, the data is skewed to the right and is multi-modal, due to higher density value around the mid-ranges, with a mean of 315 (sd=269) and median of 276 (**Table 4** & **Figure 5**). As seen in the following density plots, a log transformation allows the distribution to approach symmetry. When the institutional affiliation ranking is used as an ordered factor, it is recoded into four groups (1-50, 51-100, 101-1000, and 1000+), with the non-academic and not-included institutions ranked as 1000+. The frequency distribution of the factored variable is presented in

Table 5, and as shown, nearly half of the scholars fall into the 100-1000 category.

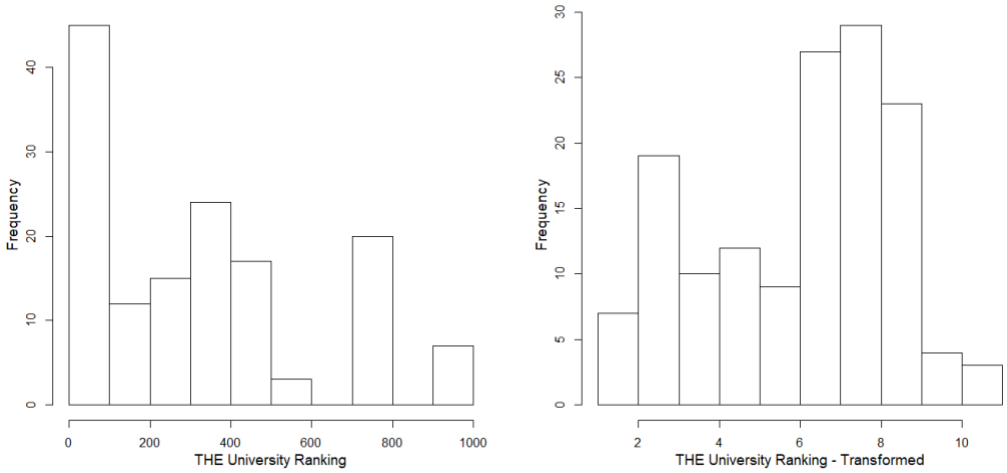


Figure 5: Histograms for THE university ranking – Original and cube-root-transformed variables – note that the original variable has discrete binned values for rankings over 200.

Table 4: The numerical summary of THE university ranking.

Statistic	
Mean	315
Standard Deviation	269
Minimum	1
25th Percentile	65.5
Median	275.5
75th Percentile	450.5
Maximum	1000
Missing	33% (n=66)

Table 5: The frequency distribution of THE university rankings as an ordered factor.

Ranking	Percentage
1-50	16
51-100	6
101-1000	47
1000>	31
Total	100
Count	202

Most institutions ranked 100 or lower are American (75%, n=34), with only one such institution residing in the ME—Northwestern University's international campus in Doha, Qatar.

DEGREES

The scholars in the sample obtained their undergraduate and graduate degrees from over 220 different universities. In most cases, the name of each university appears three times or less. However, the following universities appear 10 times or more: in the U.S., the University of Chicago, Harvard University, Columbia University, Princeton University, the University of California-Berkeley, and the University of California-Los Angeles; in Turkey, Middle East Technical University and Bogaziçi University; in Israel, Hebrew University of Jerusalem and Tel Aviv University; and, finally, in the UK, Oxford University.

The proportion of missing observations is 5% (n=11) for the institutions where the undergraduate degrees were obtained and 26% (n=52) for the institutions where the master's degrees were obtained. The high proportion of missing observations for the master's degrees is partly explained by scholars having obtained their PhDs directly after completing their bachelor's degrees. Lastly, except for four scholars who do not have a PhD, the variables related to PhDs contain no missing observations.

Although scholars in the sample obtained their degrees from 29 unique countries, the significant role of the US, and the negligible role of ME countries (other than Turkey and Israel), is clear. The USA alone accounts for about half of all the degrees obtained by the scholars (47%, n=259), with the UK (15%, n=79), Turkey (12%, n=64), and Israel (8%, n=41) rounding out the top countries in which the MES scholars in the sample obtained their degrees; the rest of the countries account for only 19% of the degrees obtained (n=103). The US played a more significant role in training scholars for their PhDs. 36% (n=69) of the sample obtained their undergraduate degree in the US, as opposed to 50% (n=78) of master's degrees and 55% (n=112) of PhDs. It is also important to note that, although American universities played an important part in training these scholars, a sizable minority

are not American educated. 39% (n=79) of scholars did not obtain any of their degrees in the US, and 71 out of these 79 scholars were neither born in the US, nor are currently affiliated with an American institution. This point will be discussed in greater detail in the section on intellectual journeys.

Other than some Turkish and Israeli institutions, ME universities played a negligible role in training the scholars, a role which is even less pronounced when the American University in Cairo and the American University of Beirut are excluded. Less than 10% (8%, n=45) of the degrees were obtained from ME countries other than Israel and Turkey. Bachelor's and master's degrees were obtained from Egypt (n=15) (mostly the American University in Cairo), Lebanon (n=10) (mostly the American University of Beirut), Iran (n=9), Iraq (n=2), Jordan (n=2), Morocco (n=2), Syria (n=2), Algeria (n=1), and Libya (n=1). The only scholar who received a PhD from an ME country other than Turkey or Israel is Paul Amar (H9), who had a different career path, compared to a typical scholar in the sample. Before beginning his academic career and joining the University of California-Santa Barbara, he was "a journalist in Cairo, a police reformer and sexuality rights activist in Rio de Janeiro and a conflict-resolution and economic development specialist at the United Nations" (Paul Amar, 2016).

GEOGRAPHICAL (REGIONAL) ASSOCIATIONS (GAs)

As the data in the previous sections suggests, scholars who were born, educated, or employed in Turkey and Israel may follow a different pattern than those from the rest of the region. For the rest of this chapter and the next, I will, in most cases, split the location data into four geographic areas: (1) outside of the ME, (2) Turkey, (3) Israel, and (4) the rest of the ME.

In order to do so, I have created four variables designed to capture the percentage of association with the four geographic regions above. That is, geographical association, for each scholar, is described using four different numbers: (1) the percentage of association to countries outside of the ME, (2) the percentage of association to Turkey, (3) the percentage of association to Israel, and (4) the percentage of association to the rest of the ME. These variables were created based on the following inputs: (1) place of birth, (2-4) country or countries in which bachelor's/master's/PhD was obtained, and (5) country of institutional affiliation as of 2015. The following two examples will illustrate how these percentages are calculated. Malik Mufti (E13), who teaches political science at Tufts University (US), was born in Turkey, received a BA from Middlebury College (US), an MA from Yale University, and another MA and PhD from Harvard University. Out of five inputs, one (place of birth) is Turkey, and the other four (the country where the three degrees are obtained and the country of current institutional affiliation) is the US. Therefore, Malik Mufti's percentages of association are as follows: inside-

Turkey, inside-Israel, inside-rest of the ME, and outside of the ME percentages are 20% ($\frac{1}{5}$), 0% ($\frac{0}{5}$), 0% ($\frac{0}{5}$), and 80% ($\frac{4}{5}$)respectively, which yields a sum of 100%. Azzedine Layachi (K2) was born in Algeria (rest of the ME), received his undergraduate degree from the University of Algiers (Algeria) (rest of the ME), his master's and PhD from New York University (outside of the ME), and is currently affiliated with St. John's University (US) (outside of the ME). His inside-Turkey, inside-Israel, inside-rest of the ME, and outside of the ME percentages are 0% ($\frac{0}{5}$), 0% ($\frac{0}{5}$), 40% ($\frac{2}{5}$), and 60% ($\frac{3}{5}$), which, again, produces a sum of 100%.

In other words, the inside-outside variables are four ratio variables that have the same denominator, and each variable specifies the proportion of association with one of the four regions. The denominator reflects the number of valid cases in the five variables and the numerator denotes the number of true cases (i.e., whether the event happened in the selected geographic area). In the event that one or more of these five variables is missing, the percentages are calculated using the available data. Ahmet Yildiz (I6) is a case in point. He was born in Turkey, received his PhD from Ankara University, Turkey, and was affiliated with Türkiye Büyük Millet Meclisi, Turkey in 2015. But, the country in which he obtained his bachelor's, and possibly master's, degree is missing. Considering the available data, $\frac{3}{3}$ of his life events happened in Turkey, so his inside-Turkey, inside-Israel, inside-rest of the ME, and outside of the ME percentages are 100% ($\frac{3}{3}$), 0% ($\frac{0}{3}$), 0% ($\frac{0}{3}$), and 0% ($\frac{0}{3}$), producing a sum of 100%.

The created variables compute the percentage of association with Turkey, Israel, the rest of the ME, and outside of the region. These four variables constitute a set of percentages that sum to 100. As Figure 6 & Table 6 shows, three of these four variables are zero inflated: the median of GAs to Israel, Turkey, and the rest of the ME is 0%, while the median of the GA to outside of the ME is 67%. The dotplots below illustrate the dispersion or zero inflation of the four variables.

Table 6: The numerical summaries of the % of GAs.

Statistic	Israel	Turkey	Rest of the ME	Outside of the ME
Mean	9%	15%	14%	63%
Standard Deviation	23%	15%	22%	33%
Minimum	0%	0%	0%	0%
025th Percentile	0%	0%	0%	25%
Median	0%	0%	0%	67%
75th Percentile	0%	0%	20%	100%
Maximum	100%	100%	80%	100%
Missing	0	0	0	0

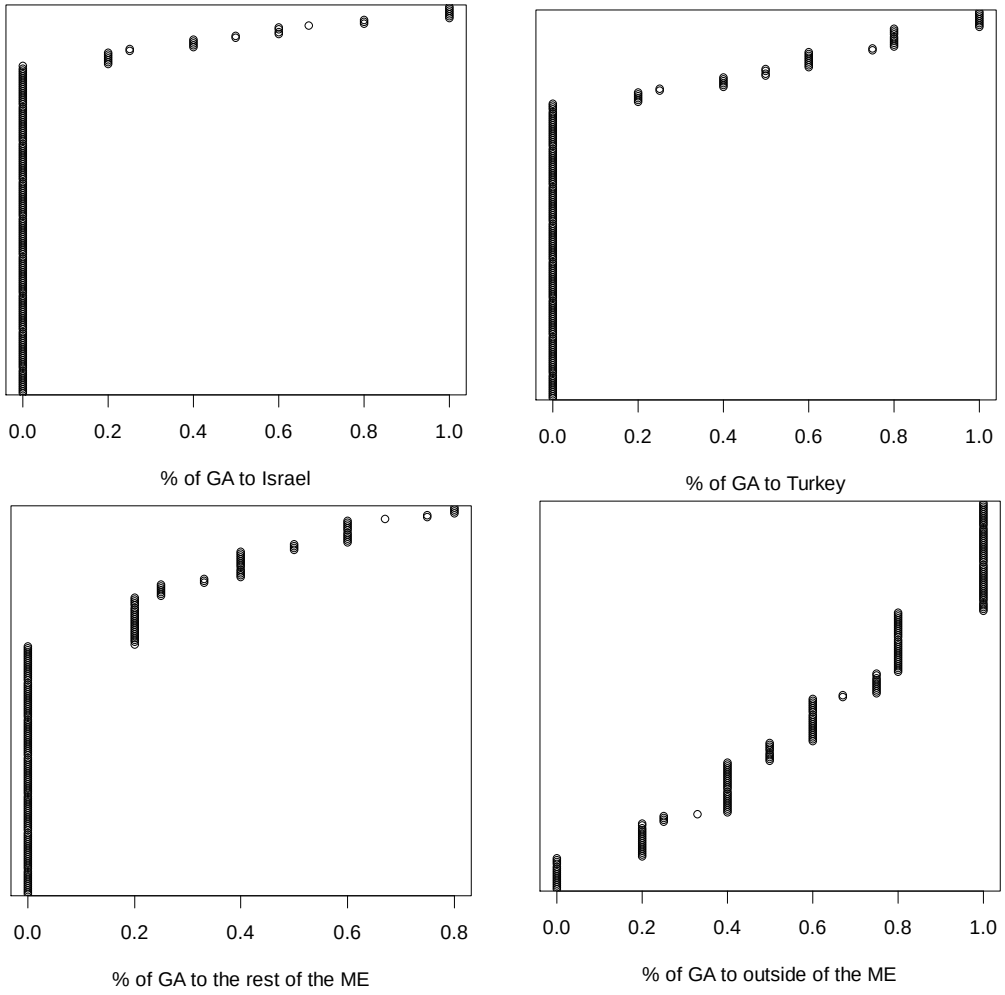


Figure 6: Dotcharts of the % of GAs. Note that the maximum value for the % of GA to the rest of the ME is 80%. The dots are stacked, with each dot representing one scholar.

FIRST PUBLICATION AND CITATIONS

50% of the scholars in the sample published their first work (as recorded in GS) before 1984, with 25% before 1974. It should be noted that Said's *Orientalism*, a landmark in the history of the field, was first published in 1978. The distribution of the year of first appearance on GS is bimodal; the dichotomous variable, "insider-born" (excluding Israel), explains the bimodal characteristic of the distribution (see

Table 7 & Figure 7).

Nikkie Keddie (A11) has been active player in the field for over 50 years. Her PhD dissertation, *The Impact of the West on Iranian Social History*, published in 1955, is chronologically the first record by her that appears on GS. Keddie is one of the most productive scholars in the sample, with a GS h-index of 37. She is one of the first women in the field and in her interview with Gallagher and Farzaneh Milani, she talks about her involvement in a "struggle to open the undergraduate library in Harvard, the Lamont Library, to women" (Gallagher, 1994b, p. 131). Keddie's main area of interest is Iran, but she has no ties to Iran, which according to herself, "everybody seems to think is very peculiar" (Gallagher, 1994b, p. 133). She opens her highly cited work, *Modern Iran: Roots and Results of Revolution* (Keddie & Yann, 2006), observing that the 1979 revolution and its aftermath did not fit the expectations of well-informed scholars and analysts. She goes over the recent history of modern Iran and describes the economic, social and political outcomes of the revolution, trying to explain how the revolution happened. She goes on to review ~~the~~ recent developments since 2003, foreign policy and the Iran-US relationship.

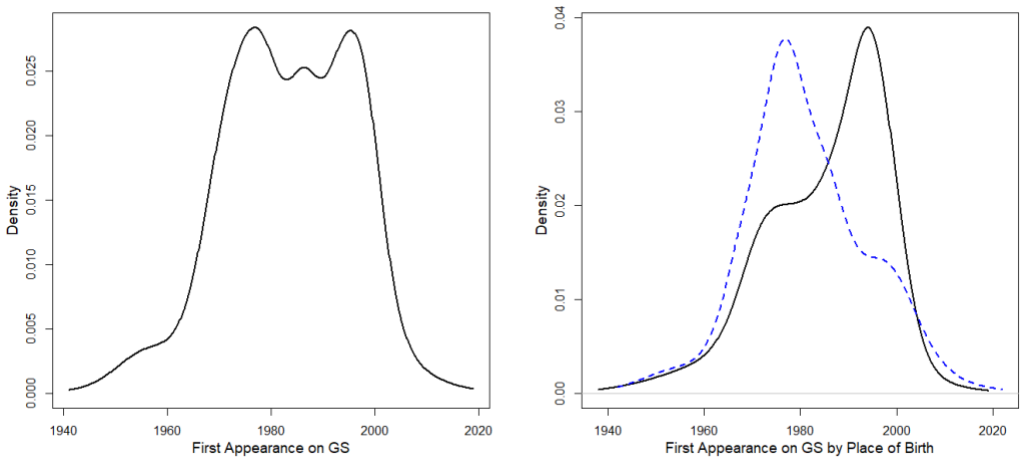


Figure 7: Density plots for the first appearance on GS –kernel density estimates. In the plot on the right, the dashed line represents the scholars born outside of the ME or in Israel, and the solid line represents scholars born in the ME (including Turkey) – all density plots are created using the `car` package (Fox & Weisberg, 2019).

Table 7: The numerical summary of the first appearance on GS.

Statistic	
Mean	1983
Standard Deviation	13
Minimum	1950

25th Percentile	1974
Median	1984
75th Percentile	1993.75
Maximum	2010
Missing	0% (n=0)

The distribution of the total number of citations is extremely skewed to the right, with several outliers, an average of 1647 and median of 1069.5. A log-transformation makes the distribution more symmetric, and the log-transformed variable is negatively correlated with the year of first published scholarly document (r=-0.46), but the relationship is slightly nonlinear (**Figure 8, Figure 9** & **Table 8**).

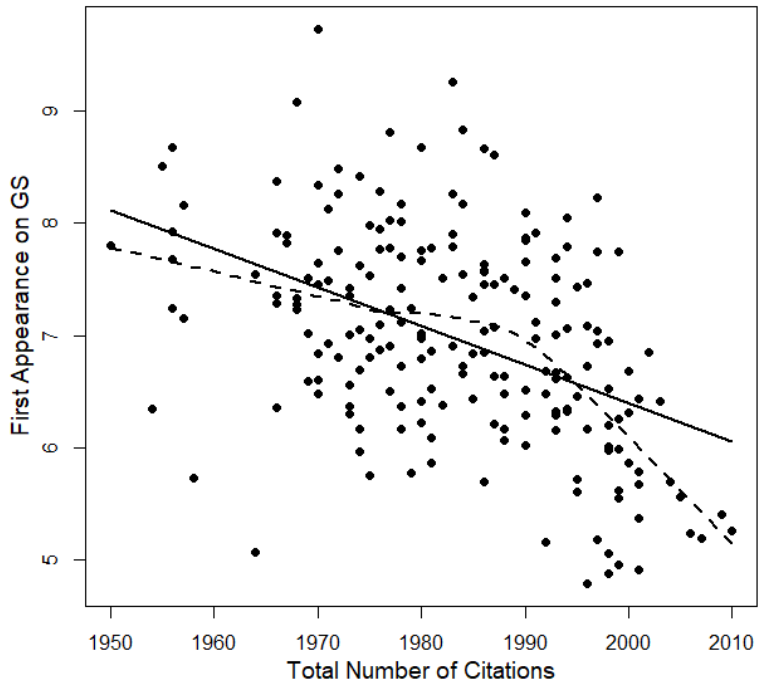


Figure 8: Scatterplot of Total Citations-1st Appearance - the least-squares (solid) and LOESS (dashed) lines.

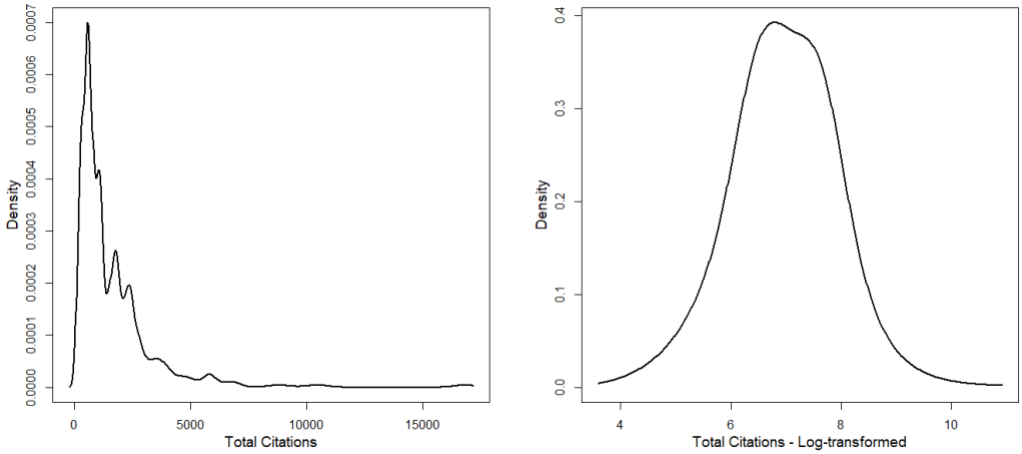


Figure 9: Density plots for the total number of citations –kernel density estimates. Original and transformed.

Table 8: Numerical summary of the number of citations.

Statistic	Total
Mean	1647
Standard Deviation	1881
Minimum	120
25th Percentile	567.5
Median	1069.5
75th Percentile	2100.75
Maximum	16842
Missing	0% (n=0)

The distribution of the GS h-index has a slight skew to the right, ranging between 4 and 45, with four outliers in the direction of the skew. The median is 16, which means that 50% of the scholars had published at least 16 scholarly documents as of 2015, with each having been cited at least 16 times (**Figure 10** & **Table 9**). A cube-root transformation approximately normalizes the distribution. This variable, too, is negatively correlated with the year of first appearance on GS (r=-0.41).

The cube root of the GS h-index and the log-transformed total number of citations are sufficiently correlated to be used interchangeably; this is also the case for the *year of birth* and *year of first publication* variables (**Figure 11** and

Table 10). In this chapter and the next, I use the GS h-index rather than the total number of citations because it is a more stable indicator of productivity and impact. In addition, I use the variable *first publication*, instead of *year of birth*, as *first publication* is complete, while *year of birth* is missing 6% (n=12) of the data

points. Furthermore, in consideration of the important turns in the dynamics of MES—historical events such as the Cold War, the publication of *Orientalism*, and 9/11, as reviewed in Chapter 2—the year of each scholar's entry into the field is meaningful and uncovers key contextual points.

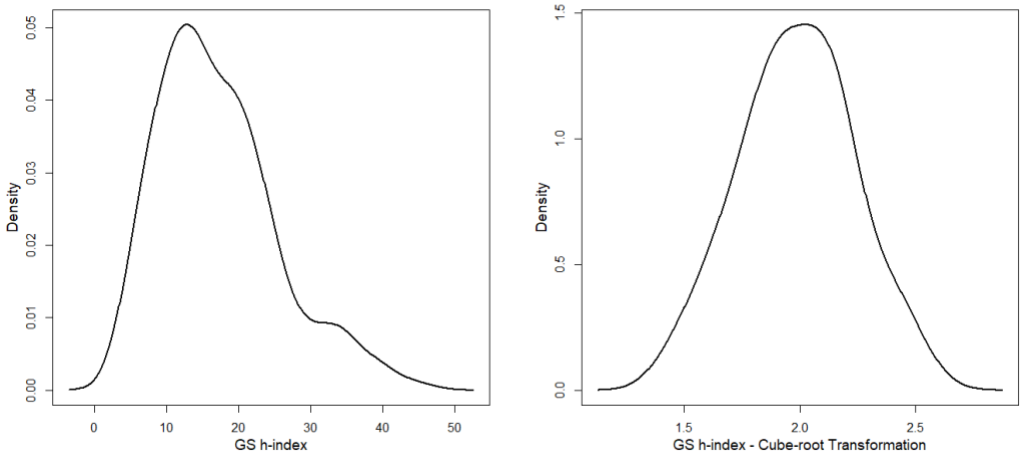


Figure 10: Density plots for the GS h-index –kernel density estimates. Original and transformed.

Table 9: The numerical summary of the GS h-index.

Statistic	
Mean	17
Standard Deviation	8
Minimum	4
25th Percentile	11
Median	16
75th Percentile	21.75
Maximum	45
Missing	0% (n=0)

Table 10: The correlation matrix (year of birth and total citations are transformed).

	Y of birth	**1st appearance**	**GS h-index**	**Total citations**
Y of birth	1.00	0.92	-0.27	-0.30
1st appearance on GS	0.92	1.00	-0.40	-0.45
GS h-index	-0.27	-0.40	1.00	0.91
Total number of citations	-0.30	-0.45	0.91	1.00

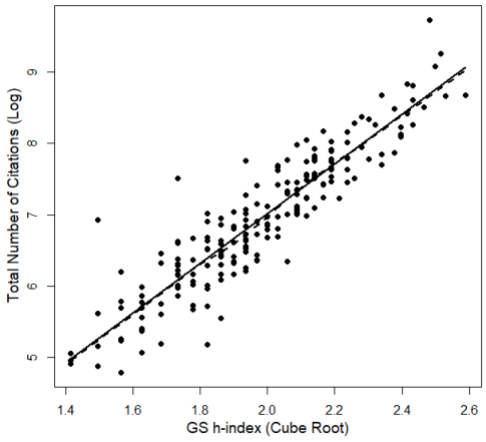


Figure 11: Scatterplots of Year of Birth - 1st Appearance & the GS h-index-Total Citations – the least-squares (solid) and LOESS (dashed) lines (the lines almost completely overlap in the graph on the right).

Among the scholars with the highest GS h-index is Ziya Öniş (F10), who, while working in the region, is consistently in connection with outside institutions. Born in Istanbul in 1957, he obtained his degrees in England (London School of Economics and University of Manchester) and is now a Professor of International Relations at Koç University, Istanbul. Among other teaching and research positions, he has been a consultant to the Organisation for Economic Co-operation and Development (OECD) and the World Bank, as well as a Visiting Fulbright Fellow at Princeton University (Ziya Onis, 2018). Öniş's (2009) highly cited paper, "Between Europeanization and Euro-Asianism: Foreign Policy Activism in Turkey during the AKP Era", divides post-Cold-War Turkish foreign policy into three phases and discusses its emphasis on Europeanization, the tension between Europeanization and Euro-Asianism, and the shift between a commitment to deep and loose Europeanization.

THE INTELLECTUAL JOURNEY[17]

The scholars in the sample have distinctly different personal backgrounds and scholarly journeys, in terms of their origins, education, and work. Some stayed in the same region or country to study and work, some left their place of birth to study and then stayed to work, while others came back to their country of birth after studying abroad. The concept of geographical association does not capture

[17] To retrieve information on the intellectual journeys I used the same data as for node attribute (as explained in Chapter 4). The sources of information, by order of preference, include Wikipedia, Google Video (mostly YouTube and Vimeo), obituaries, Google News, and social media.

the direction of movements in and out of the region to study and work, directions that can affect, and be affected by, the political and paradigmatic tendencies of scholars. Dividing the countries into ME and non-ME (categorizing Israel, Turkey, and the rest of the ME together), the most common three categories, roughly equally split, are: (1) born, studied, and worked outside of the region (all-non-ME; 28%, n=57); (2) born in the region and ended up outside the region (ME-to-non-ME; 26%, n=52); and (3), born in the region, left to study and/or work, and ended up back to the region (ME-to-ME; 24%, n=49).

Based solely on the place of birth, degrees, and institutional affiliation as of 2015, Joel Beinin (B1), a professor of Middle East History at Stanford University, is an all-non-ME scholar, but he has had many formal and informal connections to the region. He was born in the USA in 1948 and grew up as a Zionist in a Jewish family. He received his undergraduate degree in Arabic from Princeton. Then, intending to permanently move to Israel, he joined Kibbutz Lahav in southern Israel, but gradually became critical of his early Zionist ideals and returned to the US in the early 1970s. He then studied Middle East Studies, Library Science, and History, receiving his master's and PhD from Harvard University and the University of Michigan, respectively. Between 1965 and 2008, he spent over ten years in Israel and Egypt in different capacities, including as the Director of Middle East Studies and Professor of History at the American University in Cairo (Joel Beinin, 2016). In his research and writing, Beinin has focused on workers and minorities in the modern Middle East, and on Israel, Palestine, and the Arab-Israeli conflict. He is categorized as being a radical leftist in terms of his political and paradigmatic tendencies, and his GS h-index in 22 (mean h-index=17). Although he is categorized as an all-non-ME scholar, his background includes many formal and informal associations with the region.

John J. Mearsheimer (C5), known for his theory of offensive realism, is another all-non-ME scholar. In Mearsheimer’s biographical and intellectual profile online, there is no indication of formal connections to the region. He was born in 1947 in New York, attended the United States Military Academy at West Point, served in the U.S. Air Force, and earned his master's and PhD degrees in International Relations from the University of Southern California and Cornell University, respectively. He then worked as a research and post-doctoral fellow at the Brookings Institution in Washington, D.C., Harvard University, and the Council on Foreign Relations in New York before joining the Department of Political Science at the University of Chicago in 1982. He is among the most highly cited scholars in the sample, with over 16,000 citations and an h-index of 38. He was selected as one of the highly cited scholars in the Middle East Policy journal for his paper on the Israel lobby and US foreign policy. His geographic area of interest goes beyond

the Middle East and includes subjects such as China's economic growth and Europe after the Cold War (Mearsheimer, 2017).

Edmund Ghareeb (C9) is an example of an ME-to-non-ME scholar. Although there is no Arabic publication by him on GS, his frequent co-author, the Iraqi scholar and his father-in-law, Majid Khadduri, is widely published in Arabic. Ghareeb was born in Lebanon, obtained his degrees from the American International College and Georgetown University, and has been affiliated with American University in Washington. He is a regular commentator on issues related to Iraq, ethnicity (mostly Kurdish), and religion in the ME on outlets such as BBC, Al Jazeera, and France 24. He has worked on a wide range of issues, such as the situation of Kurds in Iraq, the Gulf War, and new media in the Arab world (Edmund Ghareeb, 2018).

Salim Tamari (B11) is among the 49 scholars who left the region but went back (ME-to-ME). He was born in 1945 in Jaffa, Palestine, went to Birzeit College in the West Bank, and then moved to the US to obtain his BA in Politics from Drew University in New Jersey and his MA and PhD in Sociology from the University of New Hampshire and the University of Manchester, respectively. Tamari is a Senior Fellow at, and the former director of, the Institute for Palestine Studies (IPS) and Professor Emeritus of Sociology at Birzeit University. He has also been a visiting fellow at several universities in the US, and an adjunct professor at Georgetown University. IPS has two offices—one in Ramallah (Institute for Jerusalem Studies) and another in Washington, DC—and publishes the *Journal of Palestine Studies*. Tamari's areas of interest are urban culture, political sociology, and the social history of the Eastern Mediterranean, mostly as it relates to Palestinians and Israelis (Salim Tamari, 2018). It is common for scholars like Tamari, who go back to the region but become highly cited scholars in the field, to be in constant connection with universities and institutions outside of the region.

Ali A. Saeidi (L9) is another ME-to-ME scholar, who has had a limited contribution to the English language literature on the ME, since he came back to the ME. He was born in Iran and obtained his bachelor's and master's degrees from the University of Tehran and his PhD from London University. He has been affiliated with the University of Tehran for over ten years. Chronologically, his first appearance on GS is for his PhD dissertation, submitted in 1999. Between 2001 and 2005 there are seven records by him, including a few highly cited records. His article "The Accountability of Para-governmental Organizations (bonyads): The Case of Iranian Foundations", published in 2004, has made him one of the most highly cited scholars in the journal *Iranian Studies*. Between 2005 and 2014, he has published four papers in English, all with 0 or 1 citations; since then, although he has been actively publishing in Farsi, he has not had any English records on GS (as of 20 October 2018).

Excluding Turkey and Israel, ME-born scholars who stay in the region to study and work (all-ME) usually do not produce influential scholarship about the contemporary ME in English. Scholars who were born, educated, and employed in the region (excluding Turkey and Israel) are virtually non-existent in this sample. There are 9 (5%) Turkish and 7 (4%) Israeli all-ME scholars; those who were born in these two countries obtained all their degrees there and were affiliated with Turkish or Israeli institutions as of 2015. Except for Fulya Atacan (M13), they are all male and, and in the case of Turkey, considerably younger than the average (the average year of birth for the sample is 1952.4, as opposed to 1964.6 for those 9 Turkish scholars).

Notable among them is Ahmet Davutoğlu, a Turkish politician and academic, who was the leader of the Justice and Development Party (AKP), the Minister of Foreign Affairs (2009-2014) and Turkey's Prime Minister (2014-2016). Davutoğlu was born in Turkey and obtained all of his degrees from Boğaziçi University. For about three years, between 1990 and 1993, he was an assistant professor at International Islamic University of Malaysi. Except for this early career experience, he has worked in Turkey, as an academic and politician (Ahmet Davutoğlu, 2018). In a feature in foreignpolicy.com, which has become one of his most highly cited works, he explains what principles in the Turkish government foreign policy made it possible to broker a nuclear swap deal with Iran in 2010 (Davutoglu, 2010).

MODELING POLITICAL AND PARADIGMATIC TENDENCIES

As mentioned in the previous chapter, to control for, or test, the sample's political and paradigmatic tendencies, I used the content of their highly cited publications, their appearances in the media (especially via news outlets), and their research interests to categorize them into four groups: radical left, centre left, liberal, and conservative. The first three groups each comprise around 30% of the sample, with the conservatives forming the smallest group (**Table 11**).

Table 11: The frequency distribution of PPT.

PPT	Percentage
Radical Left	28
Center Left	32
Liberal	27
Conservative	12
Total	100
Count	202

As demonstrated in **Table 12** below, the PPT group means for the GS h-index, institutional rankings (excluding the 59 cases where the institutions were not

included in the ranking system), year of first appearance on GS, and date of birth are very similar, and their differences are not statistically significant.

Table 12: The numerical summaries of the explanatory variables by PPT.

Variables		Mean	SD	Median	n	F test
GS h-index	**Radical Left**	18.1	8.0	17.5	60	F=1.0, df=3,198, p=0.39
	Center Left	15.9	8.0	14.0	64	
	Liberal	17.6	9.2	16.0	54	
	Conservative	16.2	7.8	14.0	24	
THE Ranking	**Radical Left**	279.1	293.0	149.5	44	F=1.6, df=3,139, p=0.19
	Center Left	299.5	245.9	275.5	51	
	Liberal	383.7	286.2	375.5	36	
	Conservative	308.0	201.3	275.5	12	
First Appearance	**Radical Left**	1981.7	10.9	1981.5	60	F=0.56, df=3,198, p=0.65
	Center Left	1984.4	12.9	1986.0	64	
	Liberal	1984.1	13.6	1986.0	54	
	Conservative	1983.4	13.4	1979.5	24	
Year of Birth	**Radical Left**	1950.6	10.2	1950.5	56	F=0.56, df=3,186, p=0.64
	Center Left	1952.8	12.3	1953.0	59	
	Liberal	1953.4	14.4	1975.0	51	
	Conservative	1953.7	14.8	1952.0	24	

One the other hand, there are statistically significant differences among PPT groups in terms of the proportions of their association to Israel, Turkey, the rest of the ME, and non-ME. Although the Kruskal-Wallis test does not tell us which specific PPT groups are statistically significantly different from each other, I will outline some of the observed differences and indicators of possible patterned connections between PPT and regional association. As illustrated in **Figure 12** to **Figure 15** , for example, over half of the radical-left scholars have some connections (i.e., >0%) to either Iran or the Arab countries in the ME, while 93% have no connection to Turkey. Furthermore, a vast majority of center left scholars (over 90%) have no association to Israel, but over half are at least 80% connected to non-ME countries. Moreover, over 90% of liberals have no association to Israel, while 48% have some (>0%) connection to Turkey. There is no conservative scholar who is connected in any way to Iran or Arab countries in the region, while 46% of them were completely associated with non-ME countries.

These graphs are created based on four tables, with cumulative percentages of geographic associations per PPT Groups. Please note that the range of vertical axes are set the same as the percentage of GAs to each region. The tables are presented in Appendix F.

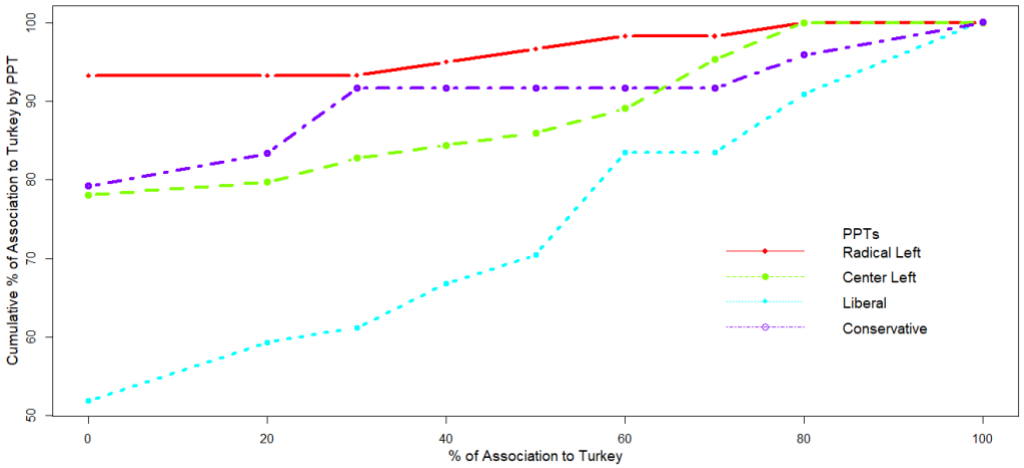


Figure 12: The cumulative percentages of association to Turkey by PPT groups (Kruskal-Wallis chi-squared = 26.10, df = 3, p-value < 0.001).

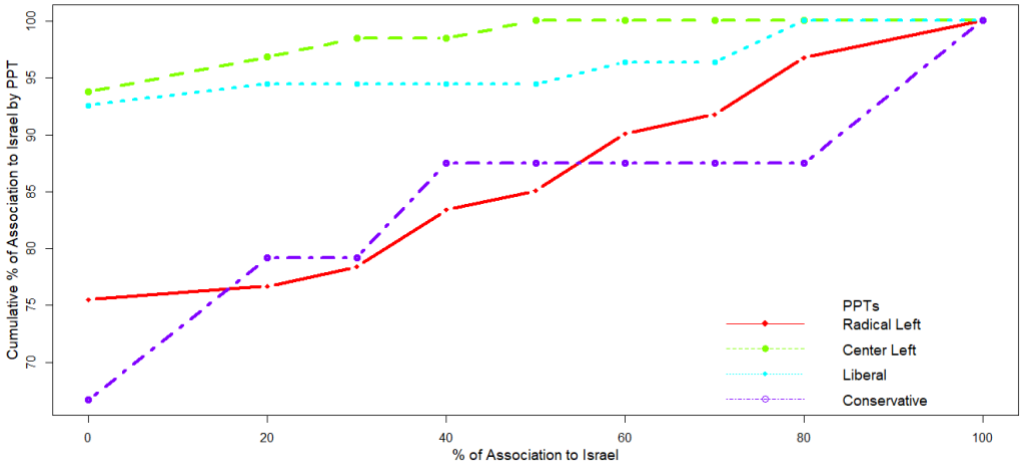


Figure 13: The cumulative percentages of association to Israel by PPT groups (Kruskal-Wallis chi-squared = 17.19, df = 3, p-value < 0.001).

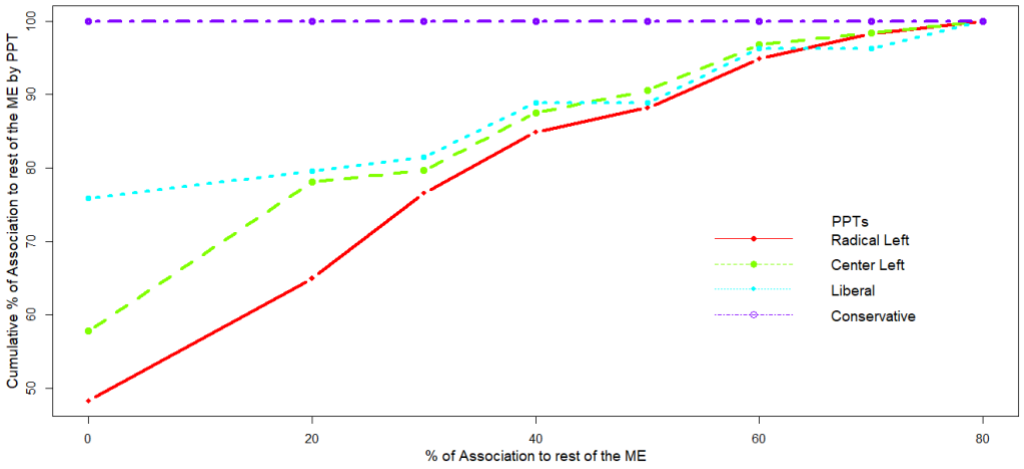


Figure 14: The cumulative percentages of association to the rest of the ME by PPT groups (Kruskal-Wallis chi-squared = 21.05, df = 3, p-value < 0.001).

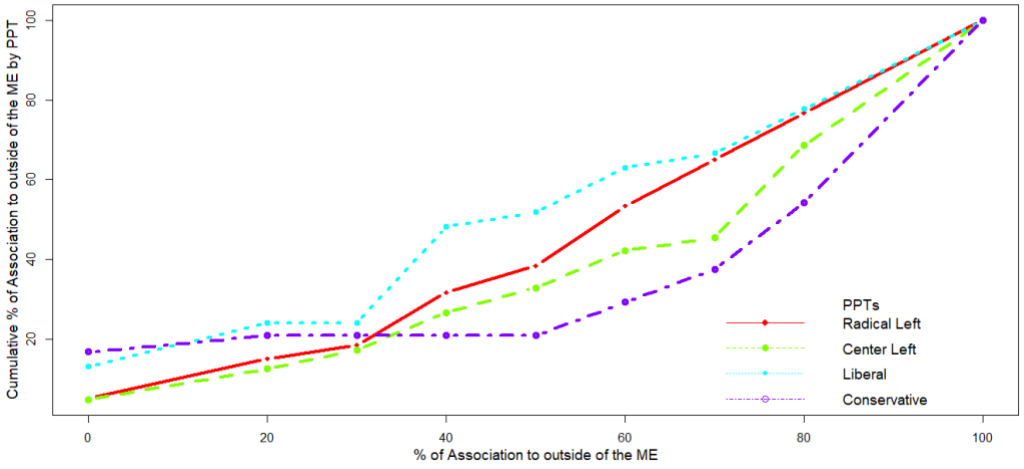


Figure 15: The cumulative percentages of association to outside of the ME by PPT groups (Kruskal-Wallis chi-squared = 7.82, df = 3, p-value < 0.05).

Gender and PPT are also strongly dependent on one another (X-squared = 16.20, df=3, p<0.01). More than 80% of the female scholars are radical or centre left, with none being conservative (Table 10).

Table 13: The frequency distributions of PPT by gender.

PPT	Percentage by Gender	
	Female	Male
Radical Left	40	26
Center Left	42	28

Liberal	18	30
Conservative	0	16
Total	100	100
Count	55	147

As expected, the region of interest strongly predicted the PPTs. 60% of radical-left scholars work on Israel-Palestine-Lebanon, 56% of liberals work on Turkey, and 50% of conservatives work on the ME as a whole (X-squared = 92.47, df = 9, p-value < 0.001). This variable is not included in the regression models because its underlying construct is very similar to (or is highly dependent on) that of regional associations (**Table 14**).

Table 14: The frequency distributions of PPT by regions of interest.

PPT	**Percentage by Regions of Interest**			
	Israel-Palestine, Lebanon	**Turkey**	**ME**	**Others**
Radical Left	70	8	20	20
Center Left	6	30	40	51
Liberal	12	57	16	20
Conservative	10	6	24	8
Total	100	100	100	100
Count	50	53	50	49

In terms of institutional ranking, as mentioned above, the group means of ranked institutions were similar among the four PPTs, though a binary variable of ranked or unranked institution was found to be related to the PPT (X-squared = 8.10, df = 3, p < 0.05) (**Table 15**).

Table 15: The frequency distributions of PPT by ranked/unranked institutions in the THE system.

PPT	**Percentage by institutions in the THE system**	
	Ranked	**Unranked**
Radical Left	31	27
Center Left	36	22
Liberal	25	31
Conservative	8	20
Total	100	100
Count	143	59

Of the 24 conservative scholars in the sample, 50% (n=12) are affiliated with institutions that are either non-academic (n=8) or unranked (n=4). Svante Cornell (F19), introduced earlier as one of the youngest scholars, is one of these

conservative scholars. “His main areas of expertise are security issues, state-building, and transnational crime in Southwest and Central Asia, with a specific focus on the Caucasus and Turkey” (Svante E. Cornell, n.d.). In one of his most highly cited publications, “Autonomy as a Source of Conflict: Caucasian Conflicts in Theoretical Perspective,” he explains how the provision of autonomy to minorities may increase the likelihood of conflict (Cornell, 2002).

Thomas Hegghammer (C10), another conservative scholar associated with a think tank, was born in Norway, attended high school in France, obtained his BA in Egyptology and Classical Hebrew followed by an M.Phil. in Modern Middle East Studies from Oxford University, and a PhD with a thesis on Jihadism in Saudi Arabia from Sciences-Po in Paris. He has been affiliated with the Norwegian Defence Research Establishment (FFI) since 2001, but he has also spent many years in the USA as a fellow at Princeton, Harvard, and Stanford Universities. In his 2010 article, “The Rise of Muslim Foreign Fighters: Islam and the Globalization of Jihad,” he traces the origin of these foreign fighters to a pan-Islamist identity movement that began and evolved in the 1970s Hijaz.

I fit a multinomial logistic regression model to estimate odds ratios and corresponding 95% confidence intervals to the sample’s political and paradigmatic tendencies. The predictor variables examined in this model are gender, age, the year of first publication on GS, and the percentages of connection to the four geographical regions. The geographical association variables form a set of predictors that add to a constant (i.e., 100%), so all four cannot be included, if the intercept is in the model. Hence, the multinomial logistic model includes all four geographical association predictors with no intercept, and the focus is on the pairwise differences among the effects of the explanatory variables.

In all models, statistical significance was assessed with two-tailed tests. Also, for model diagnostics, separate analyses incorporating logit models were performed, mostly to detect possible outliers or influential data points.

Ahmad Nizar Hamzeh (F15) and Gawdat Bahgat (L4) stood out in the added-variable plot for having the largest residuals and largest partial leverage. Both are special cases of conservative scholars, as, unlike most other conservatives, they are 40%-60% geographically associated to the ME. Ahmad Nizar Hamzeh is a 1979 graduate of the Lebanese University’s Faculty of Law, and he holds an MA and a PhD from the University of California, Los Angeles and the University of Southern California. He is now affiliated with the American University of Kuwait. Bahgat was born in Cairo and stayed there to earn his bachelor’s (University of Cairo) and master’s degrees (American University in Cairo). He then immigrated to the US to do his PhD (Florida State University) and is now a professor of political science at the National Defense University. Bahgat works on energy security, American

foreign policy towards the ME, and the Arab-Israeli conflict, and Hamzeh works on Islamist movements across the ME, focusing on the development of Hezbollah. A closer look at their highly cited works shows that they exhibit admixtures of leftist, conservative, and at times liberal, ideas in their works.

Table 16 shows the coefficients and standard errors of the differences between selected pairs of coefficients using delta method. The functions are performed using `deltaMethod` in the `car` package (Fox & Weisberg, 2019). As **Table 16** shows, for each PPT (excluding the radical lefts as the reference group), the coefficients for pairs of geographical associations are compared. In each group some of these differences are statistically significant.

Conservative scholars, compared to radical lefts, are not likely to be highly geographically associated to the ME (other than Turkey and Israel). With one unit increase in the GA to Israel and one unit decrease in the GA to the rest of the ME (holding other explanatory variables constant) the odds of leaning towards conservativism is higher, compared to a radical left tendency.

Liberals, compared to radical lefts, are more likely to have higher geographical association to Turkey. With one unit increase in the GA to Turkey and one unit decrease in the GA to the rest of the ME (holding other explanatory variables constant) the odds of leaning towards a liberal tendency is higher, compared to a radical left tendency.

For the center lefts the associations are more complicated. With one unit increase in the GA to Israel and one unit decrease in the GA to Turkey, the odds of leaning toward center left is lower, compared to radical lefts. Also, with one unit increase in the GA to Israel and one unit decrease in the GA to the outside of the region, the odds of leaning toward center left is lower, compared to radical lefts. Finally, with one unit increase in the GA to Turkey and one unit decrease in the GA to the rest of the ME, the odds of leaning toward center left is higher, compared to radical lefts.

Table 16: Multinomial logistic regression models of PPTs on gender, 1st appearance and GAs – the pairwise differences among the effects of the predictors, using delta method.

				Estimate	SE
Center Left	**GA to Israel**	**vs.**	**GA to Turkey**	-0.55**	0.17
	GA to Israel	**vs.**	**GA to the rest of the ME**	-0.27	0.16
	GA to Israel	**vs.**	**GA to the outside of the ME**	-0.38*	0.15
	GA to Turkey	**vs.**	**GA to the rest of the ME**	0.28*	0.12
	GA to Turkey	**vs.**	**GA to the outside of the ME**	0.16	0.1
	GA to the rest of the ME	**vs.**	**GA to the outside of the ME**	-0.11	0.09
	Gender – Female	**vs.**	**Gender – Male**	-0.35	0.4
Liberal	**GA to Israel**	**vs.**	**GA to Turkey**	-0.47***	0.13

	GA to Israel	**vs.**	**GA to the rest of the ME**	-0.05	0.12
	GA to Israel	**vs.**	**GA to the outside of the ME**	-0.15	0.1
	GA to Turkey	**vs.**	**GA to the rest of the ME**	0.42***	0.12
	GA to Turkey	**vs.**	**GA to the outside of the ME**	0.31**	0.11
	GA to the rest of the ME	**vs.**	**GA to the outside of the ME**	-0.1	0.1
	Gender – Female	**vs.**	**Gender – Male**	-1.22*	0.48
Conservative	**GA to Israel**	**vs.**	**GA to Turkey**	-0.11	0.14
	GA to Israel	**vs.**	**GA to the rest of the ME**	4.34***	0.06
	GA to Israel	**vs.**	**GA to the outside of the ME**	-0.08	0.09
	GA to Turkey	**vs.**	**GA to the rest of the ME**	4.45***	0.09
	GA to Turkey	**vs.**	**GA to the outside of the ME**	0.03	0.13
	GA to the rest of the ME	**vs.**	**GA to the outside of the ME**	-4.42***	0.06
	Gender – Female	**vs.**	**Gender – Male**	-11.15***	0.00
First Work	**Center Left**	**vs.**	**Liberal**	0.01***	0
	Center Left	**vs.**	**Conservative**	-0.02***	0
	Liberal	**vs.**	**Conservative**	-0.02***	0
Signif. codes:	**0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1**				

As it is clear from the **Table 17** very few scholars are geographically associated to two different regions in the ME. 28% (n=57) of scholars are 100% associated to the outside of the region, 5% (n=9) of scholars are 100% geographically associated to Turkey, and 4% (n=7) are 100% associated to Israel. The rest are connected to a combination of ME and outside of the region, with only 3% (n=6) scholars connected to a combination of ME countries.

As there are very few (n=6) scholars connected to more than one region in the ME, in order to draw effect plots, three models were fitted, each with one of the three ME regions, controlling for the GA to the outside of the ME. The coefficients, standard errors and Anova table for these models are presented in Appendix G.

A graphical representation of the fitted models is offered below (Figure 16). These graphs show the effect plots for regional associations and gender, and they make it much easier to discern how gender and geographical associations combined influence the probability of the PPT outcomes. The fitted probability of membership in each of the four categories of PPT is computed, with each explanatory variable ranging over its values in the data, while the others are fixed to their typical values; a covariate to its mean and a factor to its distribution in the data (Fox, 2003).

It is apparent that a scholar's probability of having a radical-left tendency decreases with more connection to Turkey and increases with more connection to Israel; the probability is much lower for male scholars with higher connection to Turkey. This effect is strong for scholars with some connection to Israel: a scholar with an 80% connection to Israel has a 0.9986 predicted probability of having a radical-left tendency. On the other hand, keeping first work and the GA to the outside of the ME constant, an 80% connection to Turkey results in a 0.15

probability of being a radical left for female scholars, and zero probability for male scholars.

Female scholars with a high connection to the rest of the ME are likely to have a center left tendency, but the female scholars who are highly associated with Turkey have a very low predicted probability of a center left tendency. Having a center left tendency for male scholars is not as highly affected by their connection to Turkey or the rest of the ME. Finally, the probability of a center left tendency decreases significantly with connection to Israel, from 0.39 for scholars for no connection to Israel to only 0.04 for just 20% connection to Israel.

Liberals follow a different pattern. For a female scholar, the predicted probability of having a liberal tendency increases significantly with more connection to Turkey; controlling for first work and the GA to the outside of the ME, from 0.06 for females with no connection to Turkey, to 0.92 for females with 100% connection to Turkey. For male scholars, this number hovers around 25-45 for all levels of connection to Turkey. More connection to the rest of the ME, decreases the chance of a liberal tendency for female scholars and increases it for male scholars.

For female scholars, the predicted probability of having a conservative tendency is zero in all three models. For male scholars, the predicted probability of having a conservative tendency approaches zero with 20% or more connection to the rest of the ME, and stays relatively the same, hovering around 0.1 and .2, for all levels of connection to Turkey. The predicted probability of male scholars having a conservative tendency is around 0.2, controlling for the GA to Israel and outside of the ME.

Table 17: The crosstabulations of the GA to Turkey, Israel, and the rest of the ME, recoded into binary variables.

		GA to Turkey	
		0%	**0%>**
GA to Israel	**0%**	80	98
	0%>	20	2
Total		100	100
Count		153	49

		GA to the Rest of the ME	
		0%	**0%>**
GA to Israel	**0%**	79	94$
	0%>	21	6
Total		100	100
Count		131	71

		GA to the Rest of the ME	
		0%	**0%>**
GA to Turkey	**0%**	63	99
	0%>	37	1
Total		100	100
Count		131	71

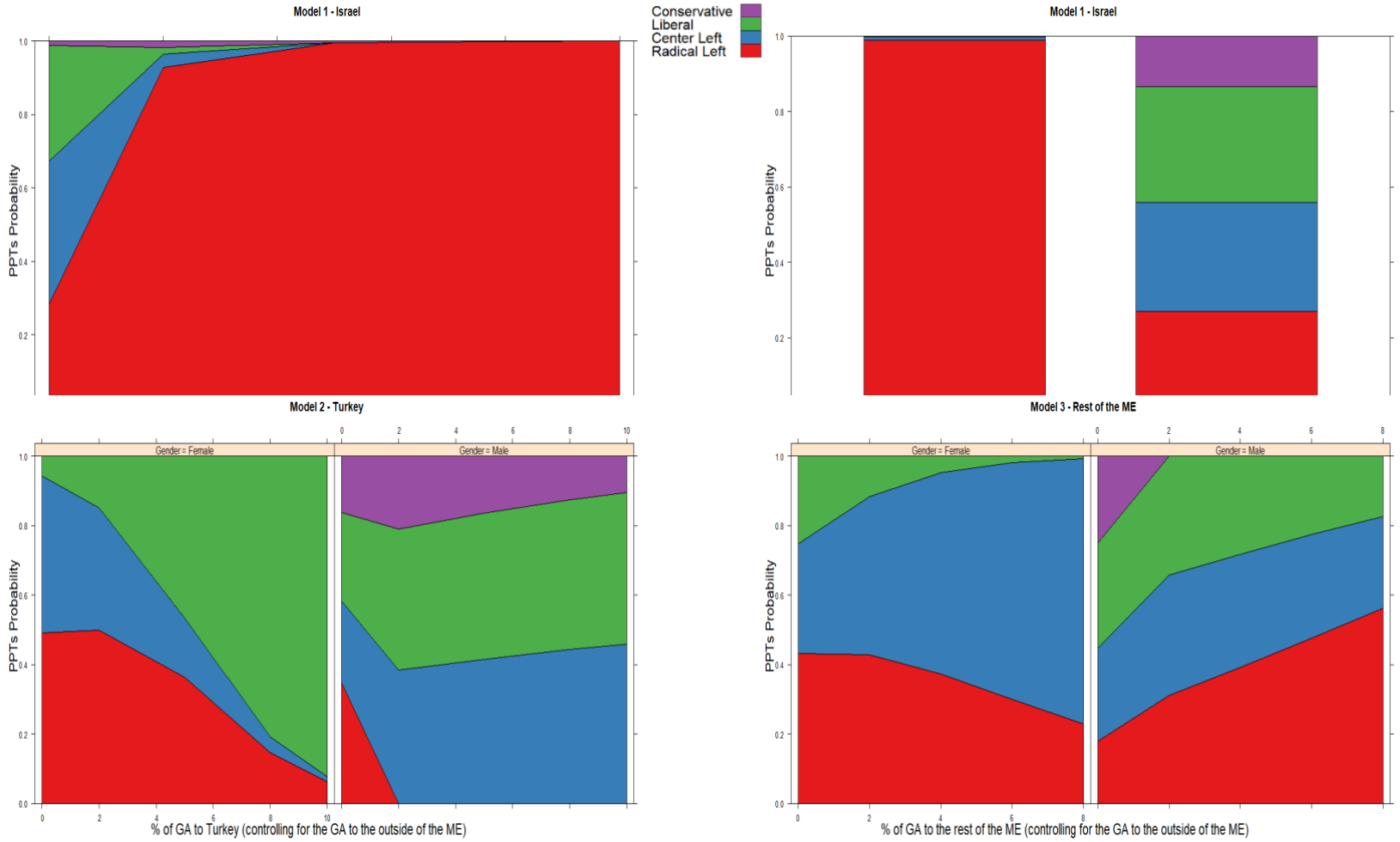


Figure 16: The effect plots for three multinomial logistic models of PPT on GAs, the 1st Appearance and Gender. Each includes one of the three ME regions, controlling for the GA to the outside of the ME. The plots are created using the effects package (Fox & Hong, 2009).

MODELING THE GS H-INDEX

In the final section of this chapter, I explore the relationships between the GS h-index and other variables of interest, including PPT and the four regional association variables. I start by exploring the bivariate relationship between the GS h-index and other variables, and I conclude by fitting a linear regression model.

As displayed in the following overlapping density plots (**Figure 17**), the distribution of the GS h-index among the four PPT groups is rather similar.

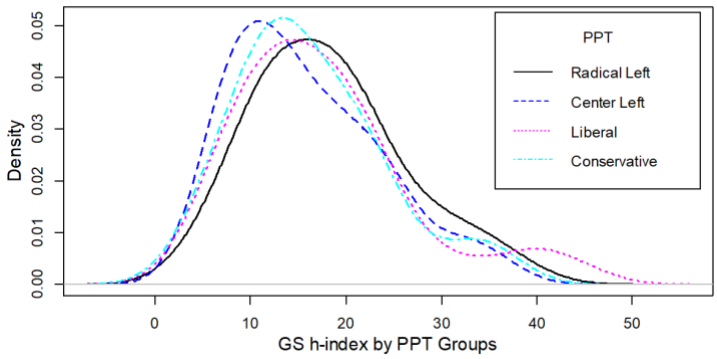


Figure 17: The overlapping density plots of the GS h-index by PPT groups.

All four groups contain examples of scholars who are highly productive and those who are less so (in terms of the GS-index), with the indices ranging from less than 10 to over 30. Among the radical-left scholars, Dan Bar-On (O10), a psychologist involved in dialogue and conflict resolution with a focus on Holocaust and Israeli-Palestinian conflicts, has the highest GS-index at 35. Born in 1938 in Haifa, Israel, to German parents, Bar-On received his undergraduate, master's, and PhD degrees in Israel at Ben Gurion University of the Negev and Hebrew University in Jerusalem. He would later join Ben Gurion University of the Negev in 1996, and he worked there until his retirement in 2007. His highly cited book, *Legacy of silence: encounters with children of the Third Reich* (1989), is based on his 1987 interviews with middle-aged children of Nazis. In the 1990s, he collaborated with a team of Israeli and Palestinian scholars to form the Peace Research Institute in the Middle East, through which he was able to create high school textbooks that narrated the history of the conflict from Israeli and Palestinian point of views, side by side. Bar-On passed away in 2008 (Senfft, 2008).

Emin Fuat Keyman (Q4), a centre-left scholar born in Turkey in 1958, has a GS h-index of 32. He received his bachelor's and master's degrees from Middle East Technical University in Turkey and his PhD from Carleton University in Canada. While he has been affiliated with a number of Turkish universities, he is currently

with the Department of International Relations at Koç University (Fuat Keyman, 2018). In one of his most highly cited papers in English, "Globalization, Civil Society and Citizenship in Turkey: Actors, Boundaries and Discourses," he discusses how Turkey is an exceptional case vis-a-vis the notion that civil society is a movement against the state-centric world. In Turkey, state-centric modernity has given rise to civil society, while the localized concept of civil society contains both democratic and essentialist discourses about citizenship and identity (Keyman & Icduygu, 2003).

John J. Mearsheimer (C5) and Ziya Öniş (F10), who were introduced earlier as all-non-ME and highly cited scholars, respectively, are among the more influential liberal scholars, while one of the youngest scholars in the sample, Svante Cornell (F19), is a highly cited conservative scholar.

After compiling the regional association variables and the GS h-index into ranked data, Kendall tau rank correlations showed no association between the two (**Table 18**).

Table 18: Kendall tau rank correlations between the GS h-index and GAs.

Geographical Associations	Kendall's rank correlation tau
Turkey	tau=-0.09 (z=-1.36, p=0.17)
Israel	tau= 0.06 (z=0.91, p=0.36)
Rest of the ME	tau=-0.07 (z=-1.07, p=0.29)
Outside of the ME	Tau= 0.09 (z= 1.51, p=0.13)

Likewise, the GS h-index group means for both female and male scholars both hover around 16-17, with no evidence indicating a significant difference between them (t = -0.80, df = 97.98, p = 0.43).

The linear regression model fit to the h-index data is summarized in **Table 19** (showing coefficients with standard errors in parentheses) and

Table 20 (an ANOVA for the regression). The squared multiple correlation indicates that around 30% of the variation in the GS h-index of scholars can be accounted for by the regression of the index on institutional rankings (both numerical and binary variables), gender, and year of first appearance on GS. The p-value for the omnibus null hypothesis (i.e., that all population regression slopes are zero) is very close to zero (F=12.93 on 6 and 192 DF). Linear model diagnostics were used to check the assumptions and problems, including normally distributed errors, heteroscedasticity, and outliers. I used the packages `car` (Fox & Weisberg, 2019) and `lmtest` (Zeileis & Torsten, 2002) to perform Breusch-Pagan, RESET, and Bonferonni outlier tests, and to draw diagnostic graphs.

As illustrated in the graphs below, the predicted GS h-index value for scholars working in the institutions ranked by the THE system is significantly higher than the rest. Furthermore, among the ranked institutions, higher rankings were directly related to a higher GS h-index. The predicted value of the cube root of the GS h-index for scholars affiliated with non-ranked or non-academic institutions—with other explanatory variables being fixed to their average values or, in the case of factors, to their distribution in the data—is 13.67; 18.95 for scholars affiliated with ranked institutions, about 5 units higher. The predicted value of GS h-index for a scholar affiliated with a university ranked 1 is 18.36, while the value is 16.00 for a university ranked 500, and 13.88 for an institution that is ranked 1,000.

The year of first appearance on GS is modeled using b-splines with three degrees of freedom. As visualized in the effect plots (Figure 18), a later appearance on GS (i.e., post 2000) is associated with greater chance of a lower GS h-index. Although there are signs of higher index scores for scholars who entered the GS before the 1960s, the confidence intervals are too broad (due to few observations) to draw any safe conclusions about the pre-1975 period.

Table 19: Model summary – A linear regression modeling of the GS h-index on ranking of the current university affiliation (binary and continuous), gender and the 1st appearance.

	Coefficients and Standard Errors
Intercept	2.140 (0.116)
THE System Binary – (Ranked)	-0.163 (0.040)
THE System Ranking	-0.00014 (0.000067)
Gender (male)	0.040 (0.034)
bs(1st Appearance, df = 3)1	-0.510 (0.258).
bs(1st Appearance, df = 3)2	0.228 (0.141)
bs(1st Appearance, df = 3)3	-0.829 (0.169)
Residual standard error: 0.212 on 195 degrees of freedom	
Multiple R-squared: 0.2884	

Table 20: ANOVA Table (Type II test) – A linear regression modeling of the GS h-index on ranking of the current university affiliation (binary and continuous), gender and the 1st appearance.

Variables	**F value**
THE System Binary – (Ranked)	16.75 (df=1)***
THE System Ranking	4.17 (df=1)*
Gender (male)	1.21 (df=1)
1st Appearance	18.84 (df=3)***
Signif. codes: 0 '*' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1**	

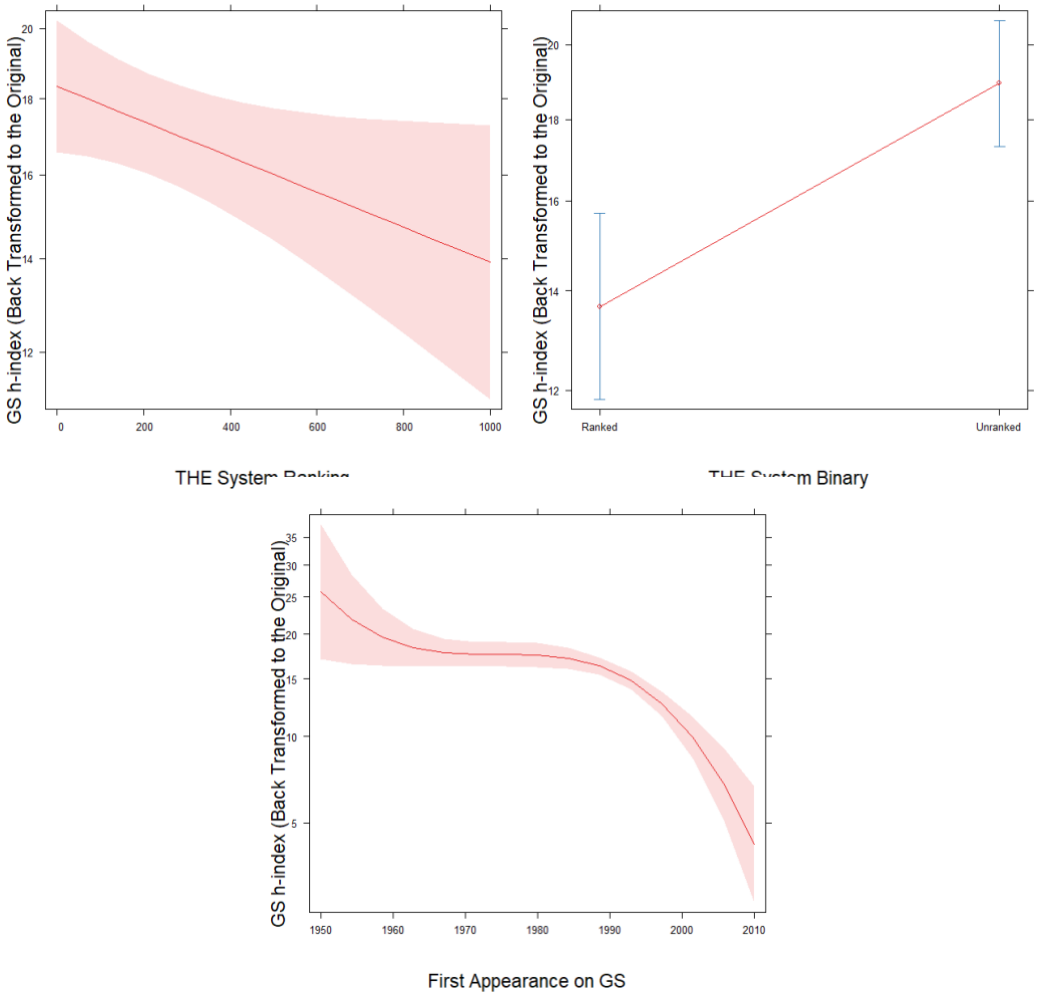


Figure 18: The effect plots of the THE university ranking (binary and continuous) and the 1st Appearance on the predicted values of the GS h-index – The plots are created using the effects package (Fox, 2003).

CONCLUSION

The key scholars in the field of MES, as selected by the number of citations in the MES journals, are diverse. The sample includes scholars who are younger than 30 years old, have militantly left- or right-wing views, are born in over 30 different countries, work in over 140 academic and non-academic institutions in more than 25 countries, are affiliated with Ivy League universities and lesser-known institutions in and outside of the region, are trained in over 220 universities, have published works from 1950 through 2010, have a GS h-index as low as 5 and as high as 45, and have different intellectual journeys (i.e., born, studied and worked

outside of the region, born in the region and left to study and/work, born in the region, left to study, and moved back to the region to work).

As explained above, although great diversity is observed along the lines of GAs and PPTs, there is compelling evidence of institutionalized bias and hegemonic forms of knowledge production. It seems that scholars with certain intellectual journeys have low or no chance of becoming one of the key scholars in English MES: the ME-born scholars (excluding those from Turkey and Israel) who stay in the region to study and/or work, and those who are born in some of the Arab countries of the region (the Arab states of the Persian Gulf except for Iraq), tend not to become one of the key scholars in English MES.

The PPT of the scholars, and its association with other variables, is another major finding of this chapter. Of the 202 scholars, only 24 (12%) are labeled as conservative, and the rest are rather equally divided among the three remaining PPT groups (radical left, center left, and liberal). It also turns out that there are statistically significant differences among PPT groups in terms of their GAs. Radical-left scholars, especially male scholars, are not likely to be associated with Turkey but likely to be associated with Israel. For centre-left scholars, the probability of having some association to the rest of the ME is high, but those who are connected to Israel are unlikely to become a center left. Liberals, both males and females, however, are highly likely to be connected to Turkey. Finally, female scholars and male scholars who have any connection to the rest of ME are very unlikely to become conservative. And the final part of the chapter shows that the scholars' productivity and impact is not a function of their GAs and PPTs.

CHAPTER 6: THE INTELLECTUAL MAP OF MES

INTRODUCTION

The previous chapter described the personal and intellectual backgrounds of highly cited MES scholars. It also explained the relationship (or lack thereof) between their political and paradigmatic views and their geographical associations to the ME and outside regions. In the end, it was demonstrated that their productivity and impact (as measured by GS h-index) is not, overall, a function of their geographical associations. In light of these findings, this chapter draws a map of the intellectual network of MES. As explained in Chapter 4, author co-citation analysis (ACA) is based on MES scholars' published works, and it assumes that frequently co-cited scholars are intellectually linked.

This chapter opens with a description of the network's elements and connections, with two different networks being used for analysis and visualization: the original weighted network and a binary network. The binary network is derived from the original valued network and has a cut off point at the 85th percentile. The section ends with an exploration of why Houssem Eddine Chebbi (W3) stands out as an outlier node that does not belong to any cluster in the valued network (which is a connected network).

In the second section of the chapter, clustering is discussed. Co-citation networks are partitioned into several, usually overlapping, communities of scholars. This section considers the network's degree of clustering and whether having the same cognitive (e.g., PPT) and/or social (e.g., geographical association) attributes pulls the scholars closer to each other and away from others. The section begins by applying the k-cores algorithm to identify the nested, but not overlapping, maximal subgroups. The findings of this analysis show two connected hubs, with

one or more smaller subgroups formed around them. These results are confirmed using other subgroup identification methods—namely, spinglass and walktrap—which, along with the visual examination, generally reveal the existence of three subgroups: a rather separate subgroup, and two more overlapping ones.

Next, the modularity algorithm is applied in order to explore which nodal attribute best explains the observed clustering tendencies. As will be shown, this approach indicates that the PPTs of MES scholars do not explain theirs clustering tendencies as well as some of their geographical association attributes do. The modularity statistics and graphs in this section show that the three identified clusters are, to a degree, the product of geographical associations to Turkey, Israel, the rest of the ME, and areas outside of the region.

Finally, a series of a quasi-Poisson regressions are used to model the factors that influence whether a scholar is located in the more connected hubs of the network. These models show that the predicted probability of a scholar being located in the higher connected hubs increases in proportion to their associations to Turkey, and decreases in proportion to their associations to Israel and the rest of the ME.

The third section of the chapter explores the idea of prominence. Specifically, this section examines actors' co-citation ties in order to identify those who are most visible, which is determined by the number of ties a given scholar is directly or indirectly involved in: actors with a high number of ties are more visible than those with a low number of ties. The section begins by introducing and exploring three centrality measures: degree, betweenness, and eigenvector centralities. Actors with the highest degree centrality are those located in the centre of the main cluster, and actors with high betweenness centrality measures are those connecting the more separated cluster (Turkish cluster) to the main hub of the network.

In the fourth section, Principal Component Analysis (PCA) is applied, and the first Principal Component (PC) is used to summarize the concept of prominence—which is described in terms of degree, betweenness, and eigenvector centralities—as one variable. Linear regressions are then used to evaluate the relationship between prominence, geographic associations, and PPTs. As the models show, the cognitive (e.g., PPT and region of interest) and social (e.g., place of birth) dimensions are both associated with a scholar's prominence. Finally, a scholar's first year of appearance on the GS and the GS index was discovered to have a statistically significant effect on prominence.

NETWORK DESCRIPTION

The network contains a set of 202 actors who are denoted using a letter-number format (ex. A1, B1, W2, etc.), wherein the letter signifies the journal from which

the scholar was selected, and the number indicates their scholar ID. The network represents co-citations among scholars, with valued undirected ties. This results in a zero-diagonal symmetric matrix with an absolute frequency value range of 0 to 3615 (median=3) and a Bhattacharyya Distance value range of 0 to .99 (median=0.60). The numerical summaries of these values are listed in **Table 21**.

Table 21: The numerical summaries of co-citation values.

Statistic	Absolute Frequency	Bhattacharyya Distance
Mean	11.66	0.61
Standard Deviation	37.57	0.18
Minimum	0	0
25th Percentile	1	0.47
Median	3	0.60
75th Percentile	10	0.75
85th Percentile	14	0.82
90th Percentile	29	0.86
95th Percentile	51	0.89
99th Percentile	135	0.95
Maximum	3615	0.99
Size	N=20200	-

In addition, another network is created by a threshold, driven from the original, that is dichotomous and undirected. In networks as connected as such, thresholding eliminates spurious (weak) connections and increases computational efficiency by removing all but most likely relationships. The selection of this threshold potentially influences the conclusions derived from the analysis. Among the many approaches that can be used to select an appropriate threshold, I elected to err on the side of simplicity and used the most popular (but not necessarily the most advantageous) method, density-based thresholding, which involves retaining edges that surpass a given absolute weight[18]. In this technique, n% of the strongest ties are kept and the rest are eliminated, and the strength is defined as an absolute value in the relative frequency network (here calculated using Bhattacharyya Distance). Most analyses have been run using thresholds between 0.75 and 0.90.

The 85th percentile was selected as cut-off point in order to dichotomize the valued network. While the original network is highly interconnected with a density very close to 1, the binary network is about one-seventh as dense (i.e., reducing the density to 0.15). Furthermore, the valued network is connected; in contrast,

[18] Density based thresholding is also done by constraining the edge density

however, the dichotomized network has 16 components consisting of 10 isolates, 5 components with a size of 2, and a main connected hub of size 189.

Isolates and Outlier Nodes

As is evident from an initial look at the valued network (**Figure 19**), Houssem Eddine Chebbi (W3) is an outlier node. Chebbi is an Associate Professor in the Department of Quantitative Methods in the Faculty of Economic Sciences and Management at the University of Carthage, Tunisia. He obtained his undergraduate degree in Tunisia and his master's and PhD in Spain (Chebbi, 2011). His paper, "Long and Short–Run Linkages Between Economic Growth, Energy Consumption and CO2 Emissions in Tunisia," (2010) which appeared in the *Middle East Development Journal*, suggests that energy and environmental policies in Tunisia should vary by sector (i.e., the agricultural, industrial, and service sectors) because the relationships between emergency consumption and growth are not uniform across sectors. Chebbi's areas of interest include macroeconomics and agricultural policies, energy and pollutant emissions, and econometric time series.

Although there are not many economists in the network, as shown in the graph below, not all economists are as relatively isolated as Chebbi. For example, Timur Kuran (A12), who has a rather central location in the network, was born in New York City but moved to Turkey after his parents graduated from Yale University. Upon relocating to Turkey, Kuran spent his childhood and teenage years in Ankara and Istanbul before moving back to the USA, where he received his degrees from Princeton and Stanford. At present, he is a Professor of Economics and Political Science and Islamic Studies at Duke University. His highly cited 2004 book, *Islam and Mammon: The Economic Predicaments of Islamism*, is a critique of Islamic economics that argues that it is largely incompatible with the current economic conditions. In his book, he explains the role of the Islamic economy in cultivating a distinct Islamic identity, and he discusses the role of Islamic subeconomies and the socially marginalized groups they take as their targets. In addition to Islamic economics, he has written on subjects such as the dynamics of hidden (economic) preferences and economic conflicts.

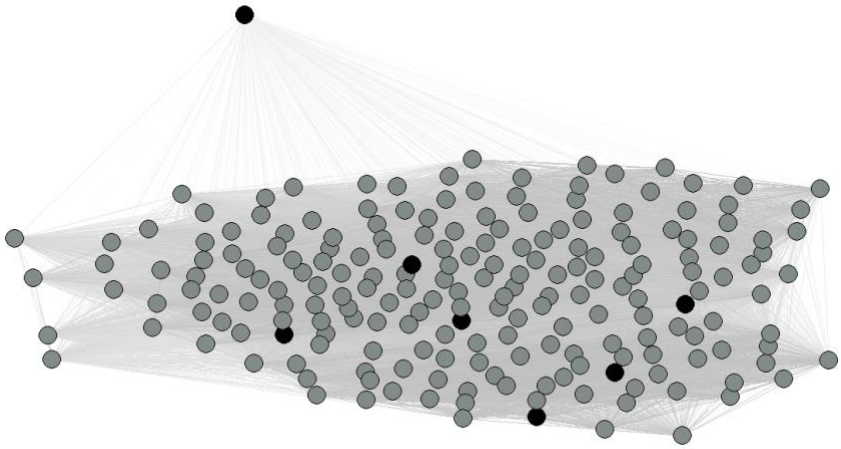


Figure 19: The black nodes are the scholars with the word, "economy," (or a variation of it) in their keywords – Spring Layout – drawn using the package `qgraph` (Epskamp, Cramer, Waldorp, Schmittmann, & Borsboom, 2012) – The node that stands out is W3.

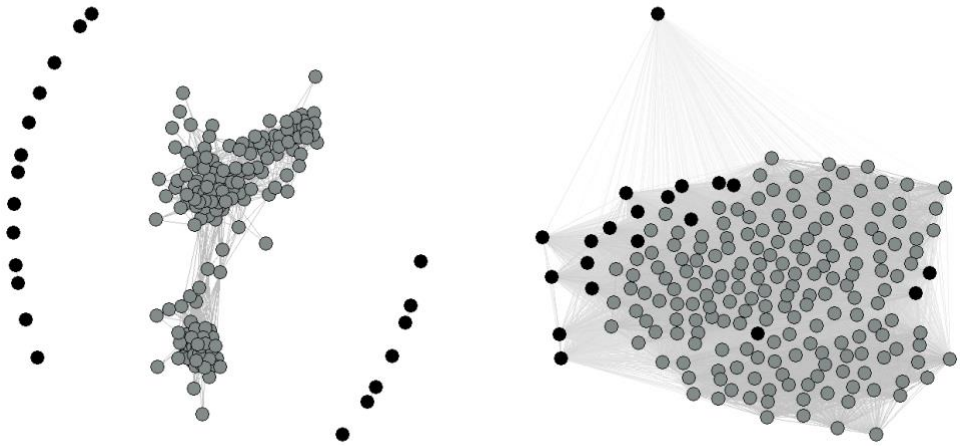


Figure 20: In the graph on the left (the binary network), the black nodes have a degree of <2, and in the graph on the right the same nodes are colored black –Spring Layout– drawn using the `qgraph` package (Epskamp, et al., 2012).

As illustrated in Figure 20, there are 20 nodes with zero or one connection (i.e., nodes with degrees of 0 or 1), with most having moderately marginalized positions in the valued network. Among the relatively isolated nodes in the binary network, there are 5 female and 15 male scholars; these scholars were all born between 1933 and 1988, with an average birth year of 1957.4. None were born in Turkey and Israel, with 13 being born in the rest of the ME, 6 being born outside of the

region, and one missing location of birth data (X-squared = 15.70, df = 2, p-value <0.001).

CLUSTERS

Co-citation networks are usually partitioned into several communities of scholars. Depending on the scholars' fields, the subgroups in these networks may be more or less overlapping or densely connected. Some networks are closer to a densely knit group—or closely connected community—of scholars, while others are clustered networks containing scholars who have little to no connection to the scholars in the other clusters. The key questions hererelate to how clustered the network is, and whether the clustering is along the social and/or cognitive dimensions. Put differently, does having the same biographical and intellectual attributes, geographical associations, or political and paradigmatic tendencies pull scholars closer to some and away from others?

In this section, I will frequently move back and forth between the original valued network and the binary network cut off at the 85th percentile.

k-cores

k-cores is used to obtain some understanding of how clustered a network is, and it works, by piling up nodes starting with the most connected ones (or, alternatively, peeling them away starting with the least connected nodes). k-cores, which refer to the state in which each scholar is connected to at least k others in the subgroups, are nested but not overlapping maximal subgroup. After removing nodes with a degree of 0 or 1 from the network, the k-cores in the binary network range from 2 to 29. As suggested by Luke (2015), since k-cores are nested, each one is progressively added to further examine the subgroups. A series of five graphs showing (1) 29-cores, (2) 28 to 29-cores, (3) 20 to 29-cores, (4) 10 to 29 cores, and finally, (5) all k-cores are produced to illustrate this progression. As is shown in Figure 3, the 29-core contains 33 of the 182 scholars, while the 28-core is comprised of 45 of the 182 total scholars (i.e., 43% of the network is made up of the highest two k-cores). In other words, 33 scholars, mostly in the centre of the smaller subgroup, are connected to at least 29 other scholars in the subgroup; similarly, 45 scholars in the centre of the bigger part of the network are connected to at least 28 other scholars in the bigger subgroup. The two highest k-cores (i.e., the two most connected hubs) are at the centres of the two evident parts of the network, with the rest of the possible subgroup(s) being shaped around them. Given that the k-cores are progressively "piled up," a potential third subgroup appears.

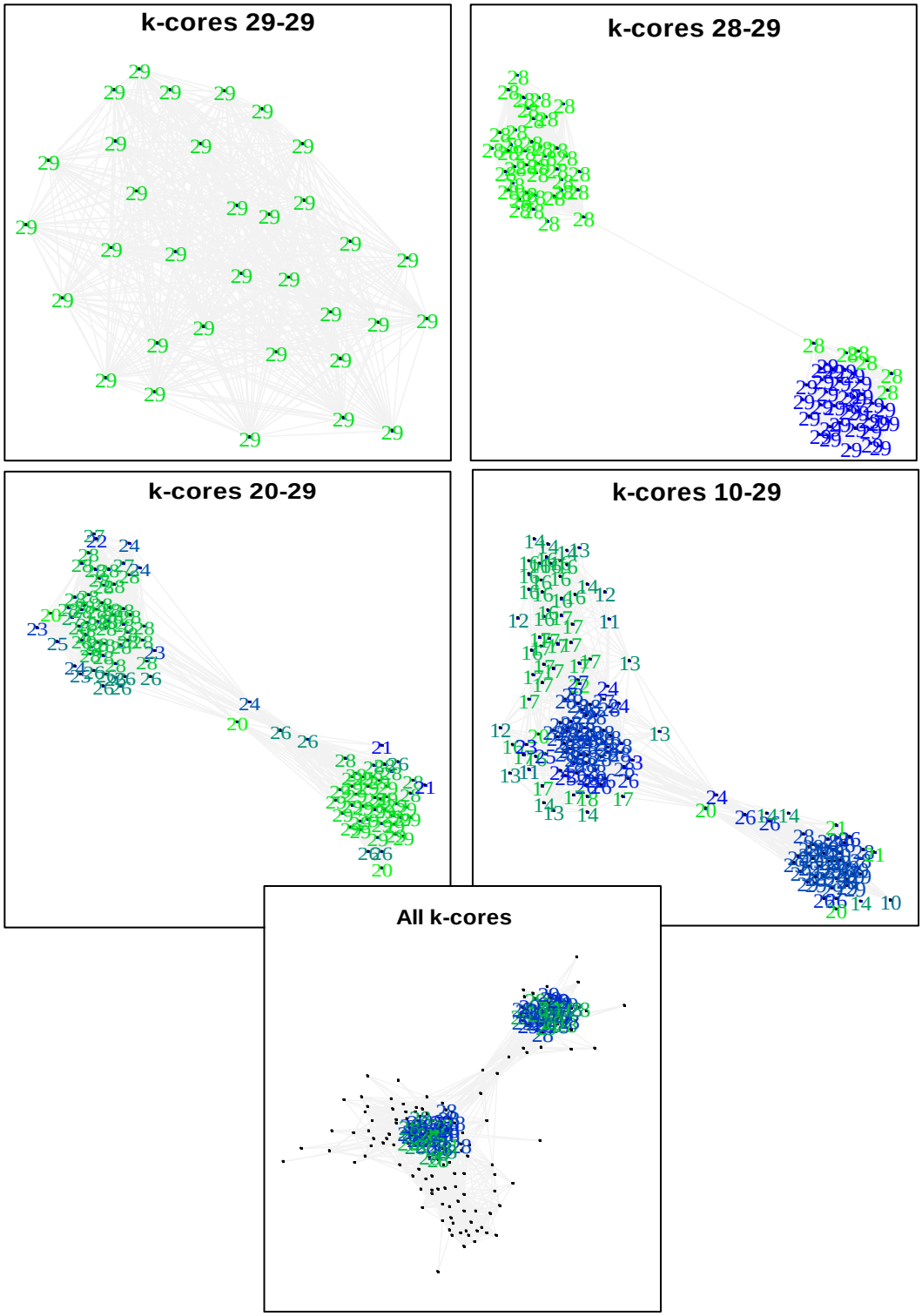


Figure 21: Piling up the k-cores: the nodes are labeled with, and colored based on, their k-core memberships. Note that graphs are color-coded independently, and that colors do not correspond to the same clusters. Spring Layout; drawn using the `igraph` package (Csardi & Nepusz, 2006).

Community Detection

While k-cores define subgroups based solely on internal ties, other subgroup identification methods, such as “spinglass”, “walktrap”, and “modularity” algorithms, define subgroups by focusing on external and internal ties. That is, these methods search for groups of co-cited scholars that are internally cohesive and have a higher likelihood of connecting to each other; however, these methods also attempt to identify scholars who are separated from other groups and have a lower likelihood of getting co-cited with them. A strong group of scholars will have more co-citations within the group than with scholars from other communities. Conversely, a weak community of scholars will contain some members who violate the “strong community” criteria, and some who do not (Barabási & Pósfai, 2016).

For the purposes of this study, I elected to use the walktarp and spinglass community detection algorithms to estimate the number of clusters in the network (Yang, Algesheimer, & Tessone, 2016). I began by conducting a visual examination before implementing the above-mentioned algorithms to identify the network’s community structure. The algorithms revealed that the co-citation network could be divided into at least three clusters of individuals. In the next section, the origins of this separation are investigated by assigning the social and cognitive attributes to each node. As will be discussed, this analysis revealed that the social dimension (i.e., scholars’ geographical associations) does a better job of explaining clustering than does the cognitive dimension (i.e., scholars’ PPTs).

A first look at the weighted edges (**Figure 22**) suggests the presence of three clusters. As is evident, two of the clusters are more merged and overlapping, while one is markedly separate.

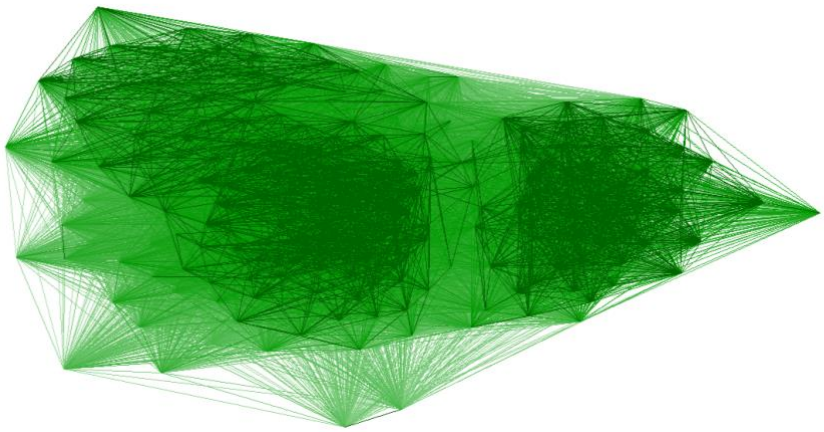


Figure 22: Weighted Edge graph. In this graph, the edges with weights below 0.3 were removed from the network, and the scaling of edges in width and color saturation were cut at 0.85. Edges with absolute weights over .85 have the strongest color intensity and they become wider as they increase in strength. In this graph, W3 has been removed. Created by `qgraph` package (Epskamp et al, 2012), with spring layout.

In addition, the binary graph (**Figure 20**) with the 85% percentile cut off, which was also rendered with `spring` layout, clearly shows the existence of two overlapping and one more separate cluster.

When the network was fed into the spinglass algorithm, three communities were detected. Since this algorithm is simulation based, I ran the code 100 times and recorded the number of clusters. The results are presented below in Table 2. Based on these results, I used a seed that reproduced three clusters.

Table 22: The frequency distribution of number of clusters in spinglass, ran 100 times.

Number of clusters	Frequency and %
Three	55%
Four	36%
Five	9%
Total	100
Count	100

Furthermore, the walktrap algorithm—which is more stable than spinglass (Orman, Labatut & Cherifi, 2013)—confirmed the existence of the same number of clusters. As illustrated in **Figure 23**, the clusters were merged and overlapping for both algorithms (walktrap and spinglass).

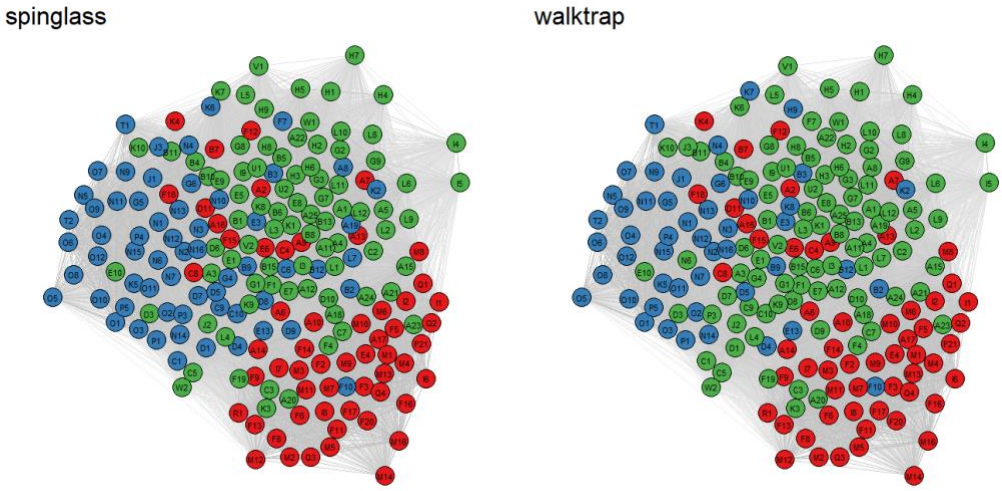


Figure 23: The partitioning of the network based on the spinglass and walktrap algorithms. These maps were created using the `qgraph` package (Epskamp et al., 2012) with spring layout.

In general, the visual examination of the network, k-cores, and community detection showed that, in addition to a more separate subgroup, there are hints of some overlapping subgroup structures and cohesion among those members requiring further investigation.

Modularity

The modularity algorithm was used to explore which nodal attribute best explain the observed clustering tendencies. Modularity measures the extent to which scholars tend to cluster based on their attributes by comparing the density within and between clusters. For each attribute (e.g., place of birth or PPTs), "modularity reflects whether this attribute explains the observed groups by measuring the fraction of ties that fall within the given groups minus the expected such fraction if ties were distributed at random" (Luke, 2015, p.115). This measure ranges from -0.5 to 1; with modularity statistics increasing in value as the network clusters around a given nodal attribute with respect to the given node grouping.

Table 23 shows the modularity statistics for several attributes. Some of the attributes, including those with the highest six modularity statistics, are also graphed below (**Figure 24**). The eight graphs in **Figure 24** use the binary network with the 85th percentile cut off point, and nodes with degrees of <2 have been removed (n=20). These graphs were plotted using `iGraph`, which uses the Fruchterman-Reingold layout.

Table 23: Modularity Statistics.

Attribute	Modularity

Region of Interest (1- Turkey, 2- Israel/Palestine/Lebanon, 3- ME, and 4- other)	0.41
Geographical Association to Turkey (binary)*	0.34
Region of Current Affiliation (1- Turkey, 2- Israel, 3- Rest of the ME, 4- Outside of the ME)	0.25
Region of Birth (1- Turkey, 2- Israel, 3- Rest of the ME, 4- Outside of the ME)	0.20
Region of Education (1- All or some Turkey, 2- All or some Israel, 3- All or some rest of Me, 4- All outside of the ME)	0.19
PPTs	0.16
Geographical Association to Israel (binary)*	0.09
Geographical Association to the rest of ME (binary)*	0.08
Gender	0.03
Ranking of current institution (1- 1-50, 2- 51-100, 3- 101-1000, 4- unranked or non-academic)	0.03
Region PhD obtained (1- Inside ME, 2- Outside ME)	0.02
Geographical Association to Outside of the ME (binary)*	0.01

***The percentage of geographical association with a region recoded into a binary attribute, i.e., no connection to the region vs. some connection to the region.**

As expected, the modularity statistics were the highest for the region of interest (cognitive dimension). At the same time, however, some of the attributes that divide the scholars based on their social backgrounds were among the partitions with the highest modularity values. The second highest modularity value was geographical association to Turkey (binary variable; 0% connection to Turkey vs. 0%< connection to Turkey), which partly explains the connected and separate subgroups in the network. Geographical association to Turkey is followed by the scholars' region of current affiliation (Turkey, Israel, rest of ME, and non-ME) and the region where they obtained their degrees ((1) all or some in Israel, (2) all or some in Turkey, (3) all of some in the rest of the ME, (4) all degrees outside of the region).

The political and paradigmatic tendencies of the scholars do not explain the clustering tendencies as well as most of the attributes related to geographical associations do. Scholars tend to exhibit a lower degree of clustering based on their PPTs, especially for the conservative scholars, who have the greatest tendency to be scattered throughout the network. As modeled in the previous chapter, the PPTs of the scholars itself appears to be a function of geographical associations, gender, or their interaction.

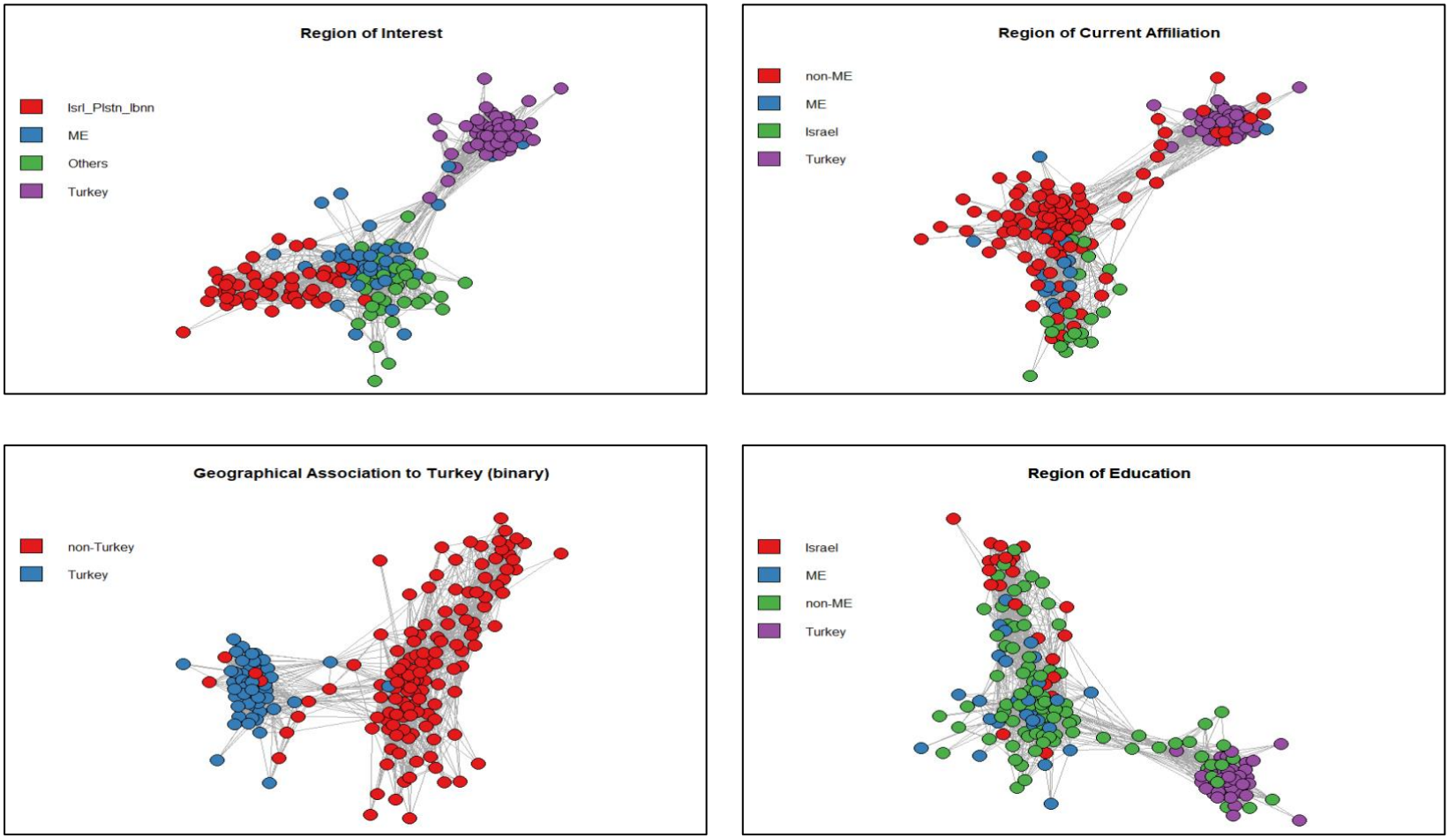


Figure 24: Clustering tendencies based on selected social and cognitive attributes: the binary network with color-coded nodes, Spring Layout, created using the `igraph` package (Csardi & Nepusz, 2006).

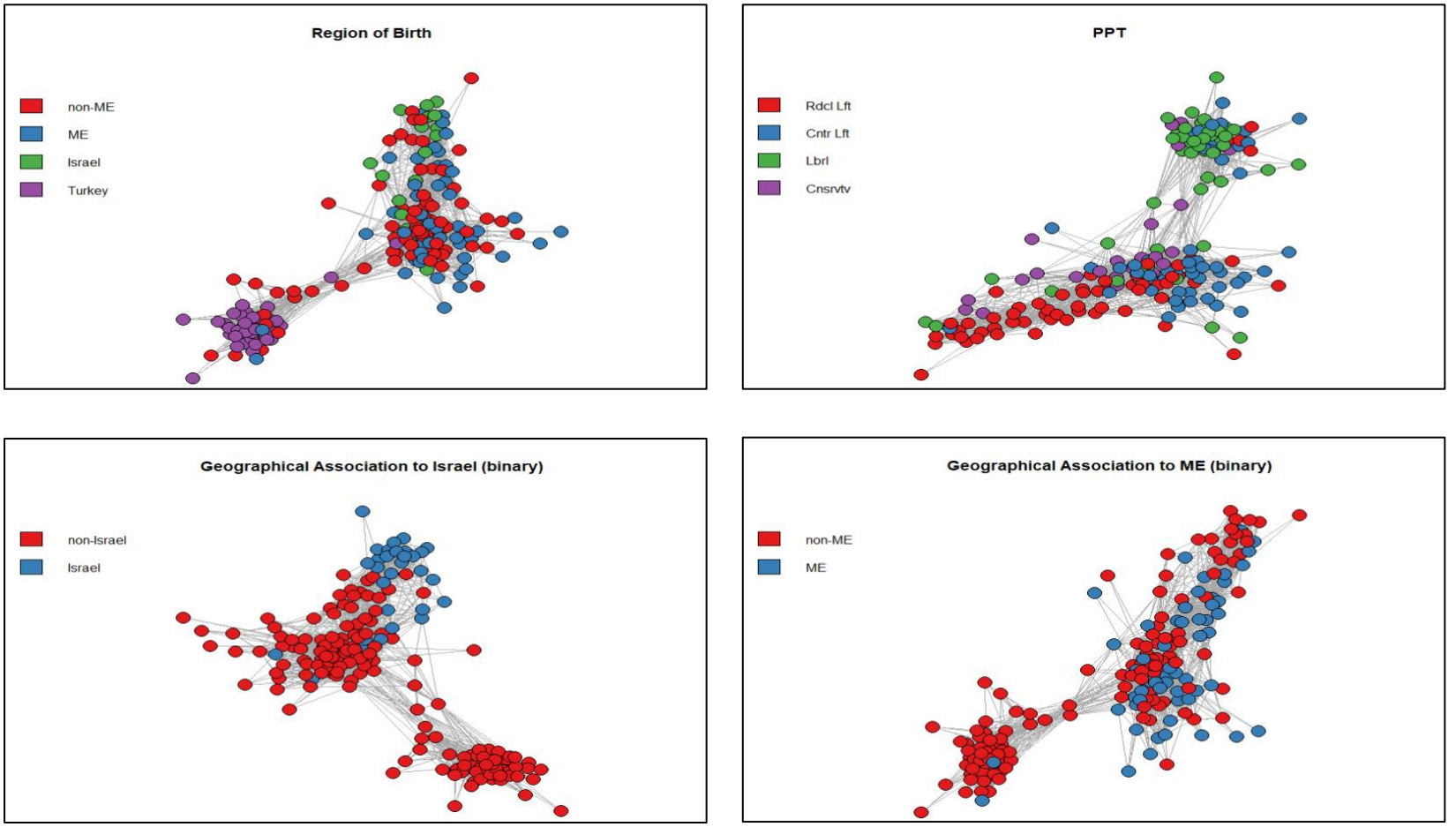


Figure 24: Clustering tendencies based on selected social and cognitive attributes: the binary network with color-coded nodes, Spring Layout, created using the igraph package (Csardi & Nepusz, 2006).

Modeling k-cores

Lastly, as another way of approaching clustering, a series of regression models were used to model the factors that influence whether a scholar is positioned in the more connected hubs of the network. The response variable is the k-core membership as a count variable. A quasi-Poisson[19] model with log link was used to model how geographical associations affected the odds of having a position at the connected hubs of the network, while controlling for gender (male as the baseline), GS h-index, and year of first appearance on the GS.

The distribution of the k-core memberships (**Figure 25**) reveals that the response variable is trimodal and negatively skewed, with a mean of 19.3 (sd=9.6) and a median of 22.5. The distribution shows the presence of isolates and nodes with a lower degree at one end (first mode), the shaping of a third less-connected cluster (second mode), and nodes in the connected hubs at the other end (third mode). The median (22.5) is located between the second and third node. Although this is not the conditional distribution of the response, its extreme departure from symmetry and its multimodal nature is not a favourable feature for a linear least-square model.

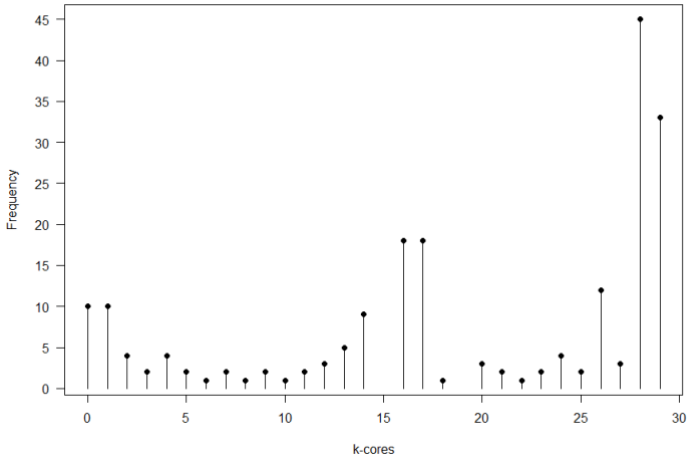


Figure 25: The distribution of k-core memberships.

As mentioned in the previous chapter, since the geographical association variables form a set of predictors that add to a constant (i.e., 100%), all four cannot be included if the intercept is in the model. Hence, like the multinomial logistic model used in Chapter 5, the quasi-Poisson model includes all four geographical

[19] The quasi-Poisson model is used to correct for overdispersion (Fox, 2015).

association predictors with no intercept and focuses on the pairwise differences among the effects of the explanatory variables.

Table 4 shows coefficients and standard errors for comparisons between the coefficients of pairs of geographical associations. As can be seen, a scholar with a greater association to Turkey is more likely to be in the more connected parts of the network than a scholar who is more associated to Israel, the rest of the ME, or areas outside of the ME. In addition, a higher association with areas outside of the ME means a higher likelihood of a position in the higher k-cores compared to those who are more associated to the ME.

Table 24: A Quasi-Poisson model of k-core memberships on gender, 1st appearance, and geographical associations (GA). The pairwise differences among the effects of the predictors were obtained using the delta method.

			Estimate	SE
GA to the outside of the ME	**vs.**	**GA to rest of the ME**	0.63**	0.20
GA to the outside of the ME	**vs.**	**GA to Turkey**	-0.49***	-0.10
GA to the outside of the ME	**vs.**	**GA to Israel**	0.26	0.16
GA to the rest of the ME	**vs.**	**GA to Israel**	-0.37	0.22
GA to the rest of the ME	**vs.**	**GA to Turkey**	-1.12***	0.18
GA to Israel	**vs.**	**GA to Turkey**	-0.75***	0.17

As there are very few scholars who are connected to more than one region in the ME (Chapter 5, Table 17), three models were fitted in order to draw effect plots. Each of these models examined one of the three ME regions, which allowed for the GA to areas outside of the ME to be controlled for. The coefficients, standard errors, and Anova table for these models are presented in Appendix H. Geographical associations to Turkey, Israel, and the rest of the ME are modeled using b-splines with three degrees of freedom.

Graphical representations of the three fitted models are offered below (**Figure 26**). These graphs show the effect plots for regional associations and how they influence the probability of the connectedness of nodes. The fitted probability of k-core membership is computed, with each explanatory variable ranging over its values in the data. The other explanatory variables are fixed to their typical values.

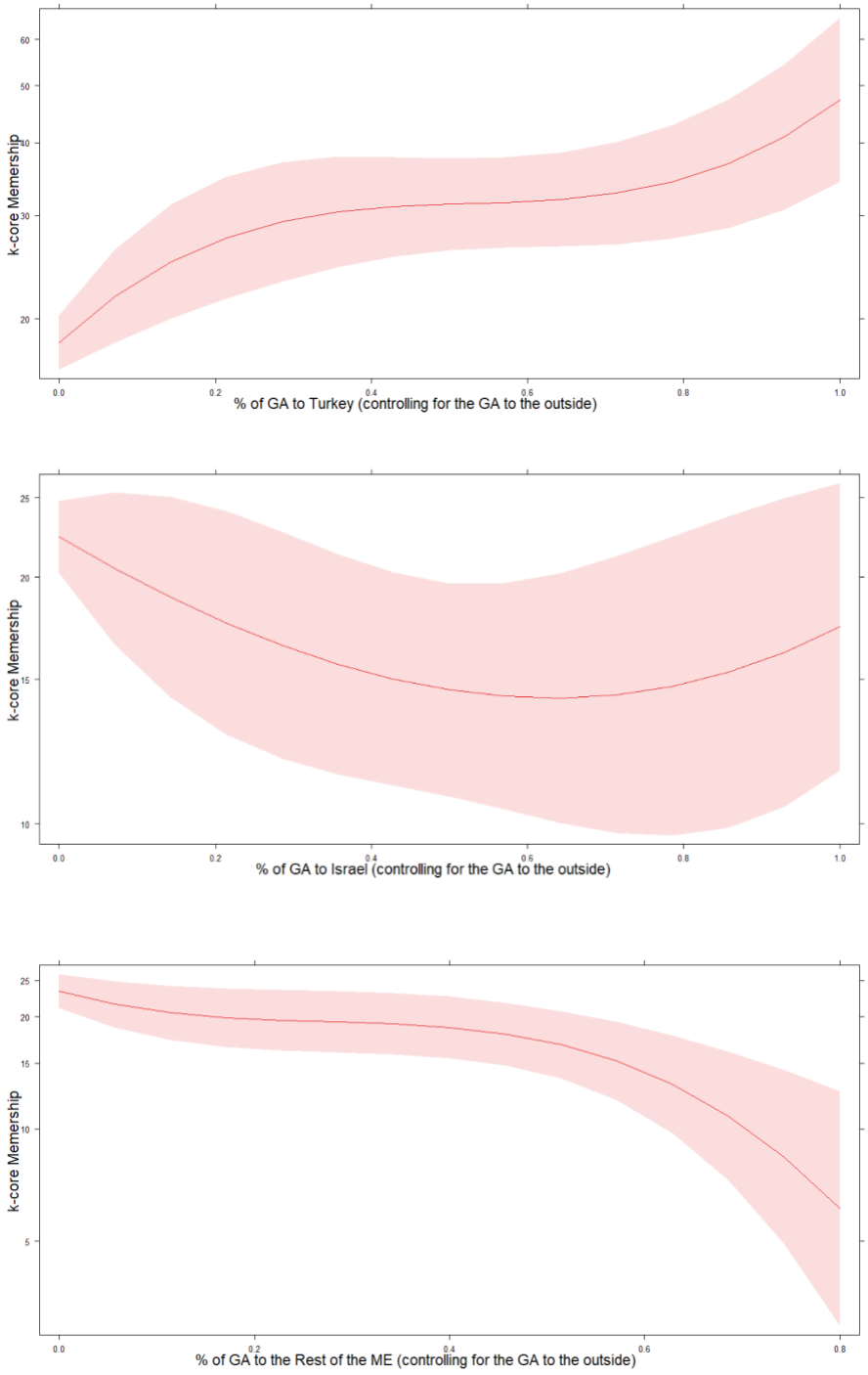


Figure 26: The effect plots for three quasi-Poisson models of k-core memberships on Gender, the 1st Appearance, and the GAs. Each plot includes one of the three ME regions, controlling for the GA to areas outside of the ME. The plots are created using the `effects` package (Fox, 2003).

As illustrated in the effect plots, the fitted probability of being in the higher-connected hubs increases rapidly at first, with more association to Turkey, but slows after 50% connection to Turkey. For Israel, the line follows a slight u-shaped trend with connectedness decreasing with more association to Israel and increasing again for scholars who are 80% or more connected to that country. A slight decrease in the fitted probability of connectedness was observed for the rest of the ME, with up to 40% connection; however, the fitted value was much lower for scholars with a greater than 40% connection to the rest of the ME.

PROMINENCE

This section assesses the prominence of individual scholars by examining their locations within the co-citation network. A prominent actor becomes visible in the network through their co-citation ties. In an undirected network, prominence is determined by centrality; that is, a prominent scholar will be directly or indirectly involved in many co-citation ties.

Degree Centrality

The distribution of the degree centrality (i.e., each scholar's number of co-citation ties) is presented below. The variable follows a trimodal distribution with three peaks around 0, 20, and 40, with a mean of 29 (sd=18) and a median of 31 (**Figure 27** & **Table 25**).

Table 25: The numerical summaries of the centrality measures.

Statistic	Degree Centrality	Betweenness Centrality	Eigenvector Centrality
Mean	29.3	264.5	0.05
Standard Deviation	17.92	558.4	0.05
Minimum	0	0	0
25th Percentile	16	3.5	0.006
Median	30.5	80.4	0.01
75th Percentile	44	280.5	0.09
Maximum	66	5330.9	0.17

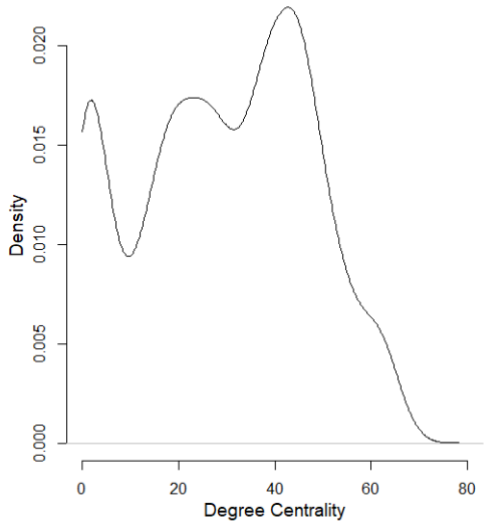


Figure 27: The density plots for the degree centrality –kernel density estimates– all density plots are created using the `car` package (Fox & Weisberg, 2019)).

As illustrated **Figure 28**, all of the 19 scholars with a degree centrality above the 90th percentile (black nodes) are located in the centre of the main cluster. The possible three modes can first be explained by isolates and scholars in the periphery of the network, then by central scholars in the cluster with many Turkish scholars (as outlined in the previous section), and lastly by central scholars in the main cluster. In addition, no single scholar is significantly more strategically located than the others. For instance, Joel Beinin (B1), who was introduced in the previous chapter as an all-non-ME scholar, is among the top 10% central scholars and is frequently co-cited along with 66 other scholars in the network. Gudrun Krämer (B6), another all-non-ME scholar with comparatively lower productivity and impact (GS h-index = 15), is also among the most central scholars, being frequently co-cited with 56 other scholars. Krämer was born in Germany in 1953, obtained her degrees from Heidelberg and Hamburg Universities, and is now the Chair of the Institute of Islamic Studies at the Free University of Berlin. Her area of interest is Egypt, and she works on Islam, modernity, and democracy. In one of her most highly cited works, *"Islamist notions of democracy"* (1993), she talks about the debates, as well as movements, on Islam and democracy, and asks whether "there [is] an Islamic path to a pluralist democratic society?"

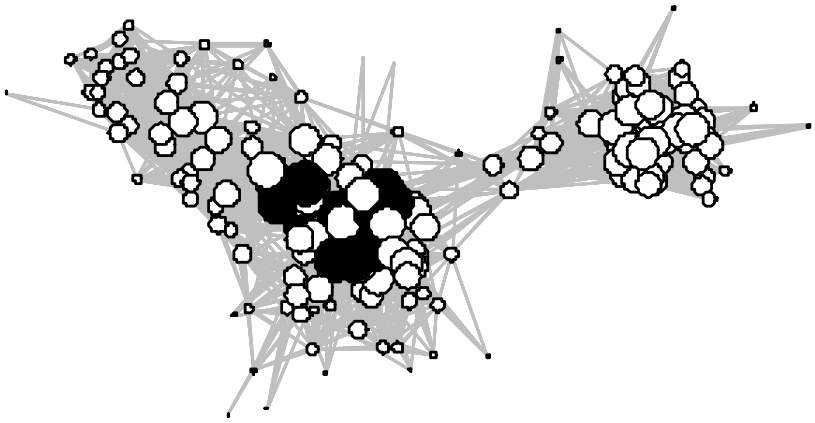


Figure 28: The binary network. The sizes of the nodes are proportional to their degree of centrality. Nodes in the top 10% of degree centrality are colored black. Map is presented in Spring Layout and was created using the `sna` package (Butts, 2016).

Betweenness Centrality

A scholar with a high betweenness is prominent because it indicates that a high number of the shortest paths between scholars pass through them; that is, they frequently play the role of connector, bringing scholars together (Ding, Yang, Frazho, & Caverlee, 2009). A scholar with high betweenness centrality is also referenced by a wider audience. The higher the betweenness centrality in a co-citation network, the more a scholar is co-cited with other scholars in different clusters.

The betweenness centrality in this network is a highly skewed variable; it follows a bimodal distribution with no obvious outliers following transformation, and it has a lambda of 0.143. Many of the scholars with high betweenness centralities connect the Turkish cluster to the main connected part of the network. There are also scholars with high betweenness centrality who connect the two merged clusters (Israeili-Palestinian-Lebonese and the ME) (**Figure 30, Figure 31, & Table 25**).

Mehran Kamrava (E7) and Malik Mufti (E13) both have high betweenness centralities. Kamrava has a high degree centrality as well, but Mufti's degree centrality is lower than the median. Kamrava was born in 1964 in Iran, and he did his degrees at California State University Northridge and the University of Cambridge. He is categorized as a centre-left scholar and is currently the director of the Center for International and Regional Studies at Georgetown University's School of Foreign Service in Qatar. In one of his most highly cited articles, "The Arab Spring and the Saudi-led counterrevolution," he talks about the Arab Spring and the weakened Arab state system as an opening for Saudi Arabia to expand its

regional influence. He works mostly on the Middle East as a whole and the Persian Gulf, but he has also published on the issue of Palestine. He is rather close to the middle of the network's main component, which means he has a high degree centrality. Furthermore, Kamrava also connects the ME cluster to the Palestinian-Israeli-Lebanese cluster, which is why he has a high betweenness centrality value. Mufti, on the other hand, is located on the margins of the Turkish cluster (lower degree centrality) and is among the scholars who connect the Turkey cluster to the main component of the network (high degree centrality). He was born in Turkey in 1959, received his degrees from Middlebury College, Yale University, and Harvard University, and is currently an affiliate with Tufts University in the USA. He is categorized as a liberal scholar, and he works on issues like Pan-Arabism and Turkish foreign policy.

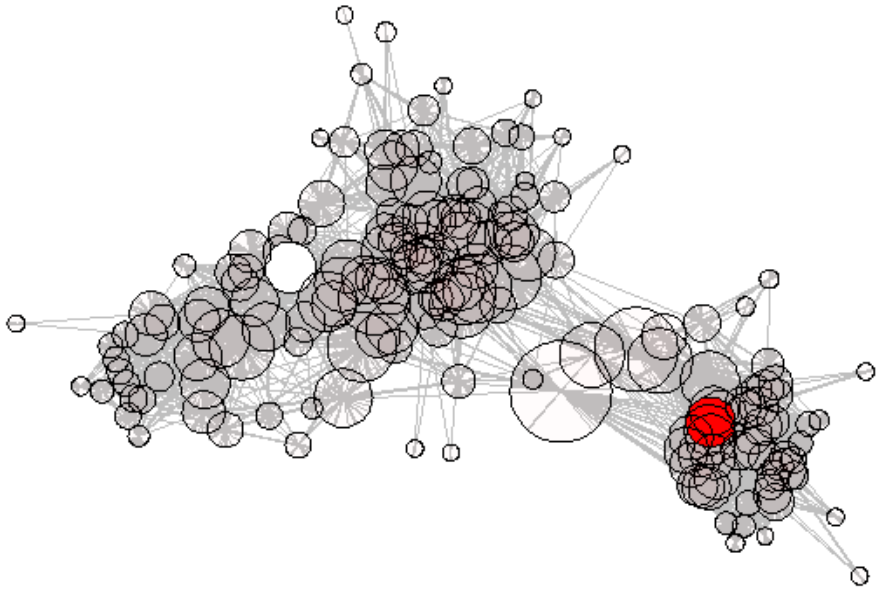


Figure 29: The binary network. The sizes of the nodes are proportional to their betweenness centrality on a log scale. Scholar "E7" (high degree (0.99th percentile) and betweenness (0.99th percentile) centralities) is denoted in white, while scholar "E13" (low degree (0.46th percentile) and high betweenness (0.99th percentile) centralities) is denoted in red. Map is presented in Spring Layout and was created using the `sna` package (Butts, 2016).

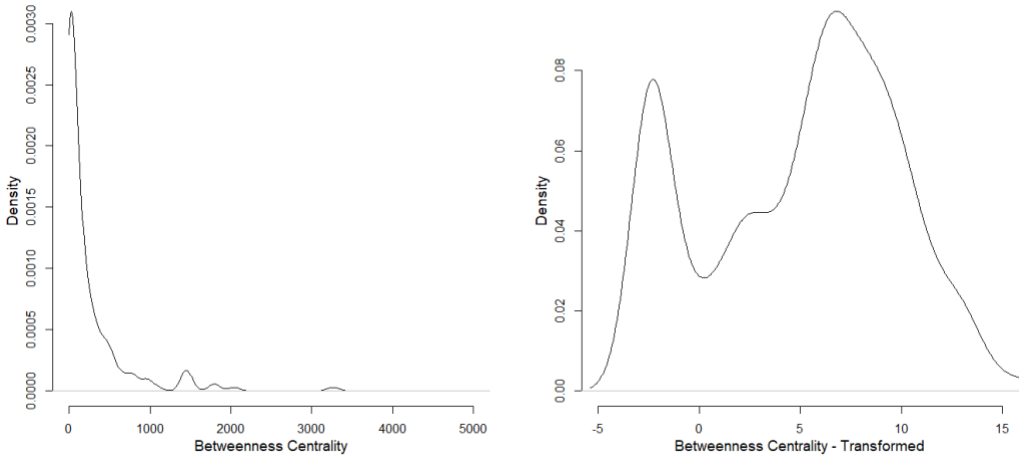


Figure 30: The density plots for betweenness centralities (original and transformed with lambda=0), kernel density estimates.

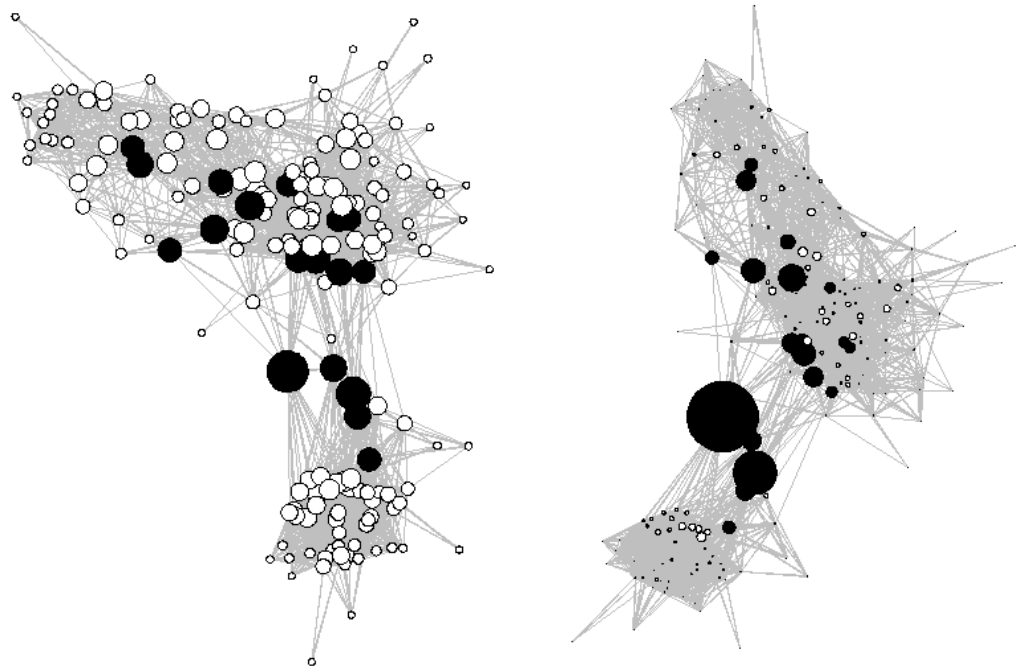


Figure 31: The binary network. The size of each node is proportional to its betweenness centrality. Original scale (right) and log scale (left) are illustrated, with the top 10% of betweenness centrality nodes colored in black. Networks are shown in Spring Layout and were created using the `sna` package (Butts, 2016).

Eigenvector Centrality

As defined by eigenvector centrality, scholars are frequently central if they are co-cited with other scholars who have many connections. However, a scholar who

receives a lot of co-citation ties is not necessarily a central scholar by this definition; indeed, scholars who only have a few co-citation ties, but with important scholars (in terms of degree centrality), can also be defined as being "central" under this definition.

The distribution of eigenvector centrality is highly skewed to the left, with a rather flat second mode at around 0.12. As can be seen, the transformed variable (lambda=0.128, gamma=0.1) follows a clear bimodal distribution.

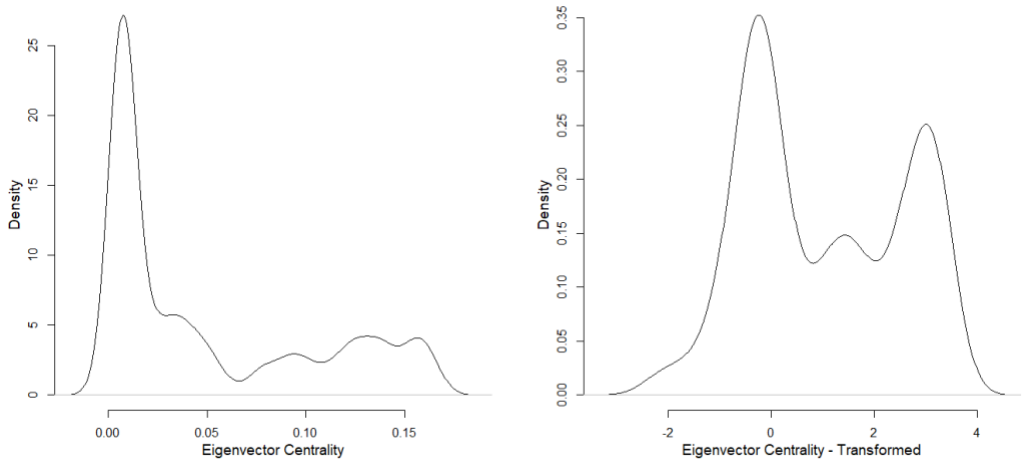


Figure 32: The density plots for the eigenvector centralities (original and transformed with lambda=0.0)—kernel density estimates.

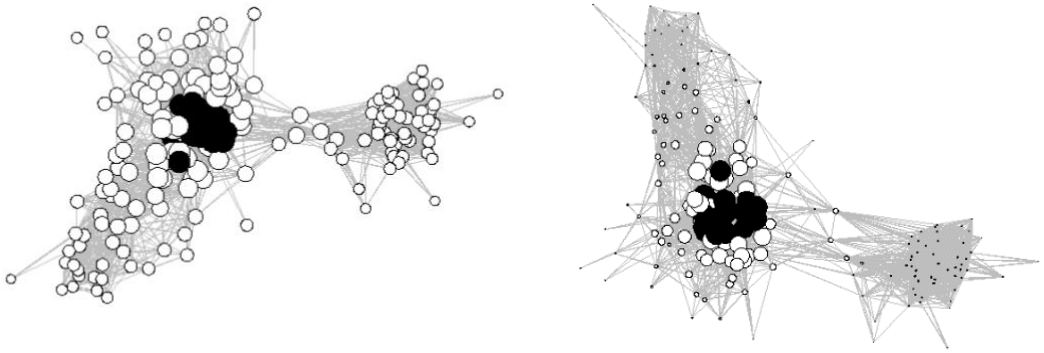


Figure 33: The binary network. The size of the nodes is proportional to their eigenvector centrality—original scale (right) and log scale (left)—with the top 10% of eigenvector centrality nodes colored in black. Network is shown in Spring Layout and was created using the `sna` package (Butts, 2016).

Joel Beinin (B1), a professor of Middle East History at Stanford University who was introduced in the previous chapter, has high degree and eigenvector centrality

scores. He is frequently co-cited with 66 other scholars, many of whom have high degree centralities. M. Hakan Yavuz (C7) is frequently co-cited with 55 scholars (among the highest degree centrality in the network), but since he is located in the margins of the Turkish studies cluster, the scholars he is co-cited with are not very central in the network (in terms of their degree centrality). Yavuz is a professor of political science at the University of Utah whose work focuses on the socio-political evolution of Islamic Calvinism in Turkey (the Gulen movement; and role of religious ethics in the market); the Balkan Wars (1912-1923) and the construction of memory; and the origins of Kurdish nationalism and ethno-religious conflict in Anatolia (1878-2007).

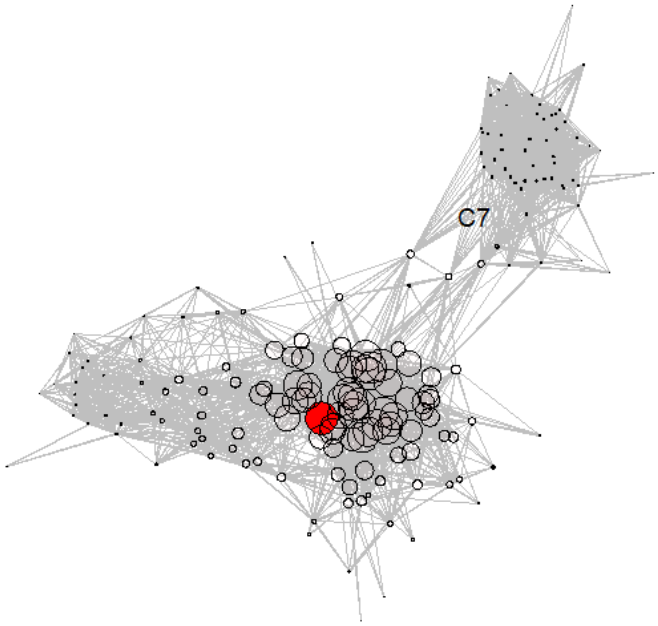


Figure 34: The binary network. The size of the nodes is proportional to their eigenvector centrality. Scholar "B1" (high degree (0.99th percentile) and eigenvector (0.99th percentile) centralities) is denoted in red, and scholar "C7" (high degree (99th percentile) and low eigenvector (49th percentile) centralities) is labeled. Network is presented in Spring Layout and was created using the `sna` package (Butts, 2016).

Principal Component Analysis

Principal Component Analysis (PCA) enables the use of fewer variables in summarizing prominence, while still allowing much of the information to be retained. Since PCA relies on linear dependencies among the variables, a multivariate BCN transformation of the three variables was performed, and the three centrality measures were transformed accordingly. Maximum-likelihood-like estimation is used in the work of Box and Cox to achieve approximate normality. However, since the Box-Cox power family of transformation requires positive responses, I applied the BCN (the Box-Cox power with nonpositives),

allowing the inclusion of non-positive responses, introduced by Hawkins and Weisberg (2017), using the `car` package in R (Fox and Weisberg, 2011) for implementation.

As can be seen in the scatterplot matrix (**Figure 35**), the departure from linearity is observed but not significant for eigenvector centrality, mostly due to the cluster of small values on the left side. As such, approximate linearity was assumed, and PCA was performed.

The transformed degree centrality was highly correlated with the transformed betweenness (r=0.76), and moderately correlated with the transformed eigenvector centrality (r=0.52). The transformed betweenness and eigenvector centralities were also moderately correlated to each other (r=51).

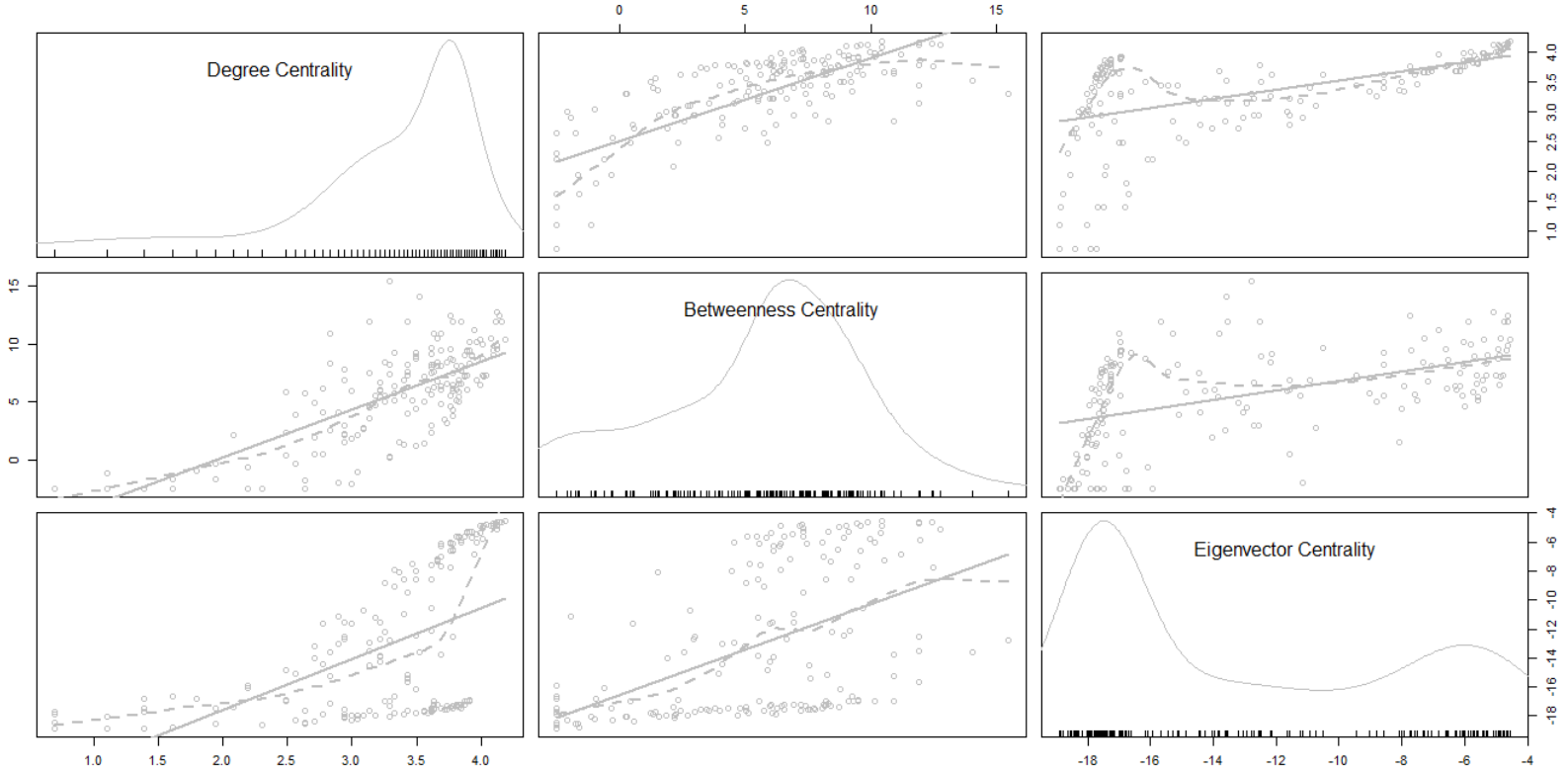


Figure 35: The scatterplot matrix of the three centrality measures, which were all transformed using a multivariate BCn transformation. Adaptive kernel density estimates are plotted in the diagonal. A fitted (solid) and Loess (dotted) regression line is drawn for relationship. The matrix was created using the `car` package (Fox & Weisberg, 2019).

Based on the eigenvalue results, a correlation matrix was used to run PCA. The first principal component represents the degree and betweenness centrality equally, with a lower, but still high, loading for the eigenvector centrality. The first component accounts for 75% of the variability. The principal components obtained from the correlation matrix, which are detailed below, show that the data only slightly exists in the third dimension (**Table 26** & **Table 27**).

Table 26: PCA Loadings.

Variables*	1st Component	2nd Component	3rd Component
Degree Centrality	0.61	0.38	0.70
Betweenness Centrality	0.61	0.33	-0.72
Eigenvector Centrality	0.51	-0.86	-

* all transformed using a multivariate BCn transformation

Table 27: PCA Summary.

	1st Component	2nd Component	3rd Component
Standard deviation	1.50	0.76	0.43
Proportion of Variance	0.75	0.19	0.06
Cumulative Proportion	0.75	0.94	1.00

In the first dimension, the weights of the variables are positive, and the first PC adequately captures the idea of prominence in all of its three different definitions. However, the second component, which has a highly negative weight for eigenvector and a moderately positive weight for betweenness, can be read as a contrast between the eigenvector and betweenness centralities. The first component is the only one that was retained based on the screeplot (not shown here). Furthermore, the first component is the only one with a variance greater than 1; the first variance is 2.25, and the second and third variances are 0.58 and 0.19, respectively, which leaves a comfortable margin on both sides of 1.

The first PC follows a slightly negatively skewed distribution, with no univariate outlier (**Figure 36**).

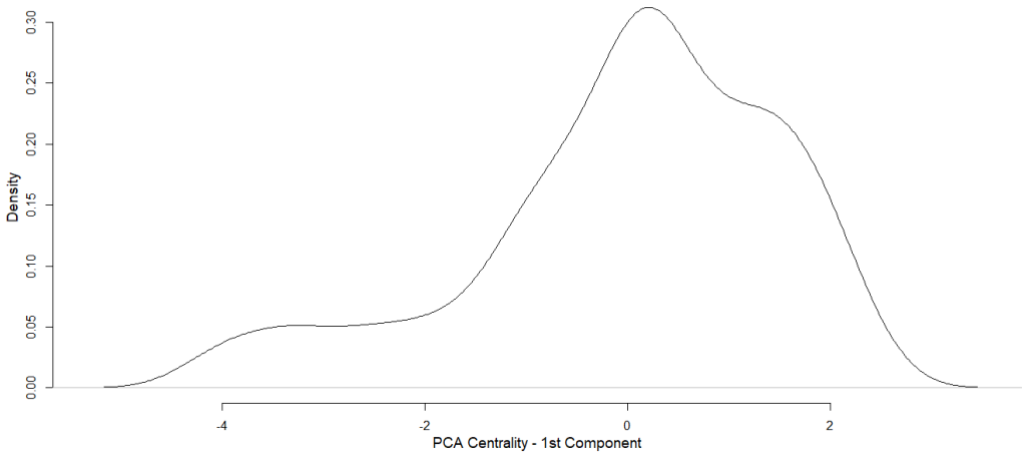


Figure 36: The density plots for the 1st PCA, kernel density estimates. All density plots were created using the `car` package (Fox & Weisberg, 2019).

Linear Regressions

Linear regressions were used to evaluate the relationship between prominence, place of birth (categorized into Turkey, Israel, the rest of the Me, and areas outside of the ME), regions of interest, and PPTs, controlling for confounding attributes, such as productivity, citation impact, and gender. Degree centrality (conceptually, the simplest form of centrality) and the first PC (accounting for approximately 75% of the variability in the centrality measures) were used as the two response variables.

Scatterplots were used to explore the bivariate relationship between the geographical association variables (to Israel, Turkey, the rest of the ME, and areas outside of the ME) and the centrality measures (degree centrality and 1st PC). As explained and illustrated before, the GAs to Turkey, Israel, and the rest of the ME are zero inflated. In all cases but one (degree centrality and GA to Turkey), the Loess and OLS lines both show a weak relationship or no relationship between the GAs and the centrality measures (Figure 37). Place of birth, which was categorized based on the four regions, was used instead as simpler criteria corresponding to GAs. As Table 3 shows, the scholars born in Turkey had the greatest degree centrality, while those born in Israel had the lowest. As measured by the 1st PC, however, there was no significant difference among the centrality measures of scholars born in Israel, Turkey, the rest of the ME, and areas outside of the ME.

The first set of models (M0) only contained attributes that were included as adjustment variables, namely: GS h-index, the first year of appearance on GS, and gender. The next set of models (M1s) also included place of birth (categorized into

four groups). Finally, the last two sets of models (M2s and M3s) analyzed how PPT and region of interest (controlling for PPT) influenced prominence.

The scatterplot matrix shows that, while there is no relationship between the first PC and first work for those whose first work was published before the mid 1990s, prominence gradually decreases for those scholars who published their first work after this point. The trend appears to be the same for the relationship between first work and degree centrality. The relationship between GS h-index and the prominence measures (both the first PC and degree centrality) is positive and linear (Figure 38).

As **Table 28** shows, the Anova test results for the 1st PC by regions of interest were not significant. Scholars who work on the ME as whole have a higher degree centrality, receiving an average of 38.9 co-citation ties; these scholars are followed by those who focus on Turkey, other regions, and finally scholars who work on Israel-Palestine-Lebanon, who received 27.4 co-citation ties on average. A comparison of the centrality measures of different PPT groups revealed that radical-left scholars were more central in the general sense of centrality (1st PC), with liberals being the least central. However, there were no differences in the average number of co-citation ties received by scholars with different PPTs. Finally, there were no differences in the centrality measures of male and female scholars, as measured by both degree centrality and the 1st PC.

Table 28: The numerical summaries of centrality measures (Degree Centrality and 1st PC) by the explanatory variables.

		Centrality Degree				F-test/ t-test
		Mean	SD	Median	N	
Degree Centrality by Place of Birth	Israel	24.0	12.4	20.5	16	F=3.2, df=3,191, p=0.02
	Turkey	37.3	10.8	39.0	39	
	Rest of the ME	29.8	17.0	25.0	62	
	Outside of the ME	33.2	17.9	33.0	78	
1st PC by Place of Birth	Israel	-0.60	1.33	-0.90	16	F=1.6, df=3,191, p=0.19
	Turkey	-0.20	0.97	0.07	39	
	Rest of the ME	-0.02	2.22	0.19	62	
	Outside of the ME	0.22	2.24	0.62	78	
Degree Centrality by Region of Interest	Isrl-Plstn-Lbnn	27.4	13.3	25.0	50	F=5.5, df=3,198, p=0.001
	Turkey	34.8	12.8	38.0	53	
	ME as a whole	38.9	19.2	43.0	50	
	Others	28.4	16.4	28.0	49	
1st PC by Region of Interest	Isrl-Plstn-Lbnn	0.05	1.18	0.29	50	F=1.9, df=3,198, p=0.13
	Turkey	-0.08	0.80	0.19	53	
	ME as a whole	0.36	1.84	1.36	50	
	Others	-0.33	1.91	0.51	49	
Degree Centrality by PPT	Radical Left	31.9	15.9	30.0	60	F=1.3, df=3,198, p=0.27
	Center Left	28.7	19.6	31.0	64	
	Liberal	25.8	18.9	32.5	54	
	Conservative	31.9	18.6	29.0	24	
1st PC by PPT	Radical Left	0.43	1.14	0.48	60	F=5.70, df=3,198, p=0.0009
	Center Left	-0.04	1.61	0.27	64	
	Liberal	-0.62	1.55	0.08	54	
	Conservative	0.42	1.52	0.71	24	
Degree Centrality by Gender	Male	29.6	18.6	31.0	147	t=-0.7, df=110, p = 0.50
	Female	28.3	16.4	26.0	55	
1st PC by Gender	Male	-0.04	1.58	0.35	147	t=-0.25, df=115, p = 0.81
	Female	0.02	1.29	0.26	55	

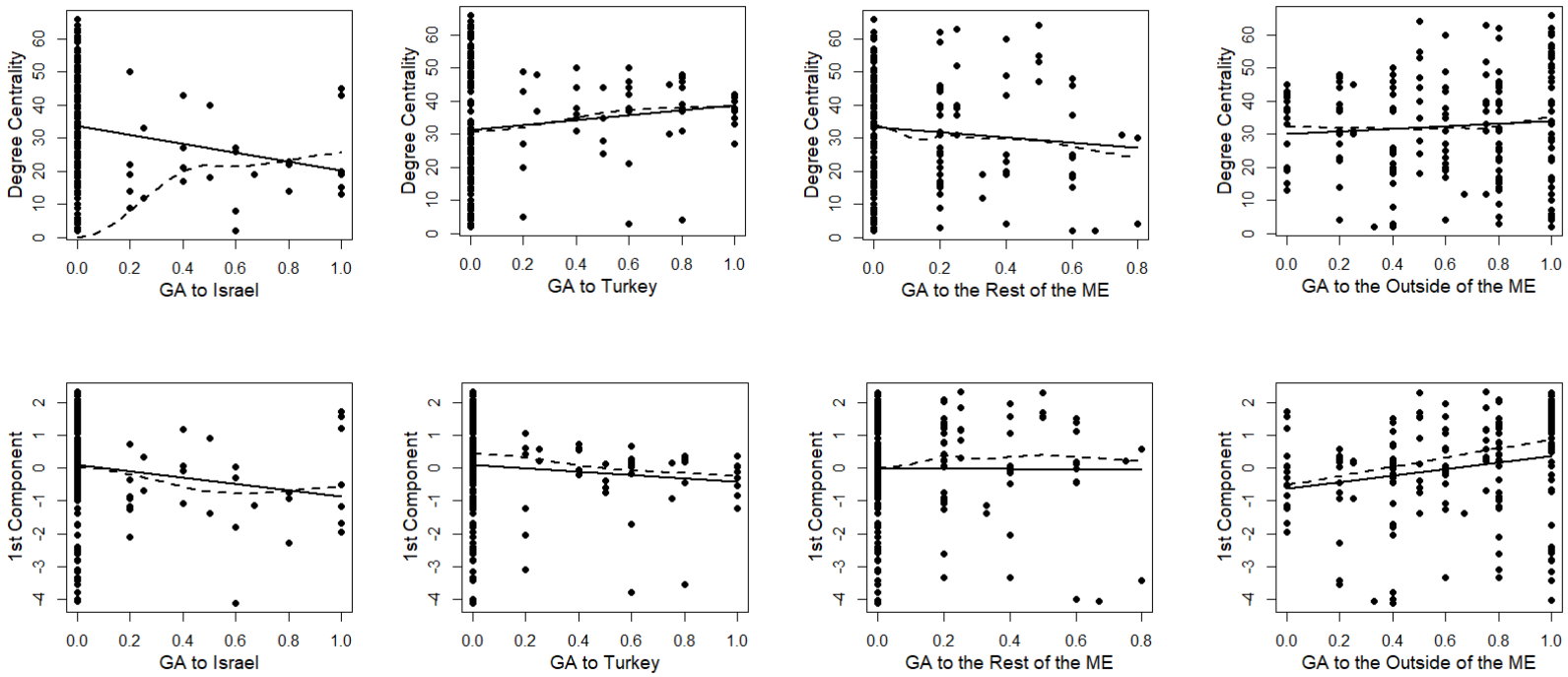


Figure 37: The scatterplots of centrality measures (Degree Centrality and 1st PC) on the GAs (to Israel, Turkey, rest of the ME, and outside of the ME). The least-squares lines are indicated by solid lines, while the LOESS lines are indicated by the dashed lines. A larger smoothing span was used here (α=0.75) compared to the one used in the rest of this chapter (α=0.5).

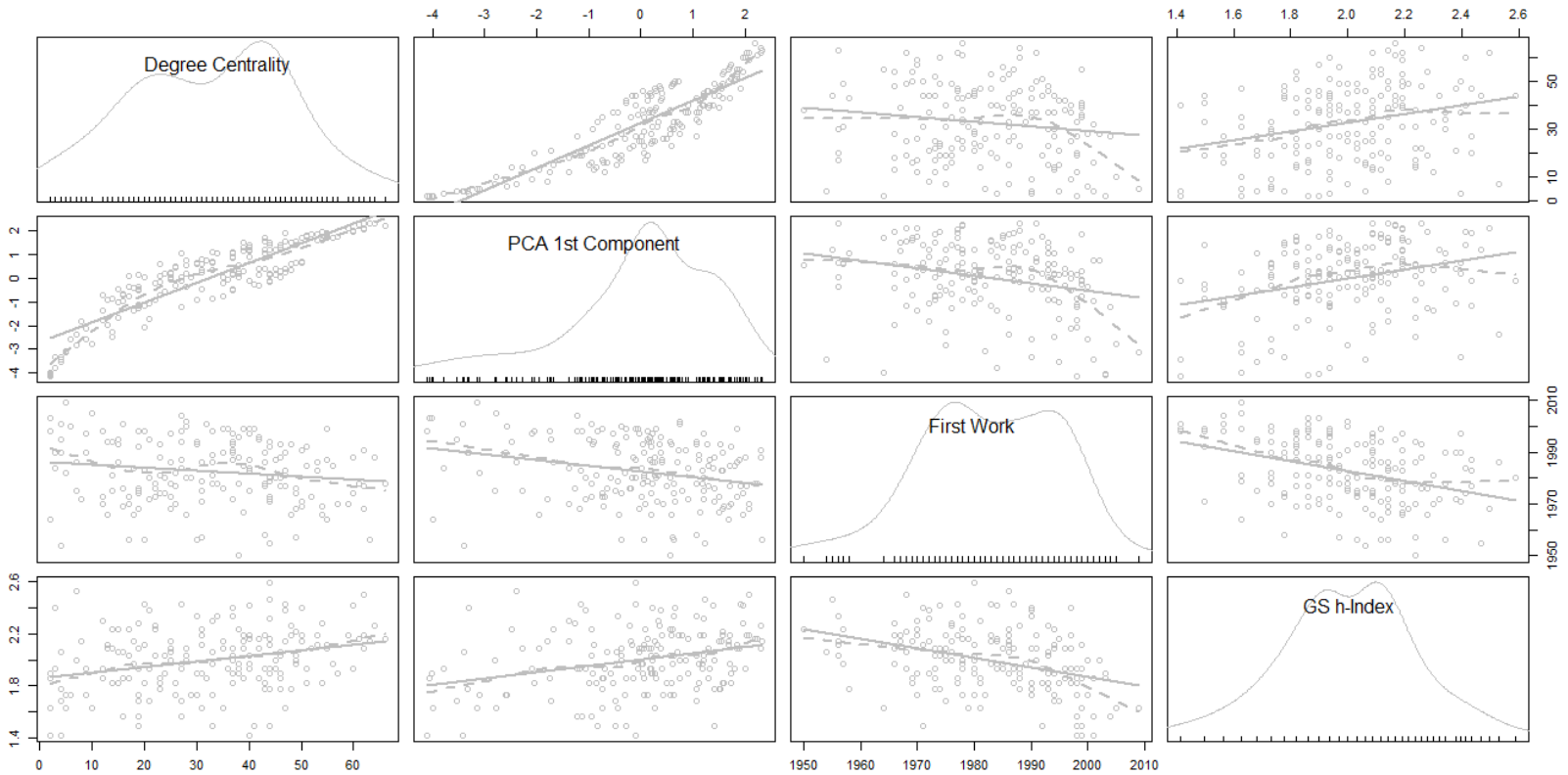


Figure 38: The scatterplot matrix of the centrality measures (degree centrality and PCA 1st Component), the 1st Appearance, and GS h-index (transformed). Adaptive kernel density estimates are plotted in the diagonal. A fitted (solid) and LOESS (dotted) regression line is drawn for relationship. Matrix was created using the `car` package (Fox & Weisberg, 2019).

Table 29: ANOVA Table (Type II test). Linear regression modeling of the centrality measures for the Place of Birth, PPT, and Regions of Iinterest.

	F values (dfs in brackets)							
	M0-1	**M0-2**	**M1-1**	**M1-2**	**M2-1**	**M2-2**	**M3-1**	**M3-2**
	Degree	**1st PC**	**Degree**	**1st PC**	**Degree**	**1st PC**	**Degree**	**1st PC**
Gender	0.05(1)	0.42(1)	0.70(1)	0.03(1)	0.06(1)	0.26(1)	0.001(1)	0.63(1)
1st Work on GS, B-Spline	3.52 (3)*	7.07(3)***	4.78(3)***	7.97(3)***	3.39(3)*	6.88(3)***	4.88(3)**	8.13(3)***
GS h-index	6.41 (1)*	3.51(1)▫	5.44(1)*	2.20(1)	6.72(1)*	4.19(1)*	7.53(1)**	4.33(1)*
Place of Birth			7.24(3)***	2.33(3)▫				
PPT					1.25(3)	5.76(3)***	5.48(3)**	7.15(3)***
Region of Interest							13.05(3)***	4.43(3)**

Signif. codes: 0 '*' 0.001 '**' 0.01 '*' 0.05 '▫' 0.1 ' ' 1**

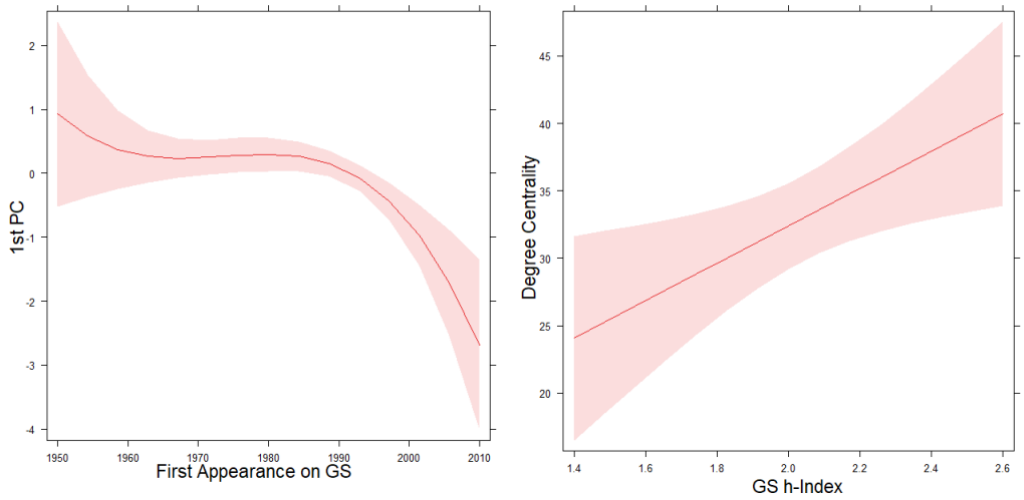


Figure 39: The effect plots of first appearance on GS. Model M0-2 in Table 29 (left) and Model M0-1 in Table 29 (right). The plots were created using the `effects` package (Fox, 2003).

As shown in **Table 29**, the effect of gender on prominence is consistently not significant in all models; however, the year of a scholar's first appearance on the GS (modeled using b splines with three degrees of freedom) and GS h-index have a statistically significant effect on prominence (defined both as centrality through the first PC and degree centrality) in almost all models.

As the effect plots (**Figure 39**) illustrate, prominence for those who published their first work between 1950 and the mid-1990s is nearly a straight line in M0-1, after which it begins to follow a downward trend. In addition, when gender and year of first appearance on the GS were controlled for, the more impactful and productive scholars (as measured by GS h-index) were more likely to be more prominent.

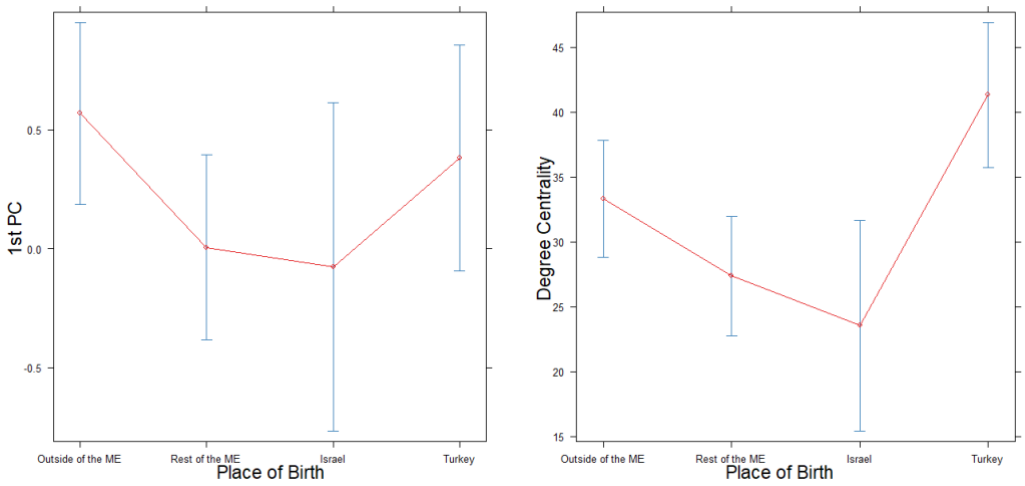
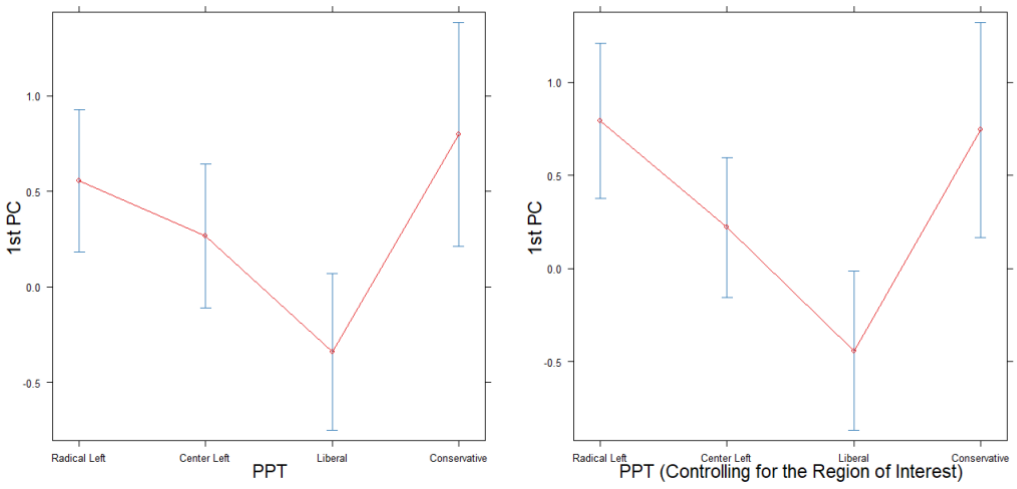


Figure 40: The effect plots of the place of birth. Models M1-2 in Table 29 (left) M1-1 in Table 29 (right). The plots were created using the `effects` package (Fox, 2003).

As evident in the M1 models, there are relationships between place of birth and prominence, as defined by degree centrality, and the first PC (for the coefficients and standard errors of all models in **Table 29** please refer to Attachment I). Being born in Turkey is associated with higher degree centrality, but not centrality in its more general sense. As observed in the previous section, scholars who are geographically associated to Turkey are more likely to be in their own, rather separate, cluster. This separation influences their betweenness and eigenvector centrality measures, and it also affects their overall centrality in the network. As visualized in the effect plot below, scholars who were born in Turkey had an average predicted degree centrality of around 40, compared to 23, 27, and 33 for those born in Israel, the rest of the ME, and areas outside of the region, respectively (Attachment I & **Figure 40**).

In contrast, while being in Israel had no effect on prominence, as measured by the first PC, it did influence degree centrality. Scholars born in Israel were likely to be pushed to the edges of the co-citation network's main component (as discussed in the previous section), which results in a lower degree centrality. Finally, in both of its conceptualizations, centrality was lower for the scholars born in the rest of the ME than for scholars born outside of the region (Attachment I & **Figure 40**).

When year of first appearance on GS, GS h-index, and gender were controlled for, the PPT of scholars did not influence the centrality of their positions in the co-citation network, as defined by degree centrality. This confirms the result of the one-way ANOVA analysis, which was performed to investigate the bivariate relationship between degree centrality and PPT. However, the more comprehensive conception of centrality (the first PC) was associated with PPT. As illustrated in the effect plot, liberals were predicted to have a less central position in the network when compared to scholars with other paradigmatic insights. Finally, in the M3 models, which controlled for region of interest and designated the first PC and degree centrality as response variables, the partial slope coefficient of the PPT was statistically significant.



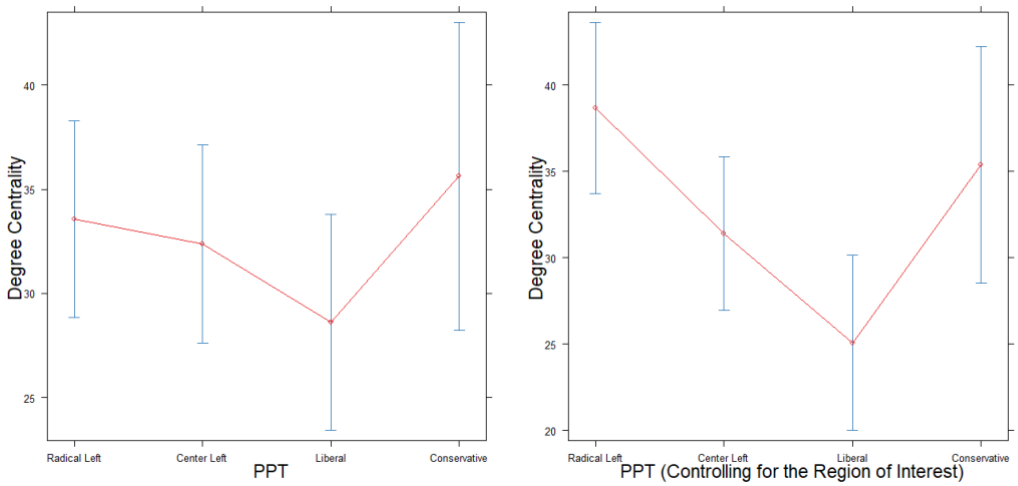


Figure 41: The effect plots of PPT, Models M2-1 and M3-1 in Table 29. The plots were created using the `effects` package (Fox, 2003).

CONCLUSION

This chapter examines clustering and prominence in the co-citation network. In the first section, the chapter asks how clustered the network is, and whether attributes like PPT or GAs pull the scholars closer to some and away from others?

The chapter shows that the network is divided into at least three clusters. It also confirms that both social and cognitive dimensions explain the clustering, and though associated with one another, the social dimension (i.e., the scholars' geographical associations) does a better job explaining the clustering than does the cognitive dimension (i.e., the scholars' PPTs). Scholars with greater GAs to Turkey are more likely to be in the more connected component of the network compared to other scholars; this is also true for the scholars with 80% or more GAs to Israel. For the rest of the ME, however, the probability of connectedness decreases with more connection to the region, especially for those who have a GA of 40% or higher to Iran and the Arab countries of the region.

The chapter also explores centrality in the network by taking a prominent scholar as someone who is directly or indirectly involved in many co-citation ties. In terms of the scholars' number of co-citation ties (degree centrality), there are many well and poorly connected scholars in all three clusters, but no one stands out and is strategically located. In terms of playing the role of connector and bridging scholars from different clusters (betweenness centrality), the ones who connect the Turkish cluster to the main component of the network are the most central.

And then there are those who connect the two rather merged clusters (the Israeli-Palestinian-Lebanese cluster and the ME cluster).

Using Principal Component Analysis, and then the first Principal Component, the chapter merges three different centrality measures, creating a more general measure of centrality. The regression models show that in this more general sense, the radical-left scholars are the most and the liberal scholars are the least central. Turkish scholars, who are most likely to be liberal, are clustered together and rather disconnected from the main component of the network. This makes them the least central in general (but not solely in terms of degree centrality). The model also shows that the scholars who are born outside of the ME are more central than those who are born in the rest of the ME. Finally, there are no differences in the centrality measures of male and female scholars

CHAPTER 7: CONCLUSION

INTRODUCTION

In the last two chapters, I aimed to stay close to the facts, trying not to directly force conceptual frameworks on them. In this chapter, I aim for another level of analysis. Specifically, I will try to interpret the empirical results through the lens of two contemporary theories in the sociology of ideas: Randall Collins's theory of interaction rituals, and Neil Gross's theory of intellectual self-concept. These two theoretical frameworks make it possible to develop a conceptual understanding and explanation of the resulting intellectual map of MES. Randall Collins uses concepts like *interaction rituals*, *emotional energy*, and *cultural capital* to understand the behaviour of scholars, the choices they make, and their positions within the network. Gross, on the other hand, focuses on the intellectual self and how a coherent concept of self informs the process of intellectual decision making.

This study begins by providing a quick examination of the history of MES. I discuss the rise of American Middle-Eastern Studies in the mid twentieth century, and how the field initially received abundant supports from private foundations and, later, federal funding. I offer different perspectives in order to explain the emergence and rise of American MES. In particular, I consider the emergence of MES as a response to the Cold War, or as a discipline that was shaped by the development of social sciences in 20th century America. I then follow the rise and fall of various paradigmatic and theoretical perspectives in the field, and explain the issues it was contending with when Edward Said's *Orientalism* was first published in 1978. After a quick overview of Said's ideas and his critiques, I discuss the controversies that have dominated the field over the past two to three decades, such as: explaining (or failing to explain) the continuing growth of Islamism; the forces of globalization and the necessity of transcending national and regional boundaries (i.e., the end-of-area studies); the policy relevance of the knowledge produced about the ME; the effect of demographic changes in the

body of researchers on the field; and, finally, the complex relationship between the social sciences and MES (or area studies as a whole). At the end of Chapter 2, the research question began to form as I considered whether these issues are reflected in the knowledge contained in texts produced about the ME or in the intellectual map of MES. I further explored whether and how the controversies about the polarized state of the field have influence the communications among scholars. I highlighted the fact that, although attempts had been made to study macro-causalities within the field (i.e., how changes in field were and are related to the authors' social, political, and economic contexts), the intellectual network's internal factors have yet to be investigated.

MES is a highly politicized field, and the way in which its history is narrated, or its current state is analyzed, largely depends on the scholar's particular intellectual, disciplinary, political, and moral standpoints. At the end of Chapter 2, I also highlighted how this dissertation's methodological standpoint and research methods partially transcend the field's political dimension and remain relatively separated from my personal perspective.

In Chapter 3, I step back and examine the methodological approaches that are employed to study the structure of scientific knowledge. In doing so, I show how the dominant paradigm in the social studies of science has evolved from a dualistic juxtaposition—that is, science as a rational, cognitive, universal, and intellectual phenomenon that is influenced or contaminated by social, economic, and political forces—to an acceptance of the contingent relationship between the social and cognitive domains. I also show that scholars have predominantly used two methodological approaches, which are built upon the concepts of *invisible colleges* and *epistemic cultures*, to study the structure of scientific knowledge. The final section of Chapter 3 shows that this dissertation's research method, scientometrics, is not straightforwardly specifiable to these two methodological approaches. As such, I introduce Loet Leydesdorff and his team, whose formulation of a social-scientific methodological framework for scientometrics helped to fill this gap. In introducing Leydesdroff's ideas, I discuss the assumption that the social and cognitive layers of scientific knowledge are reflected at the textual level, and how this relationship motivated the decision to adopt the connections between texts as this study's unit of analysis. Chapter 3 concludes with an explanation of how this dissertation empirically examines the complex relationships between the social and cognitive dimensions of scientific knowledge-production in MES.

The research methods used in this dissertation are discussed in detail in Chapter 4. Specifically, I define Author Co-citation Analysis; explain the inclusion criteria used to classify a country as part of the ME; describe the process that was used to select influential (i.e., highly cited) scholars in the field; outline the choice of data

sources and the lengthy process used to extract records from Google Scholar; detail the creation of a frequency matrix and calculation of a distance measure; explain the collection of attributes and the creation of the variable PPT (political and paradigmatic tendencies); and, finally, I outline the strategies that were used to analyze the acquired data.

Chapter 5 presents the analysis results, which reveal that highly cited scholars in the field possess diverse, yet systematically selective characteristics. Around one fourth of scholars are women, and around one fifth were 50 years old or younger as of 2015. The identified scholars were born in many different countries, with most having been born in ME countries other than Israel and Turkey. The appearance of selectivity is primarily attributable to variables such as institutional affiliation, the countries in which the scholars obtained their degrees, and the scholars' respective intellectual journeys.

In order to quantitatively study the interrelationship between the social and cognitive aspects of English-language MES knowledge production, scholars were categorized into different groups based on their place of birth, where they were trained, and their present institutional affiliations. The inevitable categorization of scholars, however, does not epistemically privilege any specific group. At the macro level, it is important to address the fact that certain groups of scholars—for example, those who were born, trained in, and are/were affiliated with the rest of the ME, other than Israel and Turkey—are not actively engaged in the core network of English-language MES knowledge production; however, at the micro level, epistemically privileging scholars from certain identity categories can lead to essentialism. Later in this conclusion, I briefly discuss how the issues of insider/outsider inquiries, silent (or silenced) voices, and geopolitically hegemonic sites of knowledge production serve as forces that shape the intellectual map of Middle Eastern studies. However, it should be noted that the analytical strategies used in this research depart in some respects from conceptual frameworks that account for the issue of power.

Before analyzing the relational aspects of the sample, I model the predictors of PPT and the scholars' productivity and impact (as measured by the Google Scholar h-index). This analysis shows that scholars' PPT is strongly related to their geographical associations and gender. The scholars' productivity and impact, however, is not associated with their geographical associations, PPT, or gender; rather, it is a function of their age and the ranking of the current institutions with which they are affiliated.

Chapter 6 provides a discussion of the data, taking the relations among texts as its unit of analysis. This aim of this discussion is to explore the relations between the social and cognitive aspects of the creation and circulation of English-language

knowledge about the ME. At present, MES is a divided field, which is a fact that has been confirmed by many scholars; however, this political polarization (see Chapter 2) is not reflected in the co-citation map of the field. Although the co-citation network suggests the presence of three clusters, these clusters are not delineated by the scholars' region of interests or their political and paradigmatic tendencies; rather, they are composed of a complex web of social and cognitive dimensions that divide the network into both overlapping and separate clusters. The non-relational analysis shows that scholars' political and paradigmatic tendencies are influenced by their geographical associations, while the relational analysis shows that, in certain cases, cross-fertilization occurs among scholars with different geographical associations. This cross-fertilization is the impetus behind the internationalization of the production of knowledge about the ME. Empirical knowledge about the ME as whole (as opposed to its subfields) is produced through a cooperative endeavor among scholars with different geographical connections both inside and outside of the region. In the network's most central and connected cluster, these collaborative efforts have created a discursive space that is populated by a community of scholars with various geographical, paradigmatic, educational, and biographical backgrounds. As one moves away from the most connected part of the network, the clusters become more homogenized in terms of the social and cognitive aspects of knowledge production. The centrality of scholars (depending on the definition of centrality) is also a function of both social and cognitive aspects, for example, place of birth, regions of interest, PPT, age, and GS h-index.

In this chapter, I will first interpret the results using the frameworks developed by Collins and Gross. Then, as an extension of Gross's ideas, I will talk about the difference between inquiries from inside and outside, along with the discursive space created by the collaboration between these two inquiries in area studies. I will conclude the chapter, and this dissertation, by discussing future directions for study in this area using mixed-method research and also longitudinal analysis.

COLLINS

Collins and Textual Dimension

Collins (2009) believes that writing is the key intellectual ritual and "is what makes the distinctiveness of the intellectual community, what sets it off from any other kind of social activity" (p. 27). As a method, scientometrics is based on the textual dimension of scientific knowledge production. It is through the textual dimension that scholars demonstrate their knowledge of their predecessors' work and join an ongoing chain of arguments and discussions. The past is acknowledged, whether in the form of affirmation or negation.

Three Embedded Levels of Analysis

Informed by Collins's (2009) theory of interaction rituals, I assume that the production of knowledge about MES takes place at several embedded levels: first, at the level of individual scholars surrounded by the MES intellectual network; second, at the organizational-structure level, which is where intellectual network exists; and finally, at the macro-structure level, which sustains the organizations (i.e., social, political, and economic forces).

In reviewing the history of MES, or analyzing its current state, scholars like Kramer and Lockman, who reside at opposite ends of the academic left-right spectrum, mostly focus on the third and, at times, second levels. They look for macro-causalities—the elements external to the intellectual network of MES—in order to explain the production, dissemination, and training of knowledge in the field. As reviewed in Chapter 2, political and economic changes have influenced the distribution of material resources, which in turn has changed the organizational structure (e.g., universities, think tanks, and publishers) and career paths of the individual MES scholars. However, Collins maintains that theoretical and empirical studies are not directly influenced by this outermost layer.

This dissertation fills a methodological gap by more closely examining the process of knowledge production at the inner-most level of the field; specifically, each scholar's position on the intellectual map, and the internal forces of the intellectual network that drive change in the field. MES scholars are focused on their arguments and conceptual baggage, and it is this inner structure that serves as the medium through which they communicate vertically across generations, and horizontally with their oppositions and alliances. As a result of these communications, socio-cognitive boundaries (either loose or tight and clear) are formed, which are reflected in the textual dimension.

The boundaries are symbolic in the sense that clusters of MES scholars compete intersubjectively to define and disseminate their "realities" regarding the ME. However, these boundaries are also social, as they are partially created by the unequal distribution of and access to resources, as well as differentiated institutional behavior. When they are widely and collectively agreed upon, symbolic boundaries have the potential to become social boundaries (Lamont & Molnár, 2002). The mechanism by which these symbolic boundaries become social remains largely unknown and is an area that would benefit from future study.

After using co-citations to build the intellectual map of MES, I focused on describing and analyzing the shape of the resulting network. I discussed the network's internal stratification and, by modeling prominence, I studied the network's degree of clustering. Finally, I looked to identify the contingent

relationship between scholars' individual characteristics and their various positions in the network.

Relational Methodology and Micro-Macro Linkage

This empirical study's relational methodology fills another gap. As Collins (2009) notes, ideas are born out of communications, and isolated individuals do not beget ideas. The unit of analysis used in the social network approach is relational and understood as the intersection/integration of two irreducible concepts: individual and structure. Within this framework, actors are interdependent and a patterned set of relationships is developed based on the observation of individual relational concepts. Agents' (knowledgeable) views or actions (here two scholars being cited by a third scholar) is the point of departure; however, the system that is developed as a result of agencies' interactions constraining agents' knowledgeability. As conceptualized by Giddens (2013) in his structuration theory, the assumption is that small-scale interactions are compounded with other, similar interactions, to form a pattern. The discovered patterns were discussed extensively in Chapter 6.

The discussion of moving from a single event to a pattern is also informed by the micro-macro linkage in sociological theory. Let's look at an example: to obtain her MSc in Joint Campaign Planning and Strategy from the National Defence University, Deborah Robinson wrote a dissertation entitled, *The Rise of Islam in Turkey: Opportunity or Obstruction for the West in 2011*. In her dissertation, Robinson cites Asef Bayat (A4), a scholar who is categorized as radical left, when talking about how Islamic movements offer a sense of moral and spiritual community. She also cites Efraim Inbar (D1), a scholar who is categorized as conservative, when talking about how Turkey's relationship with Israel influences its relationship with the West. This is a particular event, taking place in the here-and-now, that forms a line between Bayat and Inbar. In ethnomethodology, local events, such as studying the production of science in a laboratory, are considered as a primary object of analysis; however, in network analysis, this local situation is only the beginning of the analysis, not the object. In scientometrics, it is misleading to say that the non-local does not exist. Robinson's (knowledgeable) act of citing Bayat and Inbar is embedded in a macro pattern wherein conservative scholars are co-cited with various scholars across the network. As seen in the color-coded PPT graph in Chapter 6 (Figure 24), conservatives are scattered all over the map and are least likely to show clustering tendencies. The co-citation patterns do not stand alone as a separate level; rather, they are the space in which a co-citation takes place.

Attention Space and Structured Possibility

As Collins (2009) argues, the patterns of interaction among highly cited MES scholars shows the field's structured possibilities. He states that, "the most

important network feature which affects the fate of its members is the stratification of the attention space" (p. 39). Thus, it is difficult for opposing positions and rivalries to emerge, as they all must fight for a share of the limited attention that is split up among the many rival positions. This dissertation looks for the associative patterns between personal and intellectual attributes in the intellectual network in order to catalogue these structured possibilities and illustrate the communication patterns that bring these scholars into the core of the attention space.

As illustrated by the empirical results, being at the core of the attention space requires more access to cultural capital. The opportunity structure of English-language MES is mostly focused on scholars who work on Turkey from a liberal point of view, on Israel-Palestine-Lebanon from a radical-left point of view, and on the ME as whole from a centre-left point of view. As such, the opportunity structure is limited for scholars working on these regions who have other political and paradigmatic tendencies. It is also limited for those who are, to more than a certain extent, geographically associated with the rest of the ME, as well as for those who work on areas other than Turkey, Israel-Palestine-Lebanon, or the ME as a whole. Furthermore, access to cultural capital or other scholars with high levels of *emotional energy* are limited for those who hold tenured positions at universities in peripheral countries (in terms of sites of knowledge production about the ME in English) like Iran, Iraq, or Syria. As Collins says "[scholars] must bargain for IR [interaction rituals] participation in an unfavorable matchup of CCs [cultural capitals] and EEs [emotional energies] because particular persons are all who happen to be accessible" (p. 39).

Conflict fuels intellectual life, and intellectual history is full of warring camps (and not warring individual scholars). Thus, it would be foolish to expect to see separate critical and policy-oriented clusters of scholars (as Kramer, Lockman, and others describe) in the intellectual map of MES as reflected in the co-citation network. Nonetheless, as shown by previous research, this distinction exists in other domains (e.g., sources of funding, ease of obtaining funding, institutional affiliations, and form and level of representation in the media). Using Collins's framework, the conflict between these two groups takes place on a textual level and serves as the driving forces of each others' creativity and emotional energy. As such, the contending groups do not mutually exclude each other. In contrast, liberals and left-leaning scholars seem to be mutually ignorant of each other and are positioned in rather separate clusters.

The Periphery of the Network

It is important to note that this network is composed of highly cited scholars who belong to high-ranking groups in the field, which means that their interactions tend to be emotionally charged. It should also be noted that the periphery of the

network is not mapped in this dissertation, which means that the presented network does not include the lesser ranges of emotional intensity at the low-end where there is a "lack of initiative and negative self-feelings" (Collins, 2009, p. 29).

It is by studying the periphery that the next areas of attention and future trends may be observed. As Collins notes, the cultural capital possessed by scholars becomes more valuable when changes occur in the field, as this allows them to use their cultural capital in the next competition for attention.

Although Collins's concepts of emotional energy, structured possibility, and the core of attention space offer a way to unify the facts of the MES intellectual network, Neil Gross argues that Collins's theory does not account for the fact that the self is the point of departure in action. The next section interprets the results from the point of view of Gross's theory of intellectual self-concept.

GROSS

Gross's Contribution: How Self Impacts Behaviour

Gross's (2009) contribution to the sociology of ideas is a theory of self that accounts for the cognitive and affective processes involved in self-understanding. Gross's theory is founded on the assumption that an actor's self-conceptualization dynamically filters their behaviour. Actors lived experiences and self-understandings mediate their interpretation of the action environment and their ultimate behaviour. The self is the point of departure for a scholar's interpretations, intentions, and actions. The process of knowledge production used by a scholar is influenced in some significant sense by their self-perception. There are disagreements over what self-understanding and identity are, as well as over the mechanism through which identity and action are influenced by each other. Nonetheless, the underlying point remains the same.

Gross (2009) says that his theory, combined with those of Bourdieu and Collins, offers "a more adequate sociological conceptualization of some of the social mechanisms and processes of knowledge making in the social sciences and humanities" (p. 260). Although Collins's (2009) concept of interaction rituals and emotional energies and Bourdieu's (2013) concepts of field and habitus are helpful in explaining the social situatedness of knowledge, they do not take the identities of scholars into account. Bourdieu notes that an intellectual's position within the hierarchy of their academic or intellectual field is influenced by the prestige attached to each domain of their identity. This includes religious and political backgrounds. In contrast, Gross explains that "intellectuals are bearers of identities whose contents often have little to do with their field positions, but which may nevertheless influence the views they come to hold" (p. 255). In order

to provide conceptual clarity, Gross defines an intellectual as "faculty members in modern American academic settings" (p. 265).

Gross's theory of intellectual self-concept is an identity-based theory; that is, it takes intellectual identity as the main building block of scientific knowledge production. Gross's definition of self-concept is an amalgamation of conceptions of identity from disparate traditions. From the Anglo-American social psychologists, Gross borrows the idea that self-concept is a component of selfhood that is necessary for actors to be able to navigate social life. Scholars, in their constructed self-concept(s) and in the taxonomy of the field that they have in mind, characterize themselves as a certain type of intellectual and position themselves in the system in relation to other players in the field. Self-concept is also narrative: it is built based on personal stories about their "distinctive interests, dispositions, values, capacities, and tastes" (p.263). Considering that many MES scholars, and area studies scholars in general, move from one region to another trying to translate the knowledge of one to the language of the other, these journeys play a significant role in their personal stories. In reviewing the on-line profiles of these scholars, one could spot these narrative elements, for example Joel Beinin (B1) joining Kibbutz Lahav, John J. Mearsheimer (C5) serving in the U.S. Air Force, or Edmund Ghareeb's (C9) relationship with his father-in-law. As the Iraqi scholar, Majid Khadduri, observes,

> Thinkers tell stories to themselves and others about who they are as intellectuals. They are then strongly motivated to do intellectual work that will, inter alia, help to express and bring together the disparate elements of these stories. Everything else being equal, they will gravitate toward ideas that make this kind of synthesis possible. (p. 272)

In constructing their self-concepts, scholars creatively bring together the disparate elements of their identities (i.e., personal stories); in developing their self-concepts, scholars are aware that their occupation, first and foremost, involves making knowledge claims that will be judged by their peers for validity. They understand what constitutes a key contribution in their respective fields, and they tie this together with their personal stories to construct their intellectual self-concept. This synthesis is not a mechanistic identification with a pre-given simplified system, but a complex process involving intellectual visions. Intellectual self-concepts are built on socio-psychological foundations, often change over time, and, once established, have a bidirectional relationship with a scholar's intellectual choices, that is, their decision to embrace certain thoughts and to reject others. Even in this network of highly cited scholars, it was easier to determine the PPT of older scholars, as they have had more time to decide upon their areas of interest and paradigmatic choices.

Gross's (2009) discussion of the operationalization of intellectual self-concept highlighted the necessity to extend this project to incorporate a mixed method approach. As Gross argues, intellectual self-concept is operationalized in instances where scholars talk about themselves. To be more specific, in order to act, scholars draw upon the knowledge of their contexts, and intellectual self-concept is operationalized through the verbal expression of this knowledge. Gross considers the complexity of studying the intellectual self-concept. Since self-concept is a dynamic process, the way in which these stories are narrated will depend upon the intellectual's stage of life, the form and media through which the narratives are told, and whether the narrative is an internal conversation or intended to be public. Gross states that the sequence of self-concept(s) should be studied, and that the least evanescent concepts should be highlighted as well.

Inquiries from Inside and Outside

Due to its emphasis on how personal backgrounds influence ideas, the present discussion of the difference between inquiries from inside and outside is not far from Gross's (2009) identity-based theoretical insights. The insider-outsider debate, in this sense, has been mostly shaped in African American studies, women's studies and area studies, and is informed by a stream of literature on the possibility of a social-scientific understanding of a group whose experience is different from one's own (indigenous ethnography, insider research, native research, or introspective research (Reed-Danahay, 1997; Anyidoho, 2008). Anthropological and sociological attitudes towards this debate have largely been concerned with the ambiguity of the boundaries between researcher and researched. The debate moves between the assumption that researchers should remain distant from the site of research for the sake of objectivity, and the recognition that the notion of self influences every aspect of the process (Sherif, 2001). Using this framework, then, the main question is whether an inner sense of the region is epistemologically and methodologically influential. In area studies, what are the links between belonging (to an area), representation (of that area), and knowledge production as a form of representation (about that area)? Does cross-fertilization occur among scholars with different journeys (i.e., social and intellectual backgrounds)? Can interactions among scholars with different journeys result in socially and politically relevant and responsible knowledge about the Middle East?

Although Nana Akua Anyidoho (2008) acknowledges the situatedness of knowledge and the difference between insider and outsider inquiries, she attempts to bridge this gap by offering the idea of "shared struggle" in order to conceptualize knowledge as a collaborative endeavor. "Shared struggle" affirms location as the starting point of knowledge production in area studies. To avoid an identity trap, while acknowledging that individual scholars inhabit "multiple

locations within and across time" (p. 26), she suggests the formation of a discursive space where boundaries (location-based and identity-based) are crossed and an imagined community of scholars creates a politically responsible representation of the area under study. In this sense, insider and outsider scholars must engage with the way in which others have represented them. The political end here is not self-representation; rather, it is collaborative representation. The mutual necessity of collaboration is the key here: insider scholars are not the only party who should be attempting to engage.

In the most central and connected cluster of the network, the scholarship produced about the ME as whole most closely resembles what Anyidoho (2008) calls a "shared struggle," with scholars from different social, educational, work, and paradigmatic backgrounds engaging with the others' representations. The center of the map is a discursive space that is based on collaborative representations, as opposed to self-representation or representation by others. However, when it comes to producing knowledge about Israel and Turkey, the clusters are more homogeneous, as are the social and cognitive dimensions. In particular, the scholarship in the subfield focusing on Turkey is rather separate from the rest, much more homogeneous, and features stronger connections between paradigmatic tendencies and geographical association. Although scholars affiliated with Israeli universities show a high clustering tendency, a discursive space is shaped through the many bridges connecting the main hub of the network to the Israeli-Palestinian-Lebanese cluster. In the network of highly cited MES scholars, there are not enough scholars working on subfields such as Iranian studies or Egyptian studies to allow any reliable conclusions to be drawn.

As mentioned, the way the network is clustered and the relationship between geographical associations and political and paradigmatic tendencies can be interpreted through Collins's conceptualizations of emotional energies and core attention space; however, the clusters in the network also point towards the epistemological and methodological differences between insider and outsider inquiries. Inquiries from inside Turkey and Israel, the only two ME countries that actively participate in producing knowledge about the contemporary ME in English, push key scholars towards liberal and radical-left tendencies (respectively) and pull them away from conservatives and the centre left. In the case of Turkey, the scholarship is much less collaborative and integrated.[20] In the case of scholarship on the ME as a whole, different modes of inquiries (i.e., scholars from with different geographical associations and with various political and

[20] In the case of Turkey, the scholarship is much less integrated, and its insiderist tendencies resemble what Merton (1973) calls, in its extreme form, methodological solipsism, or privileged access to knowledge about a group or an area.

paradigmatic tendencies) substantially collaborate in the process of knowledge production.

Recent critiques of insiderism have used universalism and cosmopolitanism as terms intended to encompass more of the contradictions of today's heterogeneous identity, and they are critical of any attempt that promotes self/other distinctions, i.e., tying researchers to structural positions like race, culture, nationality, or language group. Universalism rejects a totalizing perception of identity, which may also lead to essentializing a specific group (Anyidoho, 2008). There are, however, indications that the heterogeneity of scholars' identity influences their political and paradigmatic tendency. Radical-left scholars are most likely to have a diverse intellectual journey (i.e., moving in and out of region to study and work) and hence a heterogeneous identity. They are followed by center lefts, liberals, and finally conservatives, who are most likely to stay in their country of birth (inside or outside of the region) to study and work. The issue of insider and outsider scholars can be essentializing if the definitions of insider and outsider are rigid; however, if the notion is examined through the lens of one's intellectual journey, then the status of each case can be used as a marker of one's location in a carefully defined research context.

FUTURE RESEARCH

A follow up study to this research could look at mapping the intellectual scholarship of MES through a more interpretive and qualitative lens. As explained before, the scholars in the sample have had distinctly different scholarly journeys, in terms of their origins, education, and work. Some stayed in the same region or country to study and work, some left their place of birth to study and then stayed to work, while others came back to their country of birth after studying abroad. Scholars' political and paradigmatic tendencies, along with their positions in the network, are related to these journeys. This is not a new idea; in fact, it mostly draws on the works of John Urry (2000). Indeed, as researchers have shown, epistemic systems of knowledge have been significantly impacted by the geographical mobility of people, practices, institutions, ideas, technologies, and things. Furthermore, it has also been shown that epistemological and geographical movements across domains of knowledge and different places are strongly intertwined (Barnett & Phipps, 2005). A qualitative study should ask these scholars to assess the intellectual map of MES and comment on how they think one's scholarly journey influences knowledge production in MES. The soundness of co-citation mapping, no matter how theoretically and methodologically rigorous, should also be assessed by scholars, practitioners, and all others who are involved in MES. An interpretive and qualitative investigation could produce a better

understanding and conceptualization of insider inquiry and who counts as a regional-based scholar.

Another potential area for future research would be longitudinal analysis. Although the results of this study indicate the presence of three clusters in the field, and that recent demographic changes have likely produced greater separation among the clusters, a systematic longitudinal analysis can reveal much more about the changes in the network's clustering behavior and individual scholars since the 1950s. In addition, such analysis may shed light on how clustering and prominence in the MES network has changed over time, and the extent to which these changes can be attributed to the changing demographic of the field. Furthermore, longitudinal analysis might be useful for identifying the periods during which the core of attention space underwent changes. A longitudinal look at the network, possible with the data that I collected for this dissertation, would also let us observe and analyze the founding moments of creativity. For example, a longitudinal analysis of the period surrounding the publication of *Orientalism* may be useful for detecting opposing movements, as well as explaining why so much energy and attention was devoted to Edward Said.

CONCLUDING REMARKS

This dissertation invites readers to critically reflect on the local situatedness of the process of knowledge production about the ME, opposing the view that there are unambiguous sets of methodological criteria informing this process. The analysis in this dissertation verifies that knowledge about the ME is local and contingent and there are epistemological and methodological differences between *insider* and *outsider* inquiries. Inquiries from inside Turkey and Israel, the intellectual map illustrates, push the selected key scholars toward liberal and radical left tendencies, respectively, and pulls them away from conservatives and central left. There are also indications of how the heterogeneity of identity influences a scholar's paradigmatic tendency. Radical left scholars are most likely to have a diverse intellectual journey (i.e., moving in and out of region to study and work) and hence a heterogeneous identity. They are followed by center lefts, liberals and finally conservatives who are most likely to stay in their country of birth (inside or outside of the region) to study and work.

MES, along with other area studies fields, is a shared struggle (Anyidoho, 2008) toward the formation of an in-between discursive space, through contributions from insider and outsider inquiries. Individual scholars with different personal spaces of knowledge production and creativity (e.g., one's office, city, or country; in the dissertation mostly referred to as geographical associations or intellectual journeys) must collaborate in the process. In the process of knowledge production about *the ME as a whole*, there are indications of the formation of such an *in-*

between discursive space: a cooperative endeavor among scholars with various paradigmatic, educational and biographical backgrounds. When it comes to producing knowledge about Israel and Turkey, however, the clusters are more homogeneous, with stronger connections between paradigmatic tendencies and geographical associations.

The intellectual map illustrates the geopolitically hegemonic sites of knowledge production (the issue of silent and silenced voices) (Ludden, 2000; Cumings, 1997) which act as barriers against the formation of an in-between discursive space. As shown, among the Middle Eastern countries, Israel and Turkey, which are the regions strongest economies and which also have the deepest connections to the West, are much more active in the core space of English-language ME knowledge production and dissemination. In contrast, scholars educated in, or who are currently affiliated with, Iran or Arab countries in the region have little to no voice in the social-scientific knowledge being produced about the ME in English.

The world has been facing some of its most vexing and high stakes challenges in the ME, and there is a wide recognition of the critical need for relevant knowledge about the region, to engage in public sphere and, when plausible, actively inform policies towards the region. This dissertation calls for the integration of silenced voices in MES scholarship through academic activism, and the formation of an in-between discursive space.[21]

[21] As I was completing the lengthy process of this research, I reflected a lot on the in-between spaces in which I have been living my professional life over the last ten years. I have moved back and forth between *professional* and *policy* sociologies, while longing to be a *critical* sociologist (based on Burawoy's (2005) four types of knowledge). I also moved back and forth between research and teaching positions in Iran and Canada, getting, at times, closer to the core attention space and at others too far from it and isolated. My intellectual self-concept is still far from being established, but I have a strong desire to play a role in increasing the participation of Iranian and Arab scholars –those who live and work in the region— in the process of knowledge production in English MES.

APPENDICES

APPENDIX A: THE INITIAL LIST OF JOURNALS

1. Anthropology of the Middle East
2. Arab Studies Journal
3. Arab Studies Quarterly
4. Arabica
5. British Journal of Middle Eastern Studies
6. Bulletin of the School of Oriental and African Studies
7. Contemporary Arab Affairs
8. Der Islam
9. Education, Business and Society: Contemporary Middle Eastern Issues
10. Insight Turkey
11. International Journal of Contemporary Iraqi Studies
12. International Journal of Middle East Studies
13. Iran
14. Iran and the Caucasus
15. Iranian Economic Review
16. Iranian Studies
17. Israel Affairs
18. Israel Economic Review
19. Israel Studies
20. Journal of Arab Affairs
21. Journal of Islamic Studies
22. Journal of Israeli History
23. Journal of Middle East Women's Studies
24. Journal of Palestine Studies
25. Journal of the American Oriental Society
26. Journal of the Economic and Social History of the Orient
27. Journal of the Middle East and Africa
28. Libyan Studies
29. Middle East Critique
30. Middle East Development Journal
31. Middle East Economic
32. Middle East Journal of Culture and Communication
33. Middle East Law and Governance
34. Middle East Policy
35. Middle East Quarterly
36. Middle East Report
37. Middle East Studies Association Bulletin
38. Middle Eastern Studies
39. New Perspectives on Turkey
40. Palestine-Israel Journal
41. Research in Middle East Economics
42. Review of Middle East Studies
43. The American Journal of Islamic Social Sciences
44. The Journal of Palestinian Refugee Studies
45. The Middle East Journal
46. The Muslim World
47. Turkish Studies

APPENDIX B: AGGREGATE CITATION DATA FOR SELECTED JOURNALS

		Published Since	Mean	SD	50%	99%	N of Scholars >=99%[22]
A	International Journal of Middle East Studies	1970	9	23	2	109	25
B	Middle East Report	1973	27	62	8	299	10
C	Middle East Policy	1982	26	82	6	231	10
D	Middle East Quarterly	1994	18	42	4	203	7
E	The Middle East Journal	1947	23	48	4	250	17
F	Middle Eastern Studies	1964	25	47	6	221	22
G	British Journal of Middle Eastern Studies	1992	12	26	2	145	11
H	Journal of Middle East Women's Studies	2005	14	30	2	134	5
I	The Muslim World	1911	15	29	5	153	23
J	Contemporary Arab Affairs	2008	7	19	2	72	3
K	Arab Studies Quarterly	1979	14	33	2	127	11
L	Iranian Studies	1967	14	27	4	132	13
M	Turkish Studies	2000	17	45	4	176	20
N	Journal of Palestine Studies	1971	22	68	3	312	19
O	Israel Studies	1996	19	45	6	183	12
P	Israel Affairs	1994	16	34	6	131	7
Q	New Perspectives on Turkey	1987	21	52	4	191	6
R	Insight Turkey	1991	20	52	6	171	6
T	Journal of Israeli History	1980	12	22	4	109	3
U	Middle East Journal of Culture and Communication	2008	11	19	4	68	2
V	Middle East Law and Governance	2009	14	25	4	118	2
W	Middle East Development Journal	2009	13	30	4	147	3

[22] The highly cited scholars with the aggregated number of citations in the journal above the 99th percentile.

APPENDIX C: RECURRING NAMES

ID	Journal1	Journal2	Full Name
G5	British Journal of Middle Eastern Studies	Journal of Palestine Studies (N)	Elia Zureik
E9	The Middle East Journal	Journal of Palestine Studies (N)	Joseph Andoni Massad
B11	Middle East Report	Journal of Palestine Studies (N)	Salim Tamari
F10	Middle Eastern Studies	Turkish Studies (M)	Ziya Öniş
F4	Middle Eastern Studies	Turkish Studies (M)	Metin Heper
A24	IJMES	Turkish Studies (M)	Şerif Mardin
F6	Middle Eastern Studies	Turkish Studies (M)	Kemal Kirişci
G7	British Journal of Middle Eastern Studies	Arab Studies Quarterly (K)	Fauzi Najjar
E8	The Middle East Journal	The Muslim World (I)	Yvonne Yazbeck Haddad
A11	IJMES	The Muslim World (I)	Nikki R. Keddie
E7	The Middle East Journal	British Journal of Middle Eastern Studies (G)	Mehran Kamrava
C7	Middle East Policy	The Middle East Journal (E)	M. Hakan Yavuz
F4	Middle Eastern Studies	The Middle East Journal (E)	Metin Heper
C9	Middle East Policy	The Middle East Journal (E)	Edmund Ghareeb
M7	Turkish Studies	Middle Eastern Studies (F)	İhsan Duran Dağı
F6	Middle Eastern Studies	New Perspectives on Turkey(Q)	Kemal Kirişci
F8	Middle Eastern Studies	New Perspectives on Turkey(Q)	Ziya Öniş
C3	Middle East Policy	Insight Turkey (R)	Bulent Aras
F8	Middle Eastern Studies	Insight Turkey (R)	Ziya Öniş
F6	Middle Eastern Studies	Insight Turkey (R)	Kemal Kirişci
K3	Arab Studies Quarterly	Insight Turkey (R)	Meliha Benli Altunışık
M1	Turkish Studies	Insight Turkey (R)	Ali Çarkoğlu
O1	Israel Studies	Journal of Israeli History (T)	Sammy Smooha

APPENDIX D: SAMPLED SCHOLARS

ID	Full Name
A1	Ervand Abrahamian
A2	Janet L. Abu-Lughod
A3	Amatzia Baram
A4	Asef Bayat
A5	Mona El Ghobashy
A6	Mark J. Gasiorowski
A7	Wael B. Hallaq
A8	Valerie J. Hoffman
A9	Saad Eddin Ibrahim
A10	Kemal H. Karpat
A11	Nikki R. Keddie
A12	Timur Kuran
A13	Ira M. Lapidus
A14	Justin A. McCarthy
A15	Michael E. Meeker
A16	Glenn E. Robinson
A17	Ümit Cizre Sakallioğlu
A18	Stanford Jay Shaw
A19	William E. Shepard
A20	Servet Mutlu
A21	Haldun N. GÜLALP
A22	Mervat F. Hatem
A23	Ayşe Buğra
A24	Şerif Mardin
A25	Dale F. Eickelman
B1	Joel Beinin
B2	Martin Van Bruinessen
B3	Sheila Carapico
B4	Rema E Hammami
B5	Suad Joseph
B6	Gudrun Krämer
B7	Julie M. Peteet
B8	Jillian Schwedler
B9	Stork Joe
B10	Susan Slyomovics
B11	Salim Tamari
B12	Sami Zubaida
B13	Yahya Sadowski
B15	Joshua A. Stacher
C1	Stephen Martin Walt
C2	Jahangir Amuzegar
C3	Bulent Aras
C4	Guilain Denoeux
C5	John Mearsheimer
C6	Quintan Wiktorowicz
C7	M. Hakan Yavuz
C8	Stephen Zunes
C9	Edmund Ghareeb
C10	Thomas Hegghammer
D1	Efraim Inbar
D3	Gal Luft
D4	Lorenzo G. Vidino
D5	Eyal Zisser
D6	Bruce Maddy-Weitzman
D7	Efraim Karsh
D8	Daniel Pipes
D9	Michael Rubin
D10	Patrick Clawson
D11	Norvell B. DeAtkine
E1	JE Peterson
E3	Mustapha Kamel Al-Sayyid
E4	Sencer Ayata
E5	Wiliam Arthur Rugh
E6	Eberhard Kienle
E7	Mehran Kamrava
E8	Yvonne Yazbeck Haddad
E9	Joseph Andoni Massad
E10	Oren Yiftachel
E13	Malik Mufti
F1	Elie Kedourie
F2	Andrew James Alexander Mango
F3	Mesut Yeğen
F4	Metin Heper
F5	Ayşe Gülden Kadıoğlu
F6	Kemal Kirişci

F7	Sulayman Khalaf
F8	Alexander Murinson
F9	Süha Bölükbaşı
F10	Ziya Öniş
F11	Yılmaz ÇOLAK
F12	Delwin A. Roy
F13	Mustafa Aydın
F14	Feroz Ahmad
F15	Ahmad Nizar Hamzeh
F16	Ömer Demir
F17	Ahmet İçduygu
F18	Joseph Nevo
F19	Svante E. Cornell
F20	Meltem Müftüler-Baç
F21	Tahire Erman
G1	Fred Halliday
G2	André Raymond
G3	Maha Abdelrahman
G4	Beverley Milton-Edwards
G5	Elia Zureik
G6	Rania Maktabi
G7	Fauzi Najjar
G8	Vincent Durac
G9	Azadeh Kian-Thiébaut
H1	Fatima Sadiqi
H2	Margot Badran
H3	Valentine Moghadam
H4	Moha Ennaji
H5	Loubna H. Skalli
H6	Diane Singerman
H7	Mohammad Jalal Abbasi-Shavazi
H8	Marcia C. Inhorn
H9	Paul Amar
I1	Zeki Saritoprak
I2	Ihsan Yilmaz
I3	Riaz Hassan
I4	Jeanette S. Jouili
I5	Schirin Amir-Moazami
I6	Ahmet Yıldız
I7	Gökhan Çetinsaya
I8	Menderes Çınar
I9	Thomas Philipp
J1	Sari Hanafi
J2	Khair El Din Haseeb
J3	Youssef M. Sawani
K1	Hamid Dabashi
K2	Azzedine Layachi
K3	Meliha Benli Altunışık
K4	George Emile Irani
K5	Nathan Funk
K6	Robert B. Cunningham
K7	Yasin K. Sarayrah
K8	Jacqueline S. Ismael
K9	Tareq Y. Ismael
K10	Susan M. Akram
L1	Houchang E. Chehabi
L2	Ahmad Ashraf
L3	Juan Ricardo Cole
L4	Gawdat Bahgat
L5	Alessandro Monsutti
L6	Mohamad Tavakoli-Targhi
L7	Farhad Kazemi
L8	Djavad Salehi-Isfahani
L9	Ali A. Saeidi
L10	Guity Nashat Becker
L11	Afsaneh Najmabadi
L12	Shahrough Akhavi
M1	Ali Çarkoğlu
M2	Tarık Oğuzlu
M3	William Mathew Hale
M4	Ersin Kalaycıoğlu
M5	Şuhnaz Yılmaz
M6	Paul Kubicek
M7	İhsan Duran Dağı
M8	Alan Duben
M9	Nilufer Narli
M10	Binnaz Toprak
M11	Birol A. Yeşilada

M12	Ahmet Sözen
M13	Fulya Atacan
M14	Refik Erzan
M16	Gamze Avci
N1	Sara Roy
N2	Ziad Abu Amr
N3	Rex Brynen
N4	Rosemary Sayigh
N5	Nadim N. Rouhana
N6	Avraham "Avi" Shlaim
N7	Graham Usher
N9	Sharif S. Elmusa
N10	Laurie A. Brand
N11	Ghazi Falah
N12	Khaled Hroub
N13	Beshara B. Doumani
N14	Edward E. Azar
N15	Ilan Pappé
N16	Ann M. Lesch
O1	Sammy Smooha
O2	Menachem Friedman
O3	Alan Dowty
O4	Yael Zerubavel
O5	Ruth Gavison
O6	As‘ad Ganim
O7	Maoz Azaryahu
O8	Chaim Isaac Waxman
O9	Ahmad H. Sa'di
O10	Dan Bar-On
O11	David Newman
O12	Elie Rekhess
P1	Stuart A. Cohen
P3	Eytan Gilboa
P4	Michael Shalev
P5	Gerald M. Steinberg
Q1	Nükhet Sirman
Q2	Ayfer Bartu-Candan
Q3	Bilgin Ayata
Q4	Emin Fuat Keyman
R1	Ahmet Davutoğlu
T1	Manar Hasan
T2	Anita Shapira
U1	Nadje Sadig Al-Ali
U2	Annabelle Sreberny Mohammadi
V1	Michael Hoffman
V2	Amaney Jamal
W1	Ragui Assaad
W2	Magda E. Kandil
W3	Houssem Eddine Chebbi

APPENDIX E: SCHOLARS WHO HAVE PASSED AWAY

ID	Full Name
A18	Stanford Jay Shaw
A2	Janet L. Abu-Lughod
A24	Şerif Mardin
C2	Jahangir Amuzegar
F1	Elie Kedourie
F2	Andrew James Alexander Mango
G1	Fred Halliday
G2	André Raymond
G7	Fauzi Najjar
I9	Thomas Philipp
N14	Edward E. Azar
N7	Graham Usher
O10	Dan Bar-On

APPENDIX F: CUMULATIVE PERCENTAGES OF GEOGRAPHICAL ASSOCIATIONS BY PPT GROUPS

% of Association to Turkey	Cumulative Percentage per PPT Groups			
	Radical Left	Center Left	Liberal	Conservative
0%	93.3	78.1	51.9	79.2
20%	93.3	79.7	59.3	83.4
30%	93.3	82.8	61.2	91.7
40%	95.0	84.4	66.8	91.7
50%	96.7	86.0	70.5	91.7
60%	98.3	89.1	83.5	91.7
70%	98.3	95.3	83.5	91.7
80%	100	100	90.9	95.9
100%	100%	100%	100%	100%

% of Association to rest of the ME	Cumulative Percentage per PPT Groups			
	Radical Left	Center Left	Liberal	Conservative
0%	48.3	57.8	75.9	100
20%	65	78.1	79.6	100
30%	76.6	79.7	81.5	100
40%	84.9	87.5	88.9	100
50%	88.2	90.6	88.9	100
60%	94.9	96.8	96.3	100
70%	98.3	98.4	96.3	100
80%	100	100	100	100

% of Association to Outside of the ME	Cumulative Percentage per PPT Groups			
	Radical Left	Center Left	Liberal	Conservative
0%	5	4.7	13	16.7
20%	15	12.5	24.1	20.9
30%	18.4	17.2	24.1	20.9
40%	31.7	26.6	48.2	20.9
50%	38.4	32.8	51.9	20.9
60%	53.4	42.2	63.0	29.2
70%	65.1	45.4	66.7	37.5
80%	76.8	68.6	77.8	54.2
100%	100.1	100	100	100

% of Association to Israel	Cumulative Percentage per PPT Groups			
	Radical Left	Center Left	Liberal	Conservative
0%	75.50	93.80	92.60	66.70
20%	76.70	96.90	94.50	79.20
30%	78.40	98.50	94.50	79.20
40%	83.40	98.50	94.50	87.50
50%	85.10	100.10	94.50	87.50
60%	90.10	100.10	96.40	87.50

70%	91.80	100.10	96.40	87.50
80%	96.80	100.10	100.10	87.50
100%	100.10	100.10	100.10	100.10

APPENDIX G: THE COEFFICIENTS, SE AND ANOVA FOR MULTINOMIAL REGRESSION MODEL, EACH WITH ONE OF THE THREE ME REGIONS, CONTROLLING FOR THE GA TO THE OUTSIDE OF THE ME

Rest of the ME and outside of the ME

```
> summary(MLM.ME_outside, digits = 2)
Call:
multinom(formula = ppt ~ insd_me_prcnt * Gender + outside_prcnt +
    firstwork, data = Attrbts202)

Coefficients:
             (Intercept)       insd_me_prcnt       Gender[T.Male]       outside_prcnt       firstwork
insd_me_prcnt:Gender[T.Male]
Center Left          -52          0.19           0.72      0.067     0.026                      -0.33
Liberal              -40         -0.38           1.06     -0.066     0.020                       0.17
Conservative         -59         -5.68           8.32      0.068     0.025                       4.65

Std. Errors:
             (Intercept)       insd_me_prcnt       Gender[T.Male]       outside_prcnt       firstwork
insd_me_prcnt:Gender[T.Male]
Center Left      0.00083          0.15        0.32631      0.065   0.00029                       0.16
Liberal          0.00065          0.28        0.25481      0.062   0.00025                       0.27
Conservative     0.00013          0.21        0.00011      0.079   0.00031                       0.21

Residual Deviance: 480.9664
AIC: 516.9664
> Anova(MLM.ME_outside)
Analysis of Deviance Table (Type II tests)

Response: ppt
                  LR Chisq Df Pr(>Chisq)
insd_me_prcnt         22.9204  3 0.00004195 ***
```

```
Gender                24.0496  3 0.00002439 ***
outside_prcnt             6.0525  3     0.1091
firstwork              3.1964  3     0.3623
insd_me_prcnt:Gender   4.6425  3     0.1999
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Israel and outside of the ME

```
> summary(MLM.isrl_outside, digits=2)
Call:
multinom(formula = ppt ~ +insd_isrl_prcnt + outside_prcnt *
    Gender + firstwork, data = Attrbts202)

Coefficients:
             (Intercept)       insd_isrl_prcnt       outside_prcnt       Gender[T.Male]       firstwork
outside_prcnt:Gender[T.Male]
Center Left          -26           -0.39       0.15           1.84    0.0128                    -0.22
Liberal              -17           -0.26      -0.37          -0.39    0.0091                     0.27
Conservative         -70            0.21      -4.73           3.24    0.0322                     4.99

Std. Errors:
             (Intercept)       insd_isrl_prcnt       outside_prcnt       Gender[T.Male]       firstwork
outside_prcnt:Gender[T.Male]
Center Left     0.000097           0.150      0.072        0.00985   0.00025                    0.051
Liberal         0.000071           0.098      0.099        0.02242   0.00025                    0.076
Conservative    0.000112           0.128      0.061        0.00013   0.00054                    0.061

Residual Deviance: 472.633
AIC: 508.633
> Anova(MLM.isrl_outside)
Analysis of Deviance Table (Type II tests)

Response: ppt
```

```
                  LR Chisq Df Pr(>Chisq)
insd_isrl_prcnt    24.7691  3 0.00001726 ***
outside_prcnt         13.8184  3  0.0031631 **
Gender             20.3501  3  0.0001436 ***
firstwork           2.4423  3  0.4858022
outside_prcnt:Gender  10.9086  3  0.0122305 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Turkey and outside of the ME

```
> summary(MLM.trky_outside, digits = 2)
Call:
multinom(formula = ppt ~ +insd_trky_prcnt * Gender + outside_prcnt +
    firstwork, data = Attrbts202)

Coefficients:
             (Intercept)       insd_trky_prcnt       Gender[T.Male]       outside_prcnt       firstwork
insd_trky_prcnt:Gender[T.Male]
Center Left          -33          -0.13         -0.31       0.17    0.0161                          5.3
Liberal              -19           0.49          1.86       0.11    0.0079                          4.7
Conservative         -53          -1.51          8.28       0.20    0.0215                          6.6

Std. Errors:
             (Intercept)       insd_trky_prcnt       Gender[T.Male]       outside_prcnt       firstwork
insd_trky_prcnt:Gender[T.Male]
Center Left     0.000798          0.191        0.37929      0.071   0.00032                        0.114
Liberal         0.000198          0.113        0.09210      0.074   0.00028                        0.089
Conservative    0.000083          0.065        0.00003      0.094   0.00037                        0.065

Residual Deviance: 458.7049
AIC: 494.7049
> Anova(MLM.trky_outside)
Analysis of Deviance Table (Type II tests)
```

```
Response: ppt
                      LR Chisq Df  Pr(>Chisq)
insd_trky_prcnt         27.3304  3 0.000005019 ***
Gender                  25.1907  3 0.000014086 ***
outside_prcnt            8.7950  3     0.03214 *
firstwork                1.5958  3     0.66034
insd_trky_prcnt:Gender  22.4940  3 0.000051477 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

APPENDIX H: THE COEFFICIENTS, SE AND ANOVA FOR QUASI-POISSON MODELS, EACH WITH ONE OF THE THREE ME REGIONS, CONTROLLING FOR THE GA TO THE OUTSIDE OF THE ME

Israel and outside of the ME

```
> summary(GLM.Crnss_isrl)

Call:
glm(formula = coreness ~ male + outside + gs_hindex + bs(firstwork,
    df = 3) + bs(insd_isrl, df = 3), family = quasipoisson(log),
    data = Attrbts202)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
-6.9083  -1.2034   0.5079   1.5519   4.0454

Coefficients:
                        Estimate Std. Error t value Pr(>|t|)
(Intercept)             3.399812   0.285750  11.898  < 2e-16 ***
male1                  -0.021689   0.080782  -0.268  0.78861
outside                   -0.257621   0.129979  -1.982  0.04890 *
gs_hindex               0.006334   0.004565   1.387  0.16692
bs(firstwork, df = 3)1 -1.067511   0.608549  -1.754  0.08099 .
bs(firstwork, df = 3)2  0.922173   0.377143   2.445  0.01538 *
bs(firstwork, df = 3)3 -1.455232   0.460296  -3.162  0.00182 **
bs(insd_isrl, df = 3)1 -0.432573   0.523698  -0.826  0.40983
bs(insd_isrl, df = 3)2 -0.630439   0.640503  -0.984  0.32621
bs(insd_isrl, df = 3)3 -0.252777   0.208446  -1.213  0.22674
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for quasipoisson family taken to be 4.739626)

    Null deviance: 1397.9  on 201  degrees of freedom
Residual deviance: 1240.5  on 192  degrees of freedom
```

```
AIC: NA

Number of Fisher Scoring iterations: 5

> Anova(GLM.Crnss_isrl)
Analysis of Deviance Table (Type II tests)

Response: coreness
                      LR Chisq Df Pr(>Chisq)
male                    0.0719  1   0.788603
outside                    3.9113  1   0.047964 *
gs_hindex               1.8985  1   0.168244
bs(firstwork, df = 3)  16.4564  3   0.000914 ***
bs(insd_isrl, df = 3)   9.5336  3   0.022976 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
>
```

Rest of the ME and outside of the ME

```
> summary(GLM.Crnss_ME, digits=2)

Call:
glm(formula = coreness ~ male + outside + gs_hindex + bs(firstwork,
    df = 3) + bs(insd_me, df = 3), family = quasipoisson(log),
    data = Attrbts202)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
-6.1998  -1.5456   0.4768   1.4707   3.6038

Coefficients:
                     Estimate Std. Error t value Pr(>|t|)
(Intercept)           3.601806   0.276958  13.005  < 2e-16 ***
male1                -0.014026   0.078885  -0.178 0.859066
outside                 -0.233524   0.111352  -2.097 0.037288 *
```

```
gs_hindex               0.002334   0.004517   0.517 0.605868
bs(firstwork, df = 3)1 -1.390473   0.580831  -2.394 0.017631 *
bs(firstwork, df = 3)2  0.922800   0.374844   2.462 0.014706 *
bs(firstwork, df = 3)3 -1.501672   0.447110  -3.359 0.000945 ***
bs(insd_me, df = 3)1   -0.424866   0.326432  -1.302 0.194631
bs(insd_me, df = 3)2    0.295760   0.494261   0.598 0.550286
bs(insd_me, df = 3)3   -1.338285   0.368436  -3.632 0.000360 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for quasipoisson family taken to be 4.611376)

    Null deviance: 1397.9  on 201  degrees of freedom
Residual deviance: 1149.7  on 192  degrees of freedom
AIC: NA

Number of Fisher Scoring iterations: 5

> Anova(GLM.Crnss_ME)
Analysis of Deviance Table (Type II tests)

Response: coreness
                     LR Chisq Df Pr(>Chisq)
male                   0.0316  1   0.859012
outside                   4.3581  1   0.036833 *
gs_hindex               0.2658  1   0.606144
bs(firstwork, df = 3)  14.5385  3   0.002257 **
bs(insd_me, df = 3)    29.4975  3   1.76e-06 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
>
```

Turkey and outside of the ME

```
> summary(GLM.Crnss_ME, digits=2)
```

```
Call:
glm(formula = coreness ~ male + outside + gs_hindex + bs(firstwork,
    df = 3) + bs(insd_me, df = 3), family = quasipoisson(log),
    data = Attrbts202)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
-6.1998  -1.5456   0.4768   1.4707   3.6038

Coefficients:
                          Estimate Std. Error t value Pr(>|t|)
(Intercept)               3.601806   0.276958  13.005  < 2e-16 ***
male1                    -0.014026   0.078885  -0.178 0.859066
outside                    -0.233524   0.111352  -2.097 0.037288 *
gs_hindex                 0.002334   0.004517   0.517 0.605868
bs(firstwork, df = 3)1 -1.390473   0.580831  -2.394 0.017631 *
bs(firstwork, df = 3)2  0.922800   0.374844   2.462 0.014706 *
bs(firstwork, df = 3)3 -1.501672   0.447110  -3.359 0.000945 ***
bs(insd_me, df = 3)1   -0.424866   0.326432  -1.302 0.194631
bs(insd_me, df = 3)2    0.295760   0.494261   0.598 0.550286
bs(insd_me, df = 3)3   -1.338285   0.368436  -3.632 0.000360 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for quasipoisson family taken to be 4.611376)

    Null deviance: 1397.9  on 201  degrees of freedom
Residual deviance: 1149.7  on 192  degrees of freedom
AIC: NA

Number of Fisher Scoring iterations: 5

> Anova(GLM.Crnss_ME)
Analysis of Deviance Table (Type II tests)
```

```
Response: coreness
                      LR Chisq Df Pr(>Chisq)
male                    0.0316  1   0.859012
outside                    4.3581  1   0.036833 *
gs_hindex               0.2658  1   0.606144
bs(firstwork, df = 3)  14.5385  3   0.002257 **
bs(insd_me, df = 3)    29.4975  3   1.76e-06 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

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