Testing the "China Model" of Meritocratic Promotions: Do Democracies Reward Less Competent Ministers than Autocracies?

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The manuscript has been accepted for publication at *Comparative Political Studies* on 27 May 2019.

Proponents of the "China Model" suggest that autocracies, particularly in East Asia, reward competence more than democracies. However, a competing literature argues that autocracies are less likely to reward competence because autocrats fear that competent officials could challenge for power. We argue that autocracies do not fear *technical competence*; they fear *political competence*. As such, autocracies may promote ministers with technical competence but punish the politically competent. Democracies, by contrast, place a premium on political competence when deciding whom to promote. We provide the first test of this theory on how ministerial behavior is rewarded using a unique dataset of political performance and promotions in nine East Asian countries. Our findings show that autocracies promote officials with technical competence as long as the ministers limit their political behavior. In democracies, parliamentary and presidential democracies promote those displaying political competence.

Proponents of the "China Model" suggest that autocracies are more likely to reward competent ministers and civil servants for promotion than democracies (Bell, 2015). This argument is particularly prevalent in East Asia, where some identify an "East Asian" model that marries a strong state and administrative competence (Gilley, 2014; Zakaria & Lee, 1994). At the same time, a competing literature argues that autocracies should be *less likely* to reward competence than democracies. These authors suggest that autocrats, fearful of political challenges from competent subordinates, will elevate incompetent lackeys to important positions of power (Egorov & Sonin, 2011; Ezrow & Frantz, 2011; Zakharov, 2016). As such, autocracies should incentivize mediocrity.

Adjudicating between these views has profound stakes for recent debates over the relative merits of democracy versus autocracy in delivering economic performance and good governance. Reprising concerns about the Soviet Union's early economic successes (Hoover, 1957, cited in Krugman, 1994), China's economic growth and emerging global status have led some to question whether it has cracked the code of combining high quality governance with limited political participation. While few have offered an unqualified endorsement of East Asian autocracies as an alternative model,¹ an increasing wave of scholarship suggests that countries like Singapore and China have identified ways to improve government performance without opening themselves to competitive politics. These scholars cite specific institutional innovations such as governance reforms (Stromseth, Malesky, & Gueorguiev, 2017), elections (Manion, 2017), and cadre evaluation schemes (Landry, Lu, & Duan, Forthcoming; Li & Zhou, 2005; Whiting, 2004). Meritocratic performance incentives are one of these theorized mechanisms (Bell, 2015). Although a number of scholars cast doubt on the efficacy of the model (Ortmann,

¹ For the most bullish on the sustainability of the China Model, see Breslin (2011) and Bell (2015).

2012; Serrato, Wang, & Zhang, 2017), the stakes are such that prominent journals have featured symposia on the question.²

Despite the robust theoretical debate, surprisingly little empirical work compares how competence is rewarded across democracies and autocracies.³ The literature, which mostly focuses on appointments, is largely bifurcated into separate research on democracies and autocracies. The democratic literature broadly examines the role of gender, institutions, and political affiliation in ministerial selection and promotions in parliamentary and presidential democracies (e.g., Claveria & Verge, 2015; Escobar-Lemmon & Taylor-Robinson, 2005; Lee & Park, 2018).⁴ A related literature examines the role of political versus technical qualities in the staffing of bureaucracies. This research suggests that political affiliation and technical expertise are positively linked with promotion, although the relative importance of technical versus political qualities may vary according to the strength of the opposition (Grzymala-Busse, 2007), alternations in power (Meyer-Sahling & Veen, 2012), or the strength of the leader vis-àvis her own coalition (Geddes, 1994).

Similarly, a burgeoning empirical research agenda in autocracies assesses the importance of competence, performance, and loyalty on promotions in autocracies (Jia, Kudamatsu, & Seim, 2015; Landry, Lu, & Duan, Forthcoming; Li & Zhou, 2005; Reuter & Robertson, 2012; Shih, Adolph, & Liu, 2012). Building on previous work from the Soviet Union (Markevich & Zhuravskaya, 2011; Willerton, 1992), while the voluminous

² See: *Perspectives on Politics*. 2016. "What Exactly is the Chinese Ideal." 14(1): 141-161; *Foreign Policy*. 2015. "Is the China Model Better than Democracy?" October 19, 2015.

http://foreignpolicy.com/2015/10/19/china-democracy-theory-communist-party-politics-model/.

³ Some research does look at whether democracies can select competent officials (Dal Bo, et al., 2017), but no work has compared patterns of ministerial promotions across the systems.

⁴ In particular, there is a vast literature on ministerial appointments in parliamentary studies so we only list a few of them here.

literature on China research is divided over whether loyalty or competence drives promotions, this literature generally suggests that both play a role. Similar to the literature on democracy, this research also questions whether regime type and competitiveness matter in autocracy, with some suggesting that similar to democracies, when autocrats face stronger competition, they are more likely to rely on political considerations rather than technical expertise (Buckley & Reuter, 2019; Reuter & Robertson, 2012). In particular, the importance of competitiveness is possibly why postcommunist Russia seems to reward competence to a lesser degree than is the case in China or even in the Soviet Union (Buckley & Reuter, 2019).

Because of this separation in the research agenda, the divergent approaches lead to complications in comparing how ministers are evaluated in democracies and autocracies. In particular, the definition of competence varies between literatures. Due to the varied conceptualizations of competence used in the theoretical and empirical literature, it is difficult to assess clearly what the "competence-loyalty" (Egorov & Sonin, 2011; Zakharov, 2016) tradeoff in an autocracy is likely to be and to meaningfully evaluate the notion that autocracies systematically reward more competent ministers than democracies. Although there is a compelling study that compares across regimes and examines the education background of leaders (Besley & Reynal-Querol, 2011), this study does not consider political performance or assess patterns of promotion within the regime.

In this article, to develop predictions for promotions in democracies and autocracies, we distinguish between *technical competence* and *political competence*. Technical competence, we argue, corresponds to the Weberian conceptualization of the

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ideal civil servant, who knows how to propose and execute a correct policy. However, while technically competent bureaucrats are able to identify the best policy, they are not necessarily adept at drawing public attention to themselves and the policies they promote. Such ability to generate public attention is critical for winning support for policies and pressuring potentially resistant legislators.⁵ Consistent with Weber (1958), we contend that the ability to generate public attention is a crucial component of political competence. More importantly for this article, as we argue below, it is precisely this component of political competence that autocrats will fear and democratic leaders will desire. While political competence also includes other qualities such as the ability to claim credit and generate goodwill amongst colleagues, the publicity-generating component of political competence is one that autocrats particularly fear in their deputies.

We use this distinction to make a series of predictions regarding how ministers are evaluated in democracies and autocracies. Building on Gueorguiev and Schuler (2016) and consistent with the proponents of autocratic meritocracy, we argue that autocrats will value technical competence. However, consistent with theoretical and empirical research on promotions, autocrats will also be less likely to promote based on political competence (i.e. the ability to attract attention). Furthermore, because the primary threat of the politically competent is to depose leaders, this penalty should only apply to those climbing to the highest echelons of power – precisely the positions that will offer the politically competent a platform to depose the leader. By contrast, in democracies, attracting attention through political competence is critical. Because parties and political leaders in democratic polities depend on public opinion to win elections and

⁵ As we further discuss below, political performance may not lead to higher approval or popularity, but it should lead to greater intensity of support for the individual.

pass policies, political competence will be valued and should matter for all types of ministries, including the most prestigious posts.

Anecdotal evidence suggests the theory is plausible. Studies from South Korea suggest that the types of ministerial backgrounds valued in the government changed after the 1988 democratization (Hahm, Jung, & Lee, 2013). Prior to 1988, the military-backed governments relied more heavily on external experts to staff the ministries. However, within the democratic governments after transition, appointments of ministers with political skills, such as legislators, play a greater role. ⁶ Anecdotal evidence from Indonesia is also consistent with our proposition. During the era of Suharto's dictatorship, he relied heavily on technocrats in the form of the so-called "Berkeley Mafia" of economists as well as engineers, who were brought on to promote high-tech industry (Amir, 2008). However, after the democratic transition in 1999, Indonesian cabinets have been dominated by party leaders and high-profile politicians (Slater, 2018). One finds similar dynamics in Taiwan and the Philippines pre- and post-transition to democracy.⁷

To more systematically test this intuition, we rely on an original dataset of 994 government ministers in East Asia since 2005. To test our theory, we examine how ministers are promoted to senior cabinet positions after their initial appointment to the

⁶ Unfortunately, they do not examine the role of the minister's political competence in different levels of portfolios.

⁷ While cabinet appointees were mostly either technocrats or loyalists to Marcos from his inner circle during the dictatorship, the Aquino cabinet that formed after transition was composed of representatives from a variety of political persuasions (Timberman, 2015). Similarly in Taiwan, cabinet leadership positions tended to be occupied by party members with technocratic backgrounds, such as Yen Chia-kan, for decades of single-party dictatorship. However, after democratization, these positions increasingly go to factional leaders or high-profile politicians, as exemplified by the Chen Shui-bian and Tsai Ing-wen governments (Fell, 2011).

cabinet.⁸ Of central importance to this article, we construct an original measure of political competence using a minister's public profile based on Google Trends searches (i.e. the number of times citizens from a given country searched for that minister).⁹ After validating our measure, the results of several proportional-hazards models show support for our theory. We find that in democracies and autocracies ministers with greater political performance are more likely to win promotion to higher cabinet posts. However, in autocracies, this only holds true for selection to lower prestige posts. Politically competent ministers do not win promotion to the most prestigious positions. In democracies, high political competence is a benefit at all levels. Additionally, consistent with the "China Model" thesis, candidates with higher levels of education are more likely to be promoted in autocracies. In democracies, however, political competence outweighs technical competence in promotions.

We conclude with discussion of the implications of our findings. Our theory and findings do not support a normative argument for the relative benefits of the authoritarian model of bureaucratic management. Indeed, political theory suggests competing perspectives, with the "China Model" advocates arguing for technocratic meritocracy on one hand and Weber arguing for political competence on the other. The primary aim of this article is more positivistic. We simply seek to establish whether the assumption that autocracies are more likely to incentivize technical performance than democracies is true. Our findings suggest that for high prestige cabinet posts, the ability to attract attention is incentivized in democracies but not autocracies. As we discuss in the conclusion, whether

⁸ Of course, our argument also carries implications for appointments as well as promotions. Unfortunately we lack data on all the potential candidates considered for positions but did not receive the posts. In the article, we discuss the implications this holds for our findings and analysis.

⁹ For China, where Google is not popular, we rely on Baidu searches.

this is desirable depends on additional factors outside the scope of this article. While Bell argues for Chinese or Singaporean style meritocracy, Weber cautions that rule by technocrats will lead to a loss of support for policies that may be desirable.

The Concept of Competence in Democracies and Autocracies

In this section, we first revisit the variety of ways in which competence is conceived in order to defend and distinguish our notion of political and technical competence. We then discuss how this notion is applied specifically to the question of ministerial performance and how it is distinguished from other criteria that could factor into political leaders' evaluation of ministers. This distinction is important for both the conceptual and practical concerns of this article, which are further discussed below.

Most of the literature on competence comes from research on elections and appointments. Within research on elected officials, Stokes (1963) emphasizes the notion that some politicians might be higher quality by distinguishing a politician's "valence" from her "positions." Valence criteria are those that are viewed positively or negatively by the electorate regardless of political orientation. A politician's competence is a classic "valence" trait, where some voters presumably would prefer a competent to an incompetent politician.¹⁰ A more recent formal literature assesses the impact of electoral competition on the competence of candidates, particularly legislators, for office. This research suggests that when elections are more competitive, political parties are more likely to nominate competent, or high-quality candidates for those seats (Galasso & Nannicini, 2011, 2017; Jacobson, 1989; Mattozzi & Merlo, 2015).

¹⁰ It is also possible that some voters may see incompetence as a positive quality as it signals that the politician is not an elite and therefore closer to citizens.

Empirical tests of these models use several operationalizations of competence almost interchangeably. Some use education as a measure of quality (Galasso & Nannicini, 2017), under the logic that voters will prefer educated candidates because they may be more likely to enact high-quality policies or will be more public-spirited (Besley & Reynal-Querol, 2011). Others use previous elected experience, under the notion that this is an objective proxy for whether a candidate has features that voters value (Galasso & Nannicini, 2017; Jacobson, 1989). Some others use a candidate's income, with the argument that income demonstrates an individual's "market success and ability" (Galasso & Nannicini, 2011, p. 79).

In contrast to research on elected officials, research on ministerial appointments in democracies distinguishes between political experience and technical competence. Camerlo and Perez-Linan (2015a) exemplify the dominant approach, arguing that presidents seek to maximize three traits: political support, technical skills, and loyalty. Alexiadou (2015) similarly distinguishes three types of ministers that represent three traits prime ministers attempt to balance in parliamentary democracies: partisans, ideologues, and loyalists. In terms of operationalization, political skills are measured by whether or not the minister has party affiliation or parliamentary experience (Amorim Neto, 2006; Lee, 2018a; Pekkanen, Nyblade, & Krauss, 2006). Technical skills are measured by a minister's professional background or educational level (Camerlo & Perez-Linan, 2015a; Lee, 2019). Loyalty is measured by the absence of a political or professional background (Camerlo & Perez-Linan, 2015a).¹¹ Therefore, in contrast to the

¹¹ Other research in the East Asian context measures whether a minister shares the same place of origin with the chief executive as a measure of the minister's loyalty (Lee, 2018b).

concept of competence in electoral candidates, the literature on ministerial appointments in democracies delinks political and technical skills.

The literature on promotions in autocracies uses still different measures to identify quality or competent candidates for promotions to elected, ministerial, or other political positions. In this literature, the quality of the minister in question varies considerably depending on the author. One influential account of promotions in autocracies, positing the "competence-loyalty" tradeoff, considers competence as the ability to identify a coup attempt against an autocrat (Egorov & Sonin, 2011; Ezrow & Frantz, 2011; Zakharov, 2016). Other research on promotions in China and Russia operationalizes performance by the ability to generate growth within a province or to increase tax revenue (Jia, Kudamatsu, & Seim, 2015; Landry, Lu, & Duan, Forthcoming; Li & Zhou, 2005; Reuter & Robertson, 2012). Outside of the promotions literature, there are still other definitions of competence used. Crabtree, Kern, and Siegel (2018), for example, suggest that dictators want officials with "disposition competence," which they define as the ability to behave viciously and without scruples.

Given the widely differing conceptualizations of competence, we clarify what we mean by competence in order to help us distinguish patterns of ministerial promotion behavior across democracies and autocracies. Consistent with research on ministerial appointments in democracies, we argue that political competence is the ability to build a coalition of support among colleagues or the public for oneself, one's party, or a policy. Technical competence, on the other hand, involves the ability to identify the correct policies within a specific policy domain. With this conceptualization, we can see the basis of the "reds versus experts" debate in autocracies (Buckley & Reuter, 2019; MeyerSahling & Veen, 2012). The reason why the chief executive might choose a minister for political reasons is to build support among one's own parties or potential coalition partners. A technocrat is a luxury that only strong leaders can afford. In using this conceptualization, we therefore clearly see political competence as an individual-level valence trait, and not a mere function of one's party label. That is, party membership may be a measure of loyalty or alliance, but not a measure of political competence.¹²

In terms of our concepts, the measure of technical competence we use below fits existing research. In measuring political competence, however, we concentrate on a particular component of the concept – the ability to attract attention – for theoretical and measurement reasons. Although it is not the sole component of political competence, the ability to attract attention to oneself is a fundamental element of political competence. Indeed, as Mayhew (1974) highlights, advertising, credit claiming, and position taking are key weapons that a politician uses to win elections. The ability to attract attention is central to an official winning *public* support, which can be useful for putting pressure on other politicians to support a given policy proposal. Nonetheless, we acknowledge that ours is a potentially narrow operationalization of political competence. Indeed, politically competent officials may be able to attract resources and mobilize coalitions in ways that do not attract public attention. Although challenging to measure, future work could assess how these less public forms of political competence impact promotion prospects.¹³

Although such a support base might spark a countervailing base of opposition, and thus lead the official to be polarizing and dilute the aggregate approval for that official, a loyal base of personal support can be still useful for ministers. A high intensity

¹² Although party membership is not how we measure political competence, we control for this in our tests. ¹³ We suspect that if autocrats could detect coalition building among ministers, they may seek to punish them for precisely the same reasons that we discuss below with regards to attention seeking behavior.

support base may give ministers' leverage, which can help in influencing copartisans in the legislature. Indeed, while this support base may not translate into aggregate popularity, although it often does, the intensity and concentration of the support affords them greater independence from the party collective. As we discuss in the next section, democratic leaders are more likely to indulge such ministers because of their potential to deliver votes (Tavits, 2009), whereas such ministers may be punished in autocracies due to their ability to upset internal power sharing dynamics (Gueorguiev & Schuler, 2016).

Our conceptualizations of political and technical competence are also consistent with Weber's notion of civil servants versus politicians (Weber, 1958). Civil servants, he notes, are able to identify the correct policies. Politicians, however, can win support for certain policies through the *political skill* of rhetoric.¹⁴ Legal expertise, he argues, particularly endows politicians with such oratorical skills, which will enable ministers to make a public case for themselves and the policies they promote.

Finally, before proceeding, we should emphasize that technical competence and political competence are conceptually independent. A minister can be a brilliant expert within a field of economics without having the ability or inclination to mobilize a personal base of support. Similarly, a minister can gain a reputation as an ingenious minister without actually having a great deal of technical expertise herself. The degree to which politicians gain a reputation will depend on their ability to claim credit, an inherently political skill (Mayhew, 1974). To conclude our discussion of key concepts, in this study we consider technical competence the ability to identify beneficial policies, while political competence is the ability to attract attention to oneself.

¹⁴ We use political skills and political competence interchangeably. A politician with strong political skills, such as oratory or other abilities to attract attention and persuade, can make themselves politically competent.

Theory and Hypotheses

By identifying what we mean by competence, we can now ask the question: How will democracies and autocracies differ in rewarding ministers with political or technical competence through the potential carrot of promotion to senior cabinet positions?

In democracies and autocracies, chief executives have an incentive to maximize technical and political skills in ministerial and bureaucratic appointments. Both democracies and autocracies should have a desire to promote officials with technical skills in order to ensure that policies are well devised and implemented. With regard to political skills, democracies need political skills amongst ministers in order to build coalitions and electoral support (Geddes, 1994), but even autocrats who may be less concerned with elections and coalitions should also desire political competence in order to ensure that the regime is minimally popular and able to win support for its policies (Crabtree, Kern, & Siegel, 2018; Dimitrov, 2009; Gueorguiev & Schuler, 2016; Reuter & Robertson, 2012). Therefore, both autocracies and democracies should prefer to promoting technically and politically competent officials.

The key difference between democracies and autocracies is the electoral environment. In both democracies and autocracies, chief executives not only value policy cohesion and wish to minimize agency loss when choosing cabinet ministers (Lee, 2019; Martínez-Gallardo & Schleiter, 2015; Schuler, 2018; Strom, 2000) but also want to ensure that policies are enacted skillfully, such that ministers achieve the leaders' goals and do not provoke a public backlash. However, chief executives in democracies face greater electoral pressure, which should lead to the following effects. First, democratic

leaders must be cognizant of the need to win electoral support. In this sense, the political competence of ministers can be an asset. Where chief executives lack popularity within their own base, they may reach out to politically competent officials to bolster the credibility of the government (Camerlo & Perez-Linan, 2015a, 2015b; Lee, 2018a; Ono, 2012). Consistent with Tavits (2009), chief executives may even tolerate maverick copartisan ministers if the ministers have a strong local support base, in order to win votes loyal to those ministers.

Second, the need for electoral support will impact the degree to which politically competent behavior is necessary to achieve policy outcomes. Research from democracies suggests that political skills are important to maintain support from coalition partners in the legislature or to advance a particular political agenda (Alexiadou, 2015; Amorim Neto, 2006; Chaisty, Cheeseman, & Power, 2014; Chaisty & Chernykh, 2017; Lee, 2018a). Commonly in parliamentary and presidential systems, well-crafted proposals require some degree of public support to become policy (Centeno & Silva, 1998). Although differences in the relative importance of political and technical skills exist between parliamentary and presidential systems – notably, presidential systems should be freer to select non-partisan, technocratic ministers (Amorim Neto, 2006; Lee, 2018a) – presidential democracies still need politically competent ministers who can help to build and maintain a coalition in order to protect the president and pass her agenda. A minister capable of attracting attention may be able to mobilize support, at least within the minister's party, for the government.

This generates two reasons why chief executives may incentivize the ability to generate attention in democracies – the need to win elections and the necessity to secure

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support for policies. To achieve their goals by maximizing the effects of political competence, democratic leaders will therefore promote ministers with the ability to generate attention to more powerful cabinet posts. Thus, we propose the first hypothesis of our study:

Hypothesis 1: In democracies, ministers with higher political competence are more likely to win promotion.

In terms of technical competence, democracies obviously would prefer technically competent to incompetent ministers. However, there are two important factors that will limit the degree to which democracies incentivize the promotion of technical competence: first, a potential trade-off in minister choices and second, the relatively short time horizon of democratic political leaders. Typically, chief executives in democracies seek to obtain political and technical competence through political appointments. However, competing incentives should exist when choosing ministers, because chief executives are not only restrained by the scarcity of top executive posts but also encounter delegation problems where appointees differ in the capability and incentive to achieve the chief executive's aim (Camerlo & Perez-Linan, 2015a; Huber & Martinez-Gallardo, 2012; Lee, 2018a; Martínez-Gallardo & Schleiter, 2015).¹⁵

Moreover, in some countries, such as the Philippines and South Korea, presidents are only allowed to serve for a single term. In parliamentary systems, such as Japan, while the ruling party may rule for a longer period of time, the time in office for any

¹⁵ In presidential democracies, for example, the choice of party-affiliated ministers can increase the cabinet's political influence but may lead to agency loss due to divergent policy interests between the president and her party, the two competing principals of the ministers. In contrast, nonpartisan ministers are generally perceived as loyalists with technocratic backgrounds but lack political leverage (Samuels & Shugart, 2010).

given minister is likely to be short.¹⁶ Because any payoffs from technical competence are likely to accrue in the long-run, whereas the payoffs to political competence will be realized immediately, political performance should receive a higher priority than technical performance.¹⁷ In sum, we predict that it is a trade-off in minister choices and the short time horizon of democratic political leaders that cause democracies to relatively discount technical competence in promoting ministers. Therefore, our second hypothesis is:

Hypothesis 2: In democracies, ministers' technical competence will not impact the chance of promotion.

How will the situation differ in autocracies? Autocracies feature crucial distinctions from democracies: As Bell (2015) notes, autocracies have longer time horizons than democracies. Therefore, while they need legitimacy based on performance, the desire for popularity does not revolve around the electoral calendar. As such, they should be more apt to promote based on technical competence that will deliver sustained performance, or what others call "performance legitimacy" (Dickson, 2016; Thayer, 2010). Because autocrats can reap the rewards of longer-run technical competence, they should be more likely to promote based on such competence. At the same time, we do note that this effect should be most pronounced in party-based autocratic regimes rather than in personalist or military regimes. This is because promoting based on technical competence or performance requires a bureaucracy in order to manage internal

¹⁶ In our sample, the median survival time for Japanese ministers between 2005 and 2016 is 12 months.

¹⁷ Appointments and promotions are certainly intertwined, but promotions – our main outcome of interest – are subtly distinct from appointments. While research on appointments in democracies, which recognizes the importance of technical competence (Lee, 2018a), is concerned with the partisan composition of aggregate cabinets, research on promotions is concerned with the conditions and qualities that lead certain ministers to either remain in office or win promotion to a higher office (Blondel, 1991; Camerlo & Perez-Linan, 2015a).

promotions. In China, for example, it is well-known that the communist party relies on the Central Organization Committee in order to manage a complex cadre evaluation system that is meant to reward high performing officials (Whiting, 2004). From this discussion, to conduct an empirical test with our sample composed mostly of party-based regimes, we propose the following hypothesis:

Hypothesis 3: In autocracies, ministers with higher technical competence are more likely to win promotion.

What about political competence in autocracies? Although autocracies face fewer electoral pressures, they will still prefer to attracting public attention because this will reduce the cost of remaining in power (Dimitrov, 2009; Gueorguiev & Schuler, 2016). At the same time, in contrast to democracies, ministers displaying the ability to attract attention at high levels of government could pose a threat to authoritarian leaders (Gueorguiev and Schuler 2016). Ministers who actively bring attention to themselves can reduce the power of the other ministers within the collective leadership structure, because the high-profile individual can use the threat of their following to force concessions. Similarly, in systems featuring "reciprocal accountability," where lower-level party bodies select senior figures (Shirk, 1993), the promotion of politically skillful individuals can weaken the role of subordinate bodies. This threat should be felt most keenly in powerful ministries, as these are the ministries that will afford politically astute ministers the ability to challenge leaders.

Theoretically, autocratic leaders could seek to incentivize only the *right type* of competence (Crabtree, Kern, & Siegel, 2018). We agree, as long as the competence is not correlated with the ability to challenge the autocrat. As this theory suggests, technical

competence is not likely to pose a risk. However, with regard to political competence, it is more difficult for autocratic leaders to promote a personally well-known minister without suffering potential risks that such a minister could replace them. Even if a minister displays no ambition, the mere fact of having a personal base of support gives that official the opportunity to challenge leaders for power. Anecdotal examples showing the danger of high-ranking, politically competent ministers challenging the status quo abound. In Malaysia, Finance Minister Anwar Ibrahim became a pariah after challenging Prime Minister Mohamed Mahathir's response to the Asian Financial Crisis (Pepinsky, 2009). Well-known Vietnamese Prime Minister Nguyen Tan Dung was similarly threatening to Vietnam's Communist Party leadership (Schuler & Ostwald, 2016).¹⁸

For this reason, we predict that autocrats will avoid promoting ministers occupying powerful ministries that display political competence. In sum, autocracies should promote ministers with greater political competence. However, they will only do so if the profiles are not so large that they generate a threat to the regime. Furthermore, this effect is likely to apply consistently to all autocratic regime types, because personalist, military, and hereditary leaders should all fear the politically competent. This discussion leads to the final hypothesis:

Hypothesis 4: In autocracies, ministers with higher political competence are more likely to win promotion from ministries with lower importance but not from ministries with higher importance.

Data and Measurement

¹⁸ Although not ministers, Bo Xilai in China and Nguyen Ba Thanh in Vietnam also used their political skills to threaten the ruling elite in both countries (Gueorguiev & Schuler, 2016).

Our tests of these hypotheses rely on data from nine countries in East Asia: Japan, South Korea, Taiwan, Indonesia, the Philippines, China, Vietnam, Malaysia and Singapore.¹⁹ East Asia is a particularly useful region to study our question. First, it features a diversity of political institutions. The sample contains five democracies including Japan, South Korea, Taiwan, Indonesia, and the Philippines as well as four autocracies including China, Vietnam, Malaysia, and Singapore. One drawback in this case selection is that each authoritarian regime is a party-based regime. As noted in the theory section, we think the effect of political competence should apply to all authoritarian regime types, while the positive effect of technical competence may be stronger in single-party regimes. Therefore, our findings on political competence should generalize, but the findings on technical competence might not. With that said, it is important to note that party-based autocracies constitute the majority of authoritarian regimes in the modern world (Magaloni & Kricheli, 2010).

The variation between democracies and autocracies allows us to compare promotion patterns across regime types. An additional benefit of looking within East Asia is that it is a region where the debate over the technocratic "China Model" is central. The argument for top-down selection mechanisms dovetails with a long-standing debate over the so-called "Asian Values" or "Asian Model of Governance" theses, whereby some suggest that East Asians are predisposed to accept restrictions on participation in exchange for more competent bureaucratic management (Gilley, 2014; Zakaria & Lee,

¹⁹ In terms of the specific countries, we choose the nine countries based on the availability of significant search data. For example, East Asian countries, such as Cambodia, Laos, Myanmar, Thailand and North Korea, do not generate enough search traffic on ministers to construct a measure. Within the cases we do examine the data come from the *CIA Directory of Chiefs of State and Cabinet Members of Foreign Governments* and the *Political Handbook of the World*. Biographical information of ministers was collected from *Keesing's Record of World Event*, academic publications, government websites, and news reports.

1994). If there are "Asian Values," this should reduce the likelihood that we find any difference across regime types, as promotion patterns should be consistent across the region.

In testing our hypotheses, we first need to operationalize political competence versus technical competence. As noted above, our measure of political competence focuses on the ability to attract attention. Even using the particular version of political competence we adopt in this paper, the concept is inherently difficult to measure. It is hard, for example, to assess the degree to which a particular minister is able to win public support for policy based on their political power or their compelling oratory. In this article, we borrow from Gueorguiev and Schuler (2016) to suggest that a useful proxy for political competence is a minister's *public profile*, the degree to which an individual is well known by the public. Research on democracies demonstrates that name recognition translates into political power in terms of winning elections (Kam & Zechmeister, 2013). First, the same skills necessary to generate name recognition could also be used to generate support for policies. Second, name recognition should also directly lead to the greater ability to change policy, which itself is a source of political power. Indeed, as Alexiadou (2015) demonstrates, political heavyweights have a greater ability to change policy than ideologues or loyalists.

The key innovation of our research is to test our argument on an original dataset of public profiles based on Google search data. Given that there is no public opinion data available for individual ministers in a time-series format, Google Trends is an attractive information source to measure ministers' public profiles. Google Trends is a measure of search volume that is available going back to 2005.²⁰ It has been used by a number of scholars to measure public interest in issues as well as to predict electoral outcomes (Granka, 2013; Hong, 2016; Mellon, 2014; Reilly, Richey, & Taylor, 2012; Weeks & Southwell, 2010). We generate our scores of public profiles for all ministers from the nine East Asian countries from 2005 to 2016. Because the measure provided by Google is a relative score, we measure each of the search terms (i.e., a minister's full name) against the highest searched political figure in that country between 2005 and 2016. In all, this leads to a 23,806 minister-month dataset of 994 ministers across nine countries.

However, using Google Trends data as proxies for measures of ministers' public profiles requires a proper validity checking process in order to claim that the trends in search data track those in the broader population (Mellon, 2014). In particular, two questions must be addressed regarding the patterns of Internet usage: the levels of Google's dominance in Internet search engine markets and the levels of penetration in Internet access. In our sample of nine East Asian countries, Google dominates in search markets of eight countries except China.²¹ Since Google search data are not available in China, we use search data from Baidu, which has 75 percent market share in China and is available since 2011. To make this data consistent with our other countries, we convert the search data into a relative scale of 0-100 to make it compatible with Google search

²⁰ The Google data are available from 2004 but only with poor quality in the first year, so 2004 is excluded. ²¹ According to StatCounter (2017), between 2009 and 2016, the market share of Google in East Asia is as follows: Japan (68%), South Korea (65%), Taiwan (87%), Indonesia (98%), the Philippines (94%), Vietnam (93%), Malaysia (96%), and Singapore (95%).

data.²² In terms of the levels of penetration in Internet access, they vary across countries, but none of the countries in our sample has a penetration level below 50 percent.²³

The other validity issue is whether the searches correspond to what they are assumed to measure, or more generally, whether they have content validity. That is, the ministers' search index must measure the salience of particular ministers we observe and not other celebrities or sports players with the same names. Looking at the top searches, which include the search term of interest, can help to avoid such irrelevant searches.²⁴

Another important validity concern is whether the search data reflect public interest in the official based on attention she intentionally brings to herself. Our conceptualization of a minister's public profile concerns the degree to which she draws attention from the general public, which may grow into a personal base of support for her. Our goal is to use Google Trends to track public support for ministers. We thus need to distinguish their search index from levels of public interest generated due to unwanted attention, affairs, or events, such as scandals. To account for any significant impact of negative issues on ministers' public profiles, other than well-known and familiar cases searchable online, we also examined months that were over three standard deviations above the mean for each minister and looked for evidence that the spikes were driven by scandals. We then limited their impact by creating a dichotomous variable indicating

²² The relative score for each minister is calculated as the number of times searched for an individual minister divided by the number of times searched for the highest searched political figure in China between 2011 and 2016.

²³ The ratio of Internet penetration tends to increase over the time period of our observation. According to Internet World Stats, as of December 2016, the Internet penetration ratio in East Asia is: Japan (94%), South Korea (93%), Taiwan (88%), Indonesia (51%), the Philippines (56%), China (53%), Vietnam (67%), Malaysia (79%), and Singapore (81%) (see http://www.internetworldstats.com/stats.htm).

²⁴ When there are irrelevant searches, one way to remove them is using a "-"sign in the search string (e.g., "Shinzo Abe-scandal").

whether a minister was mentioned in newspaper articles due to scandals or other negative issues in that month.²⁵

Finally, our validity check includes testing whether Google Trends data are good proxies for a measure of political competence by comparing with public opinion data from legislative elections. Our argument suggests that political competence should lead to strong support, but that the support may also be countervailed by strong opposition. Therefore, those with political skills may either be genuinely popular or perhaps polarizing. Unfortunately, public opinion data are scarce in autocratic contexts. However, some evidence from Vietnam bolsters our arguments. Vietnam conducted a vote of confidence for the first time in 2013, where legislative delegates were required to express their level of confidence in all ministers. Intriguingly, in that vote, the two ministers with the highest public profiles in our dataset – Nguyen Tan Dung and Dinh La Thang – also featured the highest level of delegates strongly supporting and opposing those ministers (Malesky, 2014). Similarly, in democracies there is little public opinion data on ministers. However, we randomly choose close SMD (single-member district) elections from recent elections in Japan, South Korea, and Taiwan, and find that winners had an average profile of 10.7 compared to 0.04 for those that lost.²⁶

In terms of technical competence, we operationalize it through levels of education (1 for a bachelor's degree; 2 for a master's degree; 3 for a doctoral degree) (Camerlo & Perez-Linan, 2015a; Lee, 2019). Using education background as a measure of

²⁵ We are of course unable to determine whether we excluded all information reflecting the negative dynamics of public interest out of our search data, although it is reasonable to anticipate that the most impactful of these are scandals and rumors related to negative issues.

²⁶ Our sample includes Shiori Yamao (46.6%) versus Junji Suzuki (44.4%) from District 7 in Aichi Prefecture in December 2014, Jin Yeong (42.8%) versus Hwang Chun-ja (39.9%) from Yongsan District in Seoul City in April 2016, and Yen Kuan-heng (46.7%) versus Chen Shih-kai (43.7%) from Constituency 2 in Taichung City in January 2016.

competence, of course, is not ideal as it may be that those with lower levels of education may actually perform better. However, existing research for leaders suggest that education levels correspond to better performance (Besley, Montalvo & Reynal-Querol, 2011). At the ministerial level, unfortunately measuring performance across portfolios within a given country at a single time or even a single portfolio over time is challenging. As such, we lack objective measures of technical performance at a given time. However, South Korea does provide a unique opportunity to validate our measure, with tests confirming a relationship between performance and education.²⁷

One particular concern with our technical competence measure is whether or not the education background corresponds to the career. This possibility creates a complex conceptual and modeling problem. Conceptually, some of the positions overlap. For example, in the context of Vietnam, positions like the ministry of finance and the ministry of planning and investment have overlapping competencies. At higher levels of government, such as deputy prime minister or vice presidential positions, the competencies are more general. Furthermore, education may provide general knowledge applicable to managing bureaucracies regardless of portfolio. As such, it is difficult to incorporate the degree to which education matches the position in the full models.²⁸ Yet, since the overall composition of the cabinet, not just the promotion patterns, matters for the implications of our findings, we examine the correspondence between the education background of the minister and their portfolio in each of our cases. Our results show that

²⁷ Using evaluation indicators measuring ministries' performance issued by the Office for Government Policy Coordination in South Korea (<u>http://www.evaluation.go.kr/psec/intro/intro_1_1_3.jsp</u>), we find that the higher the education levels of ministers are, the better performance their ministries achieved, holding other variables constant.

²⁸ For example, if some countries select only those with portfolio-specific expertise to a certain portfolio, then promotions may not be possible within a given regime. As such, a country with few promotions, where all ministers come from within the ministry, may be evidence of a highly technically competent cabinet.

the difference between matching is not based on how democratic the country is, but rather on whether the political system is parliamentary or non-parliamentary. In our three parliamentary systems (Japan, Malaysia, and Singapore), the degree of matching is about 20-25 percent. In our non-parliamentary systems, reflecting the literature, the presidential systems of South Korea and Taiwan have the highest levels of matching at 62 and 64 percent. China and Vietnam are comparable to Indonesia and the Philippines at between 37 and 49 percent. This suggests that consistent with existing literature, presidential systems initially appoint those with expertise more suitable to their portfolios (Lee, 2018b). However, there are still ample opportunities for promotion, suggesting that once selected, even ministers in presidential systems with political skills could win promotion to senior cabinet positions. As robustness checks, we account for the possible effects of regime type by limiting our sample to non-parliamentary democratic cases in the analysis (Appendix Table A2).

For our other measures, a third component of our theory is that political competence should matter differently in autocracies depending on the importance of the position. To operationalize the importance of the cabinet position, we borrow from research on gender and executive appointments to suggest that all types of ministries are not equal in terms of the threat they pose to autocrats.²⁹ Research from gender and cabinet appointments suggests that women are less likely to win "high prestige" ministries than male counterparts (Escobar-Lemmon & Taylor-Robinson, 2005; Lee & Park, 2018). High prestige cabinet posts include portfolios, such as finance or national defense, which have more power or financial resources. Medium prestige posts control

²⁹ We recognize other classifications of cabinet positions (e.g., Pekkanen, Nyblade, & Krauss, 2006), which largely overlap the template we use in this study, particularly for high prestige ministries.

some resources but have less power than the high prestige ministries. Low prestige posts have less access to rents or power. The distribution of cabinet ministries by prestige type is shown in Table 1.

High Prestige	Defense and National/Public Security	Foreign Affairs
	Finance and Economy	Government/Interior/Home Affairs
	Chief Cabinet/Executive/State	Deputy Prime
	Secretary	Minister/Coordinating Minister
Medium Prestige	Agriculture, Forestry, & Food	Justice
	Maritime Affairs, Fisheries, & Oceans	Public Housing
	Civil Service & Affairs	Trade, Industry, & Commerce
	Communications and Information	Labor and Manpower
	Construction and Public Works	Planning and Development
	Education	Political Affairs
	Energy and Natural Resources	Religious Affairs
	Environment/Environmental	Land, Infrastructure, &
	Protection	Transportation
	Health and Social Welfare	Supervision/Audit/Inspection
Low Prestige	Aging and Birth	Regional and Local Affairs
	Children and Family	Reform
	Culture and Heritage	Science and Technology
	Consumer Affairs	Sports and Tourism
	Displaced Persons & Expatriates	Women's Affairs
	Minority Affairs	Youth
	an and Taulan Dahingan (2005, 828)	

Sources: Escobar-Lemmon and Taylor-Robinson (2005, 838)

The differentiation between ministry types has important implications for our theory. We suggest that democracies and autocracies should both be likely to promote ministers with high levels of political competence. However, in autocracies, political competence will be punished only if it poses a threat to the regime leaders. This means that well-known ministers should be less likely to win promotion from *high prestige* ministries, as these are the ministerial positions where the ministers are most likely to pose a challenge to the regime leadership. While it is difficult for a minister of health, for example, to threaten the interests of the autocratic leadership, a minister of defense or finance has a greater ability to mobilize her support base to threaten the autocrat if promoted to higher positions, such as top leadership positions.

All our models also include a host of biographical information on the ministers, such as age (in years), gender (1 if a minister is female and 0 otherwise), and parliamentary experience (the length of service as a member of the parliament in years). As controls, other than the variable accounting for negative issues (*Scandal*), we also include a dichotomous variable indicating the termination of the government, because this may affect both a minister's public profile and the probability of promotion.³⁰ In democracies, government turnover is more frequent, and ministerial promotions are therefore subject to party change in government. All our models also include country-level fixed effects to account for unobserved heterogeneity, such as possible variation in degrees of ministerial promotions across East Asian countries. Table 2 shows descriptive statistics for the independent and control variables.

³⁰ We code 1 for months when the incumbent chief executives' current terms end regardless of re-election.

	Mean	SD	Min	Max
Democracies ($N = 17,272$)				
Trends score (<i>Political competence</i>)	0.568	2.77	0	100
High prestige	0.260	0.438	0	1
Medium prestige	0.552	0.497	0	1
Low prestige	0.189	0.391	0	1
Education (Technical competence)	1.967	0.856	1	3
Age	58.46	7.486	35	79
Gender	0.136	0.342	0	1
Parliamentary experience	4.761	7.859	0	41
Scandal	0.010	0.099	0	1
Government termination	0.037	0.189	0	1
Autocracies (N = 6,534)				
Trends score (Political competence)	0.983	2.549	0	100
High prestige	0.260	0.438	0	1
Medium prestige	0.530	0.499	0	1
Low prestige	0.211	0.408	0	1
Education (Technical competence)	2.023	0.762	1	3
Age	58.32	6.048	42	73
Gender	0.069	0.254	0	1
Parliamentary experience	9.668	8.005	0	34
Scandal	0.011	0.105	0	1
Government termination	0.021	0.142	0	1

Table 2. Descriptive Statistics: Independent and Control Variables

Note: Democracies include five countries (Japan, South Korea, Taiwan, Indonesia, and the Philippines), and autocracies include four countries (China, Vietnam, Malaysia, and Singapore).

Methods

We test our hypotheses with a form of the Cox proportional-hazards model. Our dependent variable is the hazard rate of a minister's promotion, meaning the rate at which a minister is promoted at a given time, conditional on not yet experiencing promotion. The hazard rate of promotion is a latent variable – what we observe is a minister's tenure in a given post, meaning the time until the minister is promoted or dismissed from the specific post. Proportional-hazards models are widely used to estimate the survival of

ministers and cabinets (Berlinski, Dewan, & Dowding, 2007; Kam & Indriđason, 2005; Wood & Marchbanks III, 2007).

However, their application to the estimation of the likelihood that a minister will be promoted conditional on public profiles is not straightforward because our measure of public profiles using the search index is a time-varying covariate during the observed time period for each minister. The time-series properties of the search data may cause complications, such as serial correlation (Mellon, 2014). Given the time-series crosssectional structure of our dataset at individual and country levels, we employ a variant of the survival-time model, called a random-effects parametric survival-time model with cluster-robust standard errors for individual-level panels nested within country. We therefore estimate standard errors that are robust to general forms of spatial and temporal dependence.

In classifying the ministers' post-tenure occupations, we create four categories: retired or left for jobs outside politics; demoted to lower prestige cabinet posts or held other lower prestige government jobs; retained at the same-level cabinet or government posts; and re-allocated to higher prestige cabinet or government positions. Since whether a minister's post-tenure occupation in politics brings more influence over policy and more access to power is an important standard for our definition of promotion, the only unambiguous promotion is the last category. That is, for ministers who held low prestige posts, they are promoted when they receive medium or higher prestige government posts. Likewise, for ministers who held medium prestige posts, they are promoted when they receive other higher prestige government positions. In the case of ministers who already received high prestige posts, there are still several government positions that are more

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attractive and carry a higher rank than state cabinet positions. In democracies, chief executives, vice presidents, premiers, vice premiers, and party chairs belong to this category. In autocracies, on top of these same positions, a Politburo position and a Politburo Standing Committee position are prestigious ones for political elites.

Table 3 displays the proportion of ministers who were promoted from different types of ministerial positions and their average Trends scores in democracies and autocracies. Because the Trends scores are relative scales, they should be interpreted as the percentage of searches relative to the peak level of searches for the most-searched politician in the country. In practice, this means that the number is the average level of searches relative to the peak observation of searches for the country's leader.

In looking at the data, consistent with our theory, ministers in democracies winning promotion have higher profiles than those that do not for all levels of prestige. By contrast, in autocracies, ministers with high profiles only win promotion from low and medium prestige ministries. For high prestige ministries, promoted ministers have an average profile of 0.96 compared to 1.88 for those not winning promotion. This means that high prestige ministers winning promotion in autocracies actually have *lower* profiles than those that do not win promotion, providing initial support for our argument.

	Democracies		Autocracies	
-	Promoted	Not Promoted	Promoted	Not Promoted
High Prestige Ministries				
Ν	20	205	14	23
Proportion	8.9%	91.1%	37.8%	62.2%
Average Profiles	2.89	1.27	0.96	1.88
Total	225 (100%)		37 (100%)	
Medium Prestige Ministri	es			
N	35	423	17	67
Proportion	7.6%	92.4%	20.2%	79.8%
Average Profiles	1.77	1.05	1.83	0.79
Total	458 (100%)		84 (100%)	
Low Prestige Ministries				
N	17	136	4	33
Proportion	11.1%	88.9%	10.8%	89.2%
Average Profiles	3.38	0.85	0.80	0.76
Total	153 (100%)		37 (100%)	

 Table 3. Ministerial Promotions and Average Trends Scores by Regime Type

Note: Ministers' Trends scores are used as a proxy for their political competence.

Results

The previous section presents descriptive statistics consistent with our theory. In this section, we disentangle the contribution of each factor – public profiles, ministry types, and ministers' individual characteristics – upon ministers' hazard rates. Tables 4 and 5 present the impact of our key independent variables discussed above on ministers' promotion probabilities in democracies and autocracies, respectively. Column 1 of Tables 4 and 5 shows the results of the impact of ministers' public profiles on their promotions in democracies. Columns 2-4 of Tables 4 and 5 report the impact of ministers' public profiles on their promotions.

	(1)	(2)	(3)	(4)
	General	Low prestige	Medium prestige	High prestige
Trends score	1.058***	1.056***	1.053***	1.062***
(Political competence)	(0.008)	(0.011)	(0.019)	(0.009)
High prestige	0.881	0.837	1.103	
	(0.324)	(0.326)	(0.339)	
Medium prestige	0.758	0.767		0.925
	(0.247)	(0.266)		(0.284)
Low prestige			1.347	1.230
			(0.470)	(0.480)
Trends x High		1.005	1.008	
		(0.012)	(0.017)	
Trends x Medium		0.995		0.989
		(0.021)		(0.020)
Trends x Low			1.000	0.992
			(0.018)	(0.011)
Education	0.948	0.947	0.945	0.944
(Technical competence)	(0.165)	(0.164)	(0.166)	(0.164)
Age	0.972*	0.972*	0.972*	0.972*
-	(0.016)	(0.016)	(0.016)	(0.016)
Gender	0.671	0.675	0.667	0.672
	(0.299)	(0.300)	(0.301)	(0.300)
Parliamentary exp	1.030	1.031	1.030	1.030
	(0.023)	(0.023)	(0.023)	(0.023)
Scandal	0.932	0.972	0.960	0.970
	(0.463)	(0.500)	(0.497)	(0.502)
Gov't termination	1.888**	1.892**	1.881*	1.892**
	(0.606)	(0.581)	(0.639)	(0.593)
South Korea	1.194	1.204	1.191	1.208
	(0.707)	(0.712)	(0.710)	(0.715)
Taiwan	1.754	1.775	1.751	1.776
	(1.022)	(1.036)	(1.030)	(1.037)

Table 4. The Determinants of Ministerial Promotions in Democracies: Hazard Ratios from Cox Models

	(1)	(2)	(3)	(4)
	General	Low prestige	Medium prestige	High prestige
Indonesia	0.944	0.952	0.943	0.951
	(0.524)	(0.525)	(0.531)	(0.526)
Philippines	0.793	0.797	0.790	0.798
	(0.533)	(0.536)	(0.537)	(0.538)
Wald χ^2	152.96	171.26	166.30	175.86
$Prob > \chi^2$	(0.000)	(0.000)	(0.000)	(0.000)
Failures (Promotions)	72	72	72	72
Ministers & Countries	835 (5)	835 (5)	835 (5)	835 (5)
Observations	17,272	17,272	17,272	17,272

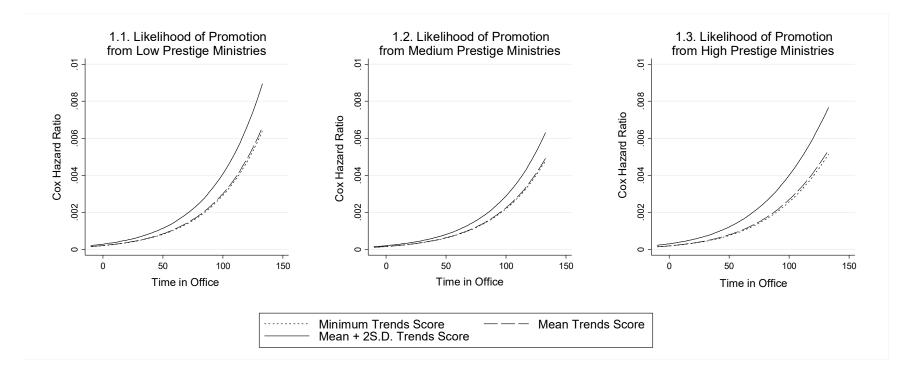
 Table 4. The Determinants of Ministerial Promotions in Democracies: Hazard Ratios from Cox Models (Continued)

Notes: Baseline categories are a low prestige post in Models 1 and 2, a medium prestige post in Model 3, a high prestige post in Model 4, and Japan across all models. Robust standard errors in parenthesis. * p<0.10, ** p<0.05, *** p<0.01.

posts, in democracies and autocracies. In Cox proportional hazards models, a hazard ratio above one indicates a greater likelihood of being promoted as the value of the covariate increases, whereas hazard ratios below one mean ministers are less likely to be promoted.

The results of the models are consistent with our hypotheses. In Table 4, we find that a unit increase in Trends score leads to a 5.8 percent greater possibility of promotion for ministers in democracies. The magnitude of this hazard rate is consistent across all models in Table 4, indicating that ministers with higher public profiles are more likely to win promotion in democracies without regard to the level of prestige. Based on the estimates in column 1, an increase in a minister's Trends score from its observed mean to two standard deviations above the mean values leads to a considerably greater possibility of promotion: from 3.3 percent to 41.1 percent. In Figure 1, we present three graphs showing the average probability of ministerial promotion in democracies, conditional on public profiles and ministry types, for each month of the distribution of time in office.

Figure 1. Ministerial Hazard Function and Public Profiles in Democracies, by Ministry Type



Notes: Figures 1.1-1.3 are based on the estimation of columns 2-4 of Table 4, respectively. Given a left-skewed distribution of Trends scores, we present substantive effects of their increase from observed minimum to two standard deviations above the mean values.

Table 4 also reports the impact of individual attributes on ministers' promotion probabilities in democracies. The variable for education background, as represented by the highest degree earned, is insignificant, confirming our prediction that educational backgrounds have no impact on the likelihood of a minister's promotion in democracies. We further find that a minister's age matters in ministerial promotions in democracies. Based on the estimation of column 1, an increase in a minister's age by five years reduces the chance of promotion by 13 percent. In addition, we find that ministers whose tenure ends at the time of a government termination have a higher hazard rate than those replaced between government terminations. A good number of ministers lost their posts when no termination occurred, confirming that government terminations and minister terminations are distinct (Huber & Martinez-Gallardo, 2012).

	(1)	(2)	(3)	(4)
	General	Low prestige	Medium prestige	High prestige
Trends score	1.057**	1.338**	1.098***	0.677**
(Political competence)	(0.024)	(0.190)	(0.030)	(0.126)
High prestige	0.348	2.565	0.724	
	(0.504)	(3.573)	(0.865)	
Medium prestige	1.654	3.543		1.382
	(1.448)	(3.597)		(1.652)
Low prestige			0.282	0.390
			(0.287)	(0.543)
Trends x High		0.506***	0.617***	
		(0.103)	(0.110)	
Trends x Medium		0.821		1.622***
		(0.115)		(0.289)
Trends x Low			1.218	1.976***
			(0.170)	(0.402)

Table 5. The Determinants of Ministerial Promotions in Autocracies: Hazard Ratios from Cox Models

	(1)	(2)	(3)	(4)
	General	Low prestige	Medium prestige	High prestige
Education	2.880**	2.446*	2.446*	2.446*
(Technical competence)	(1.523)	(1.277)	(1.277)	(1.277)
Age	1.010	1.004	1.004	1.004
	(0.063)	(0.070)	(0.070)	(0.070)
Gender	4.822	4.865	4.865	4.865
	(5.296)	(5.594)	(5.594)	(5.594)
Parliament exp	1.237***	1.234***	1.234***	1.234***
	(0.086)	(0.090)	(0.090)	(0.090)
Scandal	5.563**	4.967	4.967	4.967
	(4.746)	(5.422)	(5.422)	(5.422)
Gov't termination	59.93***	67.20***	67.20***	67.20***
	(38.57)	(45.84)	(45.84)	(45.84)
Vietnam	3.558	2.724	2.724	2.724
	(4.270)	(3.020)	(3.020)	(3.020)
Malaysia	0.384	0.230	0.230	0.230
	(0.549)	(0.372)	(0.372)	(0.372)
Singapore	13.10*	8.071	8.071	8.071
	(17.46)	(10.92)	(10.92)	(10.92)
Wald χ^2	255.14	286.18	286.20	286.20
$Prob > \chi^2$	(0.000)	(0.000)	(0.000)	(0.000)
Failures (Promotions)	41	41	41	41
Ministers & Countries	141 (4)	141 (4)	141 (4)	141 (4)
Observations	6,175	6,175	6,175	6,175

 Table 5. The Determinants of Ministerial Promotions in Autocracies: Hazard Ratios from Cox Models (Continued)

Notes: Baseline categories include a low prestige post in Models 1 and 2, a medium prestige post in Model 3, a high prestige post in Model 4, and China across all models.

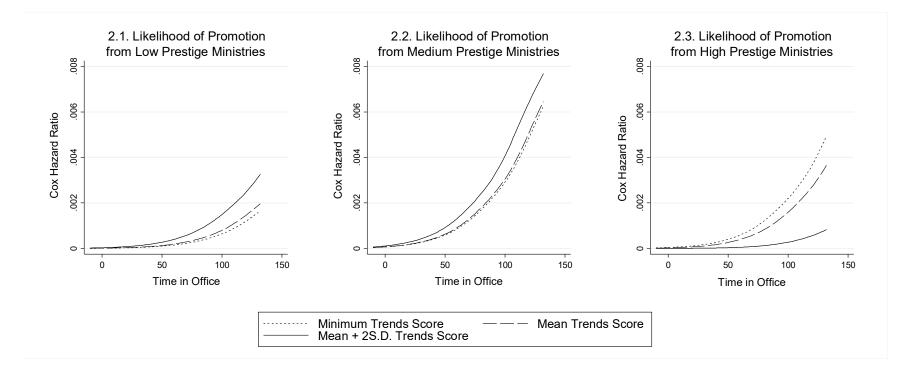
Robust standard errors in parenthesis. * p<0.10, ** p<0.05, *** p<0.01.

Turning to promotion patterns in autocracies, in column 1 of Table 5, we find that a unit increase in Trends score leads to a six percent higher hazard rate for ministers in autocracies. This finding indicates that ministers with higher public profiles are also more likely to win promotion in autocracies, holding all other variables constant. An increase in a minister's Trends score from its observed mean to two standard deviations above the mean values leads to an increase in the hazard rate of a minister by 36 percentage points.

However, consistent with Hypothesis 4, we find that public profiles interact with the prestige of the ministry. In columns 2-4 of Table 5, we condition on three levels of prestige in cabinet positions: low, medium, and high prestige posts. We find that an additional unit of Trends score decreases the chance of promotion for ministers in higher prestige ministries. For each additional unit increase in a minister's Trends score, the likelihood of promotion for low prestige post holders increases by 34 percent. For medium prestige ministers, the benefit is 10 percent higher. However, for high prestige ministers, an increase in Trends scores *decreases* promotion prospects by 32 percent. This is clearly illustrated in three graphs of Figure 2 (2.1-2.3), which show the average probability of ministerial promotion in autocracies, conditional on public profiles and ministry types, for each month of the distribution of time in office.

Based on the estimation of columns 2-4, an increase in a minister's Trends score from its observed mean to two standard deviations above the mean values more than quadruples the chance of promotion for low prestige post holders, some 50 percentage points higher chance of promotion for medium prestige post holders, but some 59 points lower probability of promotion for high prestige post holders in autocracies. This is consistent with our theory that politically competent ministers in threatening positions are more likely to be sidelined in autocracies than in democracies.





Notes: Figures 2.1-2.3 are based on the estimation of columns 2-4 of Table 5, respectively. Given a left-skewed distribution of Trends scores, we present substantive effects of their increase from observed minimum to two standard deviations above the mean values.

Table 5 also reports the impact of individual attributes on ministers' promotion probabilities in autocracies. The variable for education, as we predicted, is a significant factor determining ministerial promotions in autocracies. Based on the estimate in column 1, a minister with a doctoral degree has a hazard rate 2.9 times higher than a minister with an average level of educational training (a master's degree). In addition, two control variables in our models – parliamentary experience and government termination – are positive and statistically significant. With regard to a government termination, we find that ministers whose tenure ends at the time of a cabinet termination have a much higher hazard rate than those replaced between government terminations. In autocracies, relatively few ministers are dismissed between government terminations in general.

Alternative Specifications

In this section, we test the sensitivity of our results to a range of alternative specifications and report them in the appendix. One concern is that our results do not take into account the important distinctions between presidential and parliamentary systems in democracies. In particular, it is possible our model only applies to Japan, the one parliamentary democracy in our sample. To address this concern, in columns 1-2 of Table A2, we estimate two separate models for presidential and parliamentary systems. Although the results are weaker for the presidential systems, Table A2 shows that our results are robust to the differences within democracies.³¹

³¹ Due to a limited number of promoted ministers in each prestige level of cabinet positions within countries, we only show models without interaction terms.

The other potential cause for concern is censorship of Internet search data occurring in some authoritarian countries. China, for example, engages in massive efforts to suppress online communication (King, Pan, & Roberts, 2014). This could jeopardize our findings if those that are most well-known are censored, therefore artificially reducing the number of searches for those ministers. To address this concern, we demonstrate that our results in autocracies presented in the previous section are robust to the exclusion of China and after controlling for levels of press freedom.³² The results in Table A3 confirm the findings.

In addition, we employ a different specification of Cox proportional hazards models to address country-level heterogeneity. Although we address potential diversity across countries by including country-level fixed effects, we further address macro-level heteroskedasticity by estimating separate models for democracies and autocracies accounting for country-level factors in Tables A4 and A5.³³ As Tables A4 and A5 show, the results confirm the robustness of our findings.

An additional question is whether the coefficients on Trends scores in democracies and autocracies are statistically different from each other. In our main analysis, we chose to run separate models for different regime types with country-level fixed effects rather than consolidated models with triple interaction terms. The reason is simple: Our measure of a minister's public profile (i.e. Trends score) is a relative score for each minister calculated in comparison with the highest searched political leader within the country. Therefore, ministers who had average scores of 10 in democracies

³² The source of information on levels of press freedom is from the Corruption Perceptions Index. https://www.transparency.org/news/feature/corruption_perceptions_index_2017. Last Accessed April 17, 2018.

³³ The source of information on levels of human development is from the Human Development Index. http://hdr.undp.org/en/composite/HDI. Last Accessed April 17, 2018.

and autocracies do not necessarily show the same levels of public profile. Yet, as an additional analysis, we estimate consolidated models for all nine East Asian countries and confirm that the results are overall consistent to our findings from main models separately run for democracies and autocracies.

A final question is which countries drive the findings for autocracies. In particular, are electoral autocracies (Malaysia and Singapore) different from closed autocracies (China and Vietnam)? Unfortunately, due to the limited number of promotions within countries, the degrees of freedom shrink when we run a disaggregated analysis. However, a pared down analysis in Table A6 shows that the results on the key variables are stable across the two regime types. However, we regard these results as speculative and an important area for future research.

Conclusion

Returning to our theory, the results suggest that political competence is important for promotion in democracies but is less so in autocracies. Technical competence, by contrast, is paramount in autocracy. Our evidence is consistent with anecdotal accounts of changes in ministerial promotion patterns in South Korea and Indonesia pre- and post-democratization. In sum, our findings corroborate our theory.

Does this theory apply outside of East Asia? Although the "China Model" gains the most attention in East Asia, we believe our model should generalize to other regions. Indeed, in Zimbabwe, Robert Mugabe's successor Emmerson Mnangagwa, who was promoted several times by Mugabe, has been described as the "antithesis of charismatic, articulate Mugabe...³⁴ Similarly, Dmitry Medvedev, who was promoted by Vladimir Putin to succeed him as president in 2008, was similarly viewed as colorless prior to his election.³⁵ In democracies, however, politicians that draw attention often manage to rise. Enrique Pena Nieto, who was already described as "high profile" as early as 2008, managed to win the nomination for the presidential election in 2011.³⁶

What does this mean for the debate regarding the validity of a "China Model"? On one hand, it validates some of the claims made by proponents of the China Model. In particular, our findings suggest that autocracies may be less susceptible to promoting demagogues and may in fact promote meritorious leaders (Bell, 2015). At the same time, we should caution that politically competent leaders may be important for regime legitimacy, accountability, and policy making. While demagogues may certainly be politically competent, political competence can also involve promoting new policies and engaging with citizens. If such competent ministers are routinely sidelined in autocracies, this could provide an explanation for why stable autocracies can atrophy over time (Roeder, 1995). Without ministers capable of exciting the public, citizens may tune out of politics entirely rendering the regime weak and out of touch if crisis hits. The long-term effects of such patterns remain as a central question for future research.

A final point is that our findings pertain to patterns of promotion for ministers after they are appointed. In terms of the overall composition of the cabinet, our data show some interesting patterns worth future research: the democracy-autocracy distinction is not of primary importance for the overall technical competence of the cabinet. With that

³⁴ See Quist-Arcton, Ofeibea. "Who is Zimbabwe's New Leader, Emmerson Mnangagwa?" NPR. November 23, 2017.

³⁵ See Blomfield, Adrian. "Putin Backs Dmitry Medvedev as his Successor." *The Telegraph*. December 10, 2007.

³⁶ Wilkinson, Tracy. "Killing of Mexico Mayor Sends a Message." LA Times. October 8, 2008.

said, our findings provide strong evidence that once appointed, democracies incentivize greater political competence than is the case in autocracies for the highest prestige cabinet positions. Indeed, as Hallerberg and Wehner (2018) note, Barack Obama's staff had to hone Timothy Geithner's political skills after being selected as Treasury Secretary. This suggests that while he may have been chosen for his experience, political competence was a necessary skill once selected.

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