

Appendix for “Mirrors for Princes and Sultans: Advice on the Art of Governance in the Medieval Christian and Islamic Worlds”

January 28, 2016

Appendix A: Temporal Selection of Texts

In this analysis, we use texts that have been translated into English as the basis for our empirical scholarship. One key reason for this choice relates to the unique challenges of conducting text analysis using non-Western script, as well as the difficulties of navigating material in multiple languages. A potential concern that might arise is that by relying on translated texts we may be selecting texts that are not representative of the genre more broadly. One form of such bias might relate to the analysis of texts that do not reflect the temporal scope of the genre. In order to investigate this possibility, we have collected a dataset of the titles and approximate publication dates for 97 “mirrors for princes” texts, even though only 46 of these appear in our text analysis. The other 51 are excluded from our analysis because they have not yet been translated into English. This data set comes closer to characterizing the population of texts that we might include in our analysis, if all texts were available in translation. If we find few differences between the included and excluded texts, then we might feel more confident that the texts we have selected adequately represent the temporal scope of the broader universe of such texts.

Figure 1 displays histograms that compare the distribution of dates for the excluded (left column) and included (right column), Muslim (top row) and Christian (bottom row) texts. There are few obvious differences when comparing across the histograms. A more systematic analysis of the average date of publication leads to the same conclusion. On average, the included texts are published about 35 years later than the excluded texts, a difference we deem to be both substantively and statistically insignificant given the temporal scope of the project. And while the Christian texts tend to be produced about 200 years after the Muslim texts, on average, there are no within-region differences in the included texts.

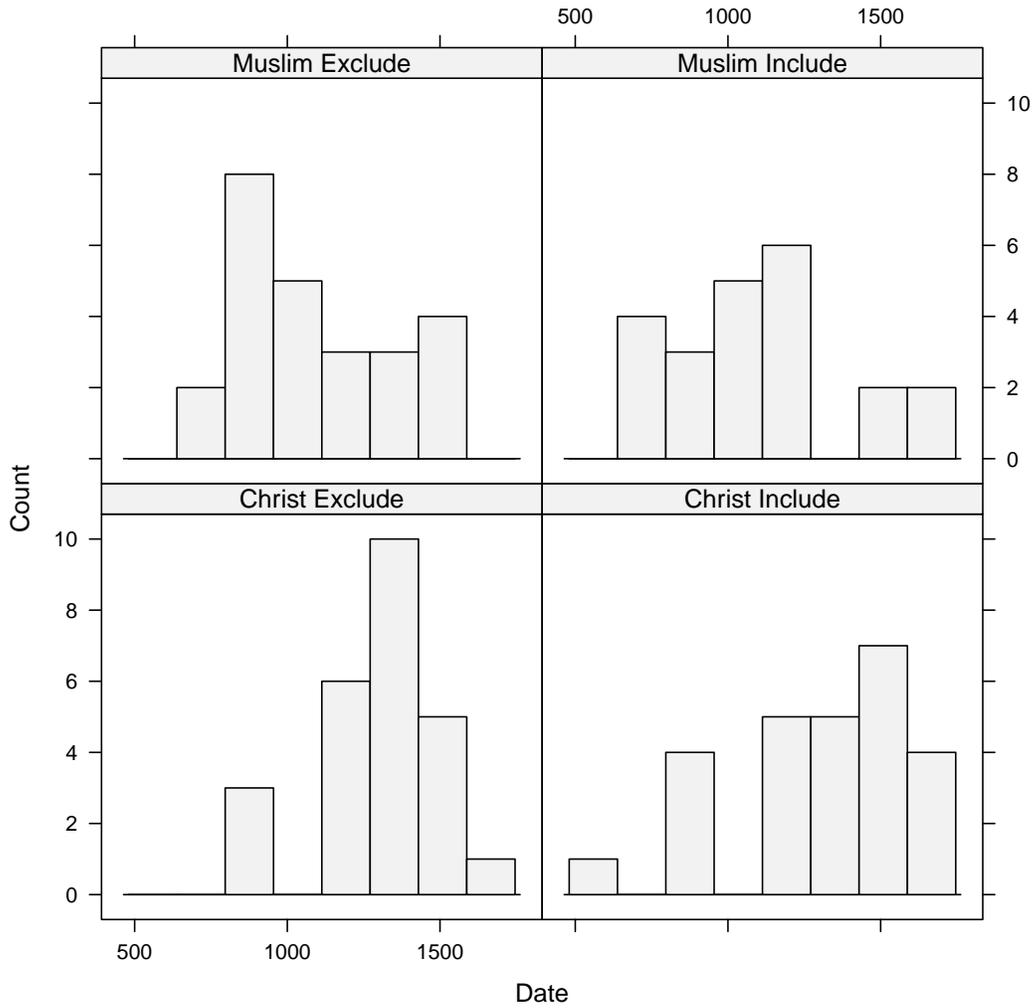


Figure 1: Histograms displaying the distribution of Muslim (top) and Christian (bottom) texts excluded (left) and included (right) in this analysis.

Appendix B: Methods

In this appendix we provide the technical details for our statistical model. Suppose that we have 47 books, ($i = 1, 2, \dots, 47$) and that book i is composed of D_i total shorter segments ($j = 1, 2, \dots, D_i$). We will represent each document as a W element long vector ($W = 2124$) \mathbf{y}_{ij} and will collect each of the short documents into a term-document matrix \mathbf{Y} .

Like some previous statistical models for texts (??) we model the content of the mirrors using mixtures of von Mises-Fisher distributions (vMF). This is a distribution on a hypersphere—or on texts that are normalized to have unit length. This removes the influence of text length on the topic classification.

We normalize the documents to make them appropriate for the statistical model we apply. For each document \mathbf{y}_{ij} we write its unit-length representation as

$$\mathbf{y}_{ij}^* = \frac{\mathbf{y}_{ij}}{\sqrt{\mathbf{y}_{ij}'\mathbf{y}_{ij}}}$$

We use two different kinds of hierarchies to model the content of the texts. As discussed above, our first hierarchy is a thematic hierarchy. We model the contents of the documents as a mixture of vMF. This facilitates statistical modeling using cosine based similarity measures, a popular measure of similarity between documents. At the top of the hierarchy we have M coarse themes ($m = 1, 2, \dots, M$). We will suppose that each coarse theme, $\boldsymbol{\eta}_m \sim \text{vMF}(\kappa, \frac{\mathbf{1}}{\sqrt{W}})$, where κ is a concentration parameter and $\frac{\mathbf{1}}{\sqrt{W}}$ is the least informative prior for a conjugate vMF distribution. We will suppose that each of the K ($k = 1, 2, \dots, K$) granular topics are classified into one of the coarse topics. For each granular topic k we draw an indicator vector $\boldsymbol{\sigma}_k$ with $\sigma_{mk} = 1$ if granular topic k is classified into coarse topic m . We will suppose that $\boldsymbol{\sigma}_k \sim \text{Multinomial}(\mathbf{1}, \boldsymbol{\beta})$ and that $\boldsymbol{\beta} \sim \text{Dirichlet}(\mathbf{1})$.

Given each granular topic's assignment to one of the coarse topics, we can draw its content. We will suppose that for each granular topic k that $\boldsymbol{\mu}_k | \sigma_{mk} = 1 \sim \text{vMF}(\kappa, \boldsymbol{\eta}_m)$.

The second hierarchy models the content of the books. We will suppose that each book, i , is a mixture of themes. We will represent the mixture for book i as

$$\boldsymbol{\pi}_i = (\pi_{i,1}, \pi_{i,2}, \dots, \pi_{i,60})$$

where $\pi_{i,k}$ represents the proportion of book i dedicated to theme k . We will suppose that $\boldsymbol{\pi}_i \sim \text{Dirichlet}(\boldsymbol{\alpha})$, with $\alpha_k \sim \text{Gamma}(1, 1)$. The model supposes that the distribution of themes, $\boldsymbol{\pi}_i$ stochastically controls the rate themes occur in each book. For each of the D_i smaller text sections in book i we will draw an indicator vector $\boldsymbol{\tau}_{ij}$ where $\tau_{ijk} = 1$ if document j in book i is assigned to the k^{th} topic. Conditional on this assignment we draw the content of each document. We suppose that $\mathbf{y}_{ij}^* | \tau_{ijk} = 1 \sim \text{vMF}(\kappa, \boldsymbol{\mu}_k)$.

We summarize the model with the following hierarchical model,

$$\begin{aligned}
\alpha_k &\sim \text{Gamma}(1, 1) \\
\boldsymbol{\pi}_i | \boldsymbol{\alpha} &\sim \text{Dirichlet}(\boldsymbol{\alpha}) \\
\boldsymbol{\eta}_m &\sim \text{vMF}(\kappa, \frac{\mathbf{1}}{\sqrt{W}}) \\
\boldsymbol{\beta} &\sim \text{Dirichlet}(\mathbf{1}) \\
\boldsymbol{\sigma}_k &\sim \text{Multinomial}(1, \boldsymbol{\beta}) \\
\boldsymbol{\mu}_k | \sigma_{mk} = 1 &\sim \text{vMF}(\kappa, \boldsymbol{\eta}_m) \\
\boldsymbol{\tau}_{ij} | \boldsymbol{\pi}_i &\sim \text{Multinomial}(1, \boldsymbol{\pi}_i) \\
\mathbf{y}_{ij}^* | \tau_{ijk} = 1, \boldsymbol{\mu}_k &\sim \text{vMF}(\kappa, \boldsymbol{\mu}_k)
\end{aligned}$$

which implies the following posterior distribution

$$\begin{aligned}
p(\boldsymbol{\alpha}, \boldsymbol{\pi}, \boldsymbol{\eta}, \boldsymbol{\beta}, \boldsymbol{\sigma}, \boldsymbol{\mu}, \boldsymbol{\tau} | \mathbf{Y}) &\propto \prod_{m=1}^M c(\kappa) \exp\left(\kappa \boldsymbol{\eta}'_m \frac{\mathbf{1}}{\sqrt{W}}\right) \times \prod_{m=1}^M \prod_{k=1}^K \left[\beta_m c(\kappa) \exp\left(\kappa \boldsymbol{\mu}'_k \boldsymbol{\eta}_m\right) \right]^{\sigma_{mk}} \prod_{k=1}^K \exp(-\alpha_k) \times \\
&\prod_{i=1}^{48} \left[\frac{\Gamma(\sum_{k=1}^K \alpha_k)}{\prod_{k=1}^K (\alpha_k)} \prod_{k=1}^K \pi_{ik}^{\alpha_k - 1} \times \prod_{j=1}^{D_i} \prod_{k=1}^K \left[\pi_{ik} c(\kappa) \exp(\kappa \mathbf{y}_{ij}^* \boldsymbol{\mu}_k) \right]^{\tau_{ijk}} \right]
\end{aligned} \tag{0.1}$$

where $c(\kappa)$ is a normalizing constant.

Estimation

We approximate the posterior in Equation 0.1 using a variational approximation. A variational approximation is a deterministic alternative to Markov Chain Monte Carlo (MCMC) methods that are particularly useful in large and complex posteriors. A variational approximation approximates the posterior using a simpler, but still very general, class of functions. Specifically, we approximate the posterior in Equation 0.1 with the family of functions,

$$\begin{aligned}
q(\boldsymbol{\alpha}, \boldsymbol{\pi}, \boldsymbol{\eta}, \boldsymbol{\beta}, \boldsymbol{\sigma}, \boldsymbol{\mu}, \boldsymbol{\tau}) &= q(\boldsymbol{\alpha})q(\boldsymbol{\pi})q(\boldsymbol{\eta})q(\boldsymbol{\beta})q(\boldsymbol{\sigma})q(\boldsymbol{\mu})q(\boldsymbol{\tau}) \\
&= q(\boldsymbol{\alpha}) \prod_{i=1}^{47} q(\boldsymbol{\pi})_i \prod_{m=1}^M q(\boldsymbol{\eta})_m q(\boldsymbol{\beta}) \prod_{k=1}^K q(\boldsymbol{\sigma})_k \prod_{k=1}^K q(\boldsymbol{\mu})_k \prod_{i=1}^{47} \prod_{j=1}^{D_i} q(\boldsymbol{\tau})_{ijk}
\end{aligned} \tag{0.2}$$

To find the member of the family functions defined in Equation 0.2 that most closely approximates the posterior in Equation 0.1 we follow a standard set of derivations to derive an iterative algorithm to approximate the posterior. We provide the update steps here.

Update for $q(\boldsymbol{\sigma})_k$

$q(\boldsymbol{\sigma})_k$ is a Multinomial(1, \mathbf{c}_k) where typical element c_{mk} is equal to

$$c_{mk} \propto \exp(\mathbb{E}[\log \beta_m] + \mathbb{E}[\kappa \boldsymbol{\mu}'_k \boldsymbol{\eta}_m]).$$

We will complete the update step when we have determined the remaining forms of the distribution

Update for $q(\boldsymbol{\tau})_{ij}$

$q(\boldsymbol{\tau})_{ij}$ is a Multinomial(1, \mathbf{r}_{ij} , with typical element of r_{ijk} equal to

$$r_{ijk} \propto \exp(\mathbb{E}[\log \pi_{ik}] + \mathbb{E}[\kappa \mathbf{y}_{ij}^* \boldsymbol{\mu}_k])$$

Again, as we complete the parametric forms of the other update steps we can complete this update equation.

Update for $q(\boldsymbol{\pi})_i$

$q(\boldsymbol{\pi})_i$ is a Dirichlet($\boldsymbol{\gamma}_i$) distribution, where typical element γ_{ik} is equal to

$$\gamma_{ik} = \alpha_k + \sum_{j=1}^{D_i} r_{ijk}$$

Update for $q(\boldsymbol{\beta})$

$q(\boldsymbol{\beta})$ is a Dirichlet($\boldsymbol{\phi}$) distribution with typical parameter ϕ_m equal to

$$\phi_m = 1 + \sum_{k=1}^K c_{mk}$$

Update for $q(\boldsymbol{\eta})_m$

Given the complications of taking expectations with the vMF distribution, we instead provide maximization steps for the vMF parameters. To obtain the form of the updates we follow the derivation outlined in Banerjee et al (2005). To do this, we take the log of the posterior distribution and identify the parameters that depend upon $\boldsymbol{\eta}_m$.

$$\log(p(\boldsymbol{\eta}_m)) = \sum_{k=1}^K c_{km} \kappa \boldsymbol{\mu}_k \boldsymbol{\eta}_m + \kappa \boldsymbol{\eta}_m \frac{\mathbf{1}}{\sqrt{\mathbf{W}}} + \text{constants}$$

To set up the constrained optimization we also introduce the Lagrangian λ , with the constraint that $\boldsymbol{\eta}_m' \boldsymbol{\eta}_m = 1$,

$$\log(p(\boldsymbol{\eta}_m)) \propto \sum_{k=1}^K c_{km} \kappa \boldsymbol{\mu}_k \boldsymbol{\eta}_m + \kappa \boldsymbol{\eta}_m \frac{\mathbf{1}}{\sqrt{\mathbf{W}}} - \lambda(\boldsymbol{\eta}_m' \boldsymbol{\eta}_m - 1).$$

Differentiating with respect to $\boldsymbol{\eta}_m$, setting equal to zero and solving yields

$$\frac{\kappa \left(\sum_{k=1}^K c_{mk} \boldsymbol{\mu}_k + \frac{\mathbf{1}}{\sqrt{\mathbf{W}}} \right)}{2\lambda} = \boldsymbol{\eta}_m \quad (0.4)$$

If we differentiate with respect to λ and solve we see that $\boldsymbol{\eta}'_m \boldsymbol{\eta}_m = 1$ or that $\|\boldsymbol{\eta}'_m \boldsymbol{\eta}_m\| = 1$. Substituting this into Equation 0.4 we have,

$$\frac{\kappa}{2\lambda} \left(\left(\sum_{k=1}^K c_{mk} \boldsymbol{\mu}_k + \frac{\mathbf{1}}{\sqrt{W}} \right)' \left(\sum_{k=1}^K c_{mk} \boldsymbol{\mu}_k + \frac{\mathbf{1}}{\sqrt{W}} \right) \right)^{1/2} = 1$$

$$\frac{\kappa \left\| \sum_{k=1}^K c_{mk} \boldsymbol{\mu}_k + \frac{\mathbf{1}}{\sqrt{W}} \right\|}{2} = \lambda$$

Doing a final substitution we have

$$\boldsymbol{\eta}_m^* = \frac{\sum_{k=1}^K c_{mk} \boldsymbol{\mu}_k + \frac{\mathbf{1}}{\sqrt{W}}}{\left\| \sum_{k=1}^K c_{mk} \boldsymbol{\mu}_k + \frac{\mathbf{1}}{\sqrt{W}} \right\|}$$

Update for $q(\boldsymbol{\mu})_k$

Following a very similar set of derivations, the update step for $\boldsymbol{\mu}_k$ is

$$\boldsymbol{\mu}_k^* = \frac{\sum_{i=1}^{47} \sum_{j=1}^{D_i} r_{ijk} \mathbf{y}_{ij}^* + \sum_{m=1}^M c_{mk} \boldsymbol{\eta}_m^*}{\left\| \sum_{i=1}^{47} \sum_{j=1}^{D_i} r_{ijk} \mathbf{y}_{ij}^* + \sum_{m=1}^M c_{mk} \boldsymbol{\eta}_m^* \right\|}$$

Completing updates for $q(\boldsymbol{\sigma})_k$ and $q(\boldsymbol{\tau})_{ij}$

Given the forms $E[\log \beta_m] = \Psi(\phi_m) - \Psi(\sum_{m=1}^M \phi_m)$ and $E[\log \pi_{ik}] = \Psi(\gamma_{ik}) - \Psi(\sum_{k=1}^K \gamma_{ik})$ where $\Psi(\cdot)$ is the Digamma function.

Update for $q(\boldsymbol{\alpha})$

A closed form update for the $\boldsymbol{\alpha}$ parameters is unavailable. So we use the Newton-Raphson algorithm outlined in Minka (2000) and Blei, Ng, and Jordan (2003).

Appendix C: Descriptions of Subtopics

In this appendix, we provide more detailed descriptions of each of the sixty subtopics that emerge from the text analysis. Each subtopic is numbered, first, to reflect its associated supertopic and, second, the nested subtopic. For example, subtopic 1.2 would reflect correspond to super topic 1 and subtopic 2 within that super topic.

Supertopic 1: The Art of Rulership

Subtopic 1.1: The Duties and Characteristics of the Ideal King

This subtopic is focused on the obligations, responsibilities, attributes, and comportment of ideal or exemplary kings. It includes both abstract discussions of the characteristics of ideal kings and historical discussions of past kings who are exemplary in one or more ways. These discussions touch on a wide range of issues, including the king's public and private comportment, physical health, household management, direction of foreign affairs, conduct of wars, administration of justice, preparation for death, and religious faith and practice. The subtopic also includes passages that make passing use of words like "king" and "kingdom" in the course of broader discussions.

Subtopic 1.2: The Relations of Rule

This subtopic is focused on the relationships between rulers and other groups or classes of people. It includes discussions of the ruler's relationship to the people generally as well as more specific discussions that attempt to characterize different groups under the ruler's jurisdiction, including ethnic groups, the learned, and the nobility and to describe the ways in which the ruler should relate to these groups. The subtopic also includes accounts of effects of the ruler's actions on the people or particular groups of people.

Subtopic 1.3: The Ruler, the People, and the Public

This subtopic is focused on the ruler's relationship to the people and to public things. It includes discussions of the obligations of the ruler to his people and his responsibility for the common good. It also includes discussions of the importance of education and advice for effectively recognizing and serving the common good. In describing these obligations and responsibilities, the distinction between the just ruler and the tyrant is often central, especially in the Christian European texts.

Subtopic 1.4: Moral Education: Virtues, Manners, and Habits

This subtopic is focused on moral education and particularly on instruction in the virtues, manners, and habits of the good life. The forms of instruction described include those directed at rulers (or rulers to be) by tutors and counsellors and those directed by the ruler

to the people. A number of passages also stress the connection between morally good deeds and politically and personally favorable results.

Subtopic 1.5: Wisdom, Knowledge, and Moral Character

This subtopic is focused on the attainment and maintenance of moral virtue. It includes discussions of the connection between virtue, wisdom, and knowledge; what being virtuous entails; the benefits of moral virtue in political rule; and the ways in which a ruler can serve as a moral exemplar for his subjects.

Subtopic 1.6: Laws, Judgment, and Punishment

This subtopic is focused on the ruler's role in making, interpreting, enforcing, and ensuring the legitimacy of law. It includes discussions of the practical administration of justice (both criminal and civil), the importance of a knowledge of the law, and the ruler's accountability to the law.

Subtopic 1.7: Duties to People and Country

This subtopic is focused on the duties of the ruler to his subjects and his country. It includes discussions of the practical duties of rulers toward their subjects (e.g. the punishment of injuries and injustices, the distribution of alms, protection and defense) and draws on a number of detailed historical and contemporary examples of rulers who effectively discharged or failed to discharge these duties. The subtopic also includes some passages dealing with duties toward and love of country.

Subtopic 1.8: The Responsibility and Reputation for Justice

This subtopic is focused on the ruler's responsibility for justice. It includes discussions of the importance, pursuit, and administration of both criminal and distributive justice, as well as arguments about the moral primacy of justice and the consequences of unjust rule (e.g. disaffection, rebellion). The subtopic also includes passages that address the importance of maintaining a reputation for justice and the virtues most commonly associated with just rule (e.g. discipline, moderation, generosity).

Subtopic 1.9: Family Ties

This subtopic focuses on familial and other close relationships (e.g. between mentor and pupil). It is primarily centered on the relationship between fathers and sons or between male mentors and a male pupils. It includes discussions of paternal advice, the importance of respecting this advice, and the impact of the father's actions on the son. It also includes Christian discussions of the Trinity and the relationship between God (as father) and Christ (as son).

Subtopic 1.10: Narratives on Kingship

This subtopic focuses on historical accounts of kings and kinship. These narratives are primarily aimed at accounting for the successes and failures of historical kings, describing the relationship between kings and particular groups or factions, and offering examples of extraordinary or heroic behavior on the part of kings. The subtopic also includes passages that make more passing references to kings, kingdoms, and kingship.

Subtopic 1.11: The Acquisition and Exercise of Power

This subtopic focuses on how to get, use, and hold on to power. It is heavily dominated by passages from Machiavelli's *Prince*, where these themes are prominent and where Pope Alexander VI figures prominently. The subtopic also includes passages that make passing reference to words with an "Alexand" stem (e.g. to the city of Alexandria).

Subtopic 1.12: War, Peace, and Pacifism

This section is focused on war, peace, and arguments for pacifism. It includes discussions of historical wars, the causes of war, the circumstances under which a war may be just or unjust, preparation for war, and the effects of war. It also includes a number of passages that explicitly condemn war.

Subtopic 1.13: Honor, Honors, and Nobility

This subtopic is focused on honorable and dishonorable behavior and their connection to nobility and virtue. It includes discussions of what it means to be honorable, the importance that rulers possess honor and nobility, as well as more abstract conceptual discussions of these attributes. This category is dominated by passages from Christian texts.

Subtopic 1.14: Tax Collection

This subtopic is focused on taxation, and particularly the land tax, tax collection, and various forms of property ownership. It includes discussions about setting the tax rate, taxation during famine and catastrophe, the characteristics of good and bad tax collectors, and the connections between the military and taxation. This category is overwhelmingly dominated by passages from Muslim texts.

Subtopic 1.15: The Nature, Manners, and Habits of Nobility

This subtopic is focused on the question of what it means to possess nobility. It is overwhelmingly dominated by passages from Christine de Pisan's *Book of the Body Politic*, where discussions of the nature of nobility figure prominently.

Subtopic 1.16: Rule: Personal, Political, Divine

This subtopic is focused on different kinds of rule. It includes passages that describe and characterize the rule of one person over others in the home, business, a polity, and an empire. It also includes discussions of divine rule, practices and strategies for effective political rule, and more passing references to rules or principles.

Subtopic 1.17: Foreign Relations and the Benefits of Peace

This subtopic is focused on relations with other polities, the risk and prospect of war, and the benefits of peace. It includes passages that urge rulers to maintain peace, enumerate the various threats to peace and explain how to respond to them, and describe historical battles that ended peacefully. Christian texts in this category make frequent reference to Roman exemplars and the Roman empire. A number of passages from Muslim texts include the ritual utterance “peace be upon him” in reference to the Prophet Mohammed.

Subtopic 1.18: Regime Type

This subtopic is focused on popular rule in theory and practice. It includes discussions of the virtue and advantages of popular (republican) rule, comparisons between this regime type and non-monarchical ones, theoretical discussions of popular rule (where Aristotle figures prominently), contrasts between popular rule and tyranny, and historical examples of popular rule (where the example of the Roman republic figures prominently). The subtopic is dominated by Ptolemy of Lucca’s *On the Government of Rulers*, where discussions of republican rule are especially prominent.

Subtopic 1.19: Praise

This subtopic is focused on praise. It includes discussion of both deserved and undeserved praise, as well as distinctions between praise, on the one hand, and flattery or other forms of pleasing deceit, on the other. Passages from one Muslim text, *Wisdom of Royal Glory*, are included here because one of the main characters in the narrative is called “Highly Praised.”

Subtopic 1.20: Public Administration and Delegated Authority

This subtopic is focused on the various tasks which make up the administrative and legal systems and institutions of delegated authority. There is particular emphasis on the appointment, oversight, and jurisdiction of judges, as well as on the responsibilities and jurisdiction of a ruler within the system of laws.

Supertopic 2: Personal Virtues, Habits, and Relationships

Subtopic 2.1: Wisdom, Virtue, and Advice

This subtopic is focused on the connections between wisdom, virtue, and advice as they pertain to politics and other domains. It includes discussions of the acquisition of knowledge, the cultivation of personal and moral judgment, and the role that trusted advisors can play in these processes. The subtopic also includes advice on how to deal with advisors, delegate authority effectively, and avoid errors in judgment. The overwhelming focus in this subtopic is on the ways in which the personal traits, habits, and practices of the ruler help determine the extent of his political success.

Subtopic 2.2: Truth, Knowledge, and Norms of Behavior

This subtopic is focused on the connections between truth, knowledge, and social behavior. It includes discussions of the meaning and importance of truth and truthfulness, as well as their connections to the pursuit and acquisition of knowledge and virtue, and modes of self-presentation (i.e. how one presents oneself and how one is perceived by others on the basis of this self-presentation).

Subtopic 2.3: Good, Evil, and Fortune

This subtopic is focused on good and evil, virtue and vice, and fortune. It includes discussions of abstract conceptions of good and evil and how they manifest themselves in the world in the form of virtue and vice. Passages included here deal with particular virtues (e.g. humility, moderation) and vices (e.g. envy, pride), on the one hand, and their connections to the ruler's personal and political fortune, on the other.

Subtopic 2.4: Greatness and the Habits of the Good Life

This subtopic is focused on the connections between greatness and the habits and practices of a good and honorable life. It includes passages on maintaining one's physical health, techniques for the improvement of one's mind (e.g. reading, various other mental habits), and the practices that are necessary for cultivating and maintaining a good moral character. Discussions in this subtopic tend to link these habits with the achievement or failure to achieve forms of worldly greatness.

Subtopic 2.5: Vice and Property

This subtopic is focused on moral vice, often (though not exclusively) in connection to questions of property. It includes discussions of moral vices like deception and of how rulers should respond to and occasionally make use of these vices politically. However, the connection between vice and moral character, on the one hand, and property, wealth, and class, on the other, figure very prominently here.

Subtopic 2.6: Habits of Power

This subtopic is focused on the habits required for the acquisition and maintenance of political power. It includes discussions of knowledge acquisition, advice, and consultation. Many passages stress prudence and directed planning in military and financial spheres.

Subtopic 2.7: Nature and the Natural Order

This subtopic is focused on nature, reason, the natural order, and natural law. It includes discussions about the naturalness of political order, nature as a template and guide for political society, human rationality and superiority relative to other animals, the laws of nature and human life, and the connections between the natural world and human habits and dispositions.

Subtopic 2.8: Command

This subtopic is focused on various kinds of commands. It includes discussions of comments given by superiors to subordinates, narratives of actions undertaken by commanders, and religious or divine commands.

Subtopic 2.9: Love

This subtopic is focused on various kinds of love. It includes discussions of romantic love, lovesickness, political love (e.g. a ruler's love for his subjects, the people's love for one another and/or their ruler), and divine love.

Subtopic 2.10: Women

This subtopic is focused on the roles, virtues and vices, and attributes of women. It includes discussions of appropriate female behavior, virtues (e.g. modesty, chastity) and vices (e.g. immodesty, ostentation) that are seen to be particular to women, and the connections between these moral evaluations and women's appropriate social roles. A number of passages involve arguments for the inferiority of women, relative to men.

Subtopic 2.11: Male-Female Relationships

This subtopic is focused on women's relationships with and to men. It includes discussions of women as lovers, wives, and daughters of men. However, it also includes discussions of women considered in relation to men (e.g. differences in moral character, abilities, and capacities). While many passages emphasize that men should respect women and accept their help, others make arguments for female inferiority and stress the dangers of leaving important matters in the hands of women.

Subtopic 2.12: Age and Relationships Between the Generations

This subtopic is focused on age and relationship across the generations. It includes discussions of how the generations should relate to one another, and particularly about how rulers should relate to their elders. It also contains passages about customs related to age and the importance of age and maturity for particular political offices.

Subtopic 2.13: Exercising Restraint

This subtopic is focused on the exercise of various kinds of restraint. It includes discussions of moral discipline and restraint and their connections to good judgment. It stresses the importance of knowledge and the avoidance of moral ignorance. Other passages deal with avoiding other forms of excess (e.g. overeating, intoxication, and financial irresponsibility).

Subtopic 2.14: Philosophical Abstraction

This subtopic is focused on abstract philosophical considerations. It includes descriptions of the habits and characteristics necessary for human survival, flourishing, and perfection. However, several passages here simply describe things that either exist or are perfect.

Subtopic 2.15: Women, Noblewomen, and Court Life

This subtopic is focused on women generally, noblewomen in particular, and the roles of women in court life. It includes advice to women about behavior, comportment, and moral virtue, as well as advice to men (particularly courtiers) about how to behave toward women in marriage and other social contexts.

Supertopic 3: Religion

Subtopic 3.1: Divine Will and Political Rule

This subtopic is focused on the relationship between God's will and political rule. It includes discussions of the religious virtues and habits that rulers ought to practice, the relationship between divine favor and worldly political success, the subjection of political rulers to divine rule, and the divine sources of political authority.

Subtopic 3.2: Divine Blessings and Favor

This subtopic is focused on God's favor and help. It includes discussions of the worldly benefits of obeying God's commands (e.g. military victories, political power), advice on how to ask for God's assistance, and arguments about the necessity of faith and piety to securing divine favor.

Subtopic 3.3: A Ruler's Obligation to God

This subtopic is focused on ruler's obligations to God. It includes discussions of the kinds of virtues (e.g. wisdom) and practices (e.g. nourishing and caring for the soul) necessary to fulfill one's obligations to God, as well as arguments that the ruler's relationship with his own people relates to his degree of divine support.

Subtopic 3.4: Divine Mercy and Rewards

This subtopic is focused on God's mercy and rewards. It includes passages that stress the importance of being thankful and grateful for and to God and advice on appropriate displays of reverence to God in return for his gift of rulership. Christian passages in this subtopic draw many of their Scriptural examples from the stories of the kings in the Hebrew Bible.

Subtopic 3.5: Religious Virtues and Vices

This subtopic is focused on discussions of religious virtues and vices and their connections to political authority. It includes passages that admonish rulers for failures to be virtuous, warn them against the vices of political rule, and urge them toward the difficult path of virtue.

Subtopic 3.6: Material and Bodily Concerns

This subtopic is focused on material concerns, worldly possessions, and the body/flesh. It includes discussions of treasuries, the virtues of charity and hospitality when distributing worldly goods, and the ultimate spiritual insignificance of material possessions. Additional passages address the transitory nature of the body/flesh.

Subtopic 3.7: Reading, Wisdom, and Religious Study

This subtopic is focused on reading, the value of the wisdom gleaned from texts, and religious study. It includes discussions of the value of books as sources of wisdom, as well as the pitfalls of relying too heavily on textual learning. Other passages address the study of Scripture and other religious texts and the legitimacy and value of religious texts.

Subtopic 3.8: Life, Death, and the Soul

This subtopic is focused on life, death, and the ultimate fate of the soul. It includes discussions about preparation for and mindfulness of death, the transitory value of worldly goods and political power, and the lessons to be gleaned from the deaths of past rulers.

Subtopic 3.9: The Prophet

This subtopic is almost entirely comprised of passages from Muslim texts that make some reference to the Prophet and/or his descendants.

Subtopic 3.10: Sins

This subtopic is focused on sin. It includes discussions of particular kinds of sins and sinners, the particular sins to which political rulers are prone (here, tyranny figures prominently), and responses to sin (e.g. forgiveness, mercy). Christian texts also include discussions of original sin and deadly sins.

Subtopic 3.11: Prayer

This subtopic focuses on prayer. It includes discussions of types of prayer, the qualities required of prayer leaders, and the practice of prayer. Other passages touch on related habits of faith (e.g. pilgrimage, almsgiving). This category is overwhelmingly dominated by Muslim texts.

Supertopic 4: Political Geography and the Natural World

Subtopic 4.1: The Spaces and Places of Political Rule

This subtopic is concerned with the cities, regions, and other spaces of political rule. It includes discussions of particular cities and their citizens, ethnographic accounts of particular peoples, regional information related to questions of governance, and the distribution of work within political territories. Constantine VII's *De Administrando Imperio*, which is full of thick descriptions of regions and peoples included in and/or important to the Byzantine Empire is a strong outlier here.

Subtopic 4.2: Reason of State

This subtopic is focused on the kind of advice that would come to define the reason of state tradition. It includes discussions that try to strike a balance between the demands of God and morality, on the one hand, and political necessity, on the other. Particular topics discussed include reformation of the Church and nobility, attitudes toward counsellors and other staff, foreign relations, and royal appointments. This subtopic is dominated by Richelieu's *Testament Politique*, now seen to be an important founding text in the reason of state tradition.

Subtopic 4.3: Soldiers, Enemies, and Battle

This subtopic is focused on soldiers, battle, and appropriate actions and attitudes toward the enemy. It includes discussions of the proper instruction, treatment, and payment of soldiers; the importance of providing soldiers for a just pretext for war; and the ways in which soldiers should relate to their enemy counterparts. It also includes occasional discussions of how rulers should treat their political enemies.

Subtopic 4.4: Social Order

This subtopic is focused on the administration of justice, criminal law and punishment. It also includes discussions of the relationships between divine and human law and divine and human punishment, wealth, and customs. Aziz Effendi's *The Sultan's Register of Laws* makes by far the strongest contribution to this subtopic.

Subtopic 4.5: Friends and Allies

This subtopic is devoted to a discussion of friends and allies who are sometimes described in opposition to enemies. Passages in this subtopic describe the benefits and pitfalls of having friends in politics, and the importance of distinguishing between true and false friends. Several of the included passages employ animal metaphors. Two Muslim texts, *Kalila wa Dimna* and Mauizah I Jahangiri's *Advice on the Art of Governance* make strong contributions to this subtopic.

Subtopic 4.6: Discovery and Cultivation of Land

This subtopic is concerned with cultivation, discovery, and protection of land. It emphasizes the importance of laborers who work with the land, and many passages describe why the land is so necessary for the survival of a body, a household, or a polity. Many passages in this subtopic discuss the best practices for proper maintenance of land. This subtopic also includes descriptions of voyages to and descriptions of other lands. The Muslim text *Taxation in Islam* makes by far the strongest contribution to this subtopic.

Subtopic 4.7: The Body and Soul

This subtopic is focused on the health of the soul and the relationship of the body to the soul. There are passages that try to articulate what the soul is and how sinning affects the health of the soul. A number of passages emphasize that a statesman needs to be mindful of his soul.

Subtopic 4.8: Physical and Aesthetic Descriptions

This subtopic is focused on descriptions of human faces and bodies as well as forms of aesthetic description. It includes passages that use extensive body imagery (e.g., eyes, hair, etc.) to describe people and supernatural beings and that indicate the outward physical manifestations of inner character, as well as passages that rely heavily on aesthetic description of people, faces, natural settings, and events.

Subtopic 4.9: The Military Strategy and Leadership

This subtopic is focused on military strategy and leadership, as well as the relationship between military strategy and geographical space. It includes advice on how to conduct

military acts under different geographical conditions and stories about how armies have navigated the land during battle.

Subtopic 4.10: Pleasure and Delight

This subtopic is focused on pleasures, delights, desires, and passions. It includes discussions of the sources of pleasure, the relationship between higher and lower pleasures and passions, warnings against bad or false pleasures and passions, the tensions between pleasures and reason, and the importance of moderating pleasures and passions in the interest of virtue.

Subtopic 4.11: Water and Watery Landscapes

This subtopic is focused on water, watery landscapes, and water and land as locations and objects of political management. It includes discussions of land, water, and canal management; sea voyages; geographical descriptions involving bodies of water; important rivers; land ownership; and agriculture and taxation. It also includes stories and examples that take place in and around water. This subtopic is overwhelmingly dominated by passages from Muslim texts.

Subtopic 4.12: Nature and Cycles

This subtopic is focused on the natural world and its cycles. It includes discussions of the features and beauty of the natural world; descriptions of natural phenomena, like sunlight, plants, trees, and animals. It also includes the discussion of the cycles of nature, including the reasons, and the passing from day to night and vice versa. The subtopic also includes some passages which attribute natural beauty to God or which predict the beauty of heaven.

Subtopic 4.13: Animal Fables

This subtopic stories about animals, including lions, bulls, and jackals. In general, these are metaphorical tales, rather than stories about actual encounters with animals. The Muslim text, *Kalila wa Dimna*, which makes a strong contribution to this subtopic, includes many animal fables which convey metaphorical lessons about rulership and virtue.

Subtopic 4.14: Senses and Faculties

This subtopic is focused on the human senses and faculties. It includes discussions of the five external senses, the faculties of the soul, bodily organs, sickness and health, and comparisons between the polity and the body. This subtopic is overwhelmingly dominated by passages from Muslim texts.