

# Unpacking the Mandate of Heaven Argument\*

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## Abstract

We consider available computational models of the mandate-of-heaven argument and their uses for multidisciplinary debate. As their origins are from econometric and formal-reasoning disciplines, we submit that they are incomprehensible to both the the average civilian and to non-economist scholars. We thus identify a serious condition that prevents effective, diverse scholarly argumentative input to the debate. We offer four heuristics to address it.

## 1 Introduction

The ‘Mandate-of-Heaven’ concept scaffolds Chinese law and order for millennia. An emperor and his reign were given power through the conditional mandate of the heavenly authority. Currently, it identifies the government’s power to govern the people, which have in turn the power to withdraw their support and thus end the mandate. The mechanism is operational in both democratic and non-democratic regimes. It is a constitutional universal. It can even be recognized in the EU, which is currently facing the combined risks of Financial Instability, Muslim Extremism and Mass Muslim Refugee Immigration that may pull the Union towards disintegration.

### 1.1 The problem

We address the pros and cons of disciplinary diversity (*cf.* [Page 2010]) through the common-knowledge level of the public debate, which we assume to be at the non-specialist, ‘natural-argumentation’ level (which is also the default level of debate between diverse specialists).

### 1.2 Four Diverse Valuation Attractor Forces

People may e.g. be attracted by ideas from specialist views upon (1) how *wealth* helps them face financial burdens that are loaded onto them (economics), (2) how public order helps them protect their *freedoms* (law), (3) how social embeddedness helps them to *culturally* preserve behavioral heuristics (*cf.* [Pagel 2012]) over the generations (social sciences) and (4) how *knowledge* helps them face the natural conditions of their environments (the sciences). Applying [Lessig 2006] we identify four operational value attractor forces: wealth, freedoms, culture and knowledge.

### 1.3 Complexity – Four Heuristics

The flaw in individual specialist accounts is their failure to *also* discuss the complexities of ‘the whole creature’ [Wheeler 2006]. Hence it is time that researchers begin to pay closer attention to a comprehensive scope of differently

valued institutions, their processes and their combinations. Empirical studies of how our understanding of different institutions, such as law, economics, culture and nature interact are particularly needed, in order to inform the average voting civilian to help him better understand the whole, and support him to join politically salient constitutional processes. Against this background, we offer a bold (maybe controversial) exploration: using a simple theoretical model which invites many application extensions from the four forces mentioned, and present it using 4 heuristics that we offer as a first model. We set our ball rolling by using them to unpack an econometric model on democratic regime change in [Walløe 2012] based on an earlier model in [Acemoglu and Robinson 2001].

## 2 Unpacking the Model with Four Heuristics

We base our heuristics on [Wieringa 1997] and introduce them apodictically due to space constraints.

### 2.1 From Technical/Formal to Bites/Pseudocode

Our *first heuristic* is to summarize the formal model under scrutiny in natural-language ‘bites’ and pseudo code. *Bites* as suggested in [Kennedy 1997]. This will naturally have elements that can be understood as pseudo code. Below we show an example of the Walløe model in five bullets:

- Two regime types are distinguished: democracies (D-states) and non-democracies (E-states). Inhabitants are either elite (E-members, [also: the rich, r]) or poor (P-members, also: the poor, p). P-members like D-states. E-members like E-states. There are more P-members than E-members. All regimes impose taxes.
- Regime changes (one time-cycle temporary R-states) depend on income distributions determined by taxes. They are less costly in recessions. Fiscal redistribution may be generated by underlying asset redistribution (e.g., education). The level of income is stochastic.
- The economy has consumption good(s) and asset(s) [capital]. In the initial state the E-member has more capital than the P-member. Inequality and total output can be modeled and computed. There are time periods/cycles.
- In D-states: P-members can vote. Tax is set by the median voter (P-member). P-members set taxes. P-members impose higher taxes on E-members. E-members can go for a coup (towards the E-state). The anticipation of equality imposed may induce coups.
- In E-states: P-members cannot vote. P-members can threaten with and/or go for revolt (towards the D-state). Tax is set by E-members. E-members may offer concessions on income

distribution to prevent revolt (limits, credibility). E-members can extend the franchise. Thus ‘bites’ are natural-argumentation *semiotics* (cf. [Kennedy 1997]) linked to formal-modeling semiotics.

**2.2 Mine for Controversial Assumptions**

Many formal models hide their debatable assumptions. Our *second heuristic* for understanding formal models that claim to represent situations and processes in the real world is to mine for assumptions. These may be hidden in choices of value repertoires (like no more than 2 regime forms or no more than 2 social positions). They may also be a corollary of the aim for solvable math. Agent-based modeling might help a bit here . Of course there may be an abundance of other reasons to pick and choose assumptions, which ought put one on the alert. It is productive to mine for assumptions and establish from which disciplinary perspective they are controversial as shown in Table 1 (columns 1-4 represent the four disciplinary forces), supporting the cross-disciplinary debate on the whole creature. The way to address the problem of Section 1.1 is: debate the minuses of Table 1 away, in cross-disciplinary sessions and adapt the model accordingly.

Assumption	1	2	3	4
Agents are identical (also their preferences)	+	-	+	-
There are no free-rider problems	+	-	-	-
Capital in the economy is constant	-	-	+	-
Democracy or non-democracy	+	-	-	+

Table 1: Debatable assumptions (Example)

**2.3 Conditional Actor-Responsibility Tables**

Many specialist models tend to hide how they handle dynamics. For this, we offer our *third heuristic*. Offering Tables with three columns: available actions, authorized actors and (input/output) conditions wherein they are relevant and should be prepared and made available will support cross-disciplinary comprehension.

**2.4 Action-info and Action-responsibility Diagrams**

Our *fourth heuristic* is: draw at least one action-information diagram and one sibling action-responsibility diagram ( using Petrinet and use-case grammars – these are well-known techniques from requirements engineering).

**3 Discussion**

Our short explorations offer some clues about the particular value of unpacking the mathematically fomulated econometric model of the mandate-of-heaven argument. The European society consists of hundreds of millions of different people, enterprises, Member-State governments and European agencies. These actors possess diverse beliefs and goals. Some are rich and some poor. Some conservative. Some seek the stimulation of reform. They adapt as circumstances change and as they change the circumstances (e.g. through technologic innovations, voting behaviors or law making). The aggregated interdependent actions of these millions of actors produce the European society’s patterns that both economic and non-economic researchers seek to

explain and predict, each employing its proper specialist perspective.

How then, do we model ‘the whole creature?’ The Walløe approach accommodates the discursive dynamics that support regime stability during the last 70 years in China from an econometric perspective. It appears to be adequate in a descriptive sort of way. Yet, through the lenses of legal, sociological and scientific specialists this success rests on debatable assumptions, so much so, that to them the results lose validity. Our four heuristics allow to make and discuss these differences in a transparent manner (especially the assumption validation as in Table 1). We claim that thus the escalating parochial distrust between different disciplinary clans can be addressed in a constructive manner.

**2.3 Conclusion and Application**

Unpacking the Mandate of Heaven models, we found them not acceptable to scaffold conclusions on how to detect and address the risks of regime change. The (main EU) risk of falling apart was not even available in the formalized vocabulary. Consequently, we looked for a problem field that we can discuss with more confidence. To this end we decided to confront empirical, legal, economic and social perspectives (also as a sequel to [Schmidt *et al.* 2007]) on the war on file sharing (from 1999-2016) and to report on our results in the context of complexity theory and law. These results indicate that formal modeling, empirical results and normative counterfactuals can fruitfully be investigated in cross-disciplinary (or hybrid) teams, for instance by discussing the behaviors of agent-based models.

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