Strategy and Manipulation in Medieval Elections

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There are many goals in developing electoral protocols, including a desire for a system which is transparent, in that it is clear what the rule or procedure to follow is; non-manipulable, in that it is not in a person's best interest to misrepresent their preferences; honest, in the sense that it elects the 'right' candidate; and not open to strategizing, i.e., bribery or collusion. However, these desiderata are in tension with each other: Often, transparent electoral procedures are the least strategy resistant, and many honest procedures encourage manipulation. Thus a balance between these different goals must be sought. In modern times, since the seminal result on vote manipulation, the Gibbard-Satterthwaite Theorem [5, 6], much attention has been devoted to developing voting rules where manipulation is never in the best interest of the voters [4] or which are computationally too complex for the average bounded agent to be able to manipulate [1]. This focus on computational aspects of electoral methods is one of the hallmarks of modern studies on voting.

But pursuit of these goals is not restricted to modern times: Those participating in elections in the Middle Ages also sought transparency, non-manipulability, honesty, and strategyproofness in so far as these properties can be consistently expressed in a single procedure. However, given the lack of computational sophistication in the Middle Ages, alternate approaches were needed in order to promote honesty, discourage strategizing, etc. These approaches can be classified as either external (constraints introduced outside of the electoral procedure, such as incentives for coming to consensus quickly) or internal (constraints introduced within the electoral procedure, such as voting rules which cannot be manipulated without adverse effects, or which are too difficult for the average bounded agent to manipulate). Surveying examples of both approaches in the context of medieval ecclesiastical and secular elections provides an interesting comparison to modern electoral procedures.

Elections in the Middle Ages were used for the same reasons that they are today: To select suitable candidate(s) for a particular office, duty, or obligation. However, it is important to note that the term *electio* was used in the Middle Ages in a broader sense than our modern 'election'. Its primary sense was 'selection' or 'choice', and only secondarily 'election' in the modern sense. Thus, many records which purportedly discuss elections are not discussing elections of the type which interests us. We can identify four categories of medieval electoral processes: (1) Election by an external authority having no direct interest in the election; (2) Indirect election, where electors name other electors who then select or elect the officials; (3) Election by lot; and (4) Election by ballot. Elections of the first and third types are generally computationally uninteresting; the first type corresponds to dictatorial voting rules, and the third type collapses to probability theory. In general, interesting voting methods are found only in the fourth type, election by ballot, though they can also occur in indirect election.

Ecclesiastical elections

In ideal circumstances, the election of popes, bishops, and abbots and abbesses required unanimous consent for a candidate to win. These elections were "conceived as a way to discover God's will. It was guided by the unanimity rule, the only rule that could assure

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the participants that their decision was right" [3, p. 3]. However, most cases were not ideal: the electorate, being fallible humans, did not have direct access to the will of God, and furthermore, they were often driven by wholly different motivations, such as desire for political influence, knowledge of ecclesiastical favor or reward if their candidate was elected, etc. In such cases, reaching consensus was extremely difficult, if not impossible, resulting in schisms and impasses, and thus alternative methods had to be used.

We consider methods introduced in the election of each of the three types of officials. In papal elections, the use of majority voting was in use from the late 5th C onwards; in later periods, a modified notion of approval voting was also implemented. We highlight three trends in archepiscopal elections: election by *fiat*, election by lots, and dual postulation. The third is the most interesting, as it can be understood as an early example of a "cut and choose" method, one which predates by nearly 500 years the legislative method proposed by James Harrington (1611–77), which is cited by Brams and Taylor as the first example of cut and choose in the political arena [2, p. 12]. The most interesting data comes from the elections of abbots and abbesses, in particular the case study of the abbatial electoral procedure used by the convent of San Zaccaria in Venice at the beginning and the end of the of the 16th C, which is neither anonymous nor consistent.

Secular elections

In secular contexts, votes were used to elect officials to public office (e.g., sheriff, member of parliament, etc.), and to decide upon matters of policy. Quite often, the electoral procedures and voting methods used in these contexts are more sophisticated, and hence more interesting, than in the ecclesiastical contexts, in part because secular elections were not intended to reveal God's will. Secular nevertheless elections faced similar problems of deadlock, and we consider requirements put in place intended to reduce this occurrence. We also look at various methods which were implemented to make the cost of influencing the result of an election prohibitive, including the code of Vicenza for 1264 and the voting systems used in Cambridge from 18 Edward III to 10 Elizabeth I and in Newcastle-upon-Tyne in 1345. These are but a few examples of medieval electoral processes which were safe-guarded against manipulation and strategizing by increasing the actual, monetary cost of such manipulation, rather than the computational cost.

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