Erasmus Institute for Philosophy and Economics (EIPE)
Dutch Social Choice Colloquium

Faculty of Philosophy
Erasmus University Rotterdam
June 3, 2016
Venue: C1-4 (Theil Building)

Programme		
14:00-15:00	Harrie de Swart (Erasmus University Rotterdam)	*Majority Rule Does Not Respect Domination!*
15:00-15:15	Coffee Break	
15:15-16:15	Antoinette Baujard (University of Lyon)	*How Voters Use Grade Scales in Evaluative Voting*
16:15-16:30	Coffee Break	
16:30-17:30	Markus Brill (University of Oxford)	*Justified Representation in Approval-based Committee Voting*

Organisers

Constanze Binder (EUR), Burak Can (University of Maastricht) and Ulle Endriss (University of Amsterdam) Local Organiser: Constanze Binder, Email: binder@fwb.eur.nl
Participation is free of charge; no registration required

Abstracts

Harrie de Swart (Erasmus University Rotterdam)
Majority Rule Does Not Respect Domination!

Abstract: *I will present a recent paper by Michel Balinski and Rida Laraki, called Majority Measures. Almost everyone seems to be convinced that using the Majority Rule to choose one of two candidates is infallible and much of the literature takes Condorcet consistency as a most desirable property. Donald Saari has already criticized the latter by pointing out that the Condorcet winner may change if a Condorcet portion is added to or subtracted from the given profile, while intuitively such a portion should not change the outcome. While in the traditional framework voters are supposed to express their opinion by giving a ranking of the candidates, Balinski and Laraki argue that it is natural and more informative that voters express their opinion by evaluating each candidate in a common scale of grades. They show that Majority voting between two candidates fails when the winner is strongly rejected by the rest of the electorate whereas the loser is consensual. More precisely, in such cases the Majority Rule does not respect that the grades of the Majority loser may dominate the grades of the Majority winner. Candidate A should clearly defeat B when A's grades dominate B's. They show that a method of (social) ranking respects domination for three candidates or more when it satisfies Ma"s axioms, but now with measures instead of comparisons as input, together with*

Transitivity and IIA. Any point-summing method satisfies these axioms and so does Majority Judgment, but Majority Rule does not. Only in polarized electorates the Majority Rule is incontestable and Majority Judgment agrees with it.

How Voters Use Grade Scales in Evaluative Voting
Antoinette Baujard (University of Lyon)

Abstract: *During the first round of the 2012 French presidential election, participants in an in situ experiment were invited to vote under "evaluative voting", which involves rating the ten candidates using different numerical scales: (0,1), (-1,0,1), (0,1,2), and (0,1, … , 20). The paper studies scale calibration effects, i.e., how individual voters adapt to the offered scale, leading to possibly different election outcomes. The data show that the scales are not linearly equivalent, even if individual ordinal preferences are not inconsistent. Scale matters, notably because of the symbolic power of negative grades, which do not affect all candidates uniformly. The paper concludes by discussing the optimal choice of the scale. Joint work with Frédéric Gavrel, Herrade Igersheim, Jean-François Laslier, and Isabelle Lebon.*

Justified Representation in Approval-based Committee Voting
Markus Brill (University of Oxford)

Abstract: We consider approval-based committee voting, i.e., the setting where each voter approves a subset of candidates, and these votes are then used to select a fixed-size set of winners (committee). We propose a natural axiom for this setting, which we call justified representation (JR). This axiom requires that if a large enough group of voters exhibits agreement by supporting the same candidate, then at least one voter in this group has an approved candidate in the winning committee. We show that for every list of ballots it is possible to select a committee that provides JR. However, it turns out that several prominent approval-based voting rules may fail to output such a committee. In particular, while Proportional Approval Voting (PAV) always outputs a committee that provides JR, Reweighted Approval Voting (RAV), which can be seen as a tractable approximation to PAV, does not have this property. We then introduce a stronger version of the JR axiom, which we call extended justified representation (EJR), and show that PAV satisfies EJR, while other rules we consider do not; indeed, EJR can be used to characterize PAV within the class of weighted PAV rules. We also consider several other questions related to JR and EJR, including the relationship between JR/EJR and core stability, and the complexity of the associated algorithmic problems. Joint work with Haris Aziz, Vincent Conitzer, Edith Elkind, Rupert Freeman, and Toby Walsh.