

# A short response to a supposed “review”, with reference to a longer discussion, also on Arrow’s Impossibility Theorem

Thomas Colignatus  
November 25, 2011  
<http://www.dataweb.nl/~cool>

JEL A10, D71, P16

## Abstract

Voting Matters published a so-called “review” of Voting Theory for Democracy that is unscientific. A statement is provided where the response can be found. That “review” misrepresents the new ranking based method of the Borda Fixed Point and neglects that an important new result is given that Arrow’s Impossibility Theorem is either incomplete or inconsistent.

## Statement

*Voting matters* is a journal whose focus is the mechanics of voting procedures in which voters rank candidates. My book *Voting Theory for Democracy* (Colignatus 2011a) (VTFD) assumes such ranking for many procedures and also presents the *Borda Fixed Point* method as a new procedure. Given the purposes of *Voting Matters* it was fitting that professor Nicolaus Tideman, the editor, accepted the idea of a review, but it is unfortunate that I have to judge that Schulze (2011) is not a true review because it is unscientific, see Colignatus (2011b).

In my experience voting theorists tend to understand 99% of the issues in VTFD but each a different 1%, so that the literature abounds with confusion. I found it necessary to reconstruct voting theory from the bottom up and then introduce the corrections along the way. VTFD thus sets the record straight and it is the only book in the world that properly explains voting theory anno 2011. The use of routines in *Mathematica* help the new student avoid the tough mathematics or vague language that block understanding in common expositions on voting theory. Of course Schulze and Tideman manage to hit on the 1% that they don’t understand. They may have been tired by the repetition of the 99% that they do understand, and then they don’t sufficiently study the 1% and then dismiss VTFD as inadequate.

The only way to proceed is the scientific process. As it now happens the world still has grossly non-democratic ways even in countries like the USA, UK and France, see Stavrou (2011). Unscientific behaviour at the academia is an important explanatory factor for this dismal situation. Hopefully more people will study the argumentation.

VTFD p3 clearly states its purpose: “This book has two agenda’s: First to develop voting theory from the bottom up, referring to cheating and sensitivity to the budget. Secondly, to solve the confusions generated by Arrow’s theorem.” And p22: “This book allows for both beginner and advanced readers. Section 1.2 starts for the beginning readers. Advanced readers would tend to start with section 1.3. If you have done the beginner chapters and have become interested in voting theory, then you should study some of the serious textbooks in the field (advised are Mueller (1989) and Sen (1970)). After that, you would benefit from section 1.3 as well. (...) Once you have mastered these issues, you will find the more complex Chapters 9 and 10 of the book that may require more work and some additional study using the library. This part of the book would be directly interesting for advanced students. But even if you are

an advanced student, then you are still advised to work your way up, since some points are rather subtle and easily overlooked, particularly in relation to the new programs that are presented here.”

Schulze mispresents my new *Borda Fixed Point* method and desultorially calls it my “pet theory” which attitude implies that nobody can present a new result. My novel result on treating Arrow’s Theorem within deontic logic (the logic of morals), and show that Arrow is either incomplete or inconsistent, receives the other desultory remark of “mumbo-jumbo”. The “review” makes fast mistakes and to correct them takes slow pages. Unfortunately professor Tideman does not accept these for *Voting Matters* with reference to its objectives. Hence, I refer to Colignatus (2011b) for that full response. It is somewhat curious that an unscientific text is published in a “refereed journal” but the correction not.

The editor wished also more reassurance on this “mumbo-jumbo” on Arrow’s Impossibility Theorem, not from Schulze but from me. My report on this can be found as Colignatus (2011c). In my evaluation of professor Tideman’s approach to Arrow’s Theorem I have found that he is inconsistent. This will not be printed in *Voting Matters* either since the editor holds that the journal is not about Arrow’s Theorem.

In an email of 25/11 professor Tideman writes: “I have read sections 9.1 and 9.2. I can see that there is a significant overlap between your view of Arrow and mine, but there are also vast differences.” Instead of “mumbo-jumbo” he finds: “I think that anyone with a background in logic or mathematics is unlikely to find your writing to be helpful to their understanding of Arrow, because of your use of idiosyncratic definitions and numerous acronyms. So it seems to me unlikely that your discussion of Arrow will have the productive impact that you hope for.”

I am sorry. These are not idiosyncracies but form a carefully designed didactic approach and new foundation for voting theory. Also it is shown that Arrow is incomplete or inconsistent. I have met two mathematicians who found 9.1 and 9.2 enlightening. Also, allow me to refer to Gamboa (2011) who reviewed another book of mine and who also had this kind of struggle but fortunately had the openness of mind to see what I intend to do when re-engineering a subject.

I thank Tideman and Schulze for their time on this, and in particular professor Tideman for the greater openness of mind than I have met with others.

## References

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