Dissertation RP

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Executive Summary

WHAT

Society is made up of people belonging to different groups. Residential segregation is a crucial issue to social policies, interested in reducing spatial segregation and foster integration. From a theoretical point of view, much researc has been interested in developing quantitative measures of spatial segregation, qualitative research on the residential preferences of people and how these translate into spatial segregation. A critical interest in the social sciences is to understand the mechanisms and dynamics of how individual residential preferences can translate into spatial segregation. This dissertation is rooted in this area of research. Agent-based modelling and analytical sociology, social complexity are widely recognized as a valid tool to understand such phenomena.

ORIGINAL FRAME Rocco: definition of tolerance: Schelling with threshold "we don't want to stay in minority" Thomas Schelling proposed in the last 60's a noteworthy agent-based modelling to show how individual preferences could translate into spatial segregation. In particular, the model builds on threshold preferences, i.e. the minimal fraction of similar ones in neighborhood composition to remain in a neighborhood. The main contribution of the model is to show how spatial segregation can result from even low preferences for similar ones through cascades effect of individual relocations. The model has a wide application in describing residential ethnic segregation.

BUT

However, societies today shows some features that clash with the original assumptions of Schelling's model and its application in ethnic segregation literature in Western societies. First, society is inertly diverse, the paradigm majority-minority does not work anymore as much as minority-minority. A growing stream of literature shows how other forms of spatial segregation have emerged, e.g. socio-economic status. Other forms of categories can drive homophily preferences in the residential decisions. This is first a theoretical opportunity that can be applied to Schelling's model, as well as seems an empirical evidence of current, diverse societies. WHAT IS NEW?

This dissertation focuses on this aspect: definition of similarity based on other cross-ethnic categories, and the heterogeneity of members of the same group for one or either category.

HOW AND WHAT?

Rocco: tolerance first paper: we don't care In a first paper, we focus on ethnic-oriented vs value-oriented agents. Results show how the introduction of value oriented agents diminishes ethnic segregation compared to the original Schelling's model, though a new form of value segregation emerges. We identify critical points were all agents can be satisfied with neighborhoods. Rocco: tolerance: weight of dominant >= secondary preference In a second paper, we translate the model into a discrete choice random utility model. This not only updates the research outcome to more recent literature in Schelling's literature, but also serves different aims. First, discrete choice random utility models allow to model decision making in residential segregation, modeling the weight for each preference, which translates into randomness of behavior and test robustness of emerging phenomena. Additionally, we tested a mix of preferences with both ethnic and value preference for each type of agent and imposing a dominant and a secondary preference, along with different structural condition in terms of ethnic and value sizes. We specifically focus on how segregation scenarios would differ if a minority population would become more or less liberal. Results show how a tendency towards segregation remains a main outcome of relocation decision, through ethnic integration can be reached as an intermediate state due to a combination of higher randomness and relative group sizes. The most robust result is value segregation of conservatives, as in the ACS paper: that it is robust since appears both in threshold model and linear function. Rocco: tolerance: taste for diversity/push towards integration A third and final paper defines a different level of tolerance. The paper focuses on the scenario where agents maximize their dominant preference and show more tolerant or integrationist attitudes for the secondary preference. LIMITS The aim of this contribution is

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1 Introduction

1.1 Residential segregation

Rocco: the aim here should be ultimately to justify the focus on micro-macro dynamics, i.e. social complexity as a paradigm and agent-based modelling as a tool -> the same research question is on the dynamics of segregation

- What is it, why important
- Lines of research:
  - quantitative measurements (Duncan: eveness,dissimilarity etc.)
  - qualitative: individual relocation decisions and life course
  - reasons and processes:
    * Spatial Assimilation Theory (focus on minority, gaining economic power move to more affluent (historically white) neighborhoods)
    * Place stratification Theory (local stakeholders (e.g. real estates): planned exclusion of minority)
    * But the main question remains: how the dynamics work? See Van Ham et al. (2012) Rocco: this justifies more abm as a method than Schelling's contribution themselves. I would rather add a paragraph on need of analytical sociology/social complexity as need, and abm as a tool
    * An alternative model: Schelling's model

1.2 Schelling's model

Rocco: I think a connection is feasible and I think worthy. I'm not saying Schelling's did his work because of the new legislation, I don't remember something similar, but he mentions segregation by color as main concern '69 paper.

- Historical/academic background: years of end of racial laws and planned segregation (late 60's). Schelling was an economist and wanted to demonstrate how some forms of segregation could be "unplanned," emerging from the interaction of individual preferences.
- Original aim: explain unplanned segregation as aggregating outcome of individual preferences in limited spatial constraints.
- Description of the model and main contribution
- The impact of the model in literature: considered one of the first agent-based modelling, though not in the intention of Schelling. Influence in the agent-based literature. Known also in empirical studies of spatial segregation
- Focus on agent-based modelling literature: BRIEFLY: extensions, application to other methods, e.g. GIS. In details in each section of the papers
- What remains as a stable result: tendency towards segregation as a stable outcome

1.3 BUT

Rocco: here it must be a paragraph driving the reader to what is the research question/justification of the dissertation, then in details with the literature

- More recent literature on spatial segregation in Western societies shows some results that contrast Schelling's assumptions and scenarios
- Results: ethnic segregation is decreased, while other forms of segregation have emerged (e.g. socioeconomic status)

- Societies are inherently different. The paradigm majority-minority most literature on ethnic segregation was built on (see School of Chicago and spatial assimilation) not stand. Different paradigms emerge (see Crul (2016), Vertovec (2007))

Rocco: here it becomes tricky: diverse type of segregation as the aspect that clashes with Schelling's framework

1.4   New forms of Residential segregation

- As an outcome: residential segregation experienced on diverse forms at at different levels for members of the same ethnic group or social class or other categories
- New residential preferences alternative to ethnic homophily:
    - Increased preference for diversity for some members of the same social category
    - Diverse ethnic tolerance
    - Preference for other forms of similarity

1.5   Superdiverse societies

- Society is more diverse compared to the historical context Schelling built on and to the theoretical assumption of similarity based on ethnicity as an exclusive dimension:
- Sociodemographic changes:
    - the paradigm majority-minority (e.g. white vs black) does not work anymore, rather an amalgama of ethnicities (see Vertovec (2007)) as effect of new generations of migrants' descendents and faster international mobility
    - correlation ethnicity/social class: members of minority can be in upper class, members of majority being in the lower class Rocco: though majority still holds a numeric majority and in the upper class, it is changing
- In such a complex scenario, the process of defining boundaries of membership become relevant: Ethnic boundary making

1.6   Ethnic Boundary Making

- dynamic process of definition of inclusion
- ethnicity not an exclusive category

1.7   Aim of dissertation

- Given these observations on modern diverse societies and different complex scenarios of spatial segregation, how can we bring Schelling to these scenarios? In particular the question evolves into:
- What are the consequences of different definition of similarity?
- What different types of spatial segregation would emerge? And what other, if any, unexepcted consequences?
- How can spatial segregation being reduced out of these extensions?
- Main scenario investigated: definition of similarity based on ethnic membership vs cross-ethnic supposedly inclusive category (in the model description value)
- Different degree of preference or tolerance for either similarity based on the own group membership Rocco: the next point is crucial and should be well developed, summarizing what specific niche/scenario the dissertation proposes as advance to Schelling's framework and research question(s), and then move with specific literature

- Out of such diversity, other categories people belong to can matter in the definition of similarity and neighborhood preferences, independent on and complementary to ethnic membership. People belonging to different groups can hold different degree of preferences for ethnic membership or alternative categories.
- This is both a theoretical possibility and an empirical evidence as growing empirical literature shows
- It can contribute to lower ethnic segregation and show more complex scenarios of segregation

1.8   Paper 1

- Aim: exploration of what are the consequences of different definition of similarity; effect of relative group size
- Extension: different definition of similarity, remaining into a deterministic, deterministic model and threshold function
- Literature associated? More focused on ethnic boundary making and homophily preferences
- Model description: tolerant agents value-oriented vs intolerant ethnicity-oriented
- Measures: exposure, density
- Experiments: parameter sweeping
- Results: decrease ethnic segregation due to tolerant agents, spillover effect

1.9   Paper 2

- Aim: Understand better mechanisms associated with different homophily preferences and heterogeneity for value/ethnic similarity, how integration for both or either dimensions can be reached?
- Explore consequences of a mix of preferences for ethnic and value similarity in both types of agents, mantaining dominant and secondary preference; effect of ethnic ratio and value distribution in minority
- Extension: probabilistic and linear utility function random utility model: to represent the decisional process, a weight for each dimension and robustness of emerging results (randomness); ethnic ratio and value distribution of minority
- Rocco: here it risks to be tricky: a theoretical section, or mention briefly? Here literature on discrete choice random utility: utility models (empirical science McFadden...), utility function vs probability function, what differs between abm and regression models. Literature in abm: Bruch-Van Rijt discussions...
- Model description
- Measures: exposure, spatial clutering for asymmetric conditions
- Experiments: parameter sweeping, more sensitivity analysis
- Results: by-product value segregation of conservatives (ex spillover effect) better understood, as effect of more robust/denser neighborhoods of liberals, integration can be reached as an intermediate state towards segregation, due to a mix of lower randomnes, ethnic and value size. Effect of ethnic ratio on effect of weights: By-product of majority size over minority, specific scenario of liberals minority.

1.10   Paper 3?

- Aim: definition of tolerance as integrationist preferences: push towards integration. Would this reduce by-product value segregation that appeared both in threshold and discrete choice version, and reduce ethnic segregation?
- Model description
- Experiments
- Results

1.11   Conclusions and Discussion

- What can we say about segregation dynamics?
- How a threshold and a discrete choice model differ? How robut results are across different implementations?
- What unexpected results were reached? How strong segregation emerges even if integrationist attitudes?

1.12 Limits and Future Research Agenda

- Theoretical models vs empirical data
- Basic research
- Validation in the future, we know the dynamics and unexpected consequences of individual preferences based on diverse definition of similarity, and sociodemographic conditions

References

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