Relocation choice for different homophily preferences: hybrid scenarios for Schelling Model

Rocco Paolillo, Andreas Flache

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Abstract

Rocco: 200 words, 3-5 keywords Schelling model of residential segregation famously showed how high levels of residential segregation can emerge as unintended outcome of the interplay of individual relocations of actors who hold relatively mild ethnic preferences. Most of the work building on this model neglected two forms of heterogeneity which seem to become increasingly important empirically in contemporary societies. First, there is considerable heterogeneity of residential preferences not only between but also within ethnic groups, with especially younger, higher educated and more wealthy individuals having less strong preferences for ethnic homophily. Second, most of the research following Schelling focuses on ethnic similarity as relevant to residential preferences. However, recent theoretical and empirical research on spatial sorting emphasizes multidimensionality, as individuals prefer similar others not only regarding ethnicity, but also for social distinctions as shared values or shared status. Extending recent work (Paolillo et Lorenz, 2018), we explore the interplay of heterogeneity in both forms of homophily preferences for ethnicity and shared values. Using a discrete choice version of Schelling model, in which agents differ in their relative weights for ethnic and value similarity in relocation moves, we explore the consequences of different preferences of agents and their strengths, in addition to structural conditions of relative group sizes of ethnic and value groups. We find in particular that hybrid segregation patterns can emerge in which ethnically mixed but value homogeneous neighborhoods arise alongside ethnically segregated neighborhoods populated by agents driven more by ethnic homophily. Importantly and contrary to Schelling's model, we show how partial ethnic mixing can arise even if everyone has a preference for more co-ethnics in her neighborhood, all other things being equal.

Introduction

Ethnic or racial residential segregation appears still a critical topic of multi-ethnic cities all over the world (Charles, 2003). Many possible and interconnected explanations for segregation have been proposed, such as discrimination by landlords (Ahmed and Hammarstedt, 2008), the sorting mechanisms built into housing markets (Bailey, 2012), or income inequality in combination with features of urban geography (Pais, 2017). Prominently, ~~Schelling~~Schelling (1969, 1971)'s contribution was to demonstrate ~~(Schelling, 1969, 1971)~~ with a formal computational model that segregation can be a self-organizing phenomenon ~~(unorganized segregation)~~ that emerges from the interaction of people satisfying their "discriminatory individual choice" ~~(Schelling, 1969, p. 488)~~ (Schelling, 1969, p. 488) within spatial limited constraints[1]. Essential to Schelling's model, and focus of this paper, is the concept of "preference dynamics" (Clark and Fossett, 2008), i.e. the empirically plausible assumption that people typically want at least a certain minimal fraction of co-ethnics nearby, even if they are content with living in a mixed neighborhood. One key insight from a large number of formal modelling studies is the robustness of the main results of the model (Flache and de Matos Fernandes, ming), also if people hold "integrationist" preferences (Zhang, 2004) or randomness is included in residential choices of agents (Bruch and Mare, 2006; Van de Rijt et al., 2009; Bruch and Mare, 2009). The robustness of segregation due to individual preferences persists also when ~~they are combined with additional parameters as housing pricing~~ additional parameters are taken into account such as relocation costs and income differences (Fossett, 2006), relative group sizes (Bruch, 2014) or empirically realistic spatial structures of real cities (Benenson et al., 2009).

[1] Essentially the same mechanism proposed by Schelling was independently developed and formalized earlier by Sakoda (1971), see Hegselmann (2017)

Yet, despite the strong theoretical and empirical evidence that preference dynamics might suffice to generate robust and high levels of ethnic segregation, recent trends in residential segregation suggest a somewhat different and more complex picture from the ~~premises of Schelling 's original model. As regards~~ one that can be derived by the results of Schelling model. For what concerns ethnic segregation, not only do U.S. studies point to declining levels in recent decades (e.g. Glaeser and Vigdor (2012)), compared to the 60's/70's urban landscape (Clark, 2015) Schelling referred to (Schelling, 1969), but also mixed neighborhoods increasingly start to arise in multi-ethnic cities (Clark, 2015; Lee et al., 2012). This pattern is also reflected in studies from Europe (Blokland and Van Eijk, 2010). ~~In addition to deeply variegated society (Lee et al., 2012)~~This scenario can be due to two reasons. Firstly, urban societies are nowadays more racially diverse compared to decades ago (Lee et al., 2012). Second, it has been suggested that this pattern can be attributed to changes in residential preferences and how they vary within the population. Goldman (2012)Rocco: never found this ref, can you pass?, for example, finds evidence of reduced racial prejudice in the society as a whole, a trend that seems to extend to residential ethnic preferences (Xie and Zhou, 2012). Furthermore, residential preferences can vary ~~according to~~ depending on socio-demographic characteristics of individuals. On the whole, it appears that younger (Clark et al., 2018; Clark, 2009), more highly educated and higher income citizens have increasingly more tolerant ethnic preferences (Clark and Brazil, 2019; Crowder et al., 2012; Clark, 2009; Xie and Zhou, 2012) when it comes to residential choice. A common trait of modern societies is that these socio-demographic characteristics and the social preference associated ~~are differently distributed both within (Clark, 2002; Crul et al., 2017) and between~~ might vary not only between members of different ethnic groups (Clark, 2009; Crowder et al., 2012), but also between members of the same ethnic group (Clark, 2002; Crul et al., 2017). Thus, differently from Schelling, it becomes a both theoretically and empirically plausible scenario that the members of the same ethnic group experience a different degree of integration or segregation along diverse dimensions in addition to ethnicity Andreas: not correct if you consider the bounded neighborhood model. In this paper, we are interested in this aspect we refer to as "hybrid segregation" and we ~~aim at modeling~~ propose possible scenarios of how it can come to be.

Formal models of Schelling-type ~~preferences~~ dynamics have recently started to incorporate the insight that individuals differ in the degree of tolerance to local ethnic diversity. These models imposed heterogeneity in the desired neighborhood proportion of co-ethnics (Xie and Zhou, 2012; Hatna and Benenson, 2015). Interestingly, these studies found that - similar to empirical patterns observed in modern multi-ethnic cities - preference dynamics could give rise to a division between ethnically mixed and segregated neighborhoods co-existing in the same city, together with a selection of more tolerant agents into the mixed neighborhoods. However, there is another important form of preference heterogeneity these models have not taken into account and which could profoundly affect dynamics of segregation. Shared values, defined as common beliefs, preferences or expectations on acceptable behavior induce perceptions of similarity across the boundaries of ethnicity (Wimmer, 2013; Bail, 2008). In modern societies where individuals differ along many and different social distinctions (Vertovec, 2007), shared values can become even more important than ethnicity itself. Recent empirical studies, indeed, suggest that a preference for value-similar neighbors may sometimes even dominate preferences for ethnic similarity. For instance,van Gent et al. (2019) ~~show~~ find how similarity with neighbors in terms of sociocultural dispositions (~~i.e. gender balance in household tenure~~in their case traditional or modern arrangemens of gender contribution to household income, plus education) is a better predictor ~~to leave~~ of the intention to remain in the neighborhood, compared to ethnic membership and income similarity. In a similar vein, research on homophily in social networks recently has moved forward to recognize the importance of multidimensional similarity for the formation of social relationships (Block and Grund, 2014; Hooijsma et al., 2020). This research shows that dissimilarity in ethnicity might not negatively affect the formation of relationships when compensated for by salient similarities individuals perceive in other categories.

While recent empirical studies seem to adopt the interplay of ethnicity with other social distinctions to explain hybrid segregation in diverse societies, this seems rarely the case in modeling literature drawing on Schelling's framework. Yet, we argue that this work points to an intriguing new possibility for residential segregation dynamics and hybrid segregation scenarios. The seemingly unstoppable march towards segregation that Schelling-type preference dynamics induce may not only be stopped by higher levels of ethnic tolerance, as suggested by Xie and Zhou (2012) or Hatna and Benenson (2015). It may also be stopped in a world where individuals still prefer being among co-ethnics, but at the same time hold an even stronger preference for having neighbors with similar values who also happen to be members of other ethnic groups. Given that ~~such a predominance of value-orientation~~ stronger preference for shared social distinctions in residential preferences rather than ethnicity appears to some extent to be correlated with socio-characteristics as education, income or age, this possibility would offer a new explanation in the framework of Schelling-type ~~preference dynamics of~~ dynamics

for nowadays residential trends. Rocco: just to break the sentence too long An example is why well-off younger generations appear to increasingly move to more affluent and more ethnically mixed neighborhoods (Clark et al., 2018; Clark, 2002). It would also help to understand why low-income strata seem to become increasingly segregated through generations, meaning that their neighborhoods become progressively both ethnically and economically segregated (Clark, 2002).

In this paper, we propose a formal computational model of Schelling-type preference dynamics that incorporates the interplay of both ethnic and value similarity for neighborhood composition. Our study builds on and advances recent modelling work of Paolillo and Lorenz (2018) which, to best of our knowledge, first introduced value similarity within a Schelling-type threshold model. In their model, two ethnic groups relocated in a lattice, each ethnic group being equally divided into intolerant ethnicity-oriented agents and tolerant value-oriented agents. While intolerant agents subscribed to the original Schelling ~~'s~~ model considering ethnic similarity and ignoring value similarity, tolerant agents only considered value similarity, indifferent to the ethnicity of other agents. The authors explored the consequences of different desired concentrations of agents considered as similar and for conditions of different relative ethnic sizes. Their results showed a general decrease in ethnic segregation compared to a world populated only by agents with ethnic preference. But they also showed more complex patterns, especially a by-product effect for ethnicity-oriented agents ~~in the minority condition~~ belonging to minority group who found attractive ethnically mixed neighborhoods formed by ~~tolerant~~ value-oriented agents, due to higher chance to find co-ethnics. In-flows of intolerant ~~co-ethnics~~ minority caused such neighborhoods to decrease in value segregation and increase ethnic homogeneity. The authors observed until ~~what threshold value-oriented agents of both ethnic groups would~~ when tolerant agents would not tolerate the increasing concentration of ~~ethnicity-oriented agents and then leave~~conservatives, so to ~~increase the likelihood of that neighborhoodto become more ethnically and value homogeneous, with concentration of conservative co-ethnics.~~ leave the neighborhood, which would become eventually ethnically concentrated, due to presence of conservative minority. Andreas: generally a bit lengthy here, could be moved to separate theory section. Rocco: now shortened and rephrase, checking

We want to build on the ~~potential~~ contribution of Paolillo and Lorenz (2018) to reproduce hybrid segregation patterns through multidimensional homophily. To this aim, we ameliorate some unrealistic assumptions of their model and extend other features.Andreas: highlight more the contribution of this paper, we make the model more a First, we relax the assumption that agents can only hold preference for value or ethnic homogeneity: we rather allow residential choice to be driven by a mix of both and focus on the heterogeneity of agents' preferences for the two types of similarity Rocco: redefine "heterogeneity": it is not referred to distribution of preference within populat Second, we implement a random utility model for discrete choice, following recent advances in agent-based modelling of residential mobility (Bruch and Mare, 2006, 2012), substituting threshold behavior with a linear utility function. This approach let us better model the decisional process of agents~~and~~. A linear utility function lets as model the sensitivity to change in neighborhood composition (Van de Rijt et al., 2009) ~~.~~ compared to a threshold behavior Rocco: review: you can have a decisional process with threshold function: what is the usefulness of linear function over thresho We systematically explore how the interaction of the two types of preference can generate hybrid segregation patterns, combining ethnically homogeneous and ethnically heterogeneous neighborhoods with segregation or integration for value similarity. ~~We further~~ Moreover, we explore how segregation patterns would change when not only ethnic relative size are taken into consideration as in Paolillo and Lorenz (2018), but also different ~~distribution~~ distributions of value types within agents' population.

Rocco: add: discrete choice and linear utility function to observe scenarios not possible in threshold and deterministic behavior, because agents would be not happy and some conditions not stand, e.g. threshold = 100 was not possible in Paolillo and Lorenz (2018) Andreas: dont think we need this is intro. it s already on the long end, consider splitting into intro proper and some sort of the

Modeling relocation choice with random utility models

Rocco: this in general will disappear/be rewritten (see AF and RP comments) Rocco: divide: why rum and utility within Intro Andreas: it this a theory or a model section? bit unclear. I would propose to turn it into a „theory" section (moving some part

Random utility models for discrete choice have a long history in housing research (Frankhauser and Ansel, 2016) and in recent years they have been applied in the agent-based modeling framework (Bruch and Mare, 2006, 2012). Stemming from the utility maximization paradigm, these ~~model~~ models assume that the ~~decisional~~ decision process underlying the choice of economic actors is unknown, and it can

be deduced by observed ~~preferences~~choice, i.e. how selection of respondents differ for attributes of the options available (Hess et al., 2018), e.g. different neighborhood composition. ~~So, aim of regression models comparing choices of the sample is to estimate vector parameters that quantify the likelihood to select one option over the other depending on the difference in their attributes (Manski, 1977).~~ Utility in this context is defined as the attractiveness for each characteristic the options differ for and ~~it~~ its formalization is based on the response curve of the respondent (Bruch and Atwell, 2015; Train, 2009)~~imposed based on the theoretical model of the analyst. Nevertheless, random~~ . Random utility models divide between a systematic component of utility, i.e. observable differences between options based on their utility, and a random term, representing all unknown factors associated with selection of that options, might they depend on other characteristics of the option, characteristics of the selector or an interaction of both. ~~Compared to~~ In our model, random utility for a generic neighborhood is:

$$U = \beta_e U_e + \beta_v U_v + \epsilon \tag{1}$$

where:
β_e = weight parameter for ethnic similarity, with $\beta_e[0, \infty)$
U_e = ethnic utility of neighborhood
β_v = weight parameter for value similarity, with $\beta_v[0, \infty)$
U_v = value utility of neighborhood
ϵ = random term

While parameters β_e and β_v can be estimated through regression models, the random term ϵ remains unknown. The conditional logit model introduced by McFadden (1994) is a specific type of discrete choice model that allow to quantify the effect of systematic utility over random component, though remaining the latter unknown. Assuming the random term ϵ follows a type I extreme value distribution, e.g. Gumbel distribution, the probability to select neighborhood j out of options k in choice set C is:
Andreas: lenghty, reads more like dissertation. Shorten.Rocco: added a note, not sure how in computation, but to take back in

$$P_{j \in C\, j} = \frac{exp(\beta_e U_j^e + \beta_v U_j^v)}{\sum_{k \in C} exp(\beta_e U_k^e + \beta_v U_k^v)} \tag{2}$$

where j and k are two options available in the choice set C.

In this computation of probability, parameters β_e and β_v ~~become~~ represent the weight of how much the systematic component of utility for that dimension matters in the selection of the option compared to the random component represented by the unknown random term. The higher β_e or β_v, the higher the likelihood that the option with highest utility for that dimension will be selected, the lower β_e or β_v, the higher the chance that ~~an option is selected randomlyfor that dimension~~the choice among options will occur randomly. With both β_e and β_v equal 0, ~~the~~ all options have equal probability to be selected, since the choice is totally stochastic, i.e. dependent on the random term.

Implementation of discrete choice in agent-based modelling has ~~a number of~~ some peculiarities compared to empirical regression models. First and above all, estimated preferences in regression models depend on a the comparison of a limited set of observed cases that can profoundly affect results. Andreas: generally this section can be shortened a lot. jms readers can be expected to know most of this and for much of the i
Moreover, utility remains a random variable estimated through parameters β and computation of probability to select one option. Probability to select one option over the others as behavioral response to change in their attributes is the equivalent to utility. As ~~(Bruch and Mare, 2009)~~ Bruch and Mare (2009) stress out, agent-based modeling ~~are~~ is deeply different in this aspect, allowing to model independently and quantify the elements of the conditional logit based on a theoretical model. Researchers can impose different combinations of utility function for all ranges of neighborhood characteristics and parameters β in the relocation decisions of agents to observe their aggregated results. ~~Additionally, modellers can include other elements that contribute to the dynamics of emerging spatial segregation, such as diverse heterogeneous distributions of preferences (see (Xie and Zhou, 2012)) or population structures that can influence neighborhood composition (Bruch, 2014).~~

Also agent-based modelling can benefit from the implementation of discrete choice models, not only for the formalization of the decisional process of agents and calibration with parameters β estimated (Bruch and Mare, 2006), but also for the inclusion of the stochastic random term. Randomness is useful to both test robustness of observed phenomena in complex systems and increase their realism through inclusion of random fluctuations against deterministic behavior. A traditional way to include randomness in the dynamics of an agent-based model is as an external noise, for instance in Schelling's model, with a percentage of agents, or additional agents, forced to randomly relocate by the researcher.

Implementation of discrete choice allows to include randomness as an endogenous component in the relocation decision of individual agents through the random term compared to parameters of determinism. Useful to our interest in the interplay of value and ethnic preferences, the parameter β can ~~vary as a local variable of agents, so to sort out differences in the ratio between deterministic and random relocation depending~~ be attributed based on characteristics of agents that simulate their socio-demographics. We build on this ~~peculiarity~~ aspect of random utility models to ~~test how random behavior of a specific type of agents for value orientation, ethnicity~~investigate how strength of preferences for either value orientation or ethnicity, or a combination of both~~can influence~~ , along structural composition of the population can contribute to the emergence of stable equilibria of hybrid segregation. We can moreover explore the interdependence between different types of agents and how determinism of agents would react to different distributions of the two characteristics of ethnicity and value orientation in the population. In the next section we describe our ~~extension of Paolillo and Lorenz (2018)~~ model and how we implemented random utility discrete choice.

Model Description

We developed our model in NetLogo 6.1.1 (Wilensky, 1999) extending Paolillo and Lorenz (2018).[2] The model and its parameters are shortly described in Tab: 1. Agents represent households who relocate in a regular square grid of dimension 51 times 51 with periodic boundary conditions, i.e. a tours world. As in Paolillo and Lorenz (2018), each agent is described by two ~~static~~ state variables: ethnicity modeled ~~though~~ through a color tag and value orientation modeled through a shape tag (see fig: 1). ~~Both dimensions have a twofold distinction: for ethnicity ethnic majority (color blue) or ethnic minority (color orange), while for value orientation conservative group (shape square)or liberal group (shape~~ Given two levels for each dimension, 4 group-type of agents interacts. For sake of illustration we label them as conservative majority (blue square), liberal majority (blue circle), conservative minority (orange square), liberal minority (orange circle). Value orientation of agents represent shared beliefs or opinions that people can share independently of their ethnic membership and that can rather correlate with other social distinctions, such as education, social class or political views.

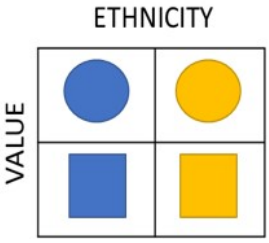

Figure 1: Group-type of agents

In our model value orientation of agents is relevant for two reasons. First, it determines an additional dimension of similarity which is independent of ethnicity: liberals can recognize as similar value-oriented also liberals of the other ethnic group, so as to recognize of different value orientation conservatives of both ethnic groups[3]. Additionally, value orientation matters in defining the strength of ethnic or value similarity in the relocation decision of agents. In Paolillo and Lorenz (2018) agents randomly relocated to an empty ~~node~~ cell according to a threshold function, based on ethnic composition for ethnicity-oriented agents and value composition for value-oriented agents. We substitute this behavior with a binary random utility discrete choice model. At each time step, a random agent selects a random empty ~~node~~ cell and compares its neighborhood composition to that of its current ~~node~~cell. By neighborhood ~~of the agent~~ we refer to the Moore ~~neighborhood of~~ distance with radius 1 of the ~~agent selected; similarly, the alternative neighborhood is the Moore neighborhood of radius 1 of an empty cell. We substitute the threshold function in Paolillo and Lorenz (2018) with a continuous linear functionfor both ethnic and value neighborhood composition~~cell, i.e. 8 surrounding nodes. Ethnic utility and value utility for the neighborhood composition is modeled through a linear function:

[2]Model available at https://github.com/RoccoPaolillo/ethnic-value_multinomial.git
[3]Equally, also conservatives recognize similar value-oriented conservatives of both ethnic groups

$$U_j^e = \frac{x_j^e}{X_j} \quad ; \quad U_j^v = \frac{x_j^v}{X_j} \tag{3}$$

where:
U_j^e: ethnic utility of neighborhood j
x_j^e: number of agents in neighborhood j with same ethnicity
X_j: total number agents in neighborhood j
U_j^v: value utility of neighborhood j
x_j^v: number of agents in neighborhood j with same value
X_j: total number agents in neighborhood j

Both utilities can range [0,1]. Utility of a neighborhood is set to 0 if $X_j = 0$, i.e. not agents are in the neighborhood. The probability for an agent to choose the alternative neighborhood over the current one is modeled with a logistic function as:

$$P_{al} = \frac{exp(\beta_e U_{al}^e + \beta_v U_{al}^v)}{1 + exp((\beta_e U_{cr}^e + \beta_v U_{cr}^v) - (\beta_e U_{al}^e + \beta_v U_{al}^v))} \tag{4}$$

where:
β_e: weight for ethnic preference
β_v: weight for value preference
U_{al}^e: ethnic utility of alternative neighborhood
U_{cr}^e: ethnic utility of current neighborhood
U_{al}^v: value utility of alternative neighborhood
U_{cr}^v: value utility of current neighborhood

Andreas: this can be integrated more with equation 2 and text around it.

The higher β_e or β_v, the higher the option with higher ethnic or value utility is likely to be selected, the lower β_e or β_v, the higher the chance that selection is random for that dimension. Andreas: repetition With both $\beta_e = 0$ and $\beta_v = 0$, the choice is totally random and $P_{al} = P_{cr} = 0.5$. This formula is a transformation of Eq: 2 for a binary choice with probability to relocate to alternative neighborhood[4].Andreas: shorten this Probability computed is compared to a random number ranging between 0 and 1. If probability is higher than random number, then the agent moves to the alternative neighborhood, leaving its cell empty. So, the logistic function serves as a simplified version of the roulette wheel selection [5].
Andreas: implementation details like these can go to online appendix, online repository containing model code (open abm)

~~We opted for a binary choice to ease computational power required. As tested, due to iterations of the model results would not change with selection between more options. We opted for a continuous linear function because default assumption in utility maximization and sensitive to changes in neighborhood compositions, which is strategic to our aim (Van de Rijt et al., 2009).~~ Moreover, it lets behavior of agents differ only for parameters of determinism β_e and β_v, so to allow us to disentangle the effect of either ethnic or value similarity preferences on emerging segregation. Rocco: next paragraph: I mean that potentially one can span the parameters so to have ethnic liberal > ethnic conservative. We impose preferences as I describe because of theoretical consistency with our research goal Andreas: here (next paragraph rp) we say what we do, but not really why we do it. this has also not been said very clearly furt
We vary β_e and β_v depending on the value orientation of agents and in our experiments impose differences in heterogeneous preferences between the two types of agents. Liberal agents, considered as more prone to ethnic tolerance, hold higher value preferences: weight for ethnic similarity cannot exceed their weight for value similarity ($\beta_v^{\circ} \geq \beta_e^{\circ} \beta_v^L \geq \beta_e^L$). Conservative agents hold higher ethnic preferences: weight for value similarity cannot exceed their weight for ethnic similarity ($\beta_e^{\square} \geq \beta_v^{\square} \beta_e^C \geq \beta_v^C$). Moreover, the heterogeneity between conservative and liberal agents exists so that ethnic preferences of liberals do not exceed those of conservatives ($\beta_e^{\square} \geq \beta_e^{\circ} \beta_e^C \geq \beta_e^L$), and value preferences of conservatives do not exceed those of liberals ($\beta_v^{\circ} \geq \beta_v^{\square} \beta_v^L \geq \beta_v^C$).

As outcome of the model, we report the index of exposure for both ethnic and value segregation of agents who have at least one neighbor. This is the classic measure of segregation in Schelling and is equivalent to the fraction of agents of same ethnicity or value orientation in the neighborhood, indifferent

[4]The equivalence between logistic function and conditional logit for two options is valid since the difference between random terms that are assumed to have a Gumbel distributions has a logistic distribution. The logistic function in Eq: 4 is transformation of Eq: 2 written as $P_{al} = \frac{exp(U_{al})}{exp(U_{al} - U_{cr})}$, resulting from division of numerator and denominator by numerator $exp(U_{al})$, with $exp(U_{cr})/exp(U_{al}) = exp(U_{cr}) - exp(U_{al})$ (see (Train, 2009, p.39) for ~~detaills~~details)

[5]see Bruch and Mare (2012) for an example of roulette wheel selection

to the actual number of neighbors. Nevertheless, we consider this a best ~~fit~~ fit to our interest in hybrid segregation scenarios. ~~Since the measure is collected for all agents who have at least one neighbor, an index equal 0 means assimilation of the agent for that dimension, i.e. exposed only to agents of different ethnicity or value orientation.~~ An index equal to 0.5 means that the agent is perfectly integrated for that dimension, being exposed to agents of different ethnicity or value orientation. An index equal 1 means total segregation, i.e. exposure only to similar agents for that dimension. ~~Thus, the 2 indexes can be easily compared to visualize if agents are assimilated, integrated or segregated for one dimension and differently for the other.~~

Agent definition	**Tag**
Ethnicity (*color*)	Blue (majority), Orange (minority)
Value orientation (*shape*)	Square (conservative C), Circle (liberal L)
Group-type level Parameters	**Range**
Determinism ethnic utility (β_e)	$[0, \inf)$ $\beta_e^C \geq \beta_v^C$; $\beta_e^C \geq \beta_e^L$
Determinism value utility (β_v)	$[0, \inf)$ $\beta_v^L \geq \beta_e^L$; $\beta_v^L \geq \beta_v^C$
Global Parameters	**Range**
Population density	$[0, 0.99]$
Ethnic ratio majority/minority	$[0, 1]$
Value ratio conservative/liberal majority	$[0, 1]$
Value ratio conservative/liberal minority	$[0, 1]$
Output measure	**Range**
Ethnic neighborhood exposure	$[0, 1]$
Value neighborhood exposure	$[0, 1]$

Table 1: Model parameters

Results

Baseline Conditions

We run our simulations for 1000 discrete time steps and run each condition 20 times. We collected data for the last time step as interested in the emerged equilibria resulting from relocation preferences, population composition and degree of determinism.

In this first section, we report results for symmetric conditions so to understand the key mechanisms of the model. At initialization, each agent has 50% probability to be assigned to either majority or minority ethnic group (equal ethnic size) and within each ethnic group, 50% probability to be assigned to either conservative or liberal value orientation. In short, each group-type represents 25% of the population. Density of the grid inhabited is kept at 70% with initial random distribution. Fig. 2 shows the parameter space we explore in this baseline scenario and the figures associated Rocco: figures-experiment match to be updated in the end. As measure of segregation, for both ethnic and value similarity, we compute an index of exposure in the Moore neighborhood of agents who have at least one neighbor. The index reports on average the fraction of other agents of same ethnicity or same value orientation in the local neighborhood of each agent. It ranges between 0, i.e. exposure to out-groups to 1, i.e. full segregation, with 0.5 equal to integration between the two groups. We report the index for ethnic exposure (E_i) and value exposure (V_i) for each group-type:

$$E_i = \frac{x_i^e}{X_i} \quad ; \quad V_i = \frac{x_i^v}{X_i} \tag{5}$$

where:\ x_i^v: number of other co-value agents in the Moore neighborhood of agent i
x_i^e: number of other co-ethnic agents in the Moore neighborhood of agent i
X_i: total number agents in neighborhood of agent i

We report additionally the average density of the neighborhood agents form, calculated as the fraction of inhabited grid cells in the Moore neighborhood of agents. We are interested in density as indicator of clustering of agents and how it relates to segregation patterns.

Fig. 3 represents the baseline condition we compare results to. Agents hold same preference for both ethnic and value segregation, i.e. they want to live close to agents of the same group-type. On the x-axis, agents of both value-orientation increase their determinism (parameter β). The graph shows how

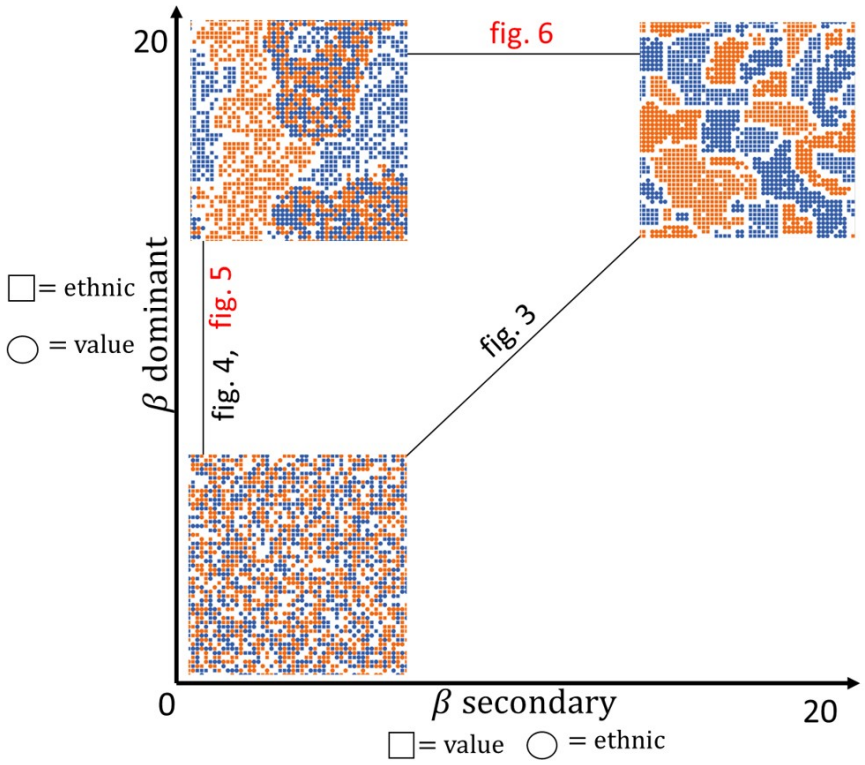

Figure 2: Preference model space parameter and figure associated. Figure reference label: black color means liberals and conservatives hold same level of ß parameter (though with different definition of similarity). Red color means they hold different level of either dominant or secondary preference.Match figure-label to check/change in the end

ethnic and value segregation follow the same curve. Segregation increases monotonically from $\beta = 0$ until $\beta = 7$ where full segregation is reached. Density of neighborhoods remains basically unaltered from initial random distribution, though slight increase when full segregation emerges at $\beta = 7$. Results mean that the size of neighborhoods of agents is unaffected by increase of determinism, while their composition changes.

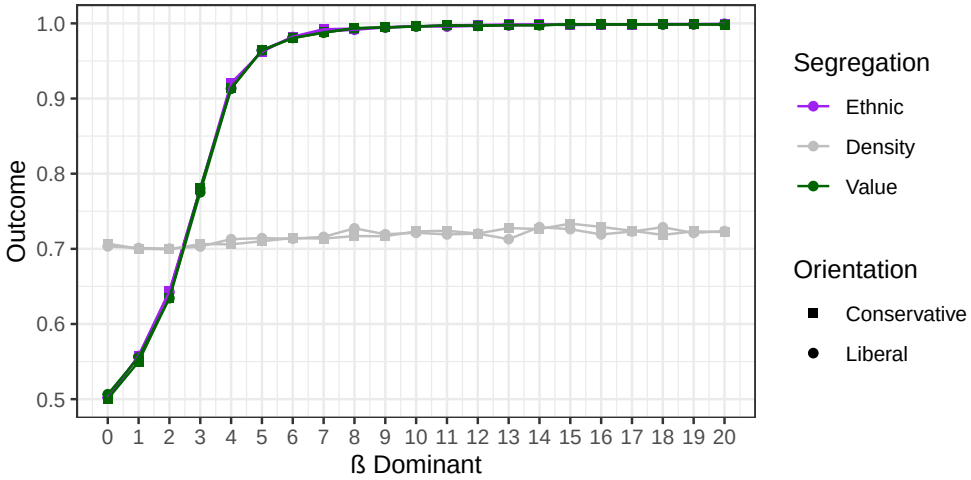

Figure 3: Baseline condition. Each group-type represents 25% of population. ß dominant = ß secondary

In Fig. 4, we investigate the scenario where agents hold only to their dominant preference. Differently from previous condition where agents would prefer someone with own identical characteristics, liberals would relocate close to other liberals of different ethnic group, as well as conserative try to maximize on ethnic utility with liberal co-ethnics. This is ideal to investigate effects of different preferences. For each type of agent, β *dominant* increases on the x-axis, while β *secondary* $= 0$ The figure shows how liberal agents remain ethnically integrated, which is coherent with their random relocation for ethnic dimension of neighborhoods (secondary preference $\beta_e = 0$) with almost full value segregation. For conservative agents, ethnic segregation is higher than value segregation of their value counterpart, with full ethnic segregation reached with highest determinism. What is unexpected is that also value segregation emerges with increase in determinism, while their value preference is imposed to $\beta_v = 0$.

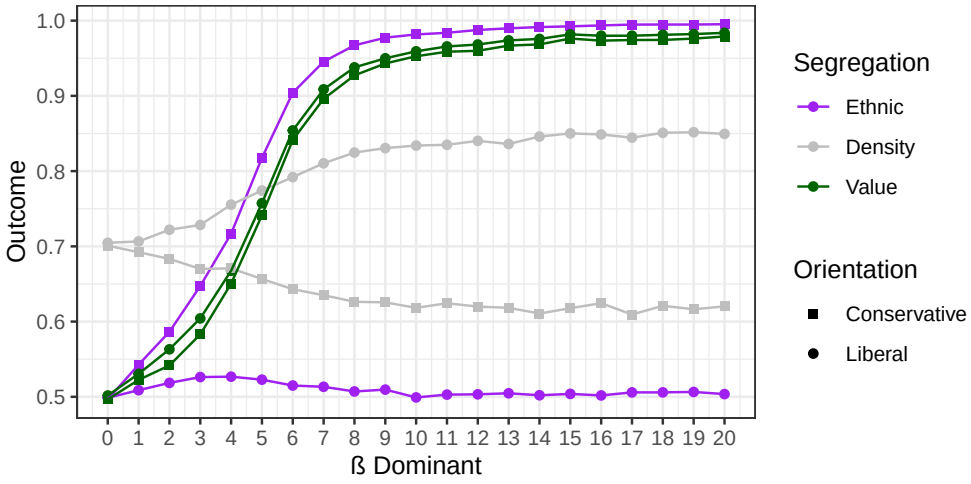

Figure 4: Baseline condition, ß dominant preference (ethnic for conservative, value for liberals on the x-axis), ß secondary preference (value conservative, ethnic liberal) equal to 0

Value segregation of conservatives occurs as a by-product effect of value preference of liberals, due to the different definition of similarity in spatial sorting. Due to symmetric condition, both conservatives and liberals could potentially consider half of the population as similar to maximize homophily preferences (population equally split into two ethnic groups and two value orientations). However, though conservatives would relocate close to liberal co-ethnics, they would be rejected by the latter who would prefer a neighborhood with other liberals, while both conservatives and liberals of the other ethnic group would be rejected based on the own ethnic preference. In short, conservatives of each ethnic group can only count on other conservatives of their own ethnicity to form stable neighborhood, equal to 25% of the population. On the other side, liberals would relocate close to co-values of both their own and the other ethnic group, so to count on 50% of the population to maximize value utility, i.e. the double of percentage available to conservatives. The result is that liberals form denser neighborhoods compared to conservatives, because they have more similar agents to relocate close to. Looking at Fig. 4, as determinism increases, density of neighborhood of liberals increases from the initial distribution, while conservatives' falls below it. By-product occurs because liberals, avoiding conservatives of both ethnic groups and forming denser neighborhood, reduces the space available on the grid where conservatives of both groups can relocate, so to break also their neighborhoods. Additionally, conservatives would sort with conservatives of their own ethnic group.

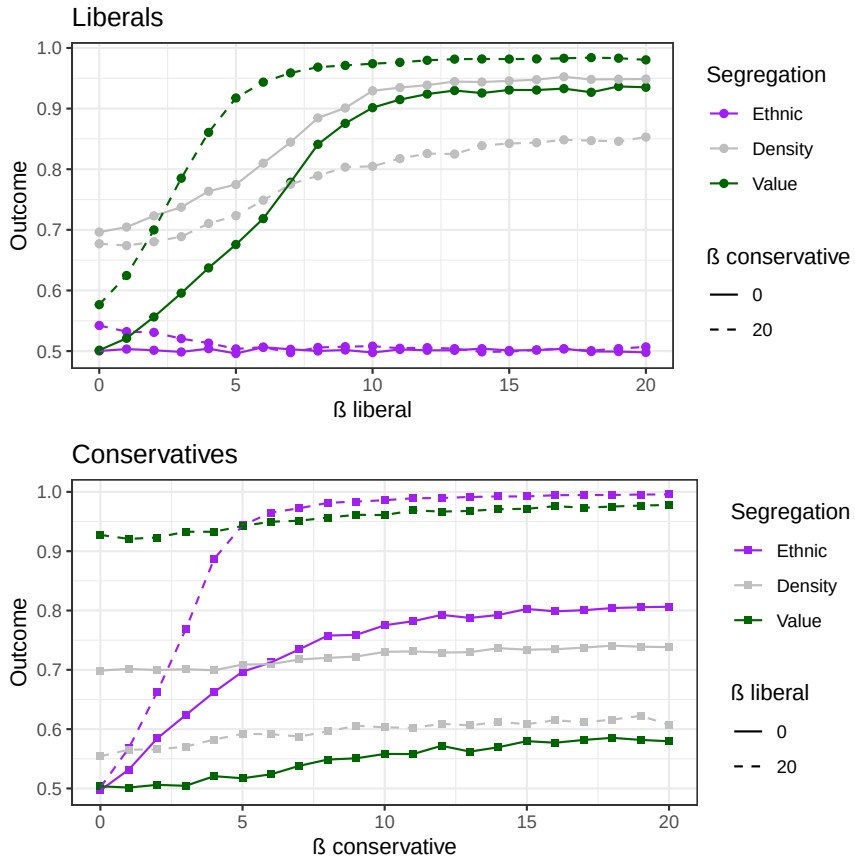

Figure 5: Baseline condition, for each value-orientation type, how its patterns are influenced by determinism of the other group. Secondary preference in each condition is equal to 0. Top panel liberals: ß value liberals on x-axis, linetype: ß ethnic conservative equal 0 or 20; Bottom panel: ß ethnic conservative on x-axis, linetype: ß value liberal.

Fig. 5 clarifies how the segregation patterns of each group-type liberals and conservative depends on their dominant preference or it is influenced by preferences of other group-type as by-product. On top panel, results for liberals are reported. On x-axis, liberals increase determinism ß value in their relocations, linetype shows the conditions due to behavior of conservatives: total random relocation ß = 0, or extreme determinism ß = 20. The picture shows how the density of neighborhoods liberals form increases with increase of ß value, though i shows lower levels when conservatives hold max ß ethnic, compared to Fig. 4. While ethnic integration is unaltered by ethnic preference of conservatives, as no difference is evident. On the contrary, value segreation seems higher when conservative cluster together until ß conservative = 20. Likely with ß = 0 they would randomnly relocate into neighborhoods of liberals, thus to decrease their value utility. The difference is higher for lower determinism area. The bottom panel repeats for conservative agents influenced by behavior of liberals. With ß liberal = 0, a slight increase emerges for higher determinism of conservatives, i.e. they can cluster only with other conservatives of their ethnic group, and taking adavantage of liberal co-ethnics who randomly relocate. With ß value liberals = 20, the by-product is evident and strong: value segregation basically does not increase for all levels of ß ethnic conservative and remains high. In short, the value segregation of conservatives is very minimally due to clustering due to ethnic preference. Neighborhood density remains equal to initial distribution with ß value liberal = 0, meaning conservatives do not form denser neighborhoods as liberals, which can be related to have lower ethnic segregation compared to value segregation of liberals when conservative hold ß ethnic = 0. Neighborhood density decreases and remains constant when ß value liberals = 20, being their space in the grid limited by neighborhoods formed by liberals and forming conservatives less dense neighborhoods. However, though neighborhoods are less dense, the ethnic exposure for conservatives reaches full segregation.

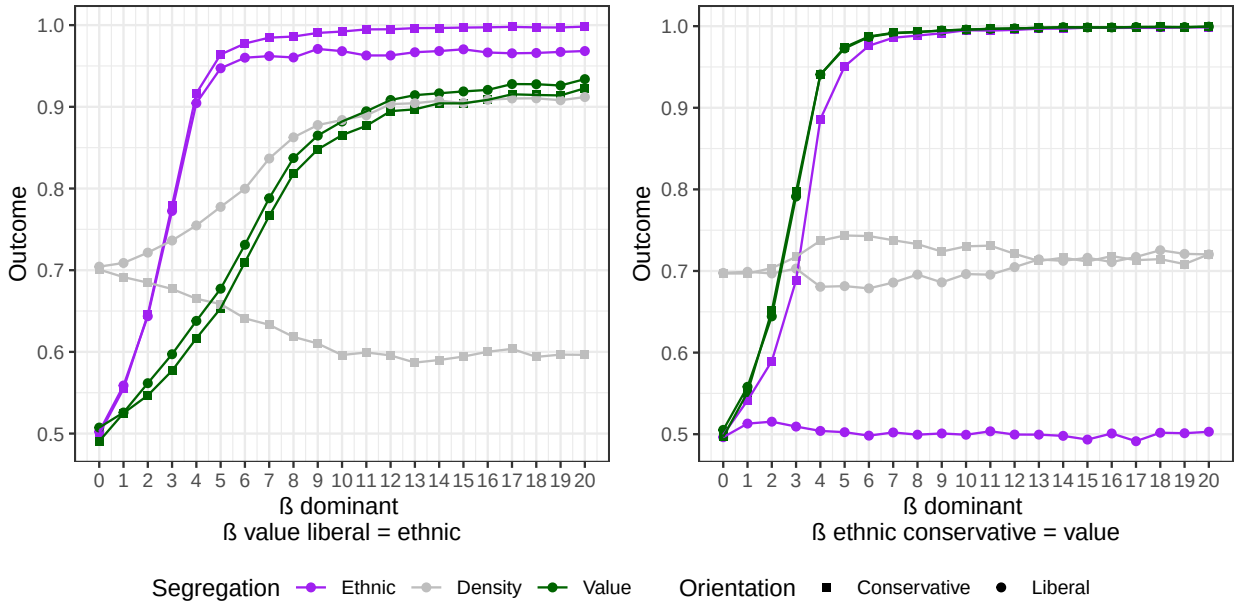

Figure 6: Baseline condition, Effect of agents holding ß dominant = ß secondary, comparison of different preferences. On the x-axis, increase ß dominant for all agent. Left panel: liberals hold value preference (dominant) equal to ethnic preference (secondary); left panel: conservatives subscribe only to ethnic preference. Right panel: liberals hold ethnic preference (dominant) equal to value preference (secondary)

Fig. 6 repeats Fig. 4 but with the difference that conservatives and liberals hold secondary preference equal to dominant preference. The aim is to compare with Fig. 3 and Fig. 4: how they would change if also secondary preferences are taken into consideration, and allow to observe how degree of determinism influences the process. This was the best solution to include all into feasible picture so far. Lower value segregation of conservatives as by-product, as they are more accepted by liberals and shift in density neighborhood of conservatives. To think about.

Heatmap in Fig. 7 shows instead other combinations that would not be included in Fig. 6: e.g. fix one level of determinism ß value and increase ß ethnic of liberals. However, all agents hold same degree of determinism, which obscures whether agents cluster because of increase in secondary preference, or because of by-product e.g. for areas of high determinism.

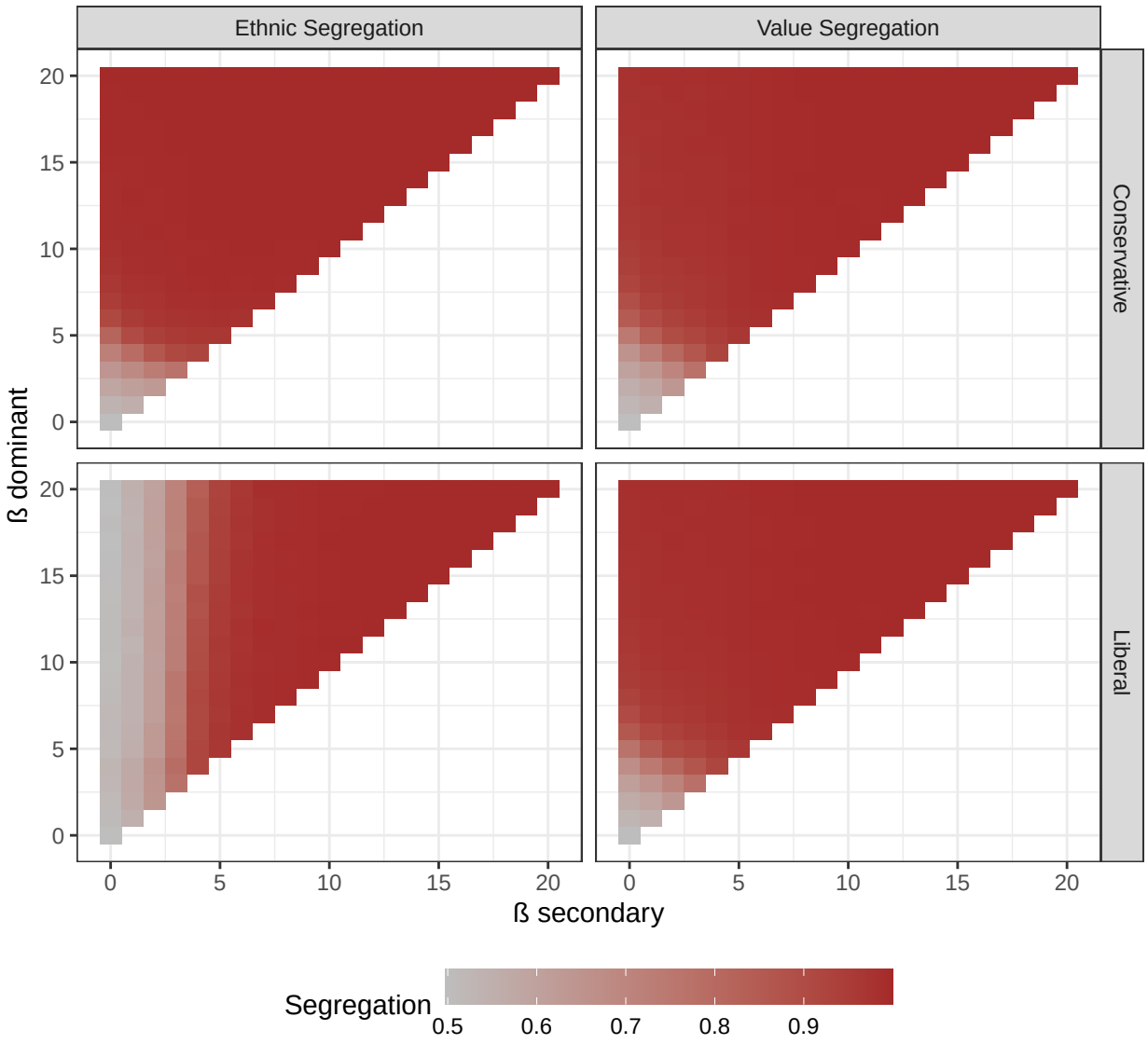

Figure 7: Basic condition. Heatmap generated by ß dominant preference (ethnic for conservative, value for liberals) and secondary preference (value for conservatives, ethnic for liberals). Liberals and conservatives hold same level of ß dominant and ß secondary in each condition (global parameter)

Asymmetric Conditions

The main focus is on scenario with secondary ß = 0 (Fig: 4), since it shows most interesting results as by-product. In this section we want to show how segregation scenarios that in the previous section depended on different homophily preferences can vary if agents hold similar preferences but distribution in population composition differ (e.g. majority influences more than minority, ceteris paribus). The main focus for simplicity is on preference of liberals majority vs liberals minority, since they enact mechanisms as by-product and represent new introduction to Schelling's model (see figures in details). So also for increase of secondary ß For simplicity of visualization and to focus on preferences of agents, 80% ethnic ratio is considered in the experiments. For value orientation, as in the asymmetric condition, each ethnic group equally split into liberals and conservatives (i.e. 50% of population is liberal, and 50% conservative, but more chance of both conservative and liberal to belong to ethnic majority). Fig:12 and Fig: 13 are to show how results would change in the full conditions due to joint distribution ethnic ratio and distribution

of liberals which affect population composition. In particular distribution of liberals is of interest because it allows to break the ethnic unbalance between liberal majority and minority, how conservatives of both groups react to increase of liberals in the population, and how effective change in the minority population would be, if an ethnic critical mass is not reached. Basically in all conditions majority remains split 50% into liberals and conservatives, but both changes in minority population are more interesting to relate to change into the integration/segregation continuum.

In ethnic asymmetric conditions, we use the spatial relocation index to measure whether segregation occurs from initial random distribution. Local exposure can be computed from it, but it is not intuitive to reader in my view. In the tables in appendix, the reader can see for each condition what local exposure matches spatial clustering of agents.

$$E_i^c = \frac{\left(x_i^e / X_i\right)}{\left(N_i^e / N\right)} \quad ; \quad V_i^c = \frac{\left(x_i^v / X_i\right)}{\left(N_i^v / N\right)} \tag{6}$$

where:
x_i^e: number of co-ethnics neighbors of agent i
x_i^v: number of co-values neighbors of agent i
X_i: number of neighbors of agent i
N_i^e: number of agents in the population with same ethnicity of agent i
N_i^v: number of agents in the population with same value of agent i
N: total number of agents in the population

Fig: 8 wants to inform the reader of what is the direct effect of different ethnic ratio and how spatial clustering relates to local exposure. It replicates Fig: 4 comparing the condition of ethnic equal size (50%) vs majority/minority condition used in this section (80%). Results show given the same ethnic preference, conservative minority have higher need to cluster to satisfy ethnic utility, resulting in higher spatial clustering, 5 times the initial random distribution, with increase of local ethnic exposure to 1 (0.2*5). While for conservative majority, similar full ethnic exposure is reached with lower spatial clustering, since there is more chance to find co-ethnics in the population. For both liberals majority and liberals minority full value segregation is reached with value spatial clustering equal 2, i.e. full local value exposure equal 1. Ethnic segregation does not occur in terms of spatial clustering from initial distribution for both liberals majority and liberals minority, meaning higher ethnic exposure of liberals majority to 80% and ethnic assimilation for liberals minority 20%

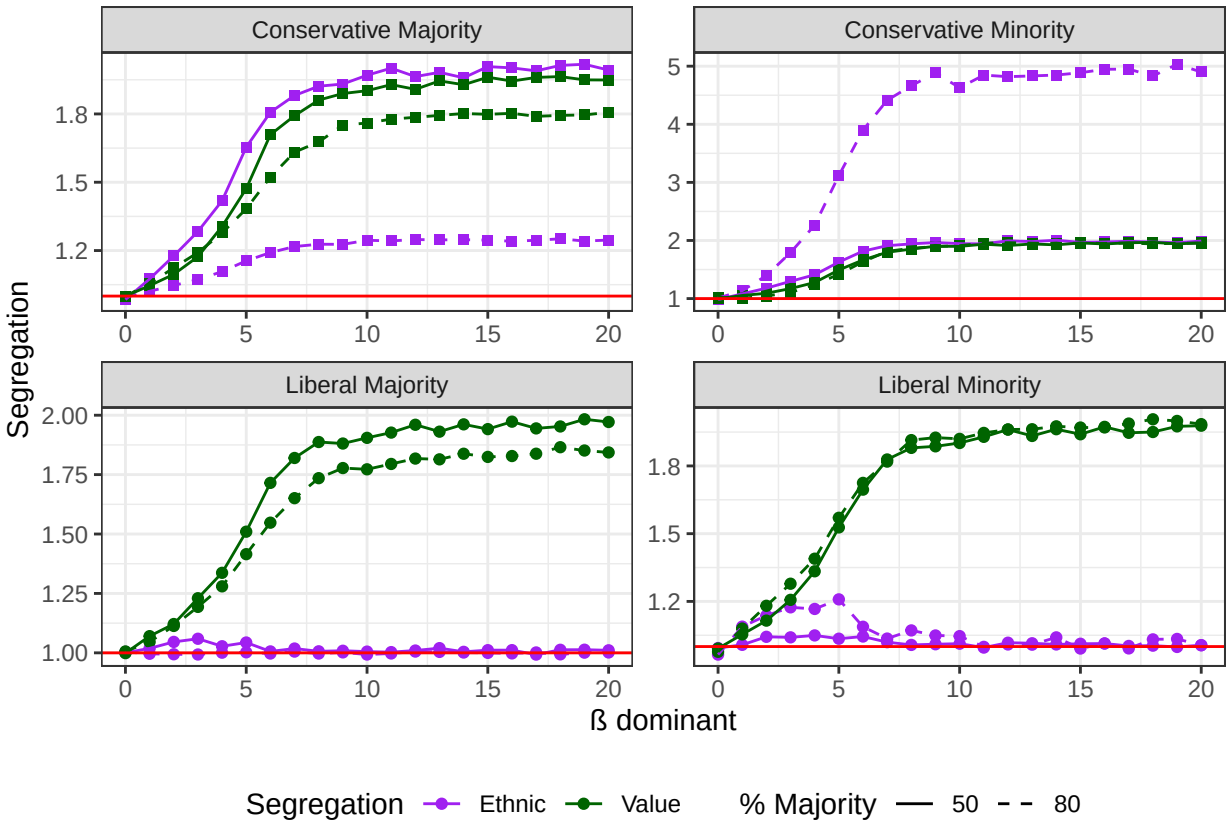

Figure 8: Baseline ethnic asymmetric condition. Each panel reports the segregation pattern of each group-type (ethnicityXvalue). X-axis: ß dominant (ethnic for conservative, value for liberals), Y-axis: dislocation index. Agents hold only dominant preference: ß secondary = 0. Linetype: comparison equal ethnic size (50 %) vs majority/minority condition (80%).

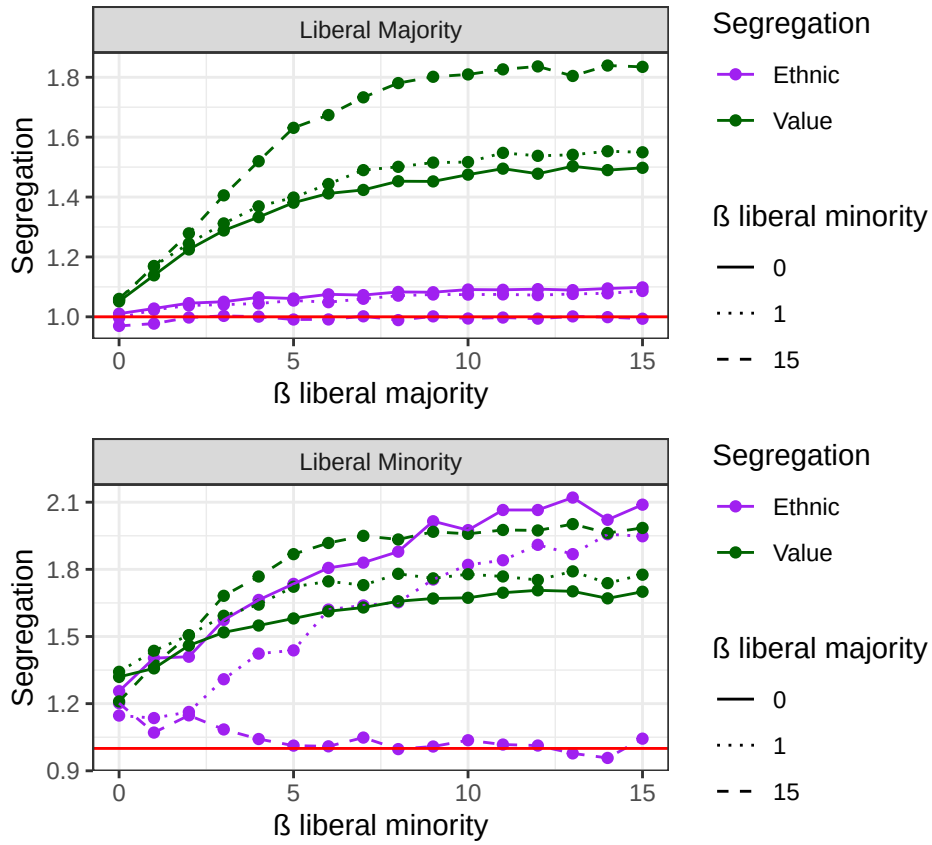

Figure 9: Ethnic asymmetric: effect dominant preference (ß value) liberals minority over liberals majority (top panel) vs effect liberals majority over liberals minority (bottom panel). For each panel, on x-axis increase ß value preference of group-type, linetype: ß value preference of out-group counterpart. Conservative agents hold to dominant ethnic preference ß = 15. Secondary preference for both conservative and liberals = 0

Fig: 9 first explores how liberals majority and minority influence each other, basically to explore whether ethnic integration at local exposure can be reached as due to different value preferences of either group, or ethnic assimilation of minority and value segregation of both in Fig: 8 would be affected. Each panel shows results of liberals majority (top) and liberals minority (bottom). For each graph, results show changes due to ethnic counterpart having no preference at all (ß = 0), low value determinism (ß = 1) or high value determinism (ß = 15). In all conditions, conservatives of both ethnic groups hold ß ethnic = 15, so to have stable ethnic segregation pattern from their behavior.

Liberals majority are lower affected by value preference of liberals minority for what concerns ethnic segregation. Basically if the other group doesn't care about value homophily, the agents can relocate only close to liberal co-ethnics. For liberals majority not much change in spatial clustering occurs because of majority condition, while for liberal minority the same condition leads from ethnic assimilation to ethnic segregation, though ethnic preference is not involved. Even a small amount of determinism of liberals majority is enough to increase value segregation of liberals minority (see bttom panel with ß liberal minority equal 0). However, in top panel, higher value segregation is reached by liberals majority for higher determinism if liberal minority hold high ß value = 15

I included ß = 0 of ethnic counterpart as theoretical baseline: what happens if there no preference at all in the ethnic counterpart. Methodologically is correct to include in my view, though difference with ß=1 is not that stricking. We could think of cutting off if the figure is too complicated.

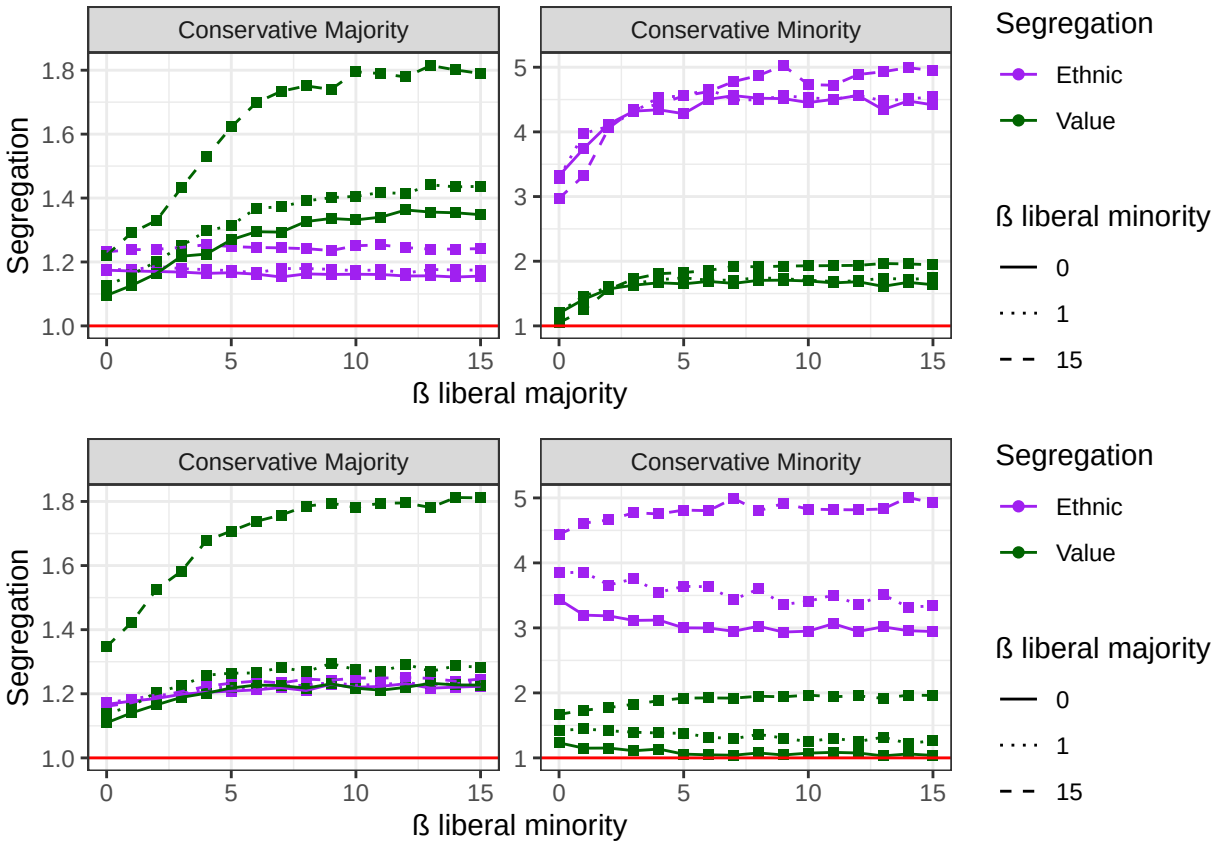

Figure 10: Ethnic asymmetric: effect of ß value liberals majority or liberals minority over conservatives majority and conservatives minority. Each panel reports pattens of conservative majority (left) or conservative minority (right). Top panel: effect of ß value liberals majority (on x-axis), linetype: changes due to different levels of ß value liberal minority. Bottom panel: effect of ß value liberlas minority (on x-axis), linetype: changes due to different levels of ß value liberal majority. Conservative agents hold to dominant ethnic preference ß = 15. Secondary preference for both conservative and liberals = 0

Fig: 10 focuses on effect of liberals majority and liberals minority over conservatives. The idea is to observe how the effect of liberals can vary depending on the value preference of ethnic counterpart, and how conservatives can differently being affected due to ethnic asymmetry. Expected: liberals majority have more influence than liberals minority, conservative majority are less affected than conservative minority.

The picture shows influence of liberals majority on top panel, liberals minority on bottom panel. If too complicated, we could split. Also here, ß liberals ethnic counterpart as baseline, if too complex we could get it off.

Value segregation of conservative majority show similar patterns whether value of liberals minority is swept or liberals majority. Ethnic segregation (spatial clustering) of conservative minority is already high due to ethnic minority as Fig: 8 has shown, but it increases as liberal majority increase ß value, as effect of rejection and limiting their space of relocation. This can be considered a by-product by ethnic asymmetry, compared to by-product by value in symmetric condition. Looking at bottom panel, for lower ß liberal majority, increase in ß liberal minority seems to slightly decrease ethnic segregation of conservative minority. Likely liberals of both ethnic groups form dense, value homogeneous neighborhoods with few liberals majority who are not sensitive to conservatives because of lower determinism, while liberals minority because value utility maximization is preserved, since few conservative minority. So, conservative minority can maximize ethnic utility at cost of living close to few liberals of majority group, which decreases the spatial clustering. As ß liberal majority = 15, increase in ß liberal minority is associated with higher ethnic clustering of conservative minority as in the top panel.

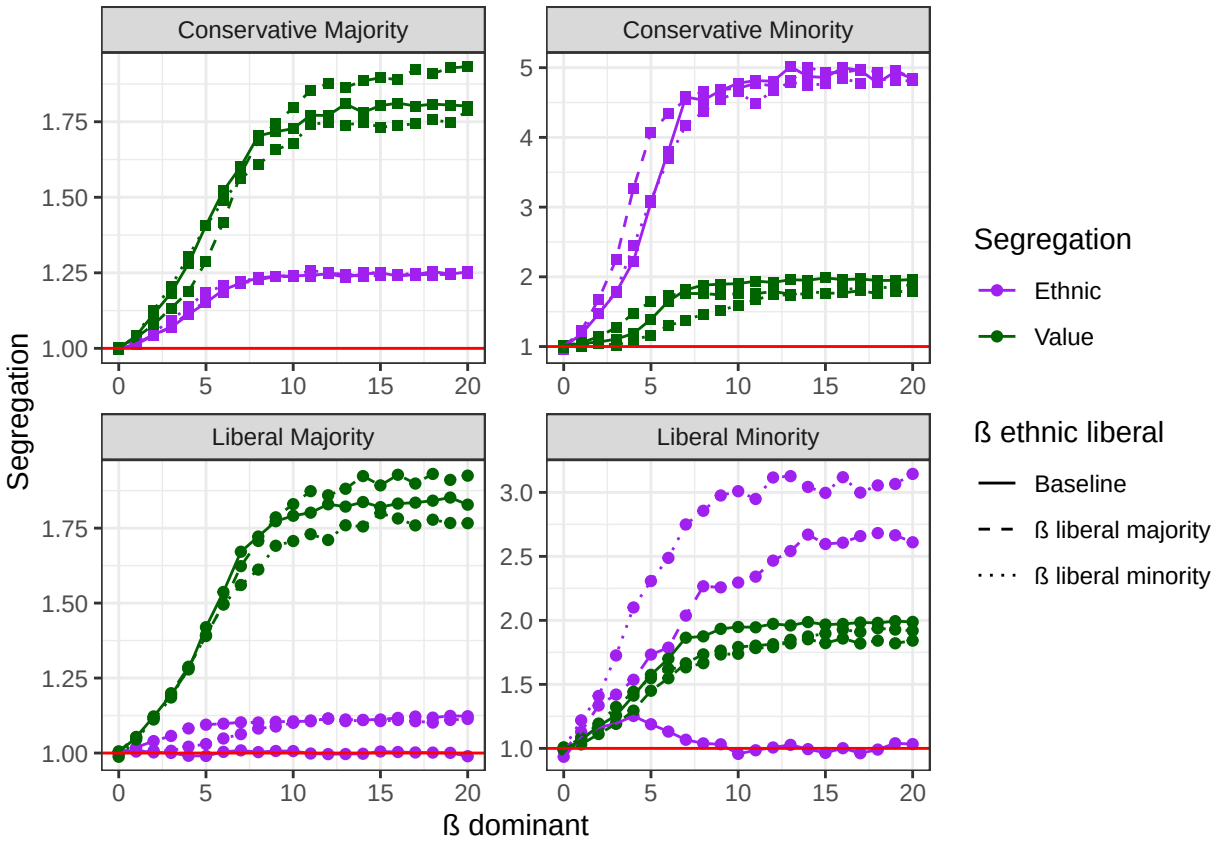

Figure 11: Ethnic asymmetric: effect of ß ethnic of liberals (secondary) equal to ß value liberals (dominant. x-axis: increase dominant preference for all agents (global parameter). Each panel reports segregation patterns of each group-type (ethnicXvalue). Linetype represents conditions compared: baseline: liberals of both ethnic groups hold only to dominant preference (ß secondary = 0); ß liberal majority = liberals majority hold same ethnic and value preference (liberals minority hold only to value preference), ß liberal minority = liberals minorty hold same ethnic and value preference (liberals majority hold only to value preference)

Finally, Fig: 11 shows effect of liberals majority or liberal minority holding both ethnic and value preference. Compared to Fig: 6, we observe how ethnic asymmetry interacts with degree of determinism. Each panel reports result for one group-type and compares a baseline where agents only subscribe to ß dominant (ß secondary = 0), to liberals majority subscribing also to ß ethnic or liberals minority doing so.

Generally to interpret deeper. Liberals majority holding also ethnic preference increases the value by-product for conservative majority for high determinism compared to baseline, lower for higher randomness. For conservative minority, liberals majority holding also ethnic preference increases ethnic segregation compared to baseline for higher randomness are, liberals minority holding also ethnic preference shows no difference from baseline. Differences between conditions disappear for high determinism. For value segregation of conservative minority, lower value segregation as by-product occurs if liberals minority hold also ethnic preference in higher randomness area, it increases for liberals majority holding also ethnic preference. For higher determinism, differences between liberals majority and liberals minority disappear, with baseline showing (very slight) higher value.

For liberals majority, slight difference in value segregation occurs for high determinism, with higher value segregation of liberals majority if they hold also to ethnic preference, lower if liberals minority hold also ethnic preference. Slightly decrease in ethnic segregation for higher randomness if liberals majority hold also to ethnic preference. For liberals minority differences are more evident: value segregation decreases compared to baseline equally if liberals majority or liberals minority increase hold also ethnic preference. If liberals majority hold ethnic preference, ethnic segregation of liberals minority increases as they increase ß value preference, since they can count only on liberals co-ethnics to maximize value utility. If also minority were to hold ethnic preference, ethnic segregation would be even higher, as direct effect of

their preference, decreasing value segregation because they would accept more co-ethnic conservatives.

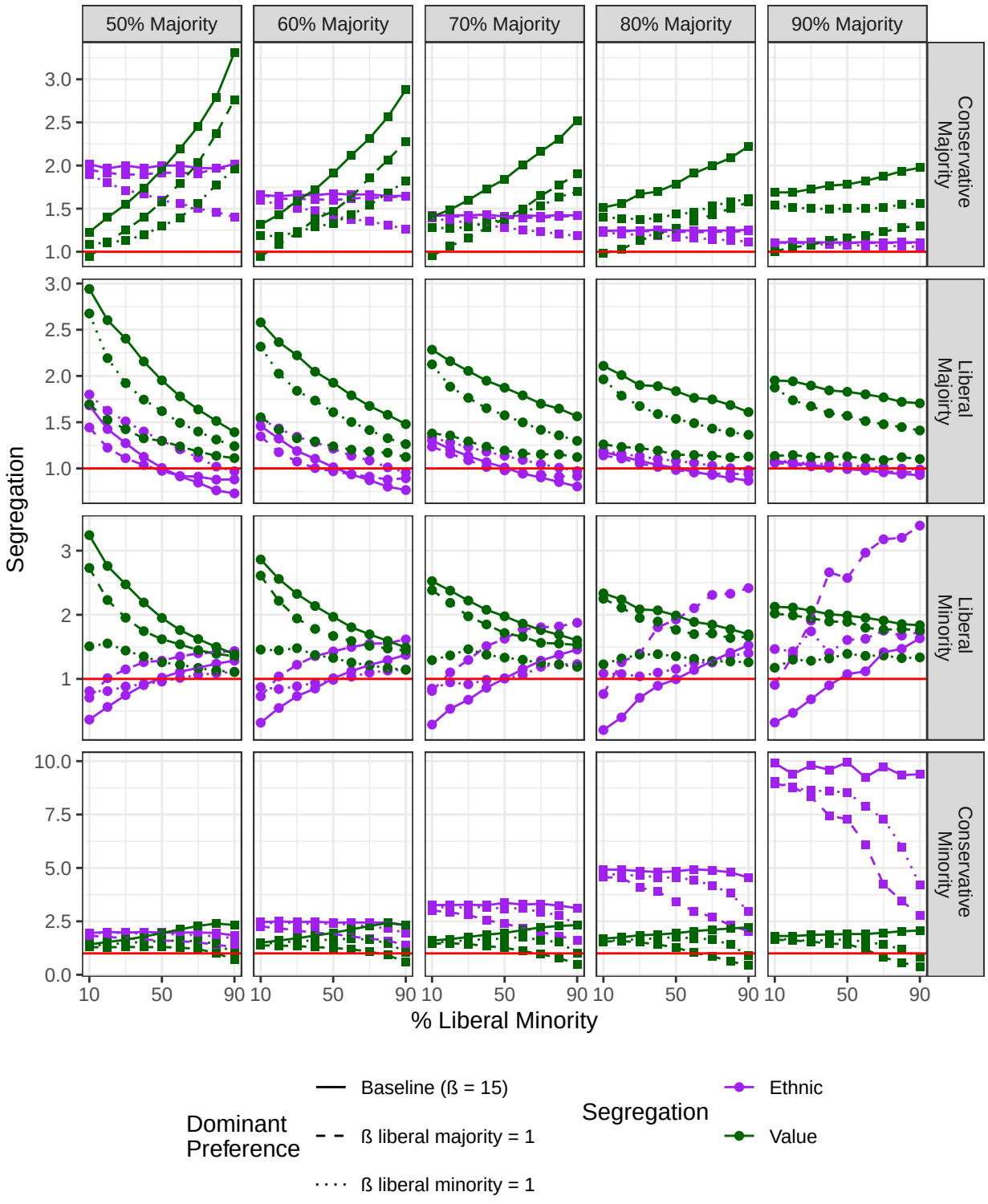

Figure 12: Comparison of lower determinism in liberals majority or liberals minority, effect of ethnic size and distribution of liberals. X-axis: pecentage of liberals of ethnic minority, column: ethnic ratio majority/minority. Each row reports the behavior of specific group-type. Linetype: conditions compared. Baseline: all agents hold dominant preference ß = 15, secondary preference ß = 0; ß liberal majority = 1: liberals majority have minimum determinism (liberals minority hold to ß value = 15); ß liberal minority = 1: liberals minority have minimum determinism (liberals majority hold to ß value = 15). Conservatives of both ethnic groups hold to ß ethnic = 15 in all conditions

Fig: 12 compares baseline dominant ß = 15 to either lower value determinis (ß = 1) of either liberals minority and liberals majority, and highlights differences due to population composition due to ethnic asymmetry and distribution of liberals.

I have to think about more. More interesting result is liberal majority falling into ethnic assimilation because of value preference, provided a critical mass is reached between ethnic ratio and distribution of liberals. Even if liberals minority increases, but their ethnic group is underrepresented, homophily based on value similarity will not make a difference. I think there are insights for the majority-minority paradigm and diverse societies here, with due limits. Anyway, I have to think of for the specific conditions.

I include 90% conclusion for completeness. However, this creates an extreme condition where segregation/assimilation occurs mostly for ethnic asymmetry, it is too unbalanced and value to extreme compared to others. However, we can decide about later.

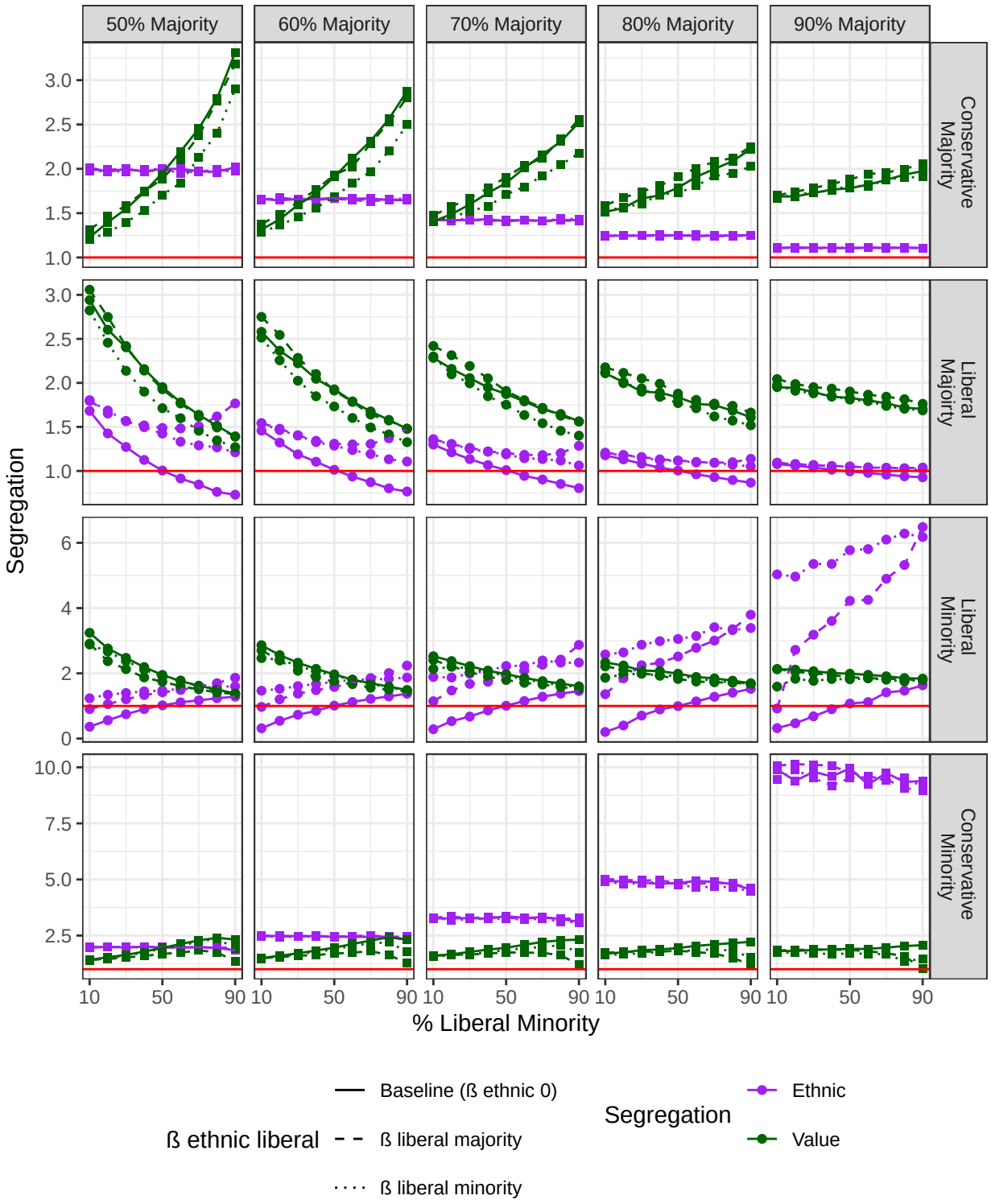

Figure 13: Comparison of liberals holding both ethnic and value preference, effect of ethnic size and distribution of liberals. Linetype: conditions compared. Conservatives of both ethnic groupd hold ß ethnic = 15 and ß secondary (value) = 0. Baseline: both liberals and conservatives hold dominant preference ß = 15 and sercondary ß = 0; ß liberal majority = liberals majority hold both ethnic and value preference ß = 15 (liberals minority hold ß value = 15 and ß ethnic = 0); ß liberals minority = liberals minority hold both ethnic and value preference ß = 15 (liberals majority hold ß value = 15 and ß ethni = 0)

Fig: 13, same as Fig: 12 for liberals holding also to ethnic preference, how segregation will differ from baseline ß = 15 and for combination ethnic size and distribution of liberals. Seems less changes, but it has to be thought about.

Discussion and Conclusions (working on)

Rocco: more to the point: societies show lower ethnic segregation, increasing other dimensions (e.g. ses), and literature shows other characteristics matter > acs2018 > now discrete choice and other extension, in medias res; results similar to Paolillo and Lorenz (2018)

Schelling's model is often cited to describe how high levels of spatial ethnic segregation can persist in society even if people hold slight preference to live close to co-ethnics. However, the high complexity of current society challenge some assumption of the model. In particular, people belong to different categories, both within and between ethnic groups, and literature suggesting ethnicity could be less relevant than other categories to define similarity preferences in relocation choice. In this paper we wanted to extend Schelling to these scenario. We built on Paolillo and Lorenz (2018) extension of Schelling to the scenario of members of the same ethnic group sharing common attributes with out-groups and holding higher preference for either ethnic membership or secondary characteristics. We extend the model to discrete choice random utility models, testing on effect of different weights (level of randomness) of agents and letting agents hold both ethnic and value preference. Our results confirm some peculiarities of value similarity based on shared attributes across ethnic membership despite our change to the decisional process of agents. First, value similarity can induce a by-product segregation of conservatives who do not care about secondary attributes. Second, value similarity form denser neighborhoods due to inclusion of co-values from both ethnic groups; neighborhoods become more resilient to fluctuations in neighborhood composition. As already observed in Paolillo and Lorenz (2018) the tendency is to form robust neighborhood value homogeneous but ethnically integrated.

Most results are similar to Paolillo and Lorenz (2018) because a thereshold = 0 equals to randomness $\beta = 0$ in terms of relocation decision of agents and aggregated results. However, inclusion of randomness, along with preference for both ethnic and value similarity, and senstivity to different group size, show different highlights on the segregation process.

Our results show who the definition of similarity based on shared characteristics might be not sufficient to guarantee spatial integration between groups. If people care about both ethnic and value similarity, full segregation for both dimension would lead to division of society in four group-types. However, lower determinism in the relocation choice can decrease segregation. If liberals become more ethnically conservatives, they would need higher preference to reach full ethnic segregation, as long as conservatives not care about secondary preference. On the contrary, value segregation of conservatives would not increase if they were to increase value preference, as long as liberals are enough to enact by-product value-segregation. This could explain why segregation by ses seems stronger than ethnic segregation Rocco: costs to be considered and ethnic homogeneous neighborhoods are often also ses and educational homogeneous Rocco: link to double segregation in Fossett, not because of affordability, but because of by-product of other classes wanting to segregate. Sensitivity analysis shows the role of relative sizes. First, effects due to majority are higher, this is evident from liberals majority who can cause more changes in the model. Even if liberals minority could cause the same mechanism, they don't reach a critical mass to do so. Relative size show how same preference in terms of weights can have different effect: for majority remaining in high ethnic exposure though not spatially segregating, while for minority higher spatial clustering emerges to satisfy even low preference. Segregation patterns of liberals: even if liberals of two ethnic groups recognize each other as similar, this would not translate into integrated neighborhoods because of relative sizes. The result shows ethnic assimilation of liberals minority separated from their co-ethnics with different secondary attributes. Only if distribution of liberals increases to a certain critical mass, the ethnic exposure of majority as effect of value similarity would diminish We show how integration can emerge from the condition where majority increase ethnic preference, through adaptation between liberals and conservatives of minority group and the spatial configurations formed.

Rocco: to compare with Schelling: how segregation is a stable results, when and why in our model integration can emerge

In Schelling, segregation as unstable condition results from all agents holding the same threshold (hold same preference) within spatial constraints and cascades that change neighborhood composition. In our results, segregation would equally emerge if agents hold high deterministic preference (higher β) for both dimensions. Integration will persist if agents hold random behavior for either or both dimensions, and the structural conditions of ethnic sizes and value distribution

Limits: a mix of linear combinations, all can be predicted, once the model is understood.

Next steps: to overcome tendency to segregation, a first step is to change the shape of utility function, along with the two-dimensional homophily behavior. Rocco: This links to the literature showing how segregation emerges also for integrationist preferences (Zhang, Van Rijt etc.) third paper of the dissertation I am working on

Annex: Robustness Analysis

Table 2: β dominant = liberal

	Conservatives						Liberals					
	Ethnic		Value		Density		Ethnic		Value		Density	
Dominant	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
0	0.502	0.009	0.500	0.015	0.707	0.012	0.502	0.010	0.506	0.015	0.703	0.010
1	0.558	0.010	0.550	0.014	0.700	0.010	0.557	0.008	0.556	0.013	0.701	0.009
2	0.644	0.010	0.635	0.015	0.699	0.008	0.643	0.017	0.634	0.012	0.700	0.013
3	0.780	0.021	0.781	0.020	0.706	0.007	0.780	0.012	0.775	0.021	0.703	0.012
4	0.921	0.014	0.914	0.009	0.706	0.012	0.914	0.014	0.913	0.009	0.713	0.010
5	0.962	0.009	0.964	0.007	0.710	0.014	0.964	0.009	0.964	0.007	0.714	0.012
6	0.982	0.003	0.980	0.003	0.714	0.008	0.982	0.005	0.981	0.003	0.713	0.011
7	0.992	0.003	0.988	0.002	0.714	0.011	0.989	0.004	0.988	0.003	0.716	0.010
8	0.993	0.003	0.994	0.002	0.717	0.015	0.991	0.004	0.993	0.002	0.727	0.010
9	0.995	0.002	0.995	0.001	0.717	0.016	0.995	0.003	0.995	0.001	0.719	0.019
10	0.996	0.001	0.996	0.002	0.723	0.012	0.996	0.001	0.996	0.001	0.721	0.015
11	0.997	0.002	0.997	0.001	0.724	0.019	0.996	0.002	0.997	0.001	0.719	0.011
12	0.998	0.002	0.997	0.001	0.720	0.008	0.997	0.002	0.997	0.001	0.720	0.013
13	0.999	0.001	0.998	0.001	0.728	0.011	0.997	0.002	0.998	0.001	0.713	0.016
14	0.999	0.001	0.998	0.001	0.726	0.022	0.998	0.001	0.997	0.001	0.729	0.012
15	0.998	0.001	0.999	0.001	0.734	0.017	0.998	0.001	0.999	0.001	0.726	0.015
16	0.998	0.002	0.999	0.001	0.729	0.014	0.999	0.001	0.999	0.001	0.719	0.010
17	0.998	0.002	0.999	0.001	0.724	0.017	0.998	0.001	0.999	0.001	0.723	0.013
18	0.999	0.001	0.999	0.001	0.719	0.011	0.999	0.001	0.999	0.001	0.729	0.013
19	0.999	0.001	0.999	0.001	0.723	0.015	0.999	0.002	0.999	0.001	0.721	0.010
20	0.999	0.001	0.998	0.001	0.722	0.014	1.000	0.001	0.999	0.001	0.724	0.012

Table 3: β secondary = 0

	Conservatives						Liberals					
	Ethnic		Value		Density		Ethnic		Value		Density	
Dominant	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
0	0.496	0.009	0.497	0.015	0.701	0.009	0.499	0.009	0.502	0.013	0.705	0.007
1	0.543	0.009	0.522	0.010	0.692	0.009	0.509	0.010	0.531	0.019	0.707	0.009
2	0.586	0.008	0.542	0.010	0.683	0.013	0.518	0.008	0.563	0.014	0.722	0.010
3	0.647	0.006	0.583	0.011	0.670	0.008	0.526	0.010	0.604	0.015	0.728	0.009
4	0.717	0.014	0.650	0.013	0.671	0.013	0.527	0.013	0.668	0.010	0.755	0.008
5	0.818	0.014	0.741	0.022	0.657	0.013	0.523	0.011	0.757	0.015	0.774	0.016
6	0.904	0.014	0.841	0.013	0.643	0.010	0.515	0.007	0.854	0.013	0.792	0.012
7	0.946	0.009	0.896	0.016	0.635	0.009	0.513	0.010	0.909	0.011	0.810	0.008
8	0.967	0.006	0.927	0.014	0.626	0.015	0.507	0.006	0.938	0.011	0.825	0.013
9	0.977	0.003	0.943	0.005	0.626	0.012	0.510	0.009	0.950	0.005	0.831	0.009
10	0.982	0.004	0.953	0.009	0.618	0.006	0.499	0.009	0.959	0.008	0.834	0.013
11	0.984	0.003	0.959	0.006	0.624	0.009	0.503	0.008	0.966	0.004	0.835	0.010
12	0.988	0.002	0.960	0.005	0.620	0.011	0.503	0.009	0.968	0.005	0.840	0.011
13	0.990	0.003	0.967	0.007	0.618	0.014	0.505	0.009	0.974	0.006	0.836	0.011
14	0.991	0.003	0.968	0.004	0.611	0.013	0.502	0.011	0.976	0.003	0.846	0.014
15	0.992	0.003	0.976	0.004	0.618	0.012	0.504	0.009	0.982	0.003	0.850	0.013
16	0.994	0.002	0.973	0.005	0.624	0.013	0.502	0.007	0.980	0.005	0.849	0.010
17	0.995	0.002	0.974	0.005	0.609	0.016	0.506	0.011	0.980	0.004	0.844	0.015
18	0.995	0.002	0.974	0.006	0.621	0.009	0.506	0.004	0.981	0.004	0.851	0.017
19	0.995	0.002	0.976	0.005	0.616	0.011	0.506	0.009	0.982	0.004	0.852	0.009
20	0.995	0.001	0.979	0.003	0.620	0.009	0.504	0.008	0.984	0.003	0.849	0.013

Table 4: Referred to Fig: 5

Liberals Segregation												
	ß conservative = 0						ß conservative = 20					
	Ethnic		Value		Density		Ethnic		Value		Density	
ß liberal	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
0	0.500	0.007	0.501	0.012	0.696	0.009	0.542	0.011	0.577	0.010	0.677	0.010
1	0.503	0.009	0.521	0.010	0.705	0.013	0.532	0.014	0.625	0.008	0.674	0.011
2	0.501	0.010	0.556	0.014	0.723	0.005	0.531	0.010	0.700	0.012	0.680	0.013
3	0.499	0.011	0.596	0.018	0.737	0.010	0.521	0.011	0.785	0.014	0.689	0.009
4	0.504	0.007	0.637	0.018	0.764	0.010	0.513	0.011	0.861	0.012	0.711	0.013
5	0.496	0.009	0.676	0.017	0.775	0.005	0.504	0.008	0.917	0.012	0.723	0.013
6	0.506	0.009	0.718	0.012	0.810	0.007	0.506	0.008	0.944	0.006	0.749	0.011
7	0.503	0.010	0.779	0.013	0.845	0.015	0.497	0.008	0.959	0.006	0.775	0.012
8	0.500	0.010	0.841	0.020	0.885	0.015	0.506	0.011	0.968	0.005	0.789	0.011
9	0.502	0.006	0.876	0.012	0.901	0.013	0.507	0.008	0.971	0.003	0.803	0.012
10	0.498	0.009	0.901	0.008	0.929	0.007	0.508	0.008	0.974	0.005	0.805	0.017
11	0.503	0.009	0.915	0.008	0.935	0.007	0.505	0.006	0.976	0.006	0.817	0.008
12	0.501	0.011	0.924	0.006	0.939	0.007	0.506	0.007	0.980	0.003	0.826	0.012
13	0.501	0.007	0.930	0.008	0.944	0.004	0.504	0.010	0.982	0.003	0.825	0.015
14	0.504	0.010	0.926	0.008	0.944	0.005	0.499	0.007	0.982	0.003	0.839	0.012
15	0.501	0.010	0.931	0.010	0.946	0.007	0.499	0.011	0.982	0.003	0.842	0.015
16	0.502	0.008	0.931	0.009	0.948	0.007	0.502	0.006	0.982	0.002	0.844	0.012
17	0.504	0.009	0.933	0.007	0.952	0.008	0.504	0.005	0.983	0.002	0.848	0.014
18	0.499	0.004	0.927	0.009	0.948	0.006	0.501	0.007	0.984	0.003	0.847	0.008
19	0.499	0.005	0.937	0.007	0.948	0.006	0.504	0.013	0.983	0.004	0.846	0.011
20	0.498	0.011	0.935	0.007	0.949	0.006	0.507	0.008	0.980	0.003	0.853	0.008

Conservatives Segregation												
	ß liberal = 0						ß liberal = 20					
	Ethnic		Value		Density		Ethnic		Value		Density	
ß cons	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
0	0.497	0.007	0.504	0.011	0.699	0.010	0.502	0.012	0.927	0.009	0.554	0.009
1	0.532	0.009	0.501	0.019	0.702	0.007	0.568	0.009	0.921	0.014	0.565	0.014
2	0.584	0.006	0.506	0.014	0.700	0.008	0.663	0.015	0.923	0.009	0.566	0.011
3	0.624	0.010	0.504	0.015	0.701	0.007	0.768	0.017	0.933	0.007	0.571	0.012
4	0.662	0.009	0.521	0.011	0.699	0.014	0.887	0.012	0.933	0.008	0.582	0.011
5	0.697	0.014	0.517	0.014	0.709	0.012	0.944	0.009	0.943	0.005	0.592	0.014
6	0.712	0.012	0.524	0.011	0.710	0.011	0.965	0.006	0.950	0.007	0.592	0.012
7	0.735	0.010	0.538	0.019	0.718	0.010	0.972	0.003	0.951	0.008	0.588	0.015
8	0.758	0.013	0.549	0.015	0.720	0.010	0.982	0.004	0.957	0.008	0.596	0.013
9	0.759	0.009	0.551	0.011	0.722	0.005	0.984	0.004	0.961	0.008	0.606	0.012
10	0.775	0.013	0.558	0.016	0.730	0.011	0.986	0.003	0.961	0.010	0.603	0.008
11	0.782	0.009	0.558	0.011	0.731	0.010	0.989	0.003	0.969	0.005	0.602	0.020
12	0.793	0.013	0.572	0.012	0.729	0.011	0.990	0.002	0.967	0.005	0.609	0.012
13	0.788	0.012	0.562	0.014	0.730	0.011	0.991	0.003	0.968	0.004	0.606	0.011
14	0.792	0.008	0.569	0.007	0.736	0.009	0.992	0.003	0.971	0.006	0.612	0.012
15	0.803	0.012	0.580	0.009	0.734	0.004	0.992	0.002	0.972	0.006	0.608	0.015
16	0.799	0.016	0.577	0.025	0.735	0.009	0.994	0.002	0.976	0.004	0.615	0.013
17	0.801	0.005	0.582	0.013	0.737	0.015	0.995	0.001	0.973	0.003	0.611	0.014
18	0.804	0.015	0.585	0.015	0.741	0.006	0.995	0.002	0.975	0.006	0.616	0.013
19	0.805	0.009	0.582	0.016	0.739	0.017	0.996	0.002	0.977	0.003	0.622	0.011
20	0.806	0.014	0.580	0.016	0.738	0.010	0.996	0.002	0.978	0.005	0.608	0.015

Table 5: Sensitivity secondary preference by type-group

	Conservatives						Liberals					
	Ethnic		Value		Density		Ethnic		Value		Density	
Dominant	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
ß value liberal = ethnic												
0	0.499	0.012	0.491	0.015	0.701	0.008	0.502	0.006	0.507	0.015	0.704	0.007
1	0.555	0.009	0.525	0.017	0.692	0.010	0.559	0.010	0.526	0.018	0.709	0.009
2	0.646	0.014	0.547	0.015	0.685	0.009	0.644	0.012	0.562	0.015	0.722	0.007
3	0.779	0.013	0.577	0.015	0.677	0.012	0.773	0.015	0.597	0.012	0.736	0.010
4	0.917	0.007	0.617	0.010	0.665	0.010	0.905	0.006	0.638	0.013	0.755	0.008
5	0.964	0.008	0.653	0.011	0.659	0.009	0.947	0.012	0.677	0.008	0.777	0.010
6	0.977	0.005	0.710	0.014	0.641	0.013	0.960	0.005	0.731	0.009	0.800	0.009
7	0.985	0.004	0.766	0.009	0.633	0.008	0.962	0.012	0.788	0.009	0.837	0.007
8	0.986	0.002	0.818	0.015	0.618	0.017	0.960	0.007	0.837	0.008	0.863	0.013
9	0.990	0.003	0.848	0.021	0.610	0.008	0.971	0.007	0.865	0.014	0.878	0.012
10	0.992	0.002	0.865	0.015	0.596	0.012	0.968	0.009	0.882	0.014	0.884	0.010
11	0.995	0.002	0.877	0.010	0.599	0.012	0.963	0.009	0.895	0.008	0.890	0.010
12	0.995	0.003	0.895	0.017	0.596	0.013	0.963	0.006	0.908	0.014	0.903	0.013
13	0.996	0.001	0.897	0.015	0.587	0.010	0.967	0.008	0.914	0.010	0.904	0.010
14	0.996	0.001	0.904	0.009	0.590	0.012	0.968	0.005	0.917	0.010	0.907	0.007
15	0.997	0.002	0.904	0.014	0.594	0.013	0.970	0.005	0.919	0.013	0.905	0.008
16	0.997	0.001	0.909	0.016	0.600	0.010	0.967	0.005	0.921	0.014	0.909	0.014
17	0.998	0.001	0.915	0.014	0.604	0.013	0.966	0.006	0.928	0.012	0.910	0.009
18	0.997	0.002	0.914	0.009	0.594	0.014	0.966	0.007	0.928	0.010	0.910	0.009
19	0.997	0.002	0.914	0.012	0.597	0.014	0.967	0.008	0.926	0.009	0.908	0.010
20	0.998	0.002	0.923	0.011	0.596	0.008	0.968	0.006	0.934	0.010	0.912	0.010
ß ethnic conservative = value												
0	0.499	0.007	0.497	0.015	0.697	0.009	0.496	0.008	0.505	0.014	0.698	0.008
1	0.541	0.008	0.551	0.012	0.697	0.008	0.513	0.011	0.558	0.016	0.699	0.009
2	0.590	0.011	0.651	0.019	0.703	0.009	0.515	0.006	0.644	0.009	0.697	0.011
3	0.689	0.012	0.798	0.013	0.717	0.007	0.509	0.008	0.791	0.013	0.703	0.015
4	0.886	0.011	0.940	0.009	0.737	0.010	0.504	0.011	0.941	0.008	0.681	0.013
5	0.951	0.004	0.974	0.004	0.743	0.012	0.502	0.011	0.973	0.005	0.681	0.009
6	0.976	0.005	0.987	0.002	0.743	0.015	0.498	0.009	0.987	0.002	0.679	0.011
7	0.986	0.004	0.992	0.002	0.738	0.015	0.502	0.009	0.991	0.002	0.686	0.014
8	0.988	0.002	0.993	0.002	0.733	0.011	0.499	0.013	0.993	0.002	0.696	0.018
9	0.991	0.003	0.995	0.002	0.724	0.017	0.501	0.010	0.995	0.002	0.686	0.012
10	0.995	0.002	0.996	0.001	0.730	0.011	0.499	0.007	0.996	0.001	0.696	0.014
11	0.995	0.003	0.997	0.001	0.731	0.011	0.504	0.010	0.997	0.001	0.695	0.013
12	0.995	0.002	0.997	0.001	0.721	0.013	0.500	0.008	0.997	0.001	0.705	0.016
13	0.997	0.002	0.998	0.001	0.712	0.005	0.499	0.010	0.998	0.001	0.714	0.009
14	0.997	0.002	0.999	0.001	0.716	0.013	0.498	0.010	0.999	0.001	0.712	0.010
15	0.998	0.001	0.998	0.001	0.712	0.013	0.493	0.005	0.998	0.001	0.716	0.011
16	0.998	0.001	0.999	0.001	0.718	0.013	0.501	0.010	0.998	0.001	0.711	0.011
17	0.998	0.002	0.999	0.001	0.713	0.011	0.491	0.013	0.999	0.001	0.717	0.009
18	0.998	0.001	0.999	0.001	0.714	0.014	0.502	0.009	0.999	0.001	0.725	0.010
19	0.998	0.001	0.999	0.001	0.708	0.012	0.501	0.010	0.999	0.001	0.721	0.016
20	0.998	0.001	0.999	0.001	0.720	0.011	0.503	0.006	0.999	0.001	0.720	0.014

Table 6: Referred to Fig: 8. 50% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
Dominant	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
0	0.985	0.017	0.495	0.008	1.00	0.014	0.495	0.012	0.983	0.018	0.489	0.014	0.995	0.015	0.493	0.018
1	1.075	0.020	0.530	0.009	1.05	0.024	0.525	0.017	1.081	0.014	0.548	0.011	1.053	0.040	0.529	0.020
2	1.176	0.026	0.587	0.013	1.10	0.031	0.547	0.015	1.179	0.026	0.591	0.016	1.091	0.027	0.545	0.016
3	1.284	0.031	0.644	0.014	1.17	0.025	0.595	0.019	1.297	0.035	0.646	0.021	1.172	0.032	0.595	0.025
4	1.419	0.035	0.710	0.015	1.31	0.037	0.656	0.025	1.409	0.032	0.704	0.016	1.277	0.047	0.642	0.029
5	1.654	0.033	0.819	0.010	1.47	0.049	0.736	0.018	1.629	0.031	0.822	0.019	1.493	0.040	0.747	0.023
6	1.807	0.063	0.908	0.011	1.71	0.036	0.851	0.022	1.816	0.050	0.903	0.012	1.665	0.075	0.829	0.022
7	1.881	0.036	0.948	0.007	1.79	0.038	0.898	0.014	1.910	0.047	0.946	0.009	1.797	0.056	0.900	0.020
8	1.922	0.043	0.965	0.006	1.86	0.057	0.932	0.006	1.942	0.051	0.965	0.007	1.852	0.056	0.928	0.013
9	1.931	0.039	0.974	0.005	1.89	0.040	0.937	0.013	1.965	0.050	0.973	0.006	1.900	0.038	0.943	0.008
10	1.970	0.041	0.978	0.006	1.90	0.051	0.947	0.014	1.946	0.031	0.979	0.004	1.898	0.056	0.945	0.009
11	2.001	0.048	0.984	0.004	1.93	0.026	0.959	0.008	1.942	0.040	0.986	0.003	1.936	0.024	0.963	0.006
12	1.964	0.033	0.989	0.003	1.91	0.026	0.963	0.010	1.995	0.037	0.990	0.004	1.913	0.042	0.966	0.009
13	1.983	0.036	0.992	0.003	1.95	0.048	0.966	0.009	1.981	0.035	0.990	0.003	1.939	0.047	0.963	0.007
14	1.959	0.032	0.991	0.003	1.93	0.044	0.969	0.006	2.005	0.030	0.990	0.004	1.925	0.037	0.967	0.006
15	2.008	0.038	0.994	0.002	1.96	0.026	0.972	0.010	1.967	0.037	0.993	0.002	1.958	0.047	0.970	0.010
16	2.002	0.044	0.994	0.003	1.94	0.063	0.976	0.006	1.974	0.045	0.993	0.002	1.940	0.056	0.974	0.005
17	1.989	0.038	0.994	0.002	1.96	0.046	0.972	0.007	1.986	0.038	0.993	0.002	1.960	0.044	0.972	0.010
18	2.013	0.057	0.995	0.002	1.96	0.035	0.975	0.007	1.973	0.054	0.996	0.001	1.968	0.034	0.977	0.004
19	2.018	0.031	0.995	0.002	1.95	0.042	0.980	0.004	1.962	0.032	0.995	0.002	1.941	0.044	0.976	0.008
20	1.993	0.046	0.995	0.002	1.95	0.060	0.976	0.007	1.990	0.044	0.995	0.001	1.960	0.070	0.982	0.007

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
Dominant	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
0	1.000	0.025	0.503	0.017	0.999	0.017	0.504	0.019	0.993	0.023	0.494	0.012	0.991	0.019	0.500	0.012
1	1.019	0.018	0.503	0.012	1.070	0.028	0.533	0.017	1.008	0.020	0.511	0.015	1.054	0.031	0.525	0.022
2	1.046	0.021	0.522	0.013	1.121	0.026	0.561	0.015	1.043	0.015	0.523	0.008	1.115	0.024	0.558	0.016
3	1.059	0.033	0.532	0.015	1.230	0.036	0.606	0.015	1.041	0.021	0.518	0.017	1.207	0.033	0.595	0.014
4	1.028	0.026	0.514	0.015	1.337	0.044	0.665	0.013	1.049	0.027	0.524	0.020	1.333	0.032	0.663	0.010
5	1.043	0.036	0.517	0.020	1.510	0.038	0.754	0.017	1.035	0.031	0.523	0.019	1.528	0.046	0.763	0.009
6	1.006	0.035	0.506	0.028	1.715	0.047	0.860	0.006	1.044	0.031	0.520	0.025	1.695	0.035	0.850	0.015
7	1.018	0.025	0.514	0.017	1.820	0.054	0.907	0.009	1.019	0.027	0.505	0.020	1.829	0.049	0.912	0.014
8	1.006	0.030	0.506	0.017	1.887	0.041	0.941	0.006	1.007	0.020	0.501	0.018	1.880	0.038	0.937	0.010
9	1.009	0.031	0.509	0.018	1.881	0.036	0.947	0.009	1.010	0.022	0.501	0.017	1.887	0.036	0.950	0.005
10	1.005	0.036	0.499	0.019	1.905	0.045	0.956	0.009	1.013	0.022	0.510	0.016	1.902	0.047	0.954	0.007
11	1.003	0.021	0.494	0.015	1.927	0.028	0.968	0.005	0.995	0.030	0.506	0.022	1.929	0.027	0.969	0.005
12	1.010	0.034	0.508	0.017	1.960	0.037	0.970	0.006	1.017	0.032	0.505	0.016	1.961	0.030	0.971	0.003
13	1.020	0.026	0.510	0.014	1.931	0.047	0.971	0.007	1.015	0.037	0.507	0.023	1.933	0.048	0.972	0.004
14	1.004	0.037	0.508	0.015	1.962	0.044	0.975	0.004	1.009	0.028	0.498	0.018	1.963	0.047	0.975	0.004
15	1.011	0.026	0.501	0.012	1.941	0.044	0.979	0.006	1.012	0.038	0.511	0.022	1.940	0.036	0.978	0.007
16	1.011	0.024	0.502	0.017	1.973	0.067	0.981	0.005	1.013	0.046	0.510	0.023	1.973	0.070	0.981	0.004
17	0.993	0.036	0.496	0.021	1.945	0.041	0.979	0.005	1.003	0.030	0.502	0.018	1.947	0.047	0.980	0.006
18	1.013	0.022	0.501	0.020	1.953	0.033	0.983	0.005	1.004	0.035	0.507	0.015	1.950	0.032	0.982	0.005
19	1.013	0.029	0.499	0.013	1.983	0.039	0.985	0.003	0.998	0.015	0.506	0.010	1.975	0.040	0.981	0.007
20	1.011	0.037	0.505	0.023	1.972	0.066	0.982	0.005	1.006	0.041	0.504	0.026	1.978	0.054	0.986	0.006

Table 7: Referred to Fig: 8. 80%Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
Dominant	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
0	0.995	0.006	0.800	0.009	1.00	0.017	0.507	0.015	1.01	0.088	0.198	0.023	1.02	0.029	0.518	0.013
1	1.021	0.010	0.814	0.014	1.05	0.026	0.527	0.022	1.14	0.108	0.230	0.024	1.00	0.040	0.503	0.029
2	1.047	0.010	0.837	0.013	1.12	0.019	0.556	0.010	1.40	0.151	0.280	0.026	1.04	0.042	0.517	0.025
3	1.072	0.009	0.861	0.011	1.19	0.026	0.599	0.012	1.79	0.179	0.353	0.032	1.10	0.040	0.555	0.024
4	1.108	0.013	0.883	0.006	1.28	0.038	0.634	0.020	2.26	0.138	0.459	0.031	1.24	0.068	0.615	0.033
5	1.155	0.015	0.923	0.008	1.38	0.044	0.698	0.023	3.12	0.207	0.625	0.034	1.42	0.054	0.716	0.031
6	1.191	0.010	0.953	0.008	1.52	0.032	0.761	0.014	3.90	0.340	0.776	0.043	1.63	0.079	0.816	0.036
7	1.218	0.015	0.974	0.004	1.63	0.045	0.810	0.013	4.41	0.212	0.883	0.032	1.81	0.069	0.900	0.030
8	1.228	0.012	0.983	0.003	1.68	0.030	0.845	0.012	4.66	0.191	0.928	0.015	1.86	0.056	0.940	0.018
9	1.227	0.011	0.990	0.002	1.75	0.032	0.874	0.012	4.88	0.202	0.943	0.024	1.90	0.063	0.946	0.024
10	1.245	0.010	0.989	0.003	1.76	0.034	0.875	0.016	4.63	0.176	0.949	0.014	1.91	0.048	0.950	0.012
11	1.242	0.018	0.993	0.001	1.78	0.040	0.884	0.010	4.85	0.293	0.969	0.008	1.95	0.057	0.972	0.013
12	1.248	0.014	0.994	0.001	1.78	0.031	0.892	0.009	4.82	0.211	0.978	0.006	1.96	0.045	0.980	0.006
13	1.247	0.014	0.995	0.001	1.79	0.048	0.894	0.010	4.83	0.179	0.974	0.009	1.95	0.052	0.974	0.012
14	1.248	0.010	0.996	0.001	1.80	0.053	0.901	0.010	4.85	0.188	0.976	0.008	1.95	0.052	0.975	0.011
15	1.246	0.015	0.997	0.002	1.80	0.036	0.897	0.013	4.89	0.206	0.975	0.012	1.95	0.038	0.974	0.011
16	1.241	0.011	0.996	0.001	1.80	0.040	0.899	0.014	4.95	0.213	0.975	0.013	1.95	0.041	0.973	0.015
17	1.245	0.018	0.997	0.001	1.79	0.041	0.898	0.011	4.95	0.244	0.982	0.010	1.96	0.050	0.982	0.009
18	1.252	0.010	0.997	0.001	1.79	0.036	0.907	0.010	4.83	0.138	0.982	0.007	1.94	0.036	0.982	0.007
19	1.242	0.015	0.998	0.000	1.80	0.040	0.904	0.009	5.03	0.271	0.985	0.004	1.95	0.044	0.983	0.007
20	1.246	0.009	0.997	0.001	1.81	0.051	0.904	0.010	4.90	0.152	0.978	0.006	1.95	0.065	0.977	0.011

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
Dominant	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
0	1.004	0.006	0.807	0.010	1.01	0.019	0.496	0.017	0.964	0.077	0.189	0.015	0.977	0.032	0.481	0.016
1	0.996	0.008	0.794	0.016	1.05	0.024	0.523	0.017	1.088	0.106	0.220	0.019	1.080	0.041	0.539	0.023
2	0.994	0.006	0.794	0.011	1.11	0.014	0.562	0.013	1.137	0.064	0.228	0.013	1.181	0.034	0.596	0.020
3	0.993	0.008	0.797	0.010	1.19	0.021	0.593	0.015	1.174	0.082	0.232	0.014	1.278	0.044	0.635	0.015
4	1.001	0.011	0.798	0.014	1.28	0.028	0.644	0.014	1.167	0.083	0.237	0.019	1.389	0.044	0.699	0.023
5	1.002	0.011	0.801	0.016	1.42	0.041	0.701	0.017	1.209	0.075	0.243	0.020	1.570	0.054	0.778	0.026
6	0.997	0.012	0.798	0.017	1.55	0.033	0.774	0.010	1.088	0.074	0.217	0.015	1.725	0.064	0.862	0.017
7	1.005	0.011	0.804	0.009	1.65	0.042	0.831	0.010	1.035	0.112	0.207	0.019	1.819	0.049	0.916	0.015
8	0.997	0.009	0.798	0.010	1.74	0.044	0.860	0.008	1.072	0.080	0.213	0.018	1.914	0.047	0.949	0.011
9	1.002	0.013	0.808	0.012	1.78	0.048	0.889	0.011	1.049	0.075	0.203	0.014	1.925	0.047	0.964	0.008
10	0.993	0.016	0.789	0.015	1.77	0.038	0.891	0.013	1.046	0.065	0.215	0.012	1.920	0.037	0.965	0.008
11	0.997	0.012	0.797	0.016	1.79	0.035	0.901	0.009	0.999	0.100	0.200	0.023	1.946	0.036	0.977	0.007
12	1.005	0.010	0.801	0.004	1.82	0.038	0.909	0.006	1.009	0.087	0.205	0.016	1.961	0.039	0.981	0.005
13	1.004	0.013	0.801	0.013	1.81	0.039	0.909	0.010	1.008	0.087	0.203	0.020	1.963	0.048	0.983	0.005
14	1.001	0.018	0.799	0.012	1.84	0.052	0.917	0.007	1.041	0.079	0.210	0.016	1.976	0.054	0.986	0.006
15	1.000	0.009	0.800	0.010	1.82	0.050	0.914	0.011	0.991	0.104	0.198	0.024	1.970	0.049	0.987	0.005
16	0.998	0.007	0.801	0.008	1.83	0.042	0.916	0.010	1.014	0.072	0.200	0.016	1.971	0.044	0.987	0.004
17	1.002	0.011	0.802	0.018	1.84	0.041	0.915	0.009	0.992	0.098	0.197	0.020	1.988	0.041	0.989	0.003
18	0.994	0.007	0.792	0.007	1.86	0.046	0.921	0.008	1.032	0.085	0.210	0.018	2.007	0.045	0.991	0.002
19	1.001	0.013	0.805	0.016	1.85	0.035	0.919	0.007	1.034	0.103	0.203	0.026	1.999	0.039	0.992	0.003
20	1.002	0.012	0.802	0.010	1.84	0.055	0.920	0.008	1.006	0.048	0.201	0.011	1.985	0.065	0.991	0.005

Table 8: Referred to Fig: 9. Focus on liberals majority

	Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure	
ß lib maj	Mean	SD	Mean	SD	Mean	SD	Mean	SD
ß liberal minority = 0								
0	1.010	0.007	0.806	0.007	1.05	0.026	0.521	0.021
1	1.028	0.011	0.819	0.012	1.14	0.017	0.565	0.015
2	1.046	0.011	0.833	0.013	1.23	0.018	0.608	0.011
3	1.050	0.008	0.841	0.008	1.29	0.032	0.646	0.014
4	1.065	0.012	0.850	0.010	1.33	0.024	0.663	0.012
5	1.061	0.015	0.844	0.013	1.38	0.020	0.687	0.011
6	1.075	0.008	0.861	0.010	1.41	0.026	0.705	0.017
7	1.073	0.008	0.865	0.009	1.42	0.032	0.706	0.012
8	1.083	0.008	0.866	0.011	1.45	0.045	0.728	0.011
9	1.082	0.011	0.865	0.010	1.45	0.031	0.732	0.011
10	1.091	0.014	0.869	0.012	1.48	0.033	0.736	0.014
11	1.090	0.007	0.872	0.015	1.50	0.027	0.737	0.012
12	1.092	0.007	0.877	0.012	1.48	0.022	0.748	0.011
13	1.089	0.011	0.869	0.009	1.50	0.025	0.743	0.009
14	1.095	0.014	0.875	0.011	1.49	0.029	0.747	0.015
15	1.098	0.012	0.876	0.008	1.50	0.029	0.743	0.014
ß liberal minority = 1								
0	0.996	0.014	0.798	0.016	1.06	0.014	0.534	0.009
1	1.023	0.014	0.824	0.011	1.17	0.015	0.580	0.007
2	1.038	0.009	0.826	0.010	1.25	0.020	0.627	0.010
3	1.041	0.009	0.833	0.009	1.31	0.031	0.654	0.016
4	1.045	0.012	0.839	0.013	1.37	0.033	0.688	0.013
5	1.054	0.011	0.848	0.007	1.40	0.036	0.707	0.012
6	1.049	0.010	0.849	0.008	1.44	0.034	0.725	0.011
7	1.060	0.009	0.847	0.009	1.49	0.033	0.738	0.010
8	1.071	0.008	0.853	0.013	1.50	0.050	0.752	0.010
9	1.074	0.011	0.859	0.008	1.51	0.027	0.757	0.011
10	1.074	0.012	0.860	0.010	1.52	0.031	0.760	0.012
11	1.075	0.011	0.859	0.009	1.55	0.028	0.767	0.014
12	1.072	0.009	0.861	0.011	1.54	0.035	0.764	0.008
13	1.076	0.007	0.857	0.010	1.54	0.023	0.778	0.011
14	1.079	0.011	0.861	0.010	1.55	0.027	0.776	0.012
15	1.086	0.016	0.867	0.013	1.55	0.041	0.778	0.009
ß liberal minority = 15								
0	0.970	0.008	0.773	0.007	1.06	0.017	0.530	0.014
1	0.977	0.013	0.778	0.017	1.17	0.022	0.583	0.011
2	0.998	0.014	0.798	0.017	1.28	0.020	0.638	0.010
3	1.003	0.009	0.801	0.016	1.41	0.038	0.707	0.013
4	1.001	0.016	0.795	0.017	1.52	0.027	0.760	0.009
5	0.991	0.010	0.791	0.013	1.63	0.053	0.813	0.018
6	0.991	0.010	0.793	0.010	1.67	0.021	0.845	0.011
7	1.002	0.013	0.802	0.010	1.73	0.045	0.873	0.011
8	0.989	0.011	0.794	0.014	1.78	0.042	0.887	0.012
9	1.001	0.010	0.808	0.009	1.80	0.037	0.891	0.015
10	0.994	0.011	0.792	0.009	1.81	0.047	0.906	0.007
11	0.998	0.008	0.793	0.007	1.83	0.034	0.910	0.009
12	0.994	0.014	0.795	0.011	1.84	0.042	0.909	0.012
13	1.001	0.016	0.805	0.015	1.80	0.034	0.913	0.012
14	0.999	0.013	0.802	0.018	1.84	0.043	0.918	0.010
15	0.994	0.009	0.797	0.009	1.83	0.047	0.913	0.010

Table 9: Referred to . Focus on liberals minority

	Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure	
ß lib min	Mean	SD	Mean	SD	Mean	SD	Mean	SD
ß liberal majority = 0								
0	1.256	0.133	0.247	0.026	1.32	0.042	0.663	0.023
1	1.403	0.080	0.280	0.015	1.36	0.036	0.685	0.019
2	1.410	0.144	0.280	0.026	1.46	0.031	0.728	0.015
3	1.574	0.149	0.315	0.032	1.52	0.034	0.757	0.020
4	1.663	0.116	0.333	0.023	1.55	0.043	0.782	0.018
5	1.735	0.088	0.347	0.020	1.58	0.056	0.795	0.014
6	1.807	0.131	0.361	0.029	1.61	0.040	0.804	0.018
7	1.830	0.125	0.370	0.018	1.63	0.040	0.811	0.022
8	1.879	0.156	0.367	0.032	1.66	0.035	0.829	0.016
9	2.015	0.089	0.414	0.011	1.67	0.039	0.829	0.020
10	1.975	0.133	0.394	0.025	1.67	0.050	0.842	0.020
11	2.065	0.218	0.412	0.041	1.70	0.058	0.838	0.013
12	2.065	0.182	0.422	0.031	1.71	0.051	0.849	0.007
13	2.121	0.177	0.414	0.025	1.70	0.050	0.845	0.017
14	2.021	0.092	0.403	0.019	1.67	0.046	0.845	0.010
15	2.089	0.125	0.417	0.020	1.70	0.042	0.849	0.015
ß liberal majority = 1								
0	1.147	0.100	0.229	0.025	1.34	0.039	0.672	0.022
1	1.136	0.125	0.226	0.031	1.44	0.060	0.718	0.038
2	1.163	0.083	0.239	0.021	1.51	0.063	0.754	0.034
3	1.309	0.048	0.259	0.012	1.59	0.058	0.796	0.015
4	1.424	0.145	0.291	0.035	1.64	0.046	0.829	0.015
5	1.438	0.095	0.291	0.022	1.72	0.078	0.851	0.024
6	1.620	0.121	0.315	0.025	1.75	0.030	0.864	0.018
7	1.639	0.126	0.332	0.033	1.73	0.068	0.865	0.021
8	1.653	0.118	0.332	0.029	1.78	0.060	0.882	0.016
9	1.755	0.088	0.362	0.013	1.76	0.039	0.881	0.017
10	1.820	0.139	0.363	0.028	1.78	0.047	0.880	0.018
11	1.841	0.118	0.367	0.020	1.77	0.031	0.885	0.014
12	1.910	0.115	0.389	0.030	1.75	0.044	0.881	0.018
13	1.868	0.115	0.373	0.020	1.79	0.050	0.894	0.018
14	1.957	0.068	0.391	0.021	1.74	0.040	0.886	0.014
15	1.948	0.119	0.400	0.025	1.78	0.056	0.887	0.018
ß liberal majority = 15								
0	1.202	0.120	0.244	0.024	1.21	0.069	0.606	0.036
1	1.071	0.124	0.212	0.027	1.37	0.049	0.681	0.036
2	1.148	0.151	0.228	0.030	1.50	0.044	0.758	0.019
3	1.085	0.079	0.214	0.015	1.68	0.053	0.832	0.025
4	1.042	0.096	0.209	0.018	1.77	0.037	0.893	0.017
5	1.013	0.093	0.204	0.019	1.87	0.037	0.933	0.011
6	1.009	0.077	0.205	0.018	1.92	0.031	0.952	0.009
7	1.048	0.106	0.204	0.020	1.95	0.088	0.968	0.009
8	0.997	0.065	0.202	0.013	1.93	0.045	0.972	0.007
9	1.009	0.091	0.200	0.016	1.97	0.021	0.981	0.003
10	1.037	0.097	0.211	0.022	1.96	0.047	0.983	0.006
11	1.017	0.085	0.206	0.016	1.98	0.075	0.983	0.004
12	1.013	0.063	0.206	0.012	1.97	0.033	0.985	0.003
13	0.978	0.069	0.198	0.020	2.00	0.044	0.986	0.006
14	0.957	0.065	0.187	0.013	1.96	0.029	0.986	0.004
15	1.044	0.068	0.208	0.022	1.99	0.040	0.991	0.004

Table 10: Referred to Fig: 10: effect of liberal majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
ß liberal majority	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
ß liberal minority = 0																
0	1.17	0.008	0.937	0.007	1.09	0.024	0.552	0.021	3.32	0.149	0.671	0.020	1.20	0.062	0.603	0.025
1	1.17	0.013	0.934	0.005	1.13	0.026	0.567	0.018	3.75	0.248	0.759	0.038	1.41	0.104	0.711	0.054
2	1.17	0.013	0.932	0.004	1.16	0.019	0.586	0.013	4.12	0.244	0.836	0.016	1.57	0.053	0.791	0.017
3	1.17	0.013	0.936	0.007	1.22	0.019	0.607	0.016	4.32	0.208	0.859	0.024	1.63	0.066	0.812	0.025
4	1.16	0.008	0.929	0.010	1.23	0.027	0.615	0.017	4.34	0.227	0.874	0.020	1.67	0.048	0.837	0.018
5	1.17	0.013	0.927	0.010	1.27	0.023	0.638	0.015	4.28	0.260	0.875	0.022	1.65	0.066	0.829	0.030
6	1.16	0.011	0.931	0.007	1.29	0.033	0.648	0.014	4.50	0.232	0.894	0.023	1.69	0.061	0.845	0.021
7	1.15	0.006	0.930	0.009	1.29	0.024	0.652	0.017	4.56	0.235	0.882	0.017	1.66	0.050	0.835	0.015
8	1.16	0.013	0.930	0.007	1.33	0.027	0.661	0.020	4.52	0.230	0.904	0.020	1.70	0.057	0.849	0.021
9	1.16	0.008	0.928	0.008	1.34	0.026	0.662	0.015	4.51	0.215	0.903	0.011	1.71	0.051	0.846	0.026
10	1.16	0.017	0.925	0.005	1.33	0.020	0.667	0.020	4.45	0.273	0.903	0.020	1.70	0.109	0.847	0.033
11	1.16	0.011	0.928	0.008	1.34	0.020	0.679	0.012	4.50	0.236	0.900	0.020	1.66	0.060	0.843	0.023
12	1.16	0.013	0.928	0.007	1.36	0.031	0.672	0.014	4.56	0.244	0.896	0.015	1.68	0.061	0.830	0.026
13	1.16	0.013	0.923	0.010	1.36	0.015	0.685	0.014	4.34	0.243	0.875	0.024	1.61	0.064	0.814	0.032
14	1.15	0.010	0.922	0.009	1.35	0.041	0.675	0.012	4.48	0.158	0.895	0.015	1.67	0.070	0.834	0.027
15	1.16	0.006	0.922	0.008	1.35	0.030	0.679	0.012	4.42	0.242	0.890	0.031	1.64	0.102	0.824	0.047
ß liberal minority = 1																
0	1.18	0.014	0.943	0.008	1.13	0.027	0.556	0.021	3.29	0.233	0.653	0.030	1.21	0.053	0.599	0.028
1	1.18	0.014	0.946	0.005	1.16	0.022	0.584	0.013	3.98	0.243	0.774	0.039	1.46	0.080	0.736	0.046
2	1.19	0.014	0.944	0.004	1.20	0.034	0.596	0.015	4.09	0.151	0.834	0.027	1.60	0.063	0.795	0.036
3	1.18	0.016	0.944	0.007	1.25	0.027	0.627	0.016	4.31	0.255	0.856	0.023	1.66	0.051	0.830	0.024
4	1.18	0.010	0.945	0.005	1.30	0.031	0.645	0.017	4.54	0.314	0.889	0.023	1.71	0.062	0.852	0.037
5	1.17	0.013	0.943	0.008	1.31	0.027	0.650	0.017	4.56	0.229	0.891	0.017	1.74	0.046	0.861	0.019
6	1.17	0.010	0.944	0.005	1.37	0.031	0.680	0.018	4.66	0.091	0.886	0.020	1.71	0.050	0.848	0.024
7	1.18	0.012	0.942	0.005	1.37	0.031	0.692	0.011	4.49	0.222	0.903	0.011	1.71	0.041	0.860	0.025
8	1.18	0.014	0.939	0.009	1.39	0.026	0.693	0.024	4.50	0.321	0.912	0.018	1.75	0.055	0.869	0.023
9	1.18	0.013	0.941	0.007	1.40	0.024	0.701	0.014	4.56	0.197	0.911	0.013	1.73	0.049	0.866	0.028
10	1.17	0.011	0.938	0.007	1.40	0.034	0.701	0.011	4.53	0.255	0.902	0.019	1.71	0.063	0.851	0.028
11	1.18	0.011	0.939	0.007	1.42	0.037	0.714	0.010	4.50	0.136	0.905	0.022	1.69	0.076	0.850	0.027
12	1.16	0.014	0.936	0.006	1.41	0.019	0.711	0.014	4.57	0.284	0.895	0.018	1.70	0.031	0.853	0.023
13	1.18	0.009	0.936	0.012	1.44	0.026	0.713	0.010	4.48	0.272	0.912	0.016	1.74	0.059	0.860	0.019
14	1.18	0.015	0.938	0.004	1.44	0.031	0.718	0.013	4.51	0.218	0.906	0.014	1.72	0.048	0.859	0.022
15	1.17	0.011	0.937	0.011	1.44	0.036	0.714	0.020	4.54	0.311	0.915	0.019	1.74	0.061	0.866	0.033
ß liberal minority = 15																
0	1.23	0.007	0.982	0.003	1.22	0.025	0.611	0.014	2.97	0.114	0.601	0.024	1.05	0.075	0.524	0.034
1	1.24	0.014	0.985	0.003	1.29	0.033	0.647	0.023	3.33	0.273	0.678	0.035	1.25	0.104	0.625	0.047
2	1.24	0.010	0.992	0.002	1.33	0.031	0.667	0.012	4.06	0.222	0.811	0.023	1.56	0.045	0.785	0.025
3	1.25	0.019	0.994	0.002	1.43	0.041	0.712	0.021	4.35	0.253	0.874	0.030	1.73	0.060	0.858	0.031
4	1.25	0.015	0.996	0.001	1.53	0.030	0.764	0.016	4.43	0.278	0.909	0.025	1.81	0.065	0.903	0.029
5	1.25	0.015	0.996	0.001	1.62	0.047	0.813	0.023	4.55	0.208	0.918	0.013	1.82	0.046	0.915	0.016
6	1.25	0.011	0.996	0.001	1.70	0.033	0.841	0.013	4.62	0.171	0.923	0.021	1.86	0.055	0.920	0.022
7	1.24	0.017	0.996	0.002	1.73	0.034	0.860	0.015	4.78	0.258	0.950	0.021	1.92	0.062	0.952	0.020
8	1.24	0.016	0.996	0.001	1.75	0.042	0.878	0.013	4.87	0.271	0.959	0.015	1.91	0.048	0.960	0.014
9	1.24	0.012	0.997	0.001	1.74	0.046	0.879	0.016	5.03	0.183	0.971	0.006	1.92	0.036	0.972	0.007
10	1.25	0.013	0.996	0.001	1.79	0.041	0.895	0.011	4.73	0.179	0.960	0.008	1.93	0.052	0.962	0.006
11	1.25	0.009	0.996	0.001	1.79	0.044	0.898	0.012	4.72	0.165	0.969	0.010	1.93	0.041	0.969	0.011
12	1.25	0.013	0.996	0.002	1.78	0.055	0.897	0.013	4.89	0.200	0.974	0.011	1.94	0.051	0.976	0.012
13	1.24	0.007	0.996	0.002	1.81	0.055	0.896	0.014	4.93	0.137	0.968	0.009	1.97	0.059	0.970	0.014
14	1.24	0.019	0.996	0.001	1.80	0.029	0.902	0.014	4.99	0.295	0.979	0.008	1.96	0.036	0.980	0.009
15	1.24	0.010	0.996	0.001	1.79	0.048	0.898	0.013	4.95	0.182	0.977	0.010	1.94	0.060	0.976	0.011

Table 11: Referred to Fig: 10: effect of liberal minority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
ß liberal minority	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
ß liberal majority = 0																
0	1.17	0.008	0.937	0.006	1.11	0.026	0.551	0.010	3.44	0.251	0.675	0.040	1.23	0.096	0.612	0.052
1	1.18	0.009	0.942	0.005	1.14	0.014	0.565	0.019	3.20	0.220	0.637	0.042	1.15	0.102	0.569	0.049
2	1.18	0.010	0.950	0.006	1.17	0.039	0.584	0.015	3.18	0.238	0.632	0.041	1.15	0.103	0.577	0.053
3	1.20	0.016	0.958	0.005	1.19	0.033	0.596	0.024	3.12	0.273	0.623	0.041	1.11	0.116	0.555	0.048
4	1.21	0.010	0.963	0.006	1.20	0.028	0.595	0.017	3.12	0.193	0.623	0.022	1.14	0.067	0.562	0.033
5	1.21	0.012	0.967	0.008	1.22	0.025	0.605	0.021	3.00	0.217	0.598	0.031	1.06	0.062	0.525	0.036
6	1.21	0.008	0.970	0.006	1.23	0.022	0.615	0.013	3.00	0.113	0.598	0.017	1.05	0.024	0.525	0.017
7	1.22	0.009	0.972	0.004	1.23	0.027	0.615	0.018	2.95	0.075	0.596	0.026	1.04	0.060	0.522	0.034
8	1.21	0.014	0.973	0.003	1.22	0.028	0.608	0.021	3.02	0.110	0.591	0.031	1.08	0.044	0.537	0.021
9	1.23	0.012	0.977	0.004	1.23	0.024	0.620	0.018	2.94	0.098	0.603	0.026	1.04	0.056	0.526	0.033
10	1.22	0.014	0.976	0.004	1.22	0.032	0.604	0.019	2.95	0.187	0.588	0.025	1.07	0.050	0.533	0.025
11	1.22	0.013	0.978	0.006	1.21	0.025	0.612	0.013	3.06	0.271	0.611	0.029	1.08	0.062	0.549	0.039
12	1.23	0.023	0.978	0.003	1.22	0.029	0.613	0.020	2.95	0.152	0.603	0.034	1.07	0.051	0.540	0.031
13	1.22	0.010	0.979	0.003	1.23	0.033	0.620	0.018	3.02	0.214	0.589	0.037	1.03	0.101	0.518	0.051
14	1.22	0.015	0.977	0.003	1.23	0.016	0.606	0.016	2.96	0.182	0.589	0.027	1.06	0.048	0.523	0.025
15	1.22	0.009	0.979	0.003	1.23	0.028	0.614	0.019	2.94	0.182	0.587	0.023	1.04	0.082	0.519	0.041
ß liberal majority = 1																
0	1.17	0.012	0.938	0.006	1.14	0.021	0.568	0.013	3.85	0.274	0.764	0.033	1.42	0.075	0.710	0.036
1	1.18	0.012	0.948	0.007	1.16	0.026	0.581	0.027	3.86	0.306	0.764	0.029	1.45	0.107	0.722	0.044
2	1.20	0.011	0.950	0.010	1.21	0.017	0.601	0.014	3.66	0.272	0.750	0.041	1.42	0.107	0.706	0.047
3	1.20	0.008	0.961	0.006	1.23	0.026	0.612	0.016	3.76	0.173	0.742	0.037	1.40	0.076	0.697	0.043
4	1.22	0.014	0.967	0.005	1.26	0.041	0.622	0.018	3.55	0.334	0.723	0.052	1.38	0.105	0.684	0.053
5	1.22	0.016	0.974	0.005	1.26	0.023	0.639	0.017	3.64	0.216	0.736	0.029	1.38	0.056	0.697	0.037
6	1.21	0.009	0.977	0.004	1.26	0.021	0.639	0.013	3.63	0.150	0.706	0.031	1.32	0.082	0.667	0.035
7	1.23	0.012	0.977	0.003	1.28	0.040	0.640	0.019	3.44	0.322	0.692	0.040	1.29	0.109	0.647	0.060
8	1.23	0.016	0.980	0.004	1.27	0.044	0.639	0.013	3.60	0.391	0.719	0.047	1.36	0.100	0.687	0.061
9	1.24	0.012	0.980	0.003	1.29	0.017	0.646	0.013	3.36	0.185	0.693	0.031	1.30	0.068	0.651	0.033
10	1.23	0.016	0.982	0.004	1.27	0.028	0.644	0.014	3.41	0.232	0.679	0.049	1.25	0.115	0.632	0.060
11	1.23	0.013	0.984	0.002	1.27	0.032	0.634	0.020	3.51	0.204	0.699	0.034	1.30	0.096	0.651	0.046
12	1.23	0.011	0.983	0.004	1.29	0.019	0.642	0.016	3.36	0.228	0.682	0.027	1.25	0.070	0.622	0.032
13	1.23	0.012	0.983	0.005	1.27	0.021	0.636	0.010	3.51	0.318	0.699	0.046	1.32	0.093	0.660	0.049
14	1.23	0.016	0.985	0.003	1.29	0.031	0.630	0.014	3.32	0.255	0.663	0.053	1.22	0.110	0.600	0.060
15	1.24	0.011	0.983	0.004	1.28	0.023	0.642	0.011	3.34	0.248	0.685	0.036	1.26	0.094	0.632	0.051
ß liberal majority = 15																
0	1.16	0.012	0.925	0.008	1.35	0.045	0.672	0.022	4.44	0.109	0.902	0.026	1.67	0.079	0.833	0.033
1	1.17	0.009	0.940	0.007	1.42	0.039	0.717	0.022	4.61	0.152	0.914	0.014	1.73	0.087	0.872	0.019
2	1.19	0.013	0.953	0.007	1.53	0.030	0.757	0.020	4.66	0.299	0.926	0.020	1.77	0.052	0.880	0.022
3	1.21	0.017	0.967	0.007	1.58	0.042	0.799	0.014	4.77	0.308	0.941	0.021	1.83	0.075	0.921	0.026
4	1.22	0.012	0.978	0.003	1.68	0.049	0.830	0.015	4.75	0.224	0.951	0.011	1.88	0.049	0.930	0.017
5	1.23	0.011	0.985	0.003	1.71	0.029	0.854	0.013	4.81	0.176	0.968	0.008	1.92	0.029	0.961	0.007
6	1.24	0.008	0.988	0.002	1.74	0.034	0.875	0.008	4.80	0.132	0.973	0.003	1.92	0.045	0.968	0.008
7	1.23	0.009	0.993	0.002	1.76	0.055	0.883	0.015	4.99	0.156	0.972	0.011	1.92	0.071	0.964	0.014
8	1.25	0.013	0.993	0.002	1.78	0.044	0.887	0.012	4.80	0.198	0.973	0.010	1.95	0.050	0.968	0.012
9	1.24	0.011	0.995	0.001	1.79	0.034	0.900	0.018	4.91	0.170	0.976	0.006	1.94	0.038	0.972	0.010
10	1.25	0.011	0.995	0.001	1.78	0.037	0.887	0.015	4.83	0.155	0.979	0.007	1.97	0.049	0.978	0.007
11	1.25	0.018	0.995	0.002	1.79	0.059	0.900	0.014	4.82	0.301	0.974	0.011	1.94	0.067	0.973	0.012
12	1.25	0.010	0.996	0.001	1.79	0.029	0.899	0.014	4.82	0.172	0.979	0.011	1.95	0.040	0.978	0.011
13	1.25	0.018	0.996	0.001	1.78	0.053	0.903	0.013	4.83	0.274	0.972	0.008	1.92	0.046	0.971	0.008
14	1.24	0.007	0.997	0.001	1.81	0.047	0.901	0.012	5.01	0.136	0.980	0.009	1.97	0.025	0.977	0.009
15	1.25	0.018	0.997	0.001	1.81	0.027	0.906	0.009	4.92	0.277	0.979	0.010	1.96	0.045	0.981	0.012

Table 12: Referred to Fig: 11: focus on conservatives

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
ß dom	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline (ß ethnic liberal = 0)																
0	0.997	0.008	0.796	0.011	0.999	0.020	0.502	0.011	0.998	0.051	0.201	0.013	1.007	0.031	0.506	0.020
1	1.015	0.008	0.812	0.011	1.042	0.019	0.521	0.009	1.174	0.084	0.235	0.015	1.045	0.023	0.523	0.021
2	1.046	0.008	0.835	0.005	1.114	0.024	0.564	0.018	1.467	0.115	0.295	0.026	1.064	0.016	0.539	0.015
3	1.069	0.012	0.859	0.008	1.183	0.023	0.593	0.014	1.776	0.179	0.348	0.038	1.107	0.045	0.555	0.030
4	1.112	0.015	0.888	0.007	1.281	0.046	0.642	0.023	2.226	0.130	0.449	0.036	1.187	0.067	0.595	0.025
5	1.151	0.013	0.924	0.008	1.407	0.038	0.707	0.017	3.064	0.154	0.603	0.034	1.390	0.083	0.698	0.037
6	1.194	0.012	0.950	0.006	1.522	0.039	0.754	0.020	3.803	0.196	0.774	0.037	1.650	0.075	0.818	0.031
7	1.216	0.013	0.976	0.004	1.602	0.040	0.810	0.015	4.580	0.269	0.901	0.026	1.814	0.080	0.917	0.028
8	1.233	0.012	0.982	0.002	1.704	0.043	0.846	0.018	4.534	0.152	0.924	0.020	1.882	0.050	0.935	0.019
9	1.239	0.013	0.987	0.002	1.717	0.036	0.865	0.013	4.672	0.220	0.947	0.016	1.894	0.041	0.954	0.009
10	1.240	0.015	0.990	0.003	1.727	0.027	0.870	0.015	4.777	0.302	0.958	0.015	1.902	0.044	0.958	0.016
11	1.242	0.008	0.992	0.001	1.772	0.042	0.885	0.014	4.816	0.115	0.967	0.012	1.938	0.055	0.967	0.011
12	1.246	0.017	0.994	0.002	1.771	0.043	0.893	0.014	4.805	0.234	0.970	0.016	1.920	0.055	0.969	0.016
13	1.235	0.014	0.995	0.002	1.809	0.031	0.900	0.015	5.015	0.265	0.972	0.010	1.958	0.041	0.975	0.011
14	1.246	0.015	0.995	0.001	1.781	0.037	0.897	0.014	4.873	0.239	0.978	0.006	1.951	0.040	0.982	0.006
15	1.250	0.015	0.997	0.001	1.803	0.048	0.895	0.016	4.859	0.237	0.983	0.007	1.984	0.069	0.984	0.009
16	1.240	0.018	0.996	0.001	1.812	0.024	0.902	0.012	5.000	0.334	0.976	0.008	1.961	0.032	0.976	0.009
17	1.244	0.010	0.997	0.001	1.802	0.048	0.900	0.009	4.959	0.188	0.983	0.010	1.969	0.041	0.983	0.013
18	1.254	0.016	0.997	0.001	1.808	0.035	0.905	0.010	4.781	0.237	0.976	0.007	1.947	0.037	0.974	0.013
19	1.246	0.007	0.998	0.001	1.805	0.038	0.907	0.014	4.943	0.124	0.982	0.010	1.949	0.038	0.979	0.013
20	1.253	0.015	0.998	0.001	1.802	0.042	0.900	0.011	4.843	0.228	0.982	0.006	1.962	0.050	0.980	0.006
ß value liberal majority = ethnic																
0	0.999	0.006	0.797	0.013	1.004	0.014	0.502	0.009	0.999	0.062	0.202	0.017	1.016	0.038	0.508	0.020
1	1.013	0.009	0.808	0.008	1.036	0.017	0.512	0.019	1.220	0.082	0.248	0.018	1.054	0.043	0.521	0.027
2	1.043	0.006	0.835	0.006	1.078	0.020	0.540	0.013	1.678	0.163	0.333	0.032	1.141	0.044	0.572	0.025
3	1.072	0.014	0.853	0.010	1.133	0.018	0.569	0.011	2.243	0.167	0.458	0.033	1.272	0.048	0.639	0.024
4	1.118	0.012	0.893	0.009	1.188	0.019	0.596	0.013	3.272	0.227	0.655	0.034	1.477	0.052	0.741	0.033
5	1.156	0.010	0.929	0.008	1.288	0.041	0.644	0.019	4.072	0.196	0.799	0.039	1.651	0.058	0.827	0.042
6	1.184	0.011	0.947	0.007	1.418	0.030	0.704	0.020	4.337	0.174	0.867	0.028	1.736	0.069	0.862	0.025
7	1.214	0.016	0.968	0.004	1.578	0.035	0.784	0.020	4.542	0.220	0.919	0.021	1.761	0.067	0.875	0.035
8	1.227	0.011	0.980	0.003	1.688	0.036	0.838	0.011	4.665	0.178	0.938	0.019	1.760	0.050	0.873	0.022
9	1.237	0.016	0.986	0.003	1.745	0.042	0.874	0.011	4.685	0.216	0.950	0.013	1.741	0.063	0.872	0.028
10	1.238	0.013	0.987	0.003	1.796	0.046	0.900	0.014	4.705	0.160	0.951	0.012	1.758	0.052	0.881	0.025
11	1.239	0.018	0.990	0.003	1.854	0.041	0.927	0.011	4.773	0.241	0.956	0.015	1.757	0.059	0.878	0.021
12	1.248	0.017	0.993	0.002	1.876	0.036	0.929	0.008	4.739	0.246	0.966	0.006	1.790	0.052	0.886	0.017
13	1.245	0.019	0.994	0.002	1.864	0.034	0.932	0.011	4.810	0.292	0.966	0.010	1.751	0.042	0.875	0.026
14	1.238	0.013	0.996	0.001	1.885	0.020	0.949	0.011	5.008	0.229	0.974	0.010	1.756	0.030	0.884	0.021
15	1.241	0.016	0.996	0.001	1.896	0.046	0.943	0.015	4.931	0.215	0.970	0.011	1.764	0.071	0.877	0.025
16	1.244	0.015	0.996	0.002	1.889	0.058	0.951	0.009	4.926	0.242	0.976	0.007	1.768	0.049	0.890	0.022
17	1.242	0.010	0.997	0.001	1.924	0.053	0.951	0.008	4.979	0.179	0.982	0.007	1.802	0.054	0.890	0.015
18	1.245	0.009	0.998	0.001	1.910	0.035	0.957	0.011	4.938	0.157	0.981	0.007	1.759	0.055	0.882	0.018
19	1.244	0.009	0.998	0.001	1.928	0.049	0.956	0.005	4.962	0.170	0.981	0.005	1.788	0.039	0.886	0.013
20	1.252	0.010	0.998	0.001	1.932	0.032	0.961	0.007	4.849	0.179	0.983	0.004	1.791	0.039	0.891	0.024
ß value liberal minority = ethnic																
0	1.001	0.006	0.799	0.009	0.996	0.012	0.498	0.013	0.958	0.059	0.194	0.015	0.983	0.028	0.492	0.020
1	1.024	0.010	0.816	0.011	1.042	0.015	0.527	0.019	1.224	0.097	0.249	0.025	1.002	0.036	0.506	0.019
2	1.053	0.007	0.844	0.010	1.127	0.022	0.557	0.016	1.479	0.130	0.293	0.027	1.045	0.027	0.517	0.022
3	1.093	0.011	0.874	0.008	1.205	0.039	0.606	0.021	1.791	0.117	0.358	0.028	1.021	0.046	0.514	0.027
4	1.138	0.010	0.911	0.007	1.305	0.032	0.658	0.012	2.446	0.253	0.486	0.035	1.090	0.040	0.550	0.028
5	1.186	0.012	0.947	0.008	1.405	0.035	0.713	0.008	3.100	0.276	0.622	0.047	1.164	0.067	0.591	0.042
6	1.207	0.012	0.968	0.005	1.488	0.026	0.754	0.012	3.690	0.166	0.731	0.032	1.298	0.055	0.657	0.028
7	1.221	0.014	0.982	0.004	1.563	0.033	0.783	0.020	4.171	0.193	0.816	0.038	1.380	0.062	0.691	0.024
8	1.234	0.010	0.989	0.003	1.607	0.013	0.804	0.013	4.366	0.172	0.864	0.019	1.462	0.052	0.731	0.025
9	1.238	0.018	0.994	0.001	1.657	0.022	0.838	0.015	4.547	0.248	0.894	0.017	1.521	0.080	0.768	0.037
10	1.242	0.014	0.996	0.002	1.679	0.056	0.843	0.021	4.653	0.263	0.920	0.009	1.589	0.051	0.798	0.024
11	1.257	0.016	0.997	0.001	1.740	0.054	0.863	0.018	4.480	0.247	0.926	0.018	1.669	0.077	0.828	0.036
12	1.251	0.014	0.998	0.001	1.749	0.047	0.856	0.018	4.677	0.197	0.945	0.015	1.746	0.079	0.854	0.028
13	1.241	0.007	0.998	0.001	1.738	0.045	0.871	0.019	4.791	0.153	0.939	0.015	1.735	0.049	0.869	0.023
14	1.251	0.017	0.999	0.001	1.749	0.041	0.869	0.016	4.745	0.312	0.952	0.014	1.802	0.054	0.896	0.024
15	1.249	0.019	0.999	0.001	1.732	0.026	0.878	0.013	4.769	0.287	0.952	0.014	1.756	0.078	0.890	0.034
16	1.243	0.011	0.998	0.000	1.738	0.040	0.873	0.007	4.845	0.173	0.953	0.005	1.820	0.052	0.915	0.024
17	1.249	0.014	0.999	0.001	1.743	0.035	0.868	0.009	4.780	0.217	0.955	0.010	1.833	0.057	0.912	0.018
18	1.242	0.012	0.998	0.001	1.757	0.052	0.877	0.008	4.839	0.211	0.947	0.015	1.841	0.056	0.919	0.023
19	1.247	0.019	0.999	0.001	1.748	0.043	0.870	0.018	4.814	0.308	0.955	0.009	1.856	0.032	0.924	0.020
20	1.249	0.021	1.000	0.000	1.787	0.043	0.879	0.011	4.810	0.309	0.957	0.014	1.888	0.072	0.928	0.020

Table 13: Referred to Fig: 11: focus on liberals

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
ß dom	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline (ß ethnic liberal = 0)																
0	1.000	0.005	0.799	0.011	1.003	0.019	0.499	0.015	0.934	0.070	0.188	0.016	0.99	0.041	0.493	0.023
1	1.008	0.008	0.806	0.012	1.052	0.008	0.526	0.013	1.081	0.086	0.217	0.025	1.06	0.045	0.532	0.028
2	1.002	0.008	0.801	0.008	1.122	0.020	0.554	0.014	1.162	0.066	0.234	0.014	1.18	0.032	0.580	0.019
3	1.000	0.004	0.804	0.009	1.193	0.019	0.595	0.014	1.194	0.064	0.234	0.016	1.26	0.042	0.626	0.022
4	0.991	0.010	0.791	0.012	1.279	0.033	0.637	0.023	1.253	0.095	0.252	0.020	1.41	0.039	0.704	0.019
5	0.990	0.008	0.795	0.010	1.420	0.030	0.706	0.019	1.188	0.089	0.234	0.016	1.57	0.052	0.783	0.025
6	1.004	0.012	0.799	0.013	1.537	0.044	0.775	0.018	1.131	0.069	0.231	0.018	1.70	0.031	0.858	0.017
7	1.009	0.013	0.810	0.016	1.671	0.035	0.826	0.015	1.067	0.094	0.211	0.022	1.86	0.040	0.921	0.012
8	1.003	0.010	0.798	0.011	1.722	0.048	0.866	0.014	1.039	0.092	0.212	0.020	1.88	0.045	0.943	0.008
9	1.007	0.015	0.802	0.014	1.773	0.037	0.879	0.012	1.032	0.104	0.210	0.025	1.93	0.051	0.959	0.008
10	1.007	0.011	0.804	0.012	1.791	0.049	0.888	0.011	0.957	0.102	0.192	0.019	1.95	0.042	0.966	0.009
11	0.998	0.014	0.798	0.008	1.802	0.040	0.901	0.009	0.985	0.058	0.198	0.011	1.95	0.045	0.973	0.006
12	0.996	0.013	0.795	0.015	1.829	0.037	0.906	0.015	1.007	0.081	0.204	0.023	1.97	0.039	0.977	0.009
13	0.997	0.013	0.803	0.015	1.822	0.039	0.915	0.011	1.027	0.067	0.200	0.019	1.96	0.034	0.984	0.005
14	0.998	0.010	0.797	0.013	1.837	0.046	0.912	0.012	0.994	0.064	0.200	0.015	1.99	0.043	0.986	0.003
15	1.005	0.005	0.801	0.010	1.820	0.060	0.915	0.009	0.965	0.084	0.196	0.021	1.97	0.063	0.989	0.002
16	1.003	0.013	0.807	0.016	1.832	0.045	0.919	0.009	1.001	0.069	0.196	0.020	1.97	0.038	0.989	0.002
17	1.002	0.011	0.803	0.011	1.835	0.039	0.917	0.006	0.962	0.068	0.191	0.016	1.98	0.049	0.992	0.003
18	1.001	0.013	0.797	0.016	1.842	0.042	0.919	0.006	0.990	0.078	0.203	0.023	1.98	0.045	0.989	0.004
19	1.001	0.010	0.802	0.009	1.852	0.043	0.921	0.010	1.040	0.079	0.207	0.014	1.99	0.039	0.992	0.004
20	0.989	0.011	0.788	0.010	1.828	0.038	0.914	0.009	1.033	0.067	0.210	0.018	1.99	0.050	0.994	0.003
ß value liberal majority = ethnic																
0	1.001	0.006	0.799	0.011	1.006	0.018	0.502	0.011	0.985	0.079	0.200	0.027	1.01	0.025	0.504	0.014
1	1.019	0.007	0.812	0.010	1.054	0.020	0.533	0.013	1.129	0.074	0.229	0.017	1.03	0.031	0.521	0.016
2	1.040	0.011	0.833	0.010	1.118	0.012	0.558	0.013	1.335	0.078	0.265	0.020	1.11	0.064	0.555	0.032
3	1.057	0.011	0.841	0.011	1.199	0.020	0.597	0.014	1.420	0.109	0.290	0.022	1.19	0.040	0.593	0.024
4	1.082	0.011	0.865	0.010	1.288	0.023	0.641	0.015	1.536	0.101	0.308	0.018	1.29	0.054	0.644	0.023
5	1.094	0.014	0.880	0.010	1.390	0.039	0.694	0.016	1.733	0.058	0.340	0.016	1.45	0.052	0.724	0.018
6	1.098	0.010	0.878	0.009	1.497	0.046	0.753	0.013	1.787	0.211	0.357	0.038	1.55	0.064	0.779	0.024
7	1.102	0.014	0.879	0.010	1.623	0.045	0.817	0.011	2.037	0.193	0.413	0.037	1.66	0.065	0.838	0.020
8	1.102	0.011	0.880	0.009	1.707	0.031	0.860	0.012	2.266	0.115	0.456	0.028	1.74	0.051	0.873	0.022
9	1.104	0.014	0.880	0.012	1.786	0.050	0.891	0.007	2.258	0.181	0.458	0.039	1.76	0.051	0.880	0.011
10	1.106	0.010	0.882	0.004	1.830	0.039	0.913	0.014	2.295	0.159	0.464	0.021	1.79	0.047	0.894	0.013
11	1.106	0.017	0.884	0.010	1.873	0.047	0.936	0.009	2.342	0.242	0.469	0.047	1.80	0.035	0.901	0.016
12	1.115	0.011	0.887	0.009	1.860	0.041	0.938	0.007	2.467	0.118	0.503	0.026	1.81	0.037	0.915	0.010
13	1.112	0.014	0.888	0.007	1.881	0.033	0.941	0.008	2.542	0.099	0.512	0.030	1.82	0.047	0.910	0.014
14	1.110	0.008	0.894	0.008	1.924	0.045	0.955	0.009	2.670	0.147	0.520	0.029	1.85	0.053	0.920	0.014
15	1.112	0.012	0.893	0.008	1.892	0.061	0.950	0.011	2.597	0.164	0.511	0.028	1.82	0.051	0.915	0.011
16	1.117	0.008	0.895	0.007	1.928	0.054	0.956	0.010	2.607	0.147	0.517	0.028	1.86	0.073	0.921	0.014
17	1.122	0.011	0.900	0.007	1.899	0.032	0.960	0.007	2.659	0.129	0.525	0.028	1.82	0.034	0.920	0.013
18	1.118	0.006	0.896	0.008	1.931	0.037	0.962	0.009	2.682	0.139	0.533	0.019	1.84	0.029	0.918	0.008
19	1.124	0.009	0.901	0.007	1.911	0.053	0.962	0.004	2.665	0.161	0.527	0.032	1.82	0.055	0.917	0.010
20	1.123	0.013	0.895	0.009	1.925	0.016	0.967	0.005	2.610	0.113	0.530	0.029	1.84	0.039	0.925	0.012
ß value liberal minority = ethnic																
0	0.998	0.008	0.796	0.008	0.988	0.026	0.494	0.023	0.999	0.065	0.202	0.016	1.00	0.032	0.501	0.024
1	1.005	0.007	0.801	0.016	1.045	0.020	0.517	0.018	1.219	0.053	0.247	0.011	1.08	0.040	0.535	0.027
2	1.008	0.012	0.808	0.009	1.112	0.013	0.562	0.012	1.410	0.111	0.279	0.026	1.19	0.048	0.603	0.027
3	1.007	0.010	0.806	0.011	1.185	0.028	0.589	0.014	1.726	0.060	0.346	0.021	1.32	0.039	0.658	0.025
4	1.021	0.012	0.817	0.015	1.284	0.023	0.636	0.015	2.101	0.170	0.419	0.031	1.44	0.041	0.714	0.015
5	1.030	0.015	0.823	0.013	1.393	0.025	0.686	0.009	2.307	0.089	0.464	0.023	1.55	0.039	0.762	0.028
6	1.049	0.014	0.841	0.008	1.495	0.028	0.738	0.010	2.488	0.144	0.493	0.032	1.62	0.048	0.800	0.023
7	1.063	0.013	0.855	0.010	1.560	0.044	0.778	0.014	2.749	0.162	0.537	0.019	1.63	0.060	0.814	0.023
8	1.082	0.008	0.867	0.006	1.612	0.037	0.805	0.008	2.856	0.066	0.566	0.023	1.66	0.039	0.832	0.019
9	1.088	0.013	0.874	0.007	1.691	0.041	0.836	0.010	2.976	0.121	0.586	0.022	1.73	0.045	0.857	0.022
10	1.101	0.013	0.882	0.006	1.707	0.042	0.849	0.016	3.009	0.189	0.595	0.030	1.74	0.066	0.865	0.025
11	1.109	0.010	0.879	0.013	1.730	0.046	0.871	0.018	2.949	0.165	0.609	0.017	1.78	0.061	0.898	0.021
12	1.114	0.009	0.889	0.015	1.710	0.046	0.872	0.013	3.116	0.195	0.629	0.021	1.79	0.053	0.913	0.017
13	1.106	0.012	0.889	0.009	1.760	0.026	0.878	0.016	3.127	0.163	0.613	0.030	1.85	0.053	0.922	0.025
14	1.110	0.011	0.886	0.011	1.755	0.043	0.882	0.012	3.042	0.232	0.611	0.038	1.87	0.059	0.942	0.018
15	1.107	0.014	0.885	0.009	1.800	0.032	0.887	0.011	2.996	0.198	0.598	0.022	1.90	0.037	0.935	0.022
16	1.110	0.009	0.892	0.008	1.782	0.038	0.886	0.007	3.118	0.160	0.613	0.024	1.93	0.060	0.958	0.017
17	1.106	0.007	0.885	0.012	1.759	0.037	0.883	0.008	2.998	0.163	0.599	0.018	1.91	0.031	0.958	0.011
18	1.102	0.016	0.886	0.011	1.778	0.038	0.889	0.010	3.055	0.112	0.598	0.018	1.94	0.058	0.969	0.011
19	1.110	0.018	0.889	0.012	1.767	0.038	0.887	0.015	3.066	0.195	0.609	0.034	1.93	0.051	0.967	0.014
20	1.114	0.019	0.891	0.016	1.766	0.047	0.897	0.009	3.144	0.245	0.625	0.032	1.92	0.056	0.974	0.009

Table 14: Referred to Fig: 12, 50% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	2.02	0.039	0.991	0.002	1.228	0.021	0.860	0.016	1.95	0.036	0.991	0.002	1.416	0.021	0.992	0.002
20	1.97	0.027	0.991	0.004	1.397	0.042	0.903	0.017	2.00	0.026	0.993	0.003	1.533	0.025	0.991	0.003
30	2.00	0.043	0.990	0.004	1.547	0.032	0.936	0.013	1.97	0.041	0.994	0.002	1.636	0.024	0.989	0.004
40	1.97	0.059	0.992	0.003	1.736	0.025	0.958	0.016	2.00	0.056	0.994	0.002	1.787	0.027	0.985	0.004
50	2.00	0.052	0.992	0.004	1.952	0.048	0.973	0.011	1.97	0.054	0.992	0.002	1.946	0.048	0.970	0.005
60	2.00	0.048	0.994	0.002	2.196	0.043	0.980	0.004	1.97	0.045	0.991	0.004	2.124	0.058	0.948	0.019
70	1.97	0.036	0.992	0.004	2.454	0.081	0.980	0.007	1.98	0.048	0.981	0.008	2.286	0.099	0.912	0.022
80	1.97	0.046	0.991	0.005	2.792	0.049	0.980	0.008	1.95	0.045	0.968	0.013	2.399	0.095	0.842	0.038
90	2.02	0.035	0.989	0.003	3.312	0.100	0.976	0.007	1.84	0.069	0.936	0.021	2.324	0.222	0.686	0.066
ß liberal majority = 1																
10	1.95	0.049	0.980	0.005	0.942	0.025	0.657	0.022	1.83	0.048	0.910	0.011	1.292	0.023	0.902	0.012
20	1.92	0.061	0.967	0.007	1.108	0.030	0.722	0.021	1.77	0.078	0.872	0.010	1.285	0.032	0.837	0.017
30	1.89	0.049	0.959	0.007	1.250	0.038	0.750	0.028	1.71	0.037	0.845	0.012	1.303	0.020	0.781	0.013
40	1.90	0.045	0.953	0.007	1.399	0.051	0.768	0.019	1.65	0.038	0.821	0.013	1.292	0.030	0.710	0.020
50	1.92	0.042	0.953	0.007	1.581	0.042	0.795	0.019	1.60	0.023	0.804	0.010	1.296	0.044	0.651	0.018
60	1.92	0.031	0.963	0.008	1.795	0.034	0.814	0.016	1.57	0.042	0.782	0.016	1.269	0.042	0.575	0.020
70	1.91	0.043	0.964	0.006	2.032	0.073	0.809	0.018	1.51	0.024	0.748	0.018	1.200	0.064	0.478	0.030
80	1.97	0.032	0.973	0.006	2.369	0.053	0.820	0.014	1.40	0.042	0.709	0.020	1.009	0.097	0.349	0.034
90	1.96	0.037	0.980	0.005	2.764	0.111	0.815	0.021	1.29	0.089	0.646	0.041	0.702	0.143	0.207	0.044
ß liberal minority = 1																
10	1.89	0.072	0.942	0.013	1.088	0.019	0.768	0.015	1.95	0.056	0.974	0.003	1.342	0.020	0.947	0.006
20	1.80	0.053	0.908	0.009	1.108	0.018	0.715	0.017	1.96	0.051	0.970	0.004	1.421	0.019	0.916	0.009
30	1.71	0.038	0.871	0.013	1.130	0.034	0.674	0.024	1.97	0.030	0.967	0.005	1.483	0.033	0.885	0.013
40	1.67	0.036	0.828	0.014	1.197	0.040	0.652	0.018	1.91	0.033	0.963	0.006	1.542	0.032	0.840	0.012
50	1.59	0.039	0.800	0.007	1.296	0.053	0.645	0.018	1.91	0.043	0.951	0.012	1.578	0.028	0.787	0.024
60	1.56	0.029	0.779	0.014	1.394	0.044	0.633	0.016	1.88	0.039	0.939	0.008	1.599	0.057	0.727	0.019
70	1.50	0.052	0.752	0.021	1.564	0.046	0.627	0.023	1.86	0.070	0.923	0.015	1.565	0.063	0.627	0.023
80	1.46	0.044	0.731	0.017	1.777	0.041	0.618	0.026	1.79	0.044	0.895	0.013	1.455	0.078	0.506	0.028
90	1.40	0.043	0.704	0.018	1.956	0.067	0.593	0.025	1.71	0.064	0.851	0.030	0.995	0.098	0.301	0.022

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.682	0.035	0.827	0.012	2.94	0.122	0.880	0.012	0.364	0.047	0.185	0.022	3.24	0.152	0.970	0.011
20	1.426	0.035	0.719	0.019	2.60	0.064	0.920	0.013	0.562	0.037	0.279	0.017	2.76	0.087	0.976	0.005
30	1.272	0.037	0.630	0.018	2.40	0.050	0.950	0.009	0.746	0.042	0.377	0.023	2.47	0.058	0.977	0.007
40	1.125	0.035	0.567	0.022	2.16	0.059	0.967	0.010	0.904	0.032	0.448	0.017	2.19	0.053	0.982	0.005
50	1.005	0.013	0.499	0.015	1.95	0.043	0.979	0.007	1.018	0.021	0.513	0.016	1.95	0.047	0.977	0.003
60	0.914	0.032	0.455	0.025	1.78	0.026	0.984	0.003	1.111	0.030	0.559	0.022	1.76	0.030	0.974	0.008
70	0.846	0.026	0.426	0.017	1.64	0.038	0.983	0.003	1.172	0.024	0.582	0.015	1.62	0.038	0.973	0.005
80	0.763	0.028	0.384	0.015	1.51	0.019	0.982	0.005	1.237	0.017	0.613	0.014	1.50	0.021	0.973	0.006
90	0.730	0.045	0.358	0.025	1.39	0.025	0.981	0.004	1.285	0.020	0.654	0.012	1.39	0.021	0.977	0.005
ß liberal majority = 1																
10	1.443	0.038	0.726	0.017	1.69	0.083	0.511	0.018	0.707	0.068	0.351	0.033	2.73	0.072	0.824	0.032
20	1.224	0.042	0.619	0.035	1.52	0.046	0.531	0.016	1.011	0.062	0.500	0.041	2.23	0.123	0.776	0.041
30	1.111	0.027	0.563	0.017	1.42	0.062	0.569	0.017	1.148	0.037	0.566	0.023	1.95	0.054	0.781	0.014
40	1.036	0.036	0.521	0.022	1.32	0.024	0.597	0.016	1.260	0.049	0.627	0.027	1.75	0.031	0.786	0.017
50	0.974	0.034	0.485	0.016	1.30	0.034	0.645	0.013	1.284	0.018	0.645	0.020	1.62	0.039	0.804	0.019
60	0.918	0.021	0.461	0.013	1.24	0.027	0.677	0.011	1.350	0.029	0.672	0.016	1.54	0.025	0.841	0.009
70	0.911	0.031	0.461	0.018	1.18	0.024	0.711	0.019	1.399	0.032	0.691	0.011	1.45	0.021	0.870	0.010
80	0.879	0.018	0.434	0.009	1.14	0.013	0.743	0.008	1.415	0.027	0.715	0.011	1.39	0.017	0.910	0.005
90	0.881	0.028	0.440	0.011	1.11	0.027	0.783	0.013	1.434	0.038	0.717	0.011	1.35	0.033	0.951	0.006
ß liberal minority = 1																
10	1.799	0.058	0.897	0.010	2.67	0.113	0.786	0.015	0.809	0.059	0.406	0.039	1.51	0.136	0.444	0.043
20	1.624	0.039	0.819	0.012	2.19	0.058	0.779	0.018	0.810	0.049	0.401	0.025	1.55	0.106	0.551	0.036
30	1.509	0.043	0.768	0.024	1.92	0.056	0.775	0.014	0.882	0.061	0.433	0.032	1.44	0.071	0.582	0.032
40	1.400	0.038	0.693	0.015	1.74	0.041	0.794	0.012	0.920	0.037	0.465	0.016	1.35	0.026	0.615	0.015
50	1.299	0.047	0.653	0.026	1.62	0.049	0.812	0.019	0.958	0.041	0.477	0.027	1.26	0.024	0.631	0.014
60	1.207	0.030	0.603	0.017	1.49	0.030	0.814	0.014	1.015	0.027	0.509	0.017	1.22	0.022	0.666	0.016
70	1.116	0.031	0.560	0.015	1.40	0.029	0.838	0.012	1.065	0.023	0.530	0.022	1.17	0.027	0.699	0.012
80	1.020	0.030	0.510	0.020	1.31	0.027	0.856	0.010	1.087	0.028	0.543	0.020	1.13	0.023	0.737	0.007
90	0.970	0.021	0.487	0.018	1.24	0.021	0.865	0.008	1.112	0.022	0.554	0.014	1.11	0.014	0.771	0.013

Table 15: Referred to Fig: 12, 60% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.66	0.021	0.994	0.002	1.315	0.026	0.867	0.014	2.46	0.048	0.986	0.002	1.499	0.021	0.987	0.003
20	1.64	0.018	0.992	0.003	1.430	0.040	0.884	0.023	2.50	0.052	0.988	0.004	1.599	0.041	0.988	0.004
30	1.66	0.027	0.992	0.002	1.592	0.034	0.921	0.015	2.46	0.054	0.991	0.005	1.708	0.037	0.988	0.007
40	1.66	0.029	0.993	0.002	1.722	0.045	0.928	0.014	2.48	0.061	0.993	0.002	1.832	0.037	0.988	0.002
50	1.67	0.023	0.994	0.002	1.909	0.035	0.954	0.007	2.44	0.056	0.991	0.003	1.961	0.039	0.979	0.008
60	1.66	0.031	0.992	0.002	2.118	0.047	0.964	0.009	2.45	0.066	0.987	0.003	2.124	0.069	0.967	0.009
70	1.67	0.027	0.995	0.002	2.315	0.060	0.968	0.007	2.44	0.055	0.982	0.008	2.278	0.085	0.953	0.016
80	1.65	0.032	0.993	0.003	2.561	0.054	0.973	0.007	2.44	0.074	0.968	0.015	2.422	0.093	0.920	0.024
90	1.65	0.033	0.993	0.001	2.877	0.117	0.973	0.004	2.33	0.092	0.923	0.015	2.320	0.187	0.786	0.073
ß liberal majority = 1																
10	1.66	0.039	0.990	0.002	0.945	0.033	0.625	0.026	2.26	0.080	0.912	0.010	1.370	0.030	0.907	0.012
20	1.61	0.026	0.977	0.003	1.087	0.032	0.671	0.015	2.18	0.054	0.861	0.010	1.366	0.028	0.843	0.012
30	1.61	0.032	0.971	0.006	1.214	0.030	0.700	0.019	2.06	0.064	0.820	0.006	1.341	0.040	0.772	0.014
40	1.61	0.024	0.967	0.005	1.379	0.023	0.741	0.012	1.96	0.058	0.782	0.016	1.298	0.039	0.698	0.023
50	1.60	0.021	0.964	0.003	1.470	0.021	0.746	0.013	1.91	0.056	0.757	0.015	1.250	0.039	0.634	0.021
60	1.62	0.033	0.963	0.005	1.632	0.046	0.759	0.018	1.79	0.048	0.722	0.018	1.190	0.049	0.554	0.027
70	1.63	0.037	0.970	0.006	1.861	0.052	0.779	0.012	1.70	0.059	0.683	0.015	1.078	0.055	0.452	0.018
80	1.63	0.031	0.977	0.005	2.064	0.071	0.788	0.024	1.59	0.059	0.637	0.027	0.916	0.112	0.350	0.042
90	1.64	0.029	0.985	0.004	2.275	0.067	0.771	0.021	1.40	0.106	0.562	0.051	0.594	0.100	0.202	0.035
ß liberal minority = 1																
10	1.60	0.028	0.963	0.007	1.188	0.024	0.777	0.015	2.43	0.070	0.966	0.004	1.449	0.017	0.947	0.007
20	1.54	0.035	0.929	0.007	1.181	0.033	0.727	0.022	2.42	0.078	0.960	0.008	1.491	0.031	0.918	0.007
30	1.51	0.016	0.909	0.010	1.232	0.025	0.706	0.014	2.43	0.070	0.961	0.010	1.577	0.034	0.904	0.013
40	1.48	0.029	0.877	0.016	1.288	0.045	0.697	0.022	2.35	0.080	0.955	0.007	1.595	0.041	0.864	0.015
50	1.41	0.026	0.856	0.015	1.331	0.046	0.675	0.016	2.41	0.092	0.947	0.010	1.657	0.035	0.841	0.019
60	1.38	0.023	0.828	0.013	1.431	0.024	0.661	0.023	2.34	0.054	0.931	0.011	1.685	0.046	0.778	0.021
70	1.35	0.027	0.811	0.011	1.537	0.024	0.653	0.014	2.27	0.092	0.911	0.017	1.647	0.051	0.700	0.024
80	1.31	0.013	0.788	0.011	1.685	0.051	0.638	0.013	2.16	0.083	0.859	0.014	1.476	0.141	0.559	0.054
90	1.27	0.014	0.761	0.013	1.818	0.066	0.613	0.018	1.95	0.071	0.776	0.027	1.059	0.160	0.357	0.051

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.457	0.024	0.873	0.016	2.58	0.054	0.879	0.013	0.316	0.062	0.127	0.025	2.86	0.060	0.976	0.008
20	1.322	0.018	0.798	0.019	2.37	0.092	0.902	0.013	0.546	0.059	0.216	0.024	2.56	0.092	0.975	0.008
30	1.188	0.032	0.710	0.014	2.22	0.059	0.936	0.009	0.731	0.040	0.294	0.016	2.33	0.050	0.979	0.008
40	1.105	0.019	0.662	0.011	2.05	0.045	0.942	0.012	0.850	0.038	0.341	0.021	2.14	0.056	0.984	0.004
50	1.013	0.027	0.601	0.013	1.93	0.037	0.964	0.005	1.010	0.032	0.410	0.013	1.97	0.041	0.984	0.006
60	0.936	0.019	0.559	0.017	1.79	0.045	0.974	0.006	1.120	0.041	0.451	0.014	1.81	0.033	0.983	0.004
70	0.872	0.029	0.521	0.023	1.68	0.039	0.974	0.006	1.216	0.026	0.490	0.017	1.70	0.032	0.985	0.005
80	0.803	0.023	0.485	0.018	1.58	0.025	0.979	0.004	1.293	0.032	0.512	0.011	1.59	0.022	0.987	0.003
90	0.766	0.019	0.462	0.015	1.48	0.029	0.978	0.002	1.374	0.023	0.546	0.014	1.49	0.032	0.985	0.004
ß liberal majority = 1																
10	1.347	0.042	0.802	0.021	1.55	0.035	0.525	0.022	0.728	0.141	0.295	0.060	2.61	0.099	0.882	0.033
20	1.175	0.021	0.711	0.014	1.42	0.035	0.544	0.021	1.038	0.075	0.410	0.031	2.22	0.061	0.849	0.024
30	1.074	0.020	0.647	0.017	1.33	0.027	0.562	0.017	1.220	0.063	0.485	0.025	1.94	0.050	0.823	0.023
40	1.003	0.022	0.603	0.014	1.29	0.028	0.598	0.010	1.355	0.021	0.540	0.014	1.78	0.041	0.823	0.017
50	0.969	0.022	0.585	0.015	1.24	0.033	0.610	0.015	1.429	0.065	0.566	0.027	1.67	0.038	0.822	0.010
60	0.936	0.028	0.558	0.017	1.20	0.011	0.643	0.006	1.497	0.036	0.605	0.018	1.59	0.026	0.850	0.011
70	0.911	0.019	0.544	0.010	1.18	0.019	0.687	0.012	1.548	0.026	0.624	0.019	1.52	0.024	0.880	0.011
80	0.879	0.027	0.527	0.016	1.17	0.029	0.722	0.015	1.558	0.036	0.625	0.012	1.47	0.026	0.910	0.006
90	0.894	0.025	0.536	0.020	1.12	0.023	0.742	0.014	1.616	0.028	0.646	0.012	1.44	0.017	0.951	0.005
ß liberal minority = 1																
10	1.535	0.033	0.923	0.006	2.32	0.053	0.802	0.009	0.871	0.134	0.347	0.056	1.46	0.105	0.504	0.035
20	1.432	0.039	0.862	0.016	2.02	0.072	0.778	0.015	0.841	0.091	0.334	0.036	1.45	0.081	0.556	0.038
30	1.342	0.026	0.810	0.019	1.84	0.049	0.784	0.010	0.884	0.072	0.350	0.028	1.48	0.077	0.631	0.031
40	1.284	0.029	0.762	0.012	1.73	0.044	0.794	0.016	0.938	0.060	0.381	0.019	1.37	0.043	0.629	0.020
50	1.214	0.032	0.735	0.019	1.61	0.023	0.792	0.016	0.985	0.046	0.388	0.020	1.33	0.041	0.653	0.018
60	1.137	0.020	0.684	0.015	1.50	0.047	0.807	0.008	1.035	0.029	0.413	0.017	1.25	0.026	0.675	0.012
70	1.086	0.023	0.650	0.022	1.41	0.032	0.813	0.013	1.097	0.035	0.440	0.018	1.21	0.022	0.696	0.010
80	1.011	0.018	0.610	0.020	1.33	0.023	0.824	0.014	1.130	0.023	0.448	0.013	1.17	0.019	0.726	0.013
90	0.959	0.022	0.577	0.023	1.26	0.021	0.836	0.015	1.146	0.036	0.457	0.011	1.14	0.016	0.756	0.012

Table 16: Referred to Fig: 12, 70% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.42	0.017	0.994	0.002	1.407	0.019	0.865	0.012	3.26	0.084	0.979	0.004	1.598	0.027	0.983	0.004
20	1.42	0.018	0.995	0.002	1.489	0.030	0.875	0.009	3.27	0.112	0.979	0.005	1.666	0.033	0.980	0.007
30	1.42	0.019	0.995	0.001	1.599	0.035	0.891	0.012	3.28	0.126	0.985	0.007	1.770	0.054	0.986	0.008
40	1.43	0.020	0.996	0.002	1.727	0.049	0.907	0.011	3.25	0.114	0.988	0.006	1.874	0.045	0.984	0.007
50	1.41	0.032	0.995	0.002	1.841	0.031	0.921	0.007	3.37	0.214	0.983	0.008	1.955	0.034	0.979	0.010
60	1.42	0.021	0.995	0.002	2.008	0.037	0.940	0.013	3.28	0.115	0.985	0.007	2.092	0.041	0.979	0.010
70	1.41	0.030	0.995	0.001	2.161	0.077	0.945	0.009	3.32	0.157	0.979	0.005	2.214	0.102	0.968	0.009
80	1.42	0.021	0.995	0.001	2.307	0.048	0.955	0.006	3.24	0.100	0.975	0.007	2.286	0.082	0.946	0.019
90	1.42	0.022	0.995	0.002	2.522	0.067	0.960	0.008	3.11	0.120	0.933	0.023	2.322	0.120	0.883	0.030
ß liberal majority = 1																
10	1.42	0.024	0.993	0.002	0.952	0.020	0.592	0.016	3.01	0.139	0.904	0.010	1.451	0.031	0.902	0.012
20	1.41	0.020	0.989	0.003	1.066	0.039	0.627	0.020	2.92	0.081	0.878	0.017	1.475	0.030	0.868	0.018
30	1.40	0.025	0.984	0.003	1.157	0.026	0.647	0.021	2.79	0.118	0.828	0.021	1.438	0.041	0.803	0.026
40	1.39	0.012	0.978	0.004	1.278	0.040	0.681	0.018	2.55	0.065	0.761	0.020	1.338	0.044	0.713	0.024
50	1.39	0.023	0.974	0.005	1.386	0.042	0.688	0.015	2.39	0.101	0.712	0.017	1.262	0.058	0.627	0.027
60	1.39	0.028	0.975	0.005	1.495	0.054	0.706	0.021	2.18	0.141	0.652	0.030	1.109	0.098	0.524	0.055
70	1.40	0.008	0.976	0.004	1.649	0.029	0.710	0.015	2.00	0.089	0.602	0.027	0.962	0.080	0.414	0.034
80	1.41	0.020	0.978	0.003	1.775	0.045	0.726	0.013	1.81	0.105	0.552	0.037	0.779	0.072	0.319	0.034
90	1.42	0.029	0.985	0.003	1.903	0.081	0.717	0.023	1.63	0.103	0.493	0.021	0.499	0.115	0.188	0.043
ß liberal minority = 1																
10	1.39	0.025	0.974	0.004	1.280	0.015	0.797	0.017	3.18	0.133	0.949	0.008	1.503	0.026	0.935	0.012
20	1.36	0.018	0.952	0.004	1.272	0.031	0.746	0.014	3.14	0.103	0.942	0.011	1.549	0.036	0.909	0.014
30	1.34	0.019	0.936	0.009	1.286	0.017	0.721	0.017	3.15	0.090	0.947	0.007	1.617	0.044	0.906	0.012
40	1.31	0.020	0.916	0.007	1.335	0.030	0.705	0.017	3.16	0.139	0.944	0.014	1.665	0.041	0.879	0.017
50	1.28	0.017	0.896	0.007	1.377	0.033	0.695	0.012	3.09	0.087	0.926	0.011	1.688	0.063	0.851	0.019
60	1.25	0.016	0.878	0.013	1.456	0.058	0.681	0.022	3.12	0.105	0.929	0.023	1.776	0.048	0.831	0.030
70	1.23	0.013	0.863	0.008	1.531	0.045	0.676	0.020	2.92	0.073	0.878	0.020	1.606	0.099	0.709	0.037
80	1.21	0.015	0.847	0.009	1.635	0.043	0.665	0.019	2.79	0.120	0.833	0.033	1.530	0.105	0.623	0.046
90	1.18	0.018	0.827	0.009	1.698	0.043	0.644	0.016	2.33	0.103	0.702	0.037	1.020	0.175	0.387	0.067

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.300	0.020	0.910	0.011	2.28	0.058	0.879	0.007	0.287	0.050	0.086	0.016	2.52	0.052	0.972	0.011
20	1.211	0.011	0.848	0.012	2.16	0.052	0.889	0.009	0.534	0.069	0.161	0.024	2.38	0.077	0.978	0.011
30	1.134	0.022	0.793	0.016	2.05	0.070	0.909	0.007	0.675	0.058	0.203	0.020	2.22	0.069	0.982	0.006
40	1.067	0.021	0.742	0.018	1.95	0.041	0.924	0.011	0.862	0.050	0.263	0.021	2.08	0.051	0.985	0.006
50	1.010	0.015	0.714	0.012	1.87	0.030	0.935	0.006	1.006	0.050	0.294	0.018	1.98	0.035	0.987	0.005
60	0.944	0.014	0.660	0.009	1.79	0.031	0.952	0.011	1.151	0.039	0.345	0.013	1.86	0.022	0.990	0.003
70	0.903	0.015	0.636	0.015	1.70	0.056	0.955	0.006	1.284	0.047	0.380	0.025	1.76	0.056	0.990	0.003
80	0.852	0.014	0.596	0.012	1.65	0.025	0.964	0.005	1.375	0.038	0.414	0.020	1.69	0.022	0.989	0.003
90	0.805	0.012	0.563	0.015	1.56	0.029	0.968	0.004	1.458	0.034	0.437	0.015	1.60	0.028	0.991	0.002
ß liberal majority = 1																
10	1.235	0.009	0.864	0.014	1.38	0.040	0.521	0.018	0.812	0.189	0.244	0.059	2.38	0.101	0.901	0.037
20	1.159	0.023	0.811	0.012	1.36	0.032	0.559	0.018	1.101	0.145	0.331	0.046	2.19	0.078	0.900	0.014
30	1.089	0.020	0.766	0.017	1.29	0.044	0.570	0.011	1.296	0.097	0.384	0.028	1.98	0.061	0.872	0.017
40	1.016	0.013	0.713	0.009	1.24	0.038	0.577	0.019	1.512	0.075	0.451	0.020	1.85	0.043	0.863	0.015
50	0.979	0.016	0.688	0.015	1.19	0.024	0.601	0.021	1.627	0.057	0.485	0.029	1.72	0.037	0.863	0.013
60	0.948	0.016	0.664	0.022	1.16	0.034	0.613	0.019	1.771	0.095	0.531	0.028	1.66	0.048	0.874	0.010
70	0.934	0.009	0.653	0.009	1.15	0.021	0.656	0.015	1.805	0.072	0.542	0.017	1.56	0.031	0.889	0.011
80	0.913	0.020	0.635	0.018	1.15	0.017	0.680	0.010	1.818	0.077	0.553	0.019	1.55	0.029	0.916	0.009
90	0.916	0.018	0.637	0.019	1.12	0.031	0.699	0.018	1.876	0.085	0.569	0.017	1.53	0.037	0.952	0.009
ß liberal minority = 1																
10	1.335	0.019	0.936	0.008	2.12	0.089	0.801	0.012	0.849	0.237	0.252	0.059	1.29	0.189	0.487	0.071
20	1.283	0.016	0.898	0.006	1.88	0.038	0.778	0.019	0.945	0.078	0.284	0.027	1.37	0.105	0.565	0.048
30	1.231	0.018	0.861	0.017	1.76	0.056	0.774	0.011	0.916	0.113	0.275	0.031	1.46	0.065	0.642	0.022
40	1.181	0.022	0.828	0.016	1.65	0.027	0.779	0.010	0.985	0.070	0.294	0.025	1.38	0.057	0.650	0.024
50	1.137	0.020	0.795	0.015	1.57	0.033	0.780	0.013	1.009	0.048	0.303	0.021	1.33	0.042	0.660	0.027
60	1.092	0.019	0.766	0.011	1.50	0.035	0.796	0.012	1.061	0.074	0.316	0.019	1.30	0.039	0.691	0.027
70	1.047	0.019	0.732	0.011	1.42	0.020	0.791	0.012	1.189	0.056	0.357	0.017	1.25	0.014	0.695	0.013
80	1.008	0.024	0.707	0.019	1.36	0.028	0.805	0.008	1.227	0.038	0.366	0.011	1.22	0.028	0.725	0.016
90	0.971	0.017	0.678	0.019	1.30	0.018	0.806	0.010	1.230	0.036	0.371	0.016	1.19	0.018	0.738	0.005

Table 17: Referred to Fig: 12, 80% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.25	0.019	0.998	0.001	1.514	0.041	0.877	0.014	4.93	0.278	0.975	0.008	1.689	0.022	0.978	0.009
20	1.25	0.011	0.998	0.001	1.558	0.038	0.870	0.015	4.91	0.180	0.976	0.007	1.753	0.032	0.979	0.007
30	1.25	0.012	0.996	0.002	1.667	0.035	0.878	0.012	4.86	0.184	0.971	0.012	1.848	0.050	0.973	0.013
40	1.25	0.018	0.997	0.001	1.699	0.036	0.888	0.013	4.81	0.256	0.981	0.005	1.880	0.035	0.982	0.006
50	1.25	0.018	0.996	0.001	1.787	0.048	0.898	0.010	4.84	0.245	0.976	0.010	1.945	0.052	0.977	0.010
60	1.24	0.020	0.997	0.001	1.910	0.064	0.908	0.008	4.93	0.306	0.974	0.012	2.041	0.060	0.970	0.012
70	1.25	0.018	0.997	0.001	1.998	0.038	0.925	0.015	4.89	0.279	0.976	0.015	2.105	0.053	0.974	0.017
80	1.25	0.013	0.995	0.001	2.086	0.042	0.924	0.007	4.80	0.199	0.967	0.016	2.165	0.081	0.959	0.025
90	1.25	0.018	0.995	0.002	2.223	0.061	0.924	0.010	4.55	0.222	0.934	0.031	2.217	0.137	0.921	0.043
ß liberal majority = 1																
10	1.24	0.014	0.997	0.001	0.981	0.021	0.572	0.012	4.56	0.202	0.904	0.012	1.553	0.027	0.905	0.010
20	1.24	0.015	0.995	0.001	1.029	0.025	0.577	0.021	4.54	0.286	0.885	0.017	1.575	0.037	0.882	0.019
30	1.24	0.016	0.989	0.003	1.130	0.032	0.606	0.018	4.08	0.300	0.828	0.024	1.518	0.059	0.814	0.027
40	1.23	0.009	0.989	0.004	1.200	0.035	0.627	0.025	3.90	0.225	0.769	0.035	1.417	0.077	0.740	0.038
50	1.23	0.014	0.984	0.003	1.275	0.034	0.635	0.023	3.42	0.247	0.686	0.042	1.266	0.121	0.630	0.057
60	1.23	0.017	0.982	0.005	1.356	0.030	0.651	0.013	2.96	0.265	0.587	0.042	1.032	0.080	0.496	0.042
70	1.23	0.013	0.986	0.002	1.429	0.042	0.667	0.019	2.71	0.193	0.538	0.041	0.863	0.076	0.403	0.033
80	1.23	0.013	0.986	0.002	1.500	0.025	0.656	0.018	2.32	0.163	0.465	0.038	0.628	0.115	0.274	0.051
90	1.24	0.011	0.990	0.003	1.575	0.063	0.668	0.022	2.04	0.204	0.408	0.033	0.434	0.143	0.184	0.062
ß liberal minority = 1																
10	1.22	0.012	0.984	0.004	1.400	0.037	0.816	0.023	4.77	0.212	0.932	0.010	1.593	0.032	0.928	0.012
20	1.21	0.017	0.969	0.005	1.387	0.031	0.773	0.010	4.64	0.271	0.910	0.018	1.603	0.037	0.893	0.020
30	1.20	0.018	0.959	0.004	1.376	0.039	0.737	0.014	4.67	0.234	0.921	0.018	1.669	0.066	0.894	0.022
40	1.19	0.011	0.948	0.005	1.390	0.024	0.717	0.020	4.55	0.238	0.921	0.020	1.698	0.067	0.876	0.022
50	1.17	0.019	0.936	0.007	1.437	0.031	0.708	0.021	4.54	0.251	0.917	0.019	1.766	0.054	0.869	0.023
60	1.16	0.013	0.926	0.006	1.455	0.027	0.699	0.020	4.44	0.175	0.893	0.016	1.693	0.061	0.813	0.017
70	1.14	0.010	0.909	0.009	1.532	0.052	0.693	0.008	4.18	0.250	0.854	0.032	1.661	0.155	0.752	0.072
80	1.13	0.012	0.905	0.010	1.576	0.030	0.691	0.017	3.81	0.280	0.767	0.052	1.406	0.170	0.618	0.083
90	1.12	0.011	0.892	0.010	1.616	0.043	0.684	0.016	2.96	0.287	0.593	0.067	0.883	0.148	0.374	0.064

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.178	0.012	0.944	0.010	2.11	0.032	0.887	0.012	0.203	0.053	0.040	0.011	2.33	0.065	0.982	0.015
20	1.131	0.015	0.906	0.009	2.01	0.048	0.887	0.010	0.400	0.083	0.079	0.016	2.24	0.054	0.988	0.006
30	1.084	0.012	0.866	0.011	1.90	0.053	0.899	0.006	0.704	0.069	0.141	0.013	2.08	0.067	0.985	0.006
40	1.036	0.010	0.824	0.011	1.89	0.048	0.902	0.009	0.892	0.061	0.183	0.015	2.07	0.053	0.987	0.003
50	1.005	0.010	0.802	0.016	1.84	0.048	0.913	0.009	0.995	0.065	0.202	0.024	1.99	0.060	0.988	0.006
60	0.962	0.014	0.771	0.012	1.76	0.050	0.923	0.007	1.140	0.086	0.226	0.025	1.89	0.058	0.989	0.003
70	0.930	0.010	0.743	0.014	1.75	0.041	0.938	0.010	1.281	0.076	0.256	0.014	1.85	0.034	0.991	0.003
80	0.897	0.009	0.716	0.013	1.68	0.032	0.938	0.004	1.407	0.036	0.284	0.015	1.77	0.033	0.989	0.002
90	0.867	0.013	0.689	0.014	1.61	0.038	0.940	0.006	1.523	0.050	0.313	0.018	1.70	0.038	0.990	0.004
ß liberal majority = 1																
10	1.141	0.012	0.914	0.007	1.26	0.022	0.526	0.014	0.764	0.284	0.151	0.056	2.25	0.067	0.939	0.016
20	1.107	0.014	0.890	0.011	1.23	0.029	0.542	0.007	1.260	0.221	0.246	0.045	2.11	0.075	0.928	0.015
30	1.053	0.015	0.839	0.016	1.22	0.020	0.566	0.013	1.394	0.121	0.283	0.025	1.95	0.053	0.904	0.021
40	1.016	0.016	0.815	0.016	1.19	0.028	0.569	0.010	1.805	0.089	0.356	0.016	1.89	0.052	0.904	0.017
50	0.983	0.013	0.785	0.013	1.15	0.039	0.576	0.019	1.927	0.126	0.387	0.032	1.76	0.049	0.886	0.018
60	0.956	0.010	0.766	0.015	1.14	0.015	0.595	0.013	2.103	0.144	0.416	0.018	1.70	0.054	0.882	0.010
70	0.943	0.011	0.756	0.012	1.14	0.022	0.606	0.016	2.310	0.080	0.458	0.016	1.71	0.028	0.909	0.011
80	0.943	0.011	0.754	0.011	1.12	0.022	0.630	0.012	2.329	0.125	0.466	0.027	1.64	0.031	0.921	0.009
90	0.937	0.011	0.749	0.012	1.13	0.023	0.650	0.018	2.416	0.080	0.486	0.016	1.66	0.023	0.956	0.011
ß liberal minority = 1																
10	1.190	0.013	0.957	0.008	1.96	0.062	0.819	0.018	1.083	0.349	0.212	0.069	1.23	0.124	0.511	0.045
20	1.157	0.018	0.929	0.014	1.79	0.035	0.790	0.012	1.076	0.173	0.211	0.032	1.32	0.097	0.583	0.039
30	1.132	0.013	0.908	0.008	1.68	0.040	0.776	0.014	1.039	0.110	0.205	0.019	1.38	0.085	0.639	0.042
40	1.102	0.012	0.879	0.008	1.59	0.043	0.768	0.010	1.098	0.126	0.223	0.028	1.38	0.050	0.670	0.022
50	1.082	0.012	0.863	0.014	1.54	0.035	0.780	0.008	1.155	0.179	0.233	0.035	1.35	0.070	0.687	0.031
60	1.060	0.015	0.847	0.013	1.49	0.041	0.773	0.007	1.256	0.076	0.253	0.016	1.31	0.055	0.682	0.024
70	1.029	0.006	0.819	0.009	1.43	0.016	0.783	0.016	1.255	0.101	0.257	0.020	1.27	0.039	0.697	0.022
80	1.002	0.008	0.801	0.007	1.39	0.034	0.781	0.009	1.364	0.051	0.274	0.013	1.27	0.044	0.713	0.023
90	0.981	0.010	0.784	0.010	1.36	0.024	0.786	0.013	1.400	0.060	0.280	0.020	1.26	0.019	0.726	0.012

Table 18: Referred to Fig: 12, 90% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.11	0.009	0.999	0.001	1.69	0.031	0.899	0.010	9.90	0.861	0.961	0.010	1.814	0.036	0.967	0.009
20	1.11	0.009	0.999	0.001	1.69	0.038	0.899	0.009	9.39	0.584	0.961	0.015	1.811	0.037	0.964	0.013
30	1.11	0.007	0.999	0.001	1.73	0.038	0.898	0.011	9.80	0.588	0.965	0.009	1.862	0.043	0.968	0.010
40	1.11	0.009	0.999	0.001	1.77	0.045	0.896	0.011	9.59	0.976	0.954	0.020	1.885	0.065	0.956	0.020
50	1.10	0.009	0.998	0.001	1.78	0.040	0.896	0.011	9.95	0.761	0.953	0.018	1.906	0.053	0.959	0.019
60	1.11	0.009	0.998	0.001	1.82	0.044	0.900	0.016	9.24	0.628	0.940	0.022	1.904	0.043	0.941	0.024
70	1.11	0.009	0.998	0.001	1.88	0.059	0.902	0.010	9.75	0.916	0.945	0.031	1.966	0.081	0.946	0.032
80	1.11	0.011	0.998	0.001	1.94	0.049	0.901	0.015	9.35	0.965	0.945	0.035	2.033	0.074	0.947	0.037
90	1.11	0.006	0.998	0.001	1.97	0.048	0.906	0.013	9.38	0.678	0.929	0.075	2.070	0.153	0.949	0.062
ß liberal majority = 1																
10	1.11	0.007	0.998	0.001	1.01	0.015	0.540	0.016	8.94	0.704	0.877	0.019	1.642	0.072	0.880	0.019
20	1.10	0.010	0.998	0.001	1.05	0.021	0.556	0.016	8.79	0.698	0.847	0.022	1.604	0.052	0.848	0.024
30	1.10	0.006	0.996	0.001	1.08	0.018	0.559	0.015	8.32	0.591	0.805	0.031	1.552	0.077	0.803	0.030
40	1.11	0.010	0.995	0.001	1.13	0.031	0.575	0.015	7.46	0.654	0.754	0.034	1.459	0.064	0.742	0.029
50	1.11	0.007	0.994	0.002	1.16	0.021	0.585	0.016	7.28	0.680	0.733	0.053	1.430	0.100	0.720	0.050
60	1.10	0.007	0.991	0.002	1.19	0.033	0.583	0.014	6.10	1.078	0.605	0.098	1.186	0.221	0.582	0.106
70	1.10	0.008	0.991	0.002	1.23	0.019	0.586	0.014	4.24	0.632	0.428	0.074	0.810	0.155	0.387	0.077
80	1.10	0.006	0.991	0.002	1.28	0.027	0.608	0.017	3.45	0.518	0.345	0.049	0.570	0.119	0.271	0.058
90	1.10	0.006	0.993	0.002	1.30	0.037	0.594	0.016	2.78	0.527	0.282	0.057	0.380	0.151	0.174	0.069
ß liberal minority = 1																
10	1.10	0.010	0.993	0.003	1.55	0.036	0.843	0.020	9.06	0.768	0.917	0.023	1.680	0.038	0.916	0.023
20	1.10	0.008	0.986	0.003	1.51	0.036	0.800	0.022	8.74	0.554	0.880	0.021	1.643	0.043	0.870	0.021
30	1.09	0.009	0.982	0.003	1.50	0.032	0.784	0.020	8.63	0.722	0.839	0.039	1.572	0.082	0.820	0.037
40	1.08	0.009	0.976	0.003	1.49	0.037	0.756	0.012	8.59	0.515	0.849	0.032	1.635	0.077	0.827	0.032
50	1.08	0.006	0.974	0.004	1.50	0.022	0.750	0.011	8.54	0.742	0.833	0.036	1.646	0.103	0.821	0.038
60	1.07	0.008	0.965	0.007	1.50	0.019	0.731	0.026	7.88	0.527	0.778	0.041	1.540	0.139	0.747	0.041
70	1.07	0.008	0.962	0.006	1.51	0.031	0.723	0.010	7.29	0.874	0.727	0.096	1.412	0.184	0.677	0.092
80	1.06	0.007	0.952	0.007	1.55	0.021	0.716	0.013	5.98	0.762	0.618	0.079	1.190	0.240	0.551	0.115
90	1.06	0.006	0.949	0.007	1.56	0.036	0.703	0.018	4.21	1.201	0.427	0.121	0.807	0.126	0.364	0.056

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.077	0.009	0.972	0.006	1.95	0.042	0.911	0.009	0.319	0.251	0.031	0.024	2.13	0.046	0.992	0.007
20	1.060	0.007	0.951	0.007	1.94	0.027	0.908	0.009	0.469	0.103	0.048	0.012	2.11	0.045	0.988	0.008
30	1.039	0.008	0.936	0.008	1.90	0.035	0.909	0.010	0.682	0.124	0.068	0.014	2.07	0.040	0.991	0.005
40	1.014	0.006	0.913	0.006	1.84	0.042	0.908	0.010	0.899	0.218	0.089	0.018	2.01	0.046	0.989	0.006
50	0.994	0.009	0.899	0.013	1.83	0.036	0.908	0.011	1.074	0.160	0.103	0.015	1.99	0.039	0.987	0.006
60	0.978	0.010	0.878	0.013	1.80	0.046	0.911	0.013	1.118	0.198	0.114	0.020	1.95	0.043	0.988	0.004
70	0.958	0.008	0.864	0.011	1.77	0.047	0.916	0.008	1.416	0.148	0.138	0.013	1.91	0.055	0.989	0.003
80	0.939	0.009	0.844	0.014	1.72	0.043	0.918	0.011	1.468	0.081	0.149	0.012	1.85	0.041	0.990	0.006
90	0.928	0.007	0.836	0.008	1.70	0.031	0.922	0.011	1.633	0.136	0.161	0.013	1.84	0.033	0.993	0.002
ß liberal majority = 1																
10	1.061	0.006	0.956	0.007	1.14	0.022	0.526	0.017	0.906	0.516	0.089	0.052	2.02	0.064	0.935	0.031
20	1.043	0.008	0.942	0.008	1.14	0.027	0.540	0.015	1.361	0.317	0.130	0.027	1.99	0.079	0.937	0.025
30	1.022	0.006	0.923	0.008	1.12	0.013	0.542	0.015	1.909	0.404	0.186	0.043	1.95	0.038	0.938	0.016
40	1.007	0.010	0.905	0.009	1.13	0.026	0.553	0.016	2.662	0.513	0.269	0.042	1.90	0.036	0.931	0.013
50	0.995	0.006	0.894	0.007	1.13	0.012	0.560	0.015	2.574	0.253	0.260	0.023	1.89	0.079	0.936	0.013
60	0.984	0.009	0.886	0.010	1.11	0.018	0.564	0.014	2.968	0.333	0.295	0.032	1.80	0.040	0.914	0.021
70	0.968	0.005	0.871	0.008	1.09	0.019	0.571	0.010	3.178	0.222	0.320	0.021	1.77	0.049	0.925	0.014
80	0.959	0.007	0.863	0.009	1.12	0.019	0.589	0.009	3.201	0.240	0.320	0.022	1.78	0.040	0.933	0.011
90	0.962	0.008	0.864	0.010	1.10	0.030	0.598	0.020	3.391	0.414	0.343	0.043	1.76	0.031	0.953	0.007
ß liberal minority = 1																
10	1.088	0.013	0.977	0.007	1.87	0.064	0.852	0.017	1.465	0.726	0.150	0.074	1.17	0.284	0.535	0.133
20	1.070	0.005	0.962	0.004	1.74	0.058	0.817	0.014	1.430	0.377	0.144	0.034	1.30	0.100	0.611	0.039
30	1.054	0.009	0.951	0.008	1.67	0.052	0.800	0.018	1.742	0.211	0.170	0.019	1.28	0.072	0.614	0.045
40	1.046	0.006	0.942	0.008	1.60	0.033	0.788	0.014	1.403	0.257	0.139	0.023	1.32	0.070	0.651	0.034
50	1.036	0.006	0.935	0.008	1.57	0.029	0.785	0.008	1.607	0.393	0.156	0.032	1.39	0.031	0.696	0.022
60	1.018	0.009	0.917	0.008	1.51	0.055	0.775	0.004	1.626	0.247	0.161	0.025	1.36	0.081	0.697	0.035
70	1.010	0.006	0.909	0.008	1.48	0.025	0.769	0.008	1.752	0.211	0.175	0.024	1.36	0.061	0.710	0.029
80	0.997	0.008	0.894	0.008	1.45	0.030	0.778	0.006	1.676	0.276	0.173	0.025	1.32	0.061	0.712	0.030
90	0.989	0.006	0.889	0.009	1.41	0.038	0.773	0.010	1.731	0.241	0.175	0.022	1.33	0.062	0.731	0.024

Table 19: Referred to Fig: 13, 50% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	2.02	0.039	0.991	0.002	1.23	0.021	0.860	0.016	1.95	0.036	0.991	0.002	1.42	0.021	0.992	0.002
20	1.97	0.027	0.991	0.004	1.40	0.042	0.903	0.017	2.00	0.026	0.993	0.003	1.53	0.025	0.991	0.003
30	2.00	0.043	0.990	0.004	1.55	0.032	0.936	0.013	1.97	0.041	0.994	0.002	1.64	0.024	0.989	0.004
40	1.97	0.059	0.992	0.003	1.74	0.025	0.958	0.016	2.00	0.056	0.994	0.002	1.79	0.027	0.985	0.004
50	2.00	0.052	0.992	0.004	1.95	0.048	0.973	0.011	1.97	0.054	0.992	0.002	1.95	0.048	0.970	0.005
60	2.00	0.048	0.994	0.002	2.20	0.043	0.980	0.004	1.97	0.045	0.991	0.004	2.12	0.058	0.948	0.019
70	1.97	0.036	0.992	0.004	2.45	0.081	0.980	0.007	1.98	0.048	0.981	0.008	2.29	0.099	0.912	0.022
80	1.97	0.046	0.991	0.005	2.79	0.049	0.980	0.008	1.95	0.045	0.968	0.013	2.40	0.095	0.842	0.038
90	2.02	0.035	0.989	0.003	3.31	0.100	0.976	0.007	1.84	0.069	0.936	0.021	2.32	0.222	0.686	0.066
ß liberal majority = 1																
10	1.99	0.055	0.994	0.002	1.31	0.019	0.912	0.010	2.00	0.054	0.996	0.001	1.41	0.016	0.984	0.003
20	1.99	0.027	0.993	0.003	1.47	0.039	0.954	0.015	1.98	0.025	0.993	0.001	1.45	0.031	0.946	0.010
30	1.99	0.058	0.991	0.003	1.59	0.024	0.957	0.008	1.98	0.055	0.992	0.003	1.52	0.012	0.919	0.009
40	1.97	0.046	0.991	0.004	1.74	0.038	0.958	0.016	1.99	0.041	0.992	0.002	1.59	0.031	0.874	0.013
50	1.98	0.031	0.986	0.004	1.89	0.028	0.947	0.013	1.98	0.028	0.993	0.002	1.68	0.037	0.844	0.020
60	1.98	0.033	0.983	0.005	2.10	0.073	0.952	0.011	1.97	0.033	0.990	0.003	1.74	0.035	0.788	0.025
70	1.97	0.038	0.983	0.004	2.37	0.111	0.950	0.009	1.99	0.039	0.992	0.004	1.84	0.102	0.735	0.020
80	1.99	0.050	0.983	0.005	2.77	0.078	0.960	0.011	1.95	0.043	0.987	0.008	1.76	0.117	0.611	0.045
90	1.98	0.040	0.992	0.003	3.18	0.172	0.961	0.013	1.97	0.040	0.979	0.010	1.33	0.119	0.403	0.035
ß liberal minority = 1																
10	1.98	0.023	0.994	0.003	1.21	0.016	0.842	0.008	1.99	0.024	0.988	0.002	1.40	0.016	0.976	0.003
20	1.97	0.026	0.993	0.003	1.28	0.025	0.836	0.015	1.99	0.019	0.988	0.002	1.49	0.027	0.974	0.010
30	1.97	0.031	0.992	0.002	1.40	0.032	0.839	0.012	1.99	0.033	0.986	0.003	1.61	0.021	0.967	0.008
40	1.99	0.043	0.992	0.002	1.53	0.020	0.838	0.013	1.97	0.037	0.985	0.002	1.74	0.039	0.956	0.010
50	2.00	0.040	0.992	0.003	1.71	0.042	0.839	0.013	1.96	0.037	0.985	0.005	1.93	0.038	0.949	0.009
60	1.95	0.028	0.989	0.003	1.84	0.032	0.843	0.011	1.99	0.029	0.981	0.007	2.04	0.082	0.933	0.025
70	1.98	0.031	0.990	0.002	2.13	0.045	0.846	0.020	1.96	0.035	0.978	0.005	2.25	0.105	0.891	0.027
80	1.96	0.045	0.987	0.002	2.40	0.075	0.838	0.017	1.95	0.044	0.966	0.006	2.35	0.122	0.820	0.030
90	1.99	0.043	0.987	0.002	2.90	0.096	0.863	0.008	1.86	0.057	0.935	0.017	1.94	0.329	0.579	0.104

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.682	0.035	0.827	0.012	2.94	0.122	0.880	0.012	0.364	0.047	0.185	0.022	3.24	0.152	0.970	0.011
20	1.426	0.035	0.719	0.019	2.60	0.064	0.920	0.013	0.562	0.037	0.279	0.017	2.76	0.087	0.976	0.005
30	1.272	0.037	0.630	0.018	2.40	0.050	0.950	0.009	0.746	0.042	0.377	0.023	2.47	0.058	0.977	0.007
40	1.125	0.035	0.567	0.022	2.16	0.059	0.967	0.010	0.904	0.032	0.448	0.017	2.19	0.053	0.982	0.005
50	1.005	0.013	0.499	0.015	1.95	0.043	0.979	0.007	1.018	0.021	0.513	0.016	1.95	0.047	0.977	0.003
60	0.914	0.032	0.455	0.025	1.78	0.026	0.984	0.003	1.111	0.030	0.559	0.022	1.76	0.030	0.974	0.008
70	0.846	0.026	0.426	0.017	1.64	0.038	0.983	0.003	1.172	0.024	0.582	0.015	1.62	0.038	0.973	0.005
80	0.763	0.028	0.384	0.015	1.51	0.019	0.982	0.005	1.237	0.017	0.613	0.014	1.50	0.021	0.973	0.006
90	0.730	0.045	0.358	0.025	1.39	0.025	0.981	0.004	1.285	0.020	0.654	0.012	1.39	0.021	0.977	0.005
ß liberal majority = 1																
10	1.804	0.045	0.903	0.008	3.06	0.089	0.928	0.008	0.904	0.093	0.450	0.036	2.91	0.102	0.882	0.025
20	1.652	0.026	0.823	0.012	2.75	0.088	0.958	0.010	1.056	0.044	0.530	0.018	2.37	0.102	0.826	0.025
30	1.568	0.041	0.780	0.009	2.42	0.048	0.960	0.008	1.203	0.042	0.604	0.014	2.13	0.064	0.845	0.014
40	1.517	0.027	0.762	0.012	2.14	0.068	0.963	0.011	1.334	0.043	0.664	0.017	1.87	0.055	0.844	0.011
50	1.489	0.038	0.741	0.013	1.93	0.043	0.960	0.010	1.416	0.031	0.711	0.019	1.74	0.036	0.869	0.010
60	1.483	0.035	0.735	0.013	1.77	0.049	0.966	0.008	1.489	0.031	0.750	0.016	1.61	0.054	0.878	0.008
70	1.507	0.048	0.754	0.021	1.62	0.051	0.967	0.009	1.602	0.039	0.800	0.015	1.51	0.037	0.903	0.008
80	1.619	0.054	0.799	0.012	1.49	0.019	0.975	0.008	1.698	0.022	0.859	0.015	1.41	0.020	0.923	0.006
90	1.767	0.056	0.887	0.023	1.39	0.030	0.969	0.012	1.865	0.044	0.928	0.013	1.37	0.027	0.953	0.007
ß liberal minority = 1																
10	1.794	0.023	0.903	0.010	2.82	0.076	0.852	0.012	1.235	0.054	0.614	0.028	2.88	0.163	0.870	0.042
20	1.686	0.029	0.849	0.017	2.46	0.071	0.852	0.012	1.345	0.065	0.668	0.028	2.67	0.116	0.926	0.038
30	1.565	0.022	0.788	0.011	2.14	0.046	0.852	0.010	1.397	0.041	0.693	0.016	2.38	0.071	0.948	0.011
40	1.497	0.052	0.746	0.020	1.90	0.044	0.857	0.009	1.448	0.039	0.726	0.018	2.11	0.028	0.953	0.012
50	1.424	0.032	0.708	0.013	1.71	0.034	0.870	0.012	1.472	0.021	0.740	0.009	1.90	0.043	0.964	0.005
60	1.332	0.039	0.676	0.018	1.60	0.022	0.866	0.011	1.528	0.022	0.753	0.011	1.78	0.028	0.964	0.011
70	1.290	0.031	0.647	0.013	1.46	0.029	0.878	0.011	1.550	0.020	0.773	0.012	1.60	0.015	0.963	0.009
80	1.268	0.036	0.640	0.017	1.35	0.021	0.876	0.013	1.591	0.028	0.788	0.007	1.48	0.017	0.962	0.006
90	1.212	0.033	0.601	0.013	1.27	0.020	0.892	0.007	1.599	0.028	0.805	0.005	1.37	0.024	0.962	0.008

Table 20: Referred to Fig: 13, 60% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.66	0.021	0.994	0.002	1.31	0.026	0.867	0.014	2.46	0.048	0.986	0.002	1.50	0.021	0.987	0.003
20	1.64	0.018	0.992	0.003	1.43	0.040	0.884	0.023	2.50	0.052	0.988	0.004	1.60	0.041	0.988	0.004
30	1.66	0.027	0.992	0.002	1.59	0.034	0.921	0.015	2.46	0.054	0.991	0.005	1.71	0.037	0.988	0.007
40	1.66	0.029	0.993	0.002	1.72	0.045	0.928	0.014	2.48	0.061	0.993	0.002	1.83	0.037	0.988	0.002
50	1.67	0.023	0.994	0.002	1.91	0.035	0.954	0.007	2.44	0.056	0.991	0.003	1.96	0.039	0.979	0.008
60	1.66	0.031	0.992	0.002	2.12	0.047	0.964	0.009	2.45	0.066	0.987	0.003	2.12	0.069	0.967	0.009
70	1.67	0.027	0.995	0.002	2.31	0.060	0.968	0.007	2.44	0.055	0.982	0.008	2.28	0.085	0.953	0.016
80	1.65	0.032	0.993	0.003	2.56	0.054	0.973	0.007	2.44	0.074	0.968	0.015	2.42	0.093	0.920	0.024
90	1.65	0.033	0.993	0.001	2.88	0.117	0.973	0.004	2.33	0.092	0.923	0.015	2.32	0.187	0.786	0.073
ß liberal majority = 1																
10	1.65	0.020	0.996	0.002	1.38	0.026	0.914	0.012	2.51	0.053	0.997	0.002	1.49	0.017	0.989	0.005
20	1.67	0.041	0.994	0.002	1.48	0.029	0.934	0.015	2.45	0.090	0.993	0.002	1.54	0.025	0.967	0.004
30	1.66	0.037	0.993	0.002	1.63	0.036	0.947	0.009	2.48	0.081	0.989	0.002	1.60	0.030	0.932	0.008
40	1.65	0.029	0.993	0.002	1.76	0.036	0.957	0.009	2.48	0.067	0.988	0.003	1.63	0.038	0.884	0.013
50	1.66	0.020	0.992	0.002	1.93	0.044	0.957	0.010	2.45	0.043	0.987	0.003	1.70	0.054	0.840	0.013
60	1.65	0.027	0.990	0.003	2.02	0.044	0.941	0.010	2.48	0.068	0.988	0.004	1.74	0.054	0.808	0.024
70	1.63	0.022	0.989	0.002	2.29	0.070	0.945	0.012	2.50	0.047	0.986	0.005	1.80	0.095	0.746	0.028
80	1.66	0.026	0.989	0.003	2.52	0.068	0.963	0.008	2.44	0.053	0.982	0.008	1.63	0.085	0.621	0.029
90	1.65	0.030	0.992	0.002	2.80	0.080	0.963	0.014	2.46	0.080	0.977	0.010	1.27	0.164	0.437	0.052
ß liberal minority = 1																
10	1.65	0.027	0.995	0.002	1.29	0.016	0.848	0.014	2.47	0.066	0.982	0.003	1.47	0.022	0.967	0.005
20	1.66	0.021	0.995	0.002	1.36	0.021	0.845	0.017	2.44	0.047	0.979	0.003	1.55	0.027	0.963	0.005
30	1.66	0.012	0.995	0.002	1.46	0.031	0.838	0.018	2.45	0.032	0.980	0.004	1.67	0.039	0.962	0.006
40	1.66	0.016	0.995	0.001	1.56	0.048	0.836	0.014	2.46	0.034	0.981	0.004	1.78	0.024	0.952	0.008
50	1.66	0.033	0.995	0.002	1.68	0.034	0.843	0.014	2.44	0.062	0.979	0.007	1.89	0.044	0.945	0.015
60	1.65	0.039	0.994	0.003	1.84	0.071	0.842	0.007	2.47	0.104	0.976	0.006	2.04	0.076	0.937	0.012
70	1.66	0.032	0.994	0.003	1.97	0.047	0.832	0.008	2.44	0.060	0.975	0.007	2.15	0.061	0.908	0.025
80	1.65	0.027	0.993	0.002	2.20	0.076	0.841	0.016	2.45	0.059	0.976	0.008	2.20	0.097	0.841	0.045
90	1.67	0.025	0.994	0.002	2.50	0.086	0.851	0.012	2.31	0.091	0.935	0.023	1.78	0.223	0.608	0.078

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.457	0.024	0.873	0.016	2.58	0.054	0.879	0.013	0.316	0.062	0.127	0.025	2.86	0.060	0.976	0.008
20	1.322	0.018	0.798	0.019	2.37	0.092	0.902	0.013	0.546	0.059	0.216	0.024	2.56	0.092	0.975	0.008
30	1.188	0.032	0.710	0.014	2.22	0.059	0.936	0.009	0.731	0.040	0.294	0.016	2.33	0.050	0.979	0.008
40	1.105	0.019	0.662	0.011	2.05	0.045	0.942	0.012	0.850	0.038	0.341	0.021	2.14	0.056	0.984	0.004
50	1.013	0.027	0.601	0.013	1.93	0.037	0.964	0.005	1.010	0.032	0.410	0.013	1.97	0.041	0.984	0.006
60	0.936	0.019	0.559	0.017	1.79	0.045	0.974	0.006	1.120	0.041	0.451	0.014	1.81	0.033	0.983	0.004
70	0.872	0.029	0.521	0.023	1.68	0.039	0.974	0.006	1.216	0.026	0.490	0.017	1.70	0.032	0.985	0.005
80	0.803	0.023	0.485	0.018	1.58	0.025	0.979	0.004	1.293	0.032	0.512	0.011	1.59	0.022	0.987	0.003
90	0.766	0.019	0.462	0.015	1.48	0.029	0.978	0.002	1.374	0.023	0.546	0.014	1.49	0.032	0.985	0.004
ß liberal majority = 1																
10	1.544	0.022	0.931	0.006	2.75	0.063	0.927	0.010	0.972	0.100	0.386	0.043	2.70	0.125	0.912	0.032
20	1.479	0.024	0.879	0.020	2.54	0.084	0.942	0.011	1.203	0.104	0.487	0.032	2.39	0.077	0.886	0.015
30	1.405	0.028	0.843	0.010	2.28	0.076	0.954	0.007	1.379	0.053	0.551	0.022	2.08	0.059	0.868	0.009
40	1.342	0.015	0.808	0.012	2.10	0.031	0.961	0.009	1.483	0.059	0.591	0.025	1.88	0.036	0.861	0.011
50	1.310	0.025	0.782	0.015	1.91	0.051	0.964	0.006	1.581	0.059	0.637	0.024	1.74	0.044	0.875	0.017
60	1.302	0.023	0.782	0.016	1.78	0.038	0.953	0.007	1.714	0.065	0.684	0.017	1.67	0.034	0.892	0.010
70	1.306	0.024	0.791	0.010	1.64	0.053	0.961	0.008	1.854	0.030	0.731	0.016	1.56	0.035	0.913	0.008
80	1.370	0.031	0.819	0.019	1.57	0.031	0.972	0.005	2.007	0.074	0.807	0.022	1.50	0.027	0.926	0.005
90	1.477	0.046	0.889	0.018	1.48	0.032	0.972	0.012	2.239	0.064	0.890	0.019	1.45	0.024	0.952	0.006
ß liberal minority = 1																
10	1.540	0.020	0.927	0.006	2.51	0.070	0.855	0.009	1.467	0.088	0.583	0.036	2.47	0.095	0.840	0.043
20	1.463	0.018	0.875	0.008	2.26	0.071	0.857	0.009	1.524	0.046	0.613	0.013	2.42	0.102	0.919	0.023
30	1.402	0.020	0.840	0.011	2.02	0.063	0.860	0.010	1.608	0.050	0.645	0.018	2.23	0.065	0.948	0.013
40	1.328	0.022	0.798	0.012	1.85	0.035	0.858	0.014	1.675	0.047	0.668	0.011	2.06	0.053	0.956	0.008
50	1.287	0.027	0.770	0.012	1.73	0.031	0.864	0.009	1.740	0.056	0.698	0.017	1.93	0.041	0.964	0.010
60	1.237	0.031	0.746	0.023	1.60	0.040	0.866	0.011	1.804	0.084	0.714	0.014	1.80	0.061	0.972	0.006
70	1.193	0.021	0.717	0.017	1.49	0.023	0.862	0.007	1.814	0.035	0.724	0.012	1.68	0.038	0.969	0.009
80	1.132	0.025	0.681	0.019	1.42	0.031	0.873	0.012	1.828	0.048	0.729	0.012	1.56	0.040	0.965	0.008
90	1.107	0.016	0.660	0.010	1.33	0.017	0.874	0.011	1.872	0.032	0.756	0.009	1.47	0.030	0.967	0.006

Table 21: Referred to Fig: 13, 70% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.42	0.017	0.994	0.002	1.41	0.019	0.865	0.012	3.26	0.084	0.979	0.004	1.60	0.027	0.983	0.004
20	1.42	0.018	0.995	0.002	1.49	0.030	0.875	0.009	3.27	0.112	0.979	0.005	1.67	0.033	0.980	0.007
30	1.42	0.019	0.995	0.001	1.60	0.035	0.891	0.012	3.28	0.126	0.985	0.007	1.77	0.054	0.986	0.008
40	1.43	0.020	0.996	0.002	1.73	0.049	0.907	0.011	3.25	0.114	0.988	0.006	1.87	0.045	0.984	0.007
50	1.41	0.032	0.995	0.002	1.84	0.031	0.921	0.007	3.37	0.214	0.983	0.008	1.96	0.034	0.979	0.010
60	1.42	0.021	0.995	0.002	2.01	0.037	0.940	0.013	3.28	0.115	0.985	0.007	2.09	0.041	0.979	0.010
70	1.41	0.030	0.995	0.001	2.16	0.077	0.945	0.009	3.32	0.157	0.979	0.005	2.21	0.102	0.968	0.009
80	1.42	0.021	0.995	0.001	2.31	0.048	0.955	0.006	3.24	0.100	0.975	0.007	2.29	0.082	0.946	0.019
90	1.42	0.022	0.995	0.002	2.52	0.067	0.960	0.008	3.11	0.120	0.933	0.023	2.32	0.120	0.883	0.030
ß liberal majority = 1																
10	1.43	0.012	0.996	0.002	1.48	0.048	0.911	0.020	3.29	0.061	0.995	0.002	1.60	0.026	0.990	0.004
20	1.42	0.018	0.995	0.002	1.57	0.048	0.932	0.012	3.35	0.098	0.992	0.003	1.64	0.030	0.969	0.006
30	1.43	0.024	0.994	0.002	1.67	0.020	0.945	0.012	3.27	0.152	0.988	0.004	1.65	0.031	0.935	0.011
40	1.41	0.022	0.994	0.002	1.78	0.035	0.950	0.007	3.33	0.123	0.984	0.004	1.70	0.030	0.907	0.015
50	1.42	0.019	0.995	0.002	1.91	0.041	0.950	0.008	3.29	0.109	0.984	0.004	1.75	0.042	0.870	0.019
60	1.42	0.024	0.994	0.002	2.04	0.052	0.952	0.010	3.26	0.095	0.982	0.007	1.74	0.049	0.814	0.023
70	1.41	0.017	0.992	0.003	2.12	0.060	0.943	0.015	3.30	0.104	0.974	0.010	1.73	0.063	0.768	0.024
80	1.42	0.022	0.992	0.002	2.34	0.072	0.953	0.009	3.24	0.124	0.971	0.014	1.62	0.101	0.662	0.038
90	1.41	0.020	0.993	0.002	2.56	0.090	0.962	0.011	3.27	0.130	0.965	0.018	1.19	0.265	0.450	0.106
ß liberal minority = 1																
10	1.42	0.016	0.998	0.001	1.41	0.046	0.873	0.020	3.30	0.082	0.979	0.005	1.55	0.019	0.957	0.012
20	1.44	0.027	0.997	0.002	1.45	0.028	0.851	0.007	3.18	0.114	0.977	0.011	1.62	0.036	0.954	0.016
30	1.42	0.018	0.997	0.001	1.52	0.040	0.862	0.015	3.23	0.087	0.970	0.009	1.67	0.028	0.944	0.012
40	1.42	0.029	0.996	0.001	1.58	0.029	0.844	0.009	3.23	0.169	0.969	0.012	1.75	0.043	0.936	0.017
50	1.42	0.022	0.997	0.002	1.71	0.037	0.858	0.015	3.27	0.145	0.968	0.007	1.86	0.068	0.931	0.017
60	1.43	0.016	0.997	0.001	1.80	0.033	0.846	0.016	3.20	0.100	0.961	0.013	1.93	0.058	0.907	0.027
70	1.41	0.019	0.997	0.002	1.92	0.047	0.843	0.014	3.26	0.088	0.950	0.013	2.00	0.096	0.875	0.043
80	1.44	0.016	0.998	0.001	2.04	0.042	0.832	0.017	3.12	0.111	0.954	0.016	2.07	0.157	0.841	0.060
90	1.43	0.017	0.997	0.001	2.18	0.048	0.836	0.015	3.08	0.121	0.934	0.020	1.76	0.099	0.675	0.046

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.300	0.020	0.910	0.011	2.28	0.058	0.879	0.007	0.287	0.050	0.086	0.016	2.52	0.052	0.972	0.011
20	1.211	0.011	0.848	0.012	2.16	0.052	0.889	0.009	0.534	0.069	0.161	0.024	2.38	0.077	0.978	0.011
30	1.134	0.022	0.793	0.016	2.05	0.070	0.909	0.007	0.675	0.058	0.203	0.020	2.22	0.069	0.982	0.006
40	1.067	0.021	0.742	0.018	1.95	0.041	0.924	0.011	0.862	0.050	0.263	0.021	2.08	0.051	0.985	0.006
50	1.010	0.015	0.714	0.012	1.87	0.030	0.935	0.006	1.006	0.050	0.294	0.018	1.98	0.035	0.987	0.005
60	0.944	0.014	0.660	0.009	1.79	0.031	0.952	0.011	1.151	0.039	0.345	0.013	1.86	0.022	0.990	0.003
70	0.903	0.015	0.636	0.015	1.70	0.056	0.955	0.006	1.284	0.047	0.380	0.025	1.76	0.056	0.990	0.003
80	0.852	0.014	0.596	0.012	1.65	0.025	0.964	0.005	1.375	0.038	0.414	0.020	1.69	0.022	0.989	0.003
90	0.805	0.012	0.563	0.015	1.56	0.029	0.968	0.004	1.458	0.034	0.437	0.015	1.60	0.028	0.991	0.002
ß liberal majority = 1																
10	1.361	0.019	0.950	0.008	2.42	0.060	0.926	0.016	1.145	0.163	0.346	0.053	2.41	0.078	0.921	0.023
20	1.304	0.019	0.917	0.009	2.31	0.062	0.942	0.011	1.475	0.168	0.438	0.052	2.22	0.084	0.902	0.013
30	1.262	0.019	0.880	0.013	2.19	0.042	0.951	0.009	1.676	0.133	0.507	0.030	2.04	0.029	0.884	0.015
40	1.222	0.018	0.861	0.012	2.05	0.041	0.956	0.005	1.743	0.098	0.515	0.024	1.90	0.066	0.884	0.017
50	1.203	0.012	0.843	0.011	1.91	0.052	0.957	0.008	1.934	0.066	0.579	0.012	1.79	0.043	0.900	0.012
60	1.184	0.016	0.827	0.009	1.80	0.027	0.960	0.008	2.087	0.102	0.628	0.030	1.71	0.027	0.909	0.007
70	1.180	0.015	0.832	0.013	1.72	0.029	0.953	0.013	2.263	0.093	0.668	0.020	1.66	0.022	0.919	0.008
80	1.202	0.024	0.841	0.007	1.63	0.025	0.963	0.008	2.420	0.044	0.726	0.024	1.58	0.028	0.934	0.008
90	1.285	0.034	0.905	0.014	1.56	0.028	0.972	0.010	2.871	0.077	0.848	0.029	1.53	0.028	0.952	0.007
ß liberal minority = 1																
10	1.345	0.019	0.946	0.008	2.30	0.066	0.877	0.017	1.888	0.129	0.561	0.047	2.13	0.125	0.814	0.042
20	1.307	0.021	0.905	0.013	2.10	0.072	0.864	0.006	1.872	0.132	0.573	0.021	2.20	0.100	0.907	0.032
30	1.249	0.017	0.874	0.008	2.00	0.052	0.866	0.015	1.989	0.092	0.596	0.018	2.15	0.074	0.934	0.016
40	1.218	0.024	0.852	0.015	1.85	0.035	0.858	0.009	2.083	0.119	0.624	0.026	2.03	0.052	0.942	0.016
50	1.188	0.024	0.835	0.011	1.75	0.051	0.872	0.013	2.225	0.061	0.661	0.022	1.93	0.042	0.960	0.014
60	1.145	0.012	0.801	0.014	1.64	0.046	0.865	0.011	2.230	0.101	0.670	0.021	1.82	0.050	0.964	0.010
70	1.135	0.020	0.804	0.017	1.54	0.037	0.865	0.013	2.394	0.118	0.697	0.021	1.72	0.044	0.967	0.013
80	1.118	0.027	0.775	0.020	1.46	0.032	0.863	0.010	2.325	0.082	0.712	0.020	1.64	0.034	0.972	0.011
90	1.062	0.023	0.740	0.014	1.40	0.030	0.862	0.009	2.328	0.038	0.706	0.016	1.58	0.026	0.971	0.005

Table 22: Referred to Fig: 13, 80% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.25	0.019	0.998	0.001	1.51	0.041	0.877	0.014	4.93	0.278	0.975	0.008	1.69	0.022	0.978	0.009
20	1.25	0.011	0.998	0.001	1.56	0.038	0.870	0.015	4.91	0.180	0.976	0.007	1.75	0.032	0.979	0.007
30	1.25	0.012	0.996	0.002	1.67	0.035	0.878	0.012	4.86	0.184	0.971	0.012	1.85	0.050	0.973	0.013
40	1.25	0.018	0.997	0.001	1.70	0.036	0.888	0.013	4.81	0.256	0.981	0.005	1.88	0.035	0.982	0.006
50	1.25	0.018	0.996	0.001	1.79	0.048	0.898	0.010	4.84	0.245	0.976	0.010	1.95	0.052	0.977	0.010
60	1.24	0.020	0.997	0.001	1.91	0.064	0.908	0.008	4.93	0.306	0.974	0.012	2.04	0.060	0.970	0.012
70	1.25	0.018	0.997	0.001	2.00	0.038	0.925	0.015	4.89	0.279	0.976	0.015	2.10	0.053	0.974	0.017
80	1.25	0.013	0.995	0.001	2.09	0.042	0.924	0.007	4.80	0.199	0.967	0.016	2.16	0.081	0.959	0.025
90	1.25	0.018	0.995	0.002	2.22	0.061	0.924	0.010	4.55	0.222	0.934	0.031	2.22	0.137	0.921	0.043
ß liberal majority = 1																
10	1.24	0.016	0.997	0.001	1.59	0.043	0.911	0.011	5.03	0.251	0.993	0.003	1.73	0.052	0.993	0.004
20	1.25	0.011	0.997	0.002	1.67	0.050	0.928	0.011	4.97	0.189	0.991	0.003	1.76	0.037	0.979	0.007
30	1.25	0.013	0.997	0.001	1.74	0.053	0.938	0.012	4.96	0.228	0.990	0.006	1.78	0.057	0.959	0.009
40	1.24	0.016	0.996	0.001	1.81	0.025	0.943	0.010	4.96	0.282	0.982	0.005	1.78	0.051	0.931	0.019
50	1.25	0.014	0.996	0.002	1.91	0.040	0.942	0.008	4.84	0.212	0.976	0.009	1.82	0.065	0.897	0.023
60	1.25	0.009	0.996	0.001	2.01	0.047	0.946	0.007	4.81	0.141	0.964	0.010	1.76	0.064	0.831	0.027
70	1.24	0.016	0.996	0.001	2.08	0.052	0.951	0.010	4.86	0.215	0.956	0.018	1.69	0.063	0.773	0.024
80	1.24	0.022	0.996	0.001	2.12	0.045	0.952	0.010	4.81	0.319	0.950	0.021	1.51	0.107	0.676	0.049
90	1.25	0.017	0.995	0.002	2.25	0.051	0.952	0.010	4.61	0.217	0.927	0.037	1.20	0.210	0.507	0.096
ß liberal minority = 1																
10	1.24	0.015	0.998	0.001	1.53	0.032	0.887	0.013	4.91	0.224	0.967	0.006	1.62	0.039	0.942	0.012
20	1.25	0.014	0.999	0.001	1.56	0.036	0.873	0.014	4.80	0.212	0.968	0.009	1.68	0.033	0.936	0.016
30	1.25	0.013	0.999	0.001	1.61	0.025	0.874	0.010	4.83	0.220	0.966	0.009	1.70	0.035	0.926	0.020
40	1.24	0.014	0.998	0.001	1.71	0.030	0.881	0.011	4.90	0.213	0.958	0.009	1.78	0.034	0.916	0.016
50	1.25	0.018	0.998	0.001	1.73	0.062	0.867	0.021	4.78	0.282	0.957	0.015	1.83	0.066	0.917	0.020
60	1.26	0.013	0.999	0.001	1.81	0.047	0.874	0.014	4.64	0.172	0.947	0.021	1.83	0.123	0.883	0.050
70	1.25	0.016	0.999	0.001	1.92	0.045	0.867	0.017	4.69	0.218	0.934	0.021	1.90	0.100	0.857	0.038
80	1.25	0.016	0.999	0.000	1.95	0.078	0.858	0.011	4.65	0.280	0.934	0.016	1.82	0.140	0.800	0.063
90	1.25	0.017	0.999	0.001	2.03	0.046	0.855	0.011	4.47	0.333	0.894	0.035	1.52	0.249	0.643	0.100

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.178	0.012	0.944	0.010	2.11	0.032	0.887	0.012	0.203	0.053	0.040	0.011	2.33	0.065	0.982	0.015
20	1.131	0.015	0.906	0.009	2.01	0.048	0.887	0.010	0.400	0.083	0.079	0.016	2.24	0.054	0.988	0.006
30	1.084	0.012	0.866	0.011	1.90	0.053	0.899	0.006	0.704	0.069	0.141	0.013	2.08	0.067	0.985	0.006
40	1.036	0.010	0.824	0.011	1.89	0.048	0.902	0.009	0.892	0.061	0.183	0.015	2.07	0.053	0.987	0.003
50	1.005	0.010	0.802	0.016	1.84	0.048	0.913	0.009	0.995	0.065	0.202	0.024	1.99	0.060	0.988	0.006
60	0.962	0.014	0.771	0.012	1.76	0.050	0.923	0.007	1.140	0.086	0.226	0.025	1.89	0.058	0.989	0.003
70	0.930	0.010	0.743	0.014	1.75	0.041	0.938	0.010	1.281	0.076	0.256	0.014	1.85	0.034	0.991	0.003
80	0.897	0.009	0.716	0.013	1.68	0.032	0.938	0.004	1.407	0.036	0.284	0.015	1.77	0.033	0.989	0.002
90	0.867	0.013	0.689	0.014	1.61	0.038	0.940	0.006	1.523	0.050	0.313	0.018	1.70	0.038	0.990	0.004
ß liberal majority = 1																
10	1.207	0.015	0.968	0.004	2.18	0.084	0.927	0.008	1.361	0.302	0.269	0.060	2.21	0.095	0.943	0.027
20	1.182	0.011	0.946	0.003	2.11	0.050	0.940	0.009	1.848	0.315	0.368	0.055	2.11	0.067	0.939	0.013
30	1.158	0.014	0.927	0.009	2.05	0.071	0.946	0.012	2.246	0.242	0.448	0.045	2.00	0.077	0.924	0.016
40	1.132	0.013	0.907	0.010	1.99	0.044	0.951	0.007	2.322	0.222	0.461	0.044	1.93	0.044	0.921	0.017
50	1.119	0.010	0.893	0.006	1.88	0.041	0.952	0.007	2.516	0.134	0.508	0.024	1.83	0.034	0.926	0.014
60	1.103	0.012	0.882	0.010	1.81	0.036	0.954	0.007	2.781	0.216	0.557	0.038	1.75	0.034	0.923	0.011
70	1.092	0.014	0.877	0.004	1.76	0.043	0.957	0.007	3.004	0.126	0.592	0.027	1.73	0.043	0.936	0.010
80	1.099	0.013	0.881	0.009	1.74	0.040	0.958	0.008	3.354	0.235	0.662	0.021	1.72	0.040	0.945	0.011
90	1.138	0.019	0.908	0.010	1.66	0.024	0.959	0.010	3.796	0.203	0.763	0.032	1.67	0.030	0.961	0.007
ß liberal minority = 1																
10	1.198	0.011	0.961	0.004	2.12	0.072	0.891	0.011	2.577	0.269	0.509	0.059	1.86	0.168	0.781	0.062
20	1.178	0.014	0.940	0.005	2.00	0.042	0.882	0.012	2.641	0.159	0.533	0.025	1.97	0.086	0.869	0.039
30	1.153	0.013	0.922	0.009	1.94	0.050	0.882	0.009	2.877	0.230	0.575	0.039	1.99	0.092	0.904	0.031
40	1.121	0.013	0.901	0.010	1.84	0.048	0.893	0.010	2.986	0.126	0.585	0.030	1.94	0.066	0.938	0.021
50	1.115	0.014	0.891	0.007	1.77	0.057	0.880	0.016	3.053	0.194	0.612	0.031	1.92	0.060	0.957	0.014
60	1.097	0.018	0.872	0.013	1.71	0.036	0.884	0.010	3.145	0.232	0.642	0.035	1.85	0.056	0.956	0.024
70	1.094	0.013	0.876	0.014	1.62	0.039	0.888	0.014	3.414	0.232	0.680	0.025	1.76	0.034	0.967	0.010
80	1.070	0.018	0.854	0.013	1.57	0.032	0.879	0.012	3.325	0.122	0.670	0.029	1.73	0.059	0.965	0.014
90	1.052	0.014	0.841	0.014	1.52	0.034	0.877	0.009	3.390	0.171	0.680	0.020	1.68	0.028	0.971	0.008

Table 23: Referred to Fig: 13, 90% Majority

	Conservative Majority								Conservative Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.11	0.009	0.999	0.001	1.69	0.031	0.899	0.010	9.90	0.861	0.961	0.010	1.81	0.036	0.967	0.009
20	1.11	0.009	0.999	0.001	1.69	0.038	0.899	0.009	9.39	0.584	0.961	0.015	1.81	0.037	0.964	0.013
30	1.11	0.007	0.999	0.001	1.73	0.038	0.898	0.011	9.80	0.588	0.965	0.009	1.86	0.043	0.968	0.010
40	1.11	0.009	0.999	0.001	1.77	0.045	0.896	0.011	9.59	0.976	0.954	0.020	1.88	0.065	0.956	0.020
50	1.10	0.009	0.998	0.001	1.78	0.040	0.896	0.011	9.95	0.761	0.953	0.018	1.91	0.053	0.959	0.019
60	1.11	0.009	0.998	0.001	1.82	0.044	0.900	0.016	9.24	0.628	0.940	0.022	1.90	0.043	0.941	0.024
70	1.11	0.009	0.998	0.001	1.88	0.059	0.902	0.010	9.75	0.916	0.945	0.031	1.97	0.081	0.946	0.032
80	1.11	0.011	0.998	0.001	1.94	0.049	0.901	0.015	9.35	0.965	0.945	0.035	2.03	0.074	0.947	0.037
90	1.11	0.006	0.998	0.001	1.97	0.048	0.906	0.013	9.38	0.678	0.929	0.075	2.07	0.153	0.949	0.062
ß liberal majority = 1																
10	1.11	0.009	0.999	0.001	1.70	0.034	0.923	0.007	10.08	0.785	0.993	0.005	1.83	0.034	0.996	0.004
20	1.11	0.007	0.999	0.001	1.74	0.049	0.922	0.015	10.14	0.588	0.990	0.007	1.86	0.039	0.984	0.012
30	1.11	0.008	0.998	0.001	1.78	0.040	0.927	0.009	10.12	0.605	0.983	0.007	1.87	0.049	0.974	0.009
40	1.11	0.007	0.998	0.001	1.83	0.035	0.935	0.008	10.06	0.622	0.980	0.009	1.87	0.055	0.957	0.020
50	1.11	0.011	0.997	0.001	1.88	0.031	0.941	0.006	9.76	0.940	0.972	0.009	1.86	0.054	0.931	0.031
60	1.11	0.009	0.998	0.001	1.94	0.019	0.947	0.013	9.59	0.668	0.961	0.016	1.80	0.091	0.877	0.042
70	1.11	0.011	0.998	0.001	1.96	0.046	0.945	0.005	9.46	0.875	0.953	0.017	1.72	0.077	0.828	0.045
80	1.11	0.009	0.998	0.001	2.00	0.024	0.947	0.009	9.08	0.717	0.926	0.033	1.57	0.092	0.746	0.042
90	1.10	0.007	0.997	0.002	2.06	0.038	0.945	0.009	8.95	1.080	0.859	0.079	1.03	0.382	0.473	0.180
ß liberal minority = 1																
10	1.11	0.006	1.000	0.000	1.67	0.031	0.899	0.015	9.46	0.486	0.959	0.013	1.73	0.042	0.932	0.011
20	1.11	0.009	0.999	0.001	1.71	0.030	0.898	0.008	9.89	0.664	0.951	0.018	1.75	0.026	0.919	0.018
30	1.11	0.008	0.999	0.001	1.73	0.039	0.897	0.009	9.52	0.574	0.947	0.017	1.72	0.070	0.889	0.033
40	1.11	0.009	0.999	0.001	1.76	0.030	0.899	0.010	9.19	0.763	0.923	0.028	1.67	0.098	0.853	0.053
50	1.11	0.007	1.000	0.001	1.81	0.028	0.900	0.013	9.52	0.701	0.939	0.016	1.70	0.067	0.847	0.039
60	1.11	0.008	0.999	0.001	1.80	0.050	0.892	0.013	9.56	0.668	0.938	0.015	1.69	0.096	0.836	0.050
70	1.11	0.007	1.000	0.000	1.88	0.059	0.896	0.017	9.43	0.681	0.924	0.033	1.67	0.161	0.795	0.074
80	1.11	0.008	1.000	0.000	1.90	0.043	0.890	0.014	9.52	0.596	0.919	0.055	1.36	0.264	0.637	0.123
90	1.11	0.012	0.999	0.001	1.91	0.035	0.886	0.016	9.15	1.164	0.881	0.059	1.46	0.255	0.675	0.112

	Liberal Majority								Liberal Minority							
	Ethnic				Value				Ethnic				Value			
	Clustering		Exposure		Clustering		Exposure		Clustering		Exposure		Clustering		Exposure	
% liberal min	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline																
10	1.077	0.009	0.972	0.006	1.95	0.042	0.911	0.009	0.319	0.251	0.031	0.024	2.13	0.046	0.992	0.007
20	1.060	0.007	0.951	0.007	1.94	0.027	0.908	0.009	0.469	0.103	0.048	0.012	2.11	0.045	0.988	0.008
30	1.039	0.008	0.936	0.008	1.90	0.035	0.909	0.010	0.682	0.124	0.068	0.014	2.07	0.040	0.991	0.005
40	1.014	0.006	0.913	0.006	1.84	0.042	0.908	0.010	0.899	0.218	0.089	0.018	2.01	0.046	0.989	0.006
50	0.994	0.009	0.899	0.013	1.83	0.036	0.908	0.011	1.074	0.160	0.103	0.015	1.99	0.039	0.987	0.006
60	0.978	0.010	0.878	0.013	1.80	0.046	0.911	0.013	1.118	0.198	0.114	0.020	1.95	0.043	0.988	0.004
70	0.958	0.008	0.864	0.011	1.77	0.047	0.916	0.008	1.416	0.148	0.138	0.013	1.91	0.055	0.989	0.003
80	0.939	0.009	0.844	0.014	1.72	0.043	0.918	0.011	1.468	0.081	0.149	0.012	1.85	0.041	0.990	0.006
90	0.928	0.007	0.836	0.008	1.70	0.031	0.922	0.011	1.633	0.136	0.161	0.013	1.84	0.033	0.993	0.002
ß liberal majority = 1																
10	1.091	0.009	0.983	0.002	2.04	0.042	0.933	0.007	0.921	0.659	0.090	0.063	2.13	0.072	0.974	0.025
20	1.080	0.007	0.974	0.004	1.99	0.040	0.933	0.014	2.719	0.866	0.266	0.083	2.05	0.065	0.962	0.024
30	1.065	0.007	0.962	0.004	1.95	0.038	0.937	0.009	3.183	1.006	0.308	0.091	2.00	0.045	0.960	0.016
40	1.056	0.006	0.953	0.004	1.94	0.048	0.945	0.006	3.606	0.470	0.353	0.053	1.95	0.050	0.950	0.015
50	1.052	0.009	0.946	0.004	1.90	0.028	0.950	0.006	4.223	0.420	0.422	0.038	1.88	0.062	0.940	0.022
60	1.037	0.007	0.933	0.007	1.87	0.042	0.955	0.009	4.252	0.447	0.426	0.035	1.85	0.048	0.948	0.016
70	1.037	0.007	0.932	0.007	1.84	0.037	0.953	0.005	4.899	0.256	0.496	0.036	1.83	0.048	0.948	0.013
80	1.031	0.009	0.926	0.010	1.81	0.022	0.954	0.008	5.320	0.496	0.543	0.038	1.82	0.026	0.958	0.009
90	1.039	0.012	0.939	0.007	1.76	0.025	0.954	0.008	6.486	0.570	0.625	0.063	1.78	0.034	0.965	0.009
ß liberal minority = 1																
10	1.094	0.008	0.983	0.003	1.97	0.072	0.908	0.010	5.033	0.988	0.513	0.107	1.59	0.179	0.734	0.087
20	1.073	0.009	0.969	0.007	1.91	0.038	0.907	0.006	4.965	0.937	0.476	0.075	1.83	0.141	0.869	0.057
30	1.068	0.010	0.961	0.006	1.88	0.036	0.906	0.009	5.353	0.700	0.532	0.051	1.77	0.159	0.852	0.077
40	1.055	0.010	0.948	0.006	1.85	0.034	0.905	0.011	5.352	0.556	0.538	0.044	1.83	0.074	0.892	0.036
50	1.049	0.007	0.945	0.009	1.81	0.039	0.910	0.009	5.775	0.646	0.569	0.049	1.82	0.090	0.913	0.036
60	1.041	0.006	0.939	0.005	1.79	0.036	0.904	0.010	5.807	0.432	0.571	0.045	1.84	0.062	0.930	0.022
70	1.035	0.007	0.933	0.008	1.74	0.048	0.910	0.016	6.101	0.452	0.598	0.034	1.80	0.067	0.945	0.029
80	1.027	0.009	0.928	0.008	1.71	0.033	0.907	0.011	6.283	0.526	0.606	0.039	1.75	0.045	0.930	0.022
90	1.017	0.006	0.918	0.010	1.69	0.050	0.903	0.011	6.181	0.680	0.595	0.029	1.81	0.036	0.969	0.015

References

Ahmed, A. M. and Hammarstedt, M. (2008). Discrimination in the rental housing market: A field experiment on the internet. *Journal of Urban Economics*, 64(2):362–372.

Bail, C. A. (2008). The configuration of symbolic boundaries against immigrants in Europe. *American Sociological Review*, 73(1):37–59.

Bailey, N. (2012). How spatial segregation changes over time: sorting out the sorting processes. *Environment and Planning A*, 44(3):705–722.

Benenson, I., Hatna, E., and Or, E. (2009). From schelling to spatially explicit modeling of urban ethnic and economic residential dynamics. *Sociological Methods & Research*, 37(4):463–497.

Block, P. and Grund, T. (2014). Multidimensional homophily in friendship networks. *Network science (Cambridge University Press)*, 2(2):189.

Blokland, T. and Van Eijk, G. (2010). Do people who like diversity practice diversity in neighbourhood life? neighbourhood use and the social networks of 'diversity-seekers' in a mixed neighbourhood in the netherlands. *Journal of Ethnic and Migration Studies*, 36(2):313–332.

Bruch, E. and Atwell, J. (2015). Agent-based models in empirical social research. *Sociological methods & research*, 44(2):186–221.

Bruch, E. E. (2014). How population structure shapes neighborhood segregation. *American Journal of Sociology*, 119(5):1221–1278.

Bruch, E. E. and Mare, R. D. (2006). Neighborhood choice and neighborhood change. *American Journal of sociology*, 112(3):667–709.

Bruch, E. E. and Mare, R. D. (2009). Preferences and pathways to segregation: Reply to van de rijt, siegel, and macy. *American Journal of Sociology*, 114(4):1181–1198.

Bruch, E. E. and Mare, R. D. (2012). Methodological issues in the analysis of residential preferences, residential mobility, and neighborhood change. *Sociological methodology*, 42(1):103–154.

Charles, C. Z. (2003). The dynamics of racial residential segregation. *Annual review of sociology*, 29(1):167–207.

Clark, W. A. (2002). Residential segregation trends. *Beyond the color line: New perspectives on race and ethnicity in America*, pages 83–94.

Clark, W. A. (2009). Changing residential preferences across income, education, and age: Findings from the multi-city study of urban inequality. *Urban Affairs Review*, 44(3):334–355.

Clark, W. A. (2015). *Residential Segregation: Recent Trends*. Oxford: Elsevier.

Clark, W. A., Andersson, E. K., and Malmberg, B. (2018). What can we learn about changing ethnic diversity from the distributions of mixed-race individuals? *Urban Geography*, 39(2):263–281.

Clark, W. A. and Brazil, N. (2019). Neighborhood selections by young adults: Evidence from a panel of us adolescents. *Journal of Urban Affairs*, 41(7):981–998.

Clark, W. A. and Fossett, M. (2008). Understanding the social context of the schelling segregation model. *Proceedings of the National Academy of Sciences*, 105(11):4109–4114.

Crowder, K., Pais, J., and South, S. J. (2012). Neighborhood diversity, metropolitan constraints, and household migration. *American sociological review*, 77(3):325–353.

Crul, M., Keskiner, E., and Lelie, F. (2017). The upcoming new elite among children of immigrants: A cross-country and cross-sector comparison.

Flache, A. and de Matos Fernandes, C. (2020, Forthcoming). *Agent-based computational models in Analytical Sociology*. Edward Elgar Publishing, UK: Cheltenham.

Fossett, M. (2006). Ethnic preferences, social distance dynamics, and residential segregation: Theoretical explorations using simulation analysis. *Journal of Mathematical Sociology*, 30(3-4):185–273.

Frankhauser, P. and Ansel, D. (2016). *Deciding Where to Live: An Interdisciplinary Approach to Residential Choice in its Social Context*. Springer.

Glaeser, E. and Vigdor, J. (2012). The end of the segregated century. *Manhattan Institute for Policy Research, January*, pages 23–26.

Hatna, E. and Benenson, I. (2015). Combining segregation and integration: Schelling model dynamics for heterogeneous population. *Journal of Artificial Societies and Social Simulation*, 18(4):1–15.

Hegselmann, R. (2017). Thomas c. schelling and james m. sakoda: The intellectual, technical, and social history of a model. *Journal of Artificial Societies and Social Simulation*, 20(3).

Hess, S., Daly, A., and Batley, R. (2018). Revisiting consistency with random utility maximisation: theory and implications for practical work. *Theory and Decision*, 84(2):181–204.

Hooijsma, M., Huitsing, G., Kisfalusi, D., Dijkstra, J. K., Flache, A., and Veenstra, R. (2020). Multi-dimensional similarity in multiplex networks: friendships between same-and cross-gender bullies and same-and cross-gender victims. *Network Science*, 8(1):79–96.

Lee, B. A., Iceland, J., and Sharp, G. (2012). Racial and ethnic diversity goes local: Charting change in american communities over three decades. *New York, NY: Russell Sage Foundation*.

Manski, C. F. (1977). The structure of random utility models. *Theory and decision*, 8(3):229–254.

McFadden, D. (1994). *Conditional logit analysis of qualitative choice behavior*. New York, NY:Academic Press.

Pais, J. (2017). Intergenerational neighborhood attainment and the legacy of racial residential segregation: A causal mediation analysis. *Demography*, 54(4):1221–1250.

Paolillo, R. and Lorenz, J. (2018). How different homophily preferences mitigate and spur ethnic and value segregation: Schelling's model extended. *Advances in Complex Systems*, 21(06n07):1850026.

Sakoda, J. M. (1971). The checkerboard model of social interaction. *The Journal of Mathematical Sociology*, 1(1):119–132.

Schelling, T. C. (1969). Models of segregation. *The American Economic Review*, 59(2):488–493.

Schelling, T. C. (1971). Dynamic models of segregation. *Journal of mathematical sociology*, 1(2):143–186.

Train, K. E. (2009). *Discrete choice methods with simulation*. Cambridge university press.

Van de Rijt, A., Siegel, D., and Macy, M. (2009). Neighborhood chance and neighborhood change: A comment on bruch and mare. *American Journal of Sociology*, 114(4):1166–1180.

van Gent, W., Das, M., and Musterd, S. (2019). Sociocultural, economic and ethnic homogeneity in residential mobility and spatial sorting among couples. *Environment and Planning A: Economy and Space*, 51(4):891–912.

Vertovec, S. (2007). Super-diversity and its implications. *Ethnic and Racial Studies*, 30(6):1024–1054.

Wilensky, U. (1999). *NetLogo. http://ccl.northwestern.edu/netlogo/*. Center for Connected Learning and Computer-Based Modeling, Northwestern University, Evanston, IL.

Wimmer, A. (2013). *Ethnic boundary making: Institutions, power, networks*. Oxford University Press.

Xie, Y. and Zhou, X. (2012). Modeling individual-level heterogeneity in racial residential segregation. *Proceedings of the National Academy of Sciences*, 109(29):11646–11651.

Zhang, J. (2004). Residential segregation in an all-integrationist world. *Journal of Economic Behavior & Organization*, 54(4):533–550.