

Securizing the Nation: Simulating the Dynamics at the Case of Yugoslavia

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Abstract. This paper describes a simulation model of the escalation of ethnic conflicts in the former Yugoslavia. To integrate as much empirical evidence as possible from conflicting explanations of the conflicts the theory of securitization is applied. This allows to overcome the dichotomy of conflicting explanations, namely the thesis of ancient hatred and the thesis of political manipulation. To represent this theory, the simulation model consists of two agent classes: politicians, who enforce value orientations, and citizens, who form paramilitary militia. Simulation results reveal the mechanisms of securitization. Political actors can stimulate the emergence of ethnic mistrust and conflicts, but this ability is shaped by the network structure of the citizens.

1. Introduction

Twenty years ago, the wars in the former Yugoslavia changed the agenda of security studies. The massive violence of this event directed the focus of investigation to issues of social cohesion. The series of wars went hand in hand with serious crimes that captured the attention of the world community. On the one hand, attempts to recruit young Serbian men for the army were rather unsuccessful [30]. On the other hand crimes were undertaken by civilians who were not part of organized armed forces [67]. Despite of twenty years of research, it still remains controversial whether Yugoslavia should not have been an impossibility in the first place (the ancient hatred hypothesis [47]) or whether it was a victim of Machiavellian politics (the “manipulation” hypothesis, [30]).

To comprehend the process of the escalation of the violence an agent-based model has been developed that integrates the evidence of both explanatory accounts. The

paper proceeds as follows: first, the case of the conflicts in the former Yugoslavia is described and integrated into the framework of the theory of securitization. Subsequently the model architecture and implementation is described. First simulation results are displayed and finally an outlook and conclusions are provided

2. Theories of ethnic conflicts

While from the time of the Vienna Congress until the new order after World War I national liberation was the *casus belli* of only ca. 20% of major wars [79] [15], after World War II national and ethnic questions became a major source of violent conflicts [37]. 77% of the wars after World War II were inner state instead of inter state wars [71]. In the aftermath of the cold war 75% of the war were fight in the name of the nation [78]. The collapse of the Soviet Union and the outbreak of nationalist conflict in Yugoslavia at the end of the cold war seemed to indicate the rise of an age of ethnic conflicts [37]. Identities instead of interests became of dominant motive for violent actions.

This changed the focus of attention of security studies from interstate to intrastate issues [74]. However, despite of the increasing scientific literature the issue still remains contested [79] [15]. [78] even identified a tower of Babel. Classically, social science explained civil violence by the theory of relative deprivation [37] [19]. The end of the cold war gave rise to a growing awareness of a culturalist argument, claiming that civil violence is motivated by ethnic and religious cleavages [43] [45]. Yet, this implicit argument that conflicts are inevitable remains contested [19]. The relation to related concepts such as race [9] and nation [72] remains unclear and ambiguous [11] [53]. Therefore one line of reasoning denies the role of ethnicity [28], arguing that ethnic relationships are too numerous and multi-faceted to explain the rare event of the outbreak of violence. Recent empirical studies support the importance of opportunity structures such geographical features, external support or organizational capacities [28] [20] [15]. For this reason, Gilley [35] advocates to get back to classical categories of political science such as class, freedom, equality, or security. The objective characteristics of these categories can be defined more easily. However, objectively determinable conditions are not sufficient to subjectively perceive a situation as a threat of security [77]. This requires a subjective meaning attributed to the situation.

This is taken into account by arguments that rely on the notion of ethnicity. It is argued that ethnic homogeneity corresponds to the idea of a nation-state of a quasi kinship relation between members of a state, whereas diverse ethnic loyalties provide a source of conflicts and, thus, trigger ethnic homogenization [33]. One line of reason argues that ethnicity triggers conflicts because it provides organizational sources to decrease the costs for collective action. Thus ethnically diverse states face more opportunities for conflicts [65]. Wimmer et al. [79] denoted this approach as diversity-breeds conflicts school of thought. A variant concentrates on the investigation of the conditions under which discriminated minorities become mobilized to rebel. This includes the classical minority at risk (MAR) data set [37]. However, these approaches

do not question the role of the state but investigate conflicting groups within the society. On the one hand this has been challenged by Brubaker [11] who emphasize fluid identities in the making of groups instead of taking the concept of a group for granted. Others [79] [15] follow classical constructivist theories of the nation-state [1] [40] to emphasize that the state is not ethnically neutral but itself is the state-of-a-nation. Therefore the state is likely to become the object of ethno-political power struggle and has to be taken into account as a key object of subject of the conflict.

These approaches attempts to explain ethnic wars by searching for variables that explain the outbreak of violence. Anthropological research on the phenomenology of violence [58] [68] investigates the role of ethnic affiliations for the dynamics of the conflict escalation. For instance, in the case of the former Yugoslavia it has been argued (Mann, 2005) that war crimes, while in the end being undertaken systematically, had not been planned in advance. Thus the dynamics of escalation processes is important. Here, Weidmann [73] distinguishes between macrolevel and microlevel explanations. On a macrolevel perspective, advocated by political science, violence is imported from outside to the location communities. It is argued that in the absence of a Leviathan, the creation of ethnically homogeneous territories provides security for the ethnic groups. This territorial logic leads to ethnic homogenization. This explains the puzzle that people who lived together peacefully for decades turn into violent conflicts [48] [30] [55] [57]. On a microlevel perspective, emphasized by psychological and sociological case studies [10], violence is generated by local ethnic competition and fear of exclusion. While also proponents of this perspective emphasize that violence is triggered by political mobilization, it is argued that these attempts are only successful if they resonate within the population. Fear of disadvantages in ethnic competition, for instance on a political level or the labour market, triggers violent reactions on a local level to mobilizing attempts of a political level. However, this need to build on a collective memory of past violence [59] [60]. It has been argued that ethnic network structures play a key role for the descend into a crisis mode [69]. In a statistical analysis Weidmann [73] found that in the case of Bosnia ca. 15% of the violence is explained by the micro-account whereas the rest is due to macro causes. However, a statistical analysis cannot investigate the mechanisms of the interplay between a political and a microsocial level.

This can be investigated in further detail by introducing the framework of the theory of securization. Rather than introducing a mobilizing political level, it allows to differentiate individual actors on the political level in more detail. The strength of the theory of securization [12] [13] is to capture the interrelationship between a political macrolevel and a socio-psychological cultural level of conflict escalation. A characteristic of this theory is that it consists of two kinds of actors, namely securizing actors and the audience, allowing to integrate both the micro- and the macro level explanations. The term securization has been brought by the Copenhagen school [12] [13] to the study of international security. It has become popular in the last decade [29]. It applies a constructivistic account to investigate how a certain issue is transformed into a security question. The theory does not determine which issues become transformed into a security question. An example from the environmental sector [13] is the slogan "save the whales". Successful securization can then gener-

ate the perception of an emergency situation, calling for rapid, urgent reaction. This legitimizes extreme means outside the normal order of the normative structure of society. Characteristics of a successful construction of a certain situation as a security threat are “existential threats, emergency action, and effects on inter-unit relations by breaking free of rules” ([74] p. 514). Thus the converse process of desecuritization is regarded as normatively desirable. The theory consist of the following elements:

- a securizating actor and a securizating move which claims a security threat. At the case of the former Yugoslavia these actors are politicians (e.g. Milosevic’s speech claiming that “nobody shall beat you”), or actors affiliated to politics (e.g. the claim of a demographic genocide by the Serbian academy of science).
- a reference object which is declared to be under threat. In this case the object are the nation(s) in the former Yugoslavia.
- The audience of the securizating actors, which may or may not trust the claim of a security threat. This implies that the claim may fail.

However, recent examinations of this theoretical framework have emphasized that the theory has to take into account how context conditions trigger the chances that a securizating claim may be successful. It is claimed that while it remains in principle open, which topic becomes subject of a securizating move these moves are nevertheless not completely arbitrary [74] [5] [56]. It has been carved out that the resonance of the audience [5] is dependent on how the subject is culturally entrenched. A securitizing move is more likely to be successful if it can refer to a history of past experience. Here, a politics of symbols becomes relevant. Symbolically communicated national or ethnic borderlines provide a source of meaning. The concept of so-called societal security [74] addresses this issue of social identity. This means that the sense of we-ness of a nation is under threat [74]. This sense of we-ness builds on the fact that the nation provides a historically “sedimented” [74] cultural context condition into which a securitizing act can be placed. Constructivist theories of the nation have demonstrated that the “invention of the nation” [1] has succeeded in establishing a culturally entrenched symbolic entity [40] [42] as a unity of the people transcending territorial borderlines [9]. This cultural context explains the resonance of the population to political mobilizing attempts.

While currently empirical studies on processes of securitization mostly employ discourse analytical methods, Guzzini [38] proposes to study the mechanisms of securitization. This is justified by the fact that the theory of securitization inherently describes a process. Mechanisms are commonly defined as regularly appearing and easily identifiable causal patterns [41] [25]. Guzzini discusses the advantage of such an analysis at the example of Huntington’s thesis of a clash of civilizations. While this thesis depicts a securizating move, this move triggers a counter move. The shape of this move is conditioned by culturally entrenched context conditions. All in all, the overall effect is hard to estimate. For this purpose Guzzini proposes a causal analysis. For the analysis of social mechanisms it is necessary to identify the generating processes [27] [49]. Process analysis is often done with the means of qualitative case

studies. Typically research on ethnic and civil wars is divided into qualitative small N and quantitative large N studies [52]. However, small N research suffers from the limit of naturally available experiments to identify the relevant variables that produce conflicts. To identify the driving factors of escalation processes the researcher is bound to clouded comparisons between different cases which are empirically inclined by various accidental circumstances [52]. Large N research on the other hand misses to specify the causal mechanism linking ethnicity to conflict [79] and is faced with a gap between the variables that are theoretically of interest and the factual measurement of indicators serving to approximate the underlying theoretically variable. Thus results depend to a large degree on the coding schemes. Therefore it is no surprise that different studies reveal different and contradictory results [79]. This suggests to complement causal analysis with a simulation model that allows to generate the respective phenomena in silicio. This allows to investigate the implications of clearly defined theoretical assumptions and to generate large data sets by varying the parameter space of the model. It can then be studied in systematic detail how the interaction of the micro and the macro level is shaped in processes of conflict escalation.

Conflict and Insurgency simulation is an expanding research field. Earlier models used a system dynamics approach [39] [21]. This is based on difference equations to study to study phenomena on a most aggregated level. Currently, agent-based methods are the state-of-the art in simulation technology [34], since they allow to model individual actors as separate objects and to investigate the effects of their interaction at the social macro-level [41]. This allows to dissect the generating conditions of social structures, i.e. the logic of aggregation. Thus it enables a systematic connection between sociological explanans and explanandum [70].

Typically, models can be differentiated in two classes: one class consist of models which concentrate on political actors and one class of models which concentrate on a population level of actors. Examples of models concentrating on the population level are e.g. Lim et al. [50], who developed a model of the spatial distribution of violence. This has been calibrated at Yugoslavia [50] and Switzerland [63]. Since the model is primarily based on topographical assumptions, it cannot reveal the social mechanisms of conflict escalation. Based on evolutionary game theory, Axelrod [3] developed a model of co-operation and conflict. Similarly, Axelrod and Hammond [4] developed a model of ethnic conflicts. Based on the empirical case of Rwanda, Bhavnani [7] modelled how in-group members can be coerced to participate at a Genocide. Examples of models concentrating on political actors are e.g. Axelrod [2], who generated the emergence of strategic alliances. However, this model does not represent the internal structure of states. This has been achieved by Saam [64], who modelled military coups in Thailand. However, this model does not capture the emergence of new political actors. This has been the focus of the GeoSim model [15] which investigated the emergence of nation states. However, nationalistic mobilization is modelled as a Markov-chain. This does not allow to examine the corresponding social mechanism. An analysis of social mechanisms has been undertaken by Geller's [31] model of civil war in Afghanistan. However, this model concentrates on elites and does not include the cultural dimension.

Moreover, often studies employ an operations research perspective in which it is investigated what kind of result can be expected if a key actor employs different strategies [26] [23] [6] [32] [62]. For instance, Epstein's [26] model of civil unrest investigates cops and rebels and in experiments such as varying the number of cops and intervention tactics the effectiveness of counterinsurgency can be studied. In contrast, this study investigates a self-organized feedback cycle. A self-organized process is investigated in the MASON RebeLand (2010), which models the effectiveness of state reactions to polity issues, or the BEITA model [52] of secessionist movements which includes the development of cultural identities. BEITA includes bureaucrats and citizens but does not explicitly model the mechanisms of their interaction. The REsCape model [7] investigates the relationship between natural resources, ethnicity, and civil war. An entrenchment of ethnic identities has been taken into account. While this model includes political and civil actors, this model lacks an examination of the relationship between both actor groups. Geller and Alam [32] developed a socio-political and cultural model of Afghan, coupling a system dynamics political model and an agent-based cultural model, which entails a detailed representation of the development of network structures.

The model developed here examines the mechanisms of the self-organization of political actors and political attitudes. Building on the emphasis of the role of the nation-state as stressed by Wimmer et al. [79] and the detection of the importance of the dynamics of conflict escalation an integration of micro- and macro level explanations [73] is provided here by specifying the mechanisms of securitization. Thereby the aim is not to put the blame for war crimes on any ethnic group (e.g. "the Serbs") nor exclusively to wicked politicians (e.g. Milosevic). Without denying their responsibility (as emphasized e.g. by Gagnon, [30]), the question is first how such a political agenda became thinkable and second to determine the tipping point at which in the interaction of micro- and macro processes as highlighted by Weidmann [73], the microdynamics became self-perpetuating (as described e.g. by Bringa, [10]). Thus, in contrast to insurgency models, exploring the effects of possible interventions in full fledged civil wars, here particular emphasis is put to the early phases of conflict escalation (modelled as the emergence of militia). Thus the aim is to explore the effectiveness of ideologies [53]. For this reason, ethnicity – while implemented offline (in the case of Yugoslavia people were aware of their ethnicity) – is not defined in terms of ethnic groups. Rather, agents possess varying degrees of different value orientations.

3. Securizing Yugoslavia

Yugoslavia was a multi-national federal republic, consisting of six republics. Each republic comprised one of Yugoslavia's constituent nations. The territories of the republics were drawn along historically established borderlines. During the wars in the 1990s, Yugoslavia collapsed along these borderlines. Characteristic for the empirical case is the fact that both political actors and citizens were involved in the conflict escalation.

Soon after Tito's death, nationalist movements emerged in the political landscape. The beginning of the conflict was triggered by a power struggle within the Yugoslavian Communist Party about Tito's legacy. Formerly communist politicians took advantage of ethnic sentiments, allowing them to organise loyalty with an ethnic agenda. Milosevic was able to stimulate mass movements in Montenegro and the Vojvodina, bringing liegemen of Milosevic into power [67]. Essential elements of his strategy provoked nationalist prejudices and attempts to establish Serbian dominance among the federal republics. Particularly well known is the speech he delivered in April 1987 in Kosovo Polje when he promised the local Serbs that "no one should beat you". The power struggles at the end of the 1980s still took place within the Yugoslavian Communist Party. However, the first free elections in the individual republics brought nationalist parties into power, albeit often with only marginal majorities. In April 1990, Franjo Tudjman won the first free elections in Croatia. This created a situation in which Yugoslavia had been described as a hot iron between Tudjman and Milosevic as hammer and anvil [22]. Nevertheless, the degree of ethnic mobilization in the population was rather small. Even in 1990, the results of opinion polls in Bosnia revealed that more than 90% considered ethnic relations in their neighbourhood to be good, even though there were already political tensions at the political level [14].

Yet, very soon civilians were also becoming involved in the battles and, in particular, in war crimes. The violence was not accidental, but aimed at establishing ethnically homogeneous nations out of the former multi-ethnic country of Yugoslavia. The escalation of tensions into open conflict started after Croatia declared its independence in 1991. The Krajina region in south-west Croatia was inhabited by a majority of Serbs. As a reaction to the Croatian independence, the establishment of a Serbian autonomous province of Krajina was declared on 28 February 1991, provoking armed conflicts. A further stage was reached on 26/27 August 1991, when the first ethnic homogenization took place in the small village of Kijevo, inhabited mainly by Croatians [61]. After the village had been attacked by the Yugoslavian Army, a paramilitary militia of the Krajina Serbs invaded the village and displaced the Croatian population. The militia consisted of the local Krajina Serbs, civilians who were not integrated into the command structure of the Yugoslavian army. As characteristic for the militia's course of action, they prewarned the Serbian inhabitants of the village, who chose not to pass on the information to their Croatian neighbours. This *modus operandi* turned out to be a template for later ethnic homogenisation in Bosnia-Herzegovina [61]. At this point, a stage was reached in which civilians were mobilized for participating in war crimes. The puzzling question that will be investigated in this talk are the mechanisms of the conflict escalation towards this turning point.

This brief review reveals that the central elements of the theory of securitization can be found in the case of the former Yugoslavia. Moreover, this framework enables to overcome the dichotomy of the contradicting cultural and political explanations of these wars. While the "ancient hatred" thesis emphasizes the role of the audience, the "manipulation thesis" stresses the role of the securitizing actors. Both elements are essential parts of the theory of securitization. Thus this framework allows to integrate the empirical evidence of both accounts. However, for the nation to become an element of a successful securitization depends on its cultural entrenchment. Here, the concept

of societal security [12] [74] becomes relevant: While the traditional concept of state security threatens the sovereignty of the state, societal security addresses the issue of social identity. This means that the sense of we-ness of a nation is under threat [74]. If it can be successfully communicated that the we-ness of the nation is in danger, it may be perceived as a legitimate means to avert this threat by measures such as ethnic homogenisation. The purpose of the simulation model is

- to analyse the mechanisms of the process of securitization [38] and
- in particular to investigate the mechanisms of the “resonance” of the audience [5].

4. Model Design

In the following, the model will be outlined. The model follows the KIDS principle [24] to integrate as much empirical evidence in the architecture as possible. However, it has to be emphasized that only the processes of the early phases of conflict escalation will be considered, not the entire wars.

4.1. General design

The model consists of two types of agents: the political élite and the local population. However, the two types of actor are structurally coupled.

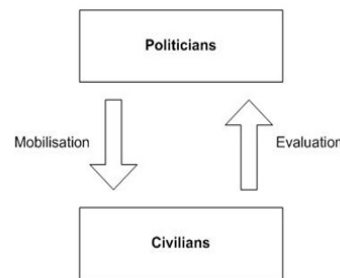


Fig. 1. Relation of the agents.

On the one hand, politicians’ careers are dependent on mass support; on the other hand, the mobilization of mass support stimulates the mobilization of individual value orientations and identities.

4.2. Actor models

To represent the different motivation of citizens and politicians, the two agent classes are modelled using different actor models. Politicians act by holding speeches that either appeal to civil or nationalist values. Nationalist speeches can either be radical or moderate. Speeches represent the symbolic communication. While politicians

set the agenda for the society, their personal goals are represented by the rational actor model of the SEU theory. The goal of politicians is to make career advancements, by maximizing their popularity. The strategic evaluation is undertaken in three dimensions:

- *Political atmosphere*
- *Credibility*: A politician is no longer credible if he or she changes the political agenda too frequently.
- *Exclusiveness*: It may be advantageous to opt for a type of agenda with fewer competitors, even if there is less overall support.

Learning arises from the fact, that all speeches are evaluated by the citizens. They form their own opinion and discuss with their neighbours. In dependence of that, they can take part on a pro or anti demonstration. All this goes in the evaluation process, so that the politician, who gave a speech, receives positive or negative feedback. This causes the politician to continue to give speeches with the chosen type or to switch to another one.

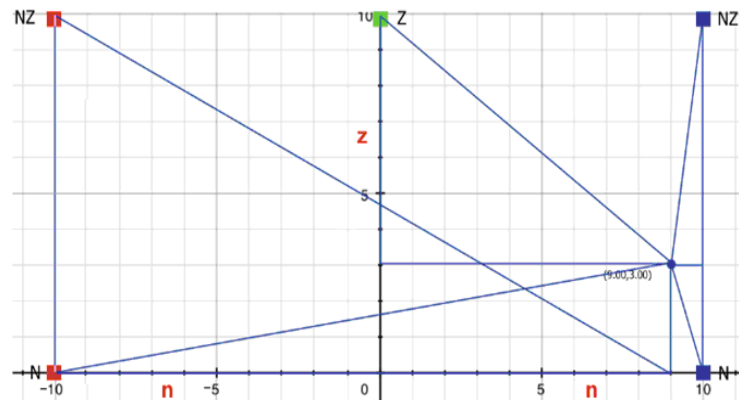


Fig. 2. Evaluation of speeches.

Ethnographic accounts [75] have described the involvement of the local population in war crimes as emotionally driven. This can be represented following the theory of the “identity preserver”, popularized by the German sociologist Uwe Schimank [66]. Agents possess two value orientations: civil values and national identity. Individuals possess both types of value orientation. However, the strength of the respective value orientation may differ. This is the basis for the evaluation of the speeches, as illustrated in Fig. 2, where the x axis represents the degree of civil values and the y axis represents the degree of national identity.

In this connection the orientation of an agent is a point in a two dimensional co-ordinate system limited by 10. The different speech types are represented as the maximum points of each axis. On right side of the y axis the maximum of the x axis represents a national speech of a politician of own ethnicity. Analogous to, a civil

speech is a maximum of the y axis. On the left side of the y axis are the speeches of a politician of a different ethnicity represented. Hence the evaluation of a speech is the distance between the two points. The smaller the distance, the better the evaluation is.

4.3. Scheduling

The overview of the scheduling highlights the fact that the scheduling consists of two phases: a state of social order and an anomic state. In principle, the recursive feedback loop between politicians and citizens indicated by the two upward and downward bars may be maintained in the state of social order. This is a rather general mechanism, not specific to the Yugoslavian case. Namely, politicians hold speeches to organize support. Citizens discuss their evaluation of the speeches in friendship and neighbourhood networks. This represents the idea that the success of political campaigns is to become the topic of public debate. Support is signalled by participating in demonstrations in favour of the politician. This changes the value orientation of the citizens. The degree of support is observed by the politicians to evaluate which type of speech they should hold the next time.

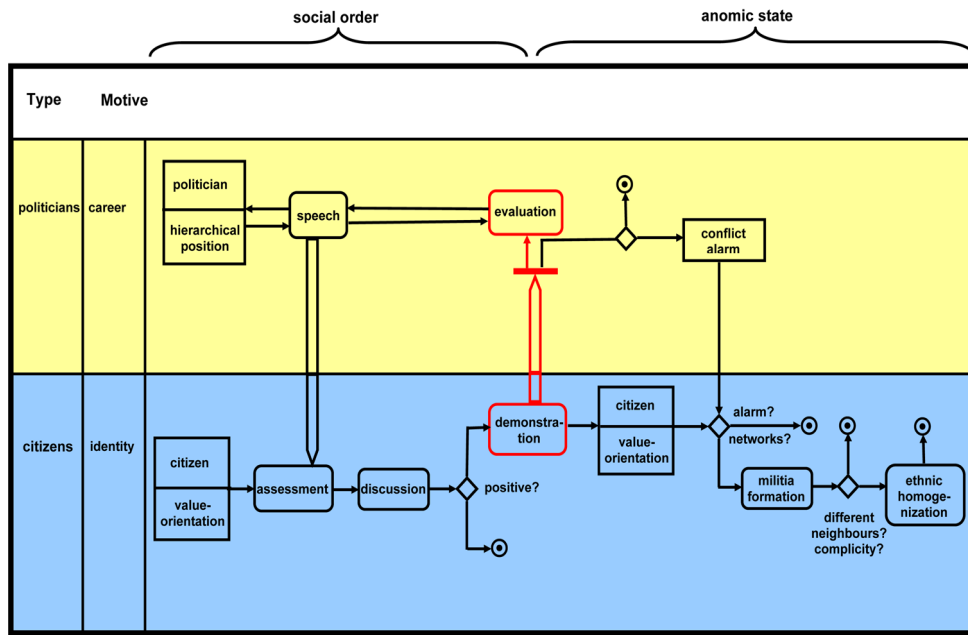


Fig. 3. UML activity diagram of the scheduling.

Under certain circumstances the model may enter the anomic state. Following the KIDS principle [24], the concrete mechanisms for the transition into the anomic state are specific for the Yugoslavian case. To abstract from this particular case, in the

model an alarm function for the rise of a political conflict is activated if a nationalist politician gains support outside the territory of his or her home republic. This provides the opportunity for the emergence of paramilitary militia. Three conditions have to be fulfilled for their emergence:

- *Opportunities*: activation of the alarm function.
- *Motivation*: Militia consists of highly radicalized nationalists.
- *Complicity*: The militia planning to attack a certain village warned the inhabitants of their “own” nationality. These could have warned their neighbours of different nationality, but they chose not to and often participated at the looting.

5. Model Implementation

The implementation of the model was carried out in Repast. In addition, the EmIL framework [51] was used in order to implement the cognitive complexity of politicians and ArcGIS to create the geospatial data which were integrated into particular GIS projections.

5.1. Environment

To represent the administrative districts, it was necessary to model such geography in ArcGIS. The resulting geospatial data was loaded into GIS projections. The environment is hierarchically structured from the state level to administrative areas. Each environmental context has an assigned shape file which holds information and whose records can be shown as objects. These objects are loaded into the specific context and displayed in the respective geographic projection.

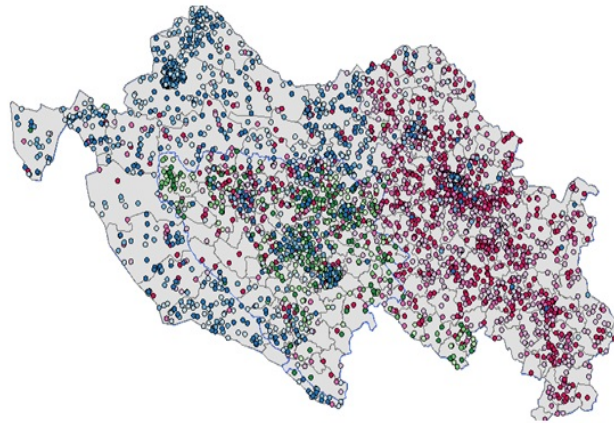


Fig. 4. Initial population distribution at the GIS projection.

The three ethnic groups are distinguished by colours. The green dots are Bosniaks, the blue Croats and the red Serbs. These have three levels of intensity, depending on how strong the national identity of the agent is pronounced.

5.2. Agents

Citizens: Every shape file has an attribute table. Every modelled administrative district is handled as a record in that table. For each district the statistical data of the population in former Yugoslavia of 1991 was used to fill the table. Every agent of each ethnic group represents 5 000 residents of this ethnic group.

Politicians: The politicians have fixed co-ordinate points, so that each individual can be assigned clearly to a republic in which he operates. A politician of an ethnic group represents 100 000 residents of this ethnic group.

6. Simulation results

At initialization of the simulation it is assumed, that the distribution between the ethnic identity and the civil values within the citizens are equal. Also the probabilities between the three types of speech are equal. After 2190 ticks what is equals to 6 years, the average civil and national values of Bosniaks have evolved as follow:

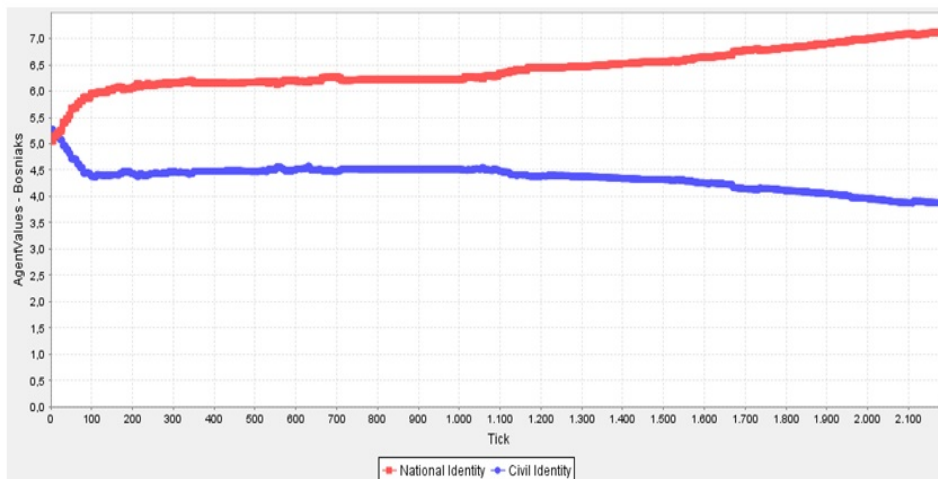


Fig. 5. Bosniaks – avg. civil and national values.

The national values of Bosniaks had from the beginning up to middle of the time a slight rise. Also, the gap between the national and civil curve remained constant. This has been caused by balanced acceptance of national and civil speeches. In the second part of the time the national values curve raised continuously. At the same time the civil values curve decreased also continuously. The reason for this is, that if an agent is displaced, then his national values rise up to the maximum. The logical outcome of

this is the radicalization of that agent, which also influences his new neighbourhood. Thus, within the following simulation, the national speeches are going to be more accepted as the civil ones.

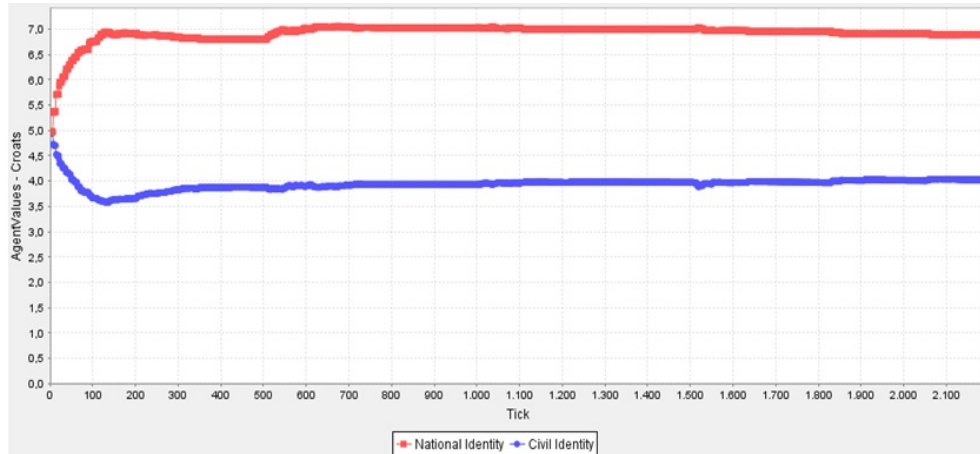


Fig. 6. Croats – avg. civil and national values.

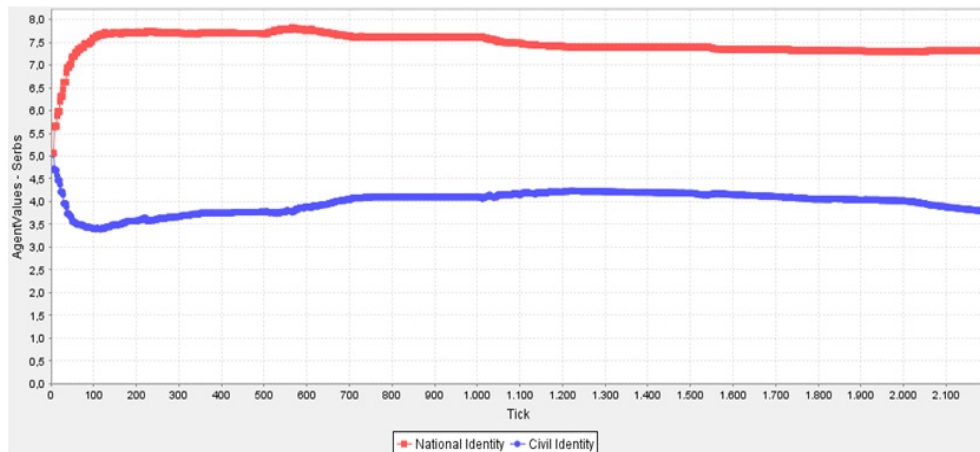


Fig. 7. Serbs – avg. civil and national values.

From the beginning of the simulation the national values of Croats and Serbs have risen strongly. In this case, the politicians who held national speeches were more supported as the ones who held civil speeches. In consideration of this particular fact, the conflict was caused by the two ethnic groups which were directly radicalized.

The curves are labelling the population of the three ethnic groups during the simulation. From top to bottom the curves are standing for the number of Serbs, Croats and Bosniaks. It is clear, that the two ethnic groups, which were most rapidly radicalized, have the most victims suffered.

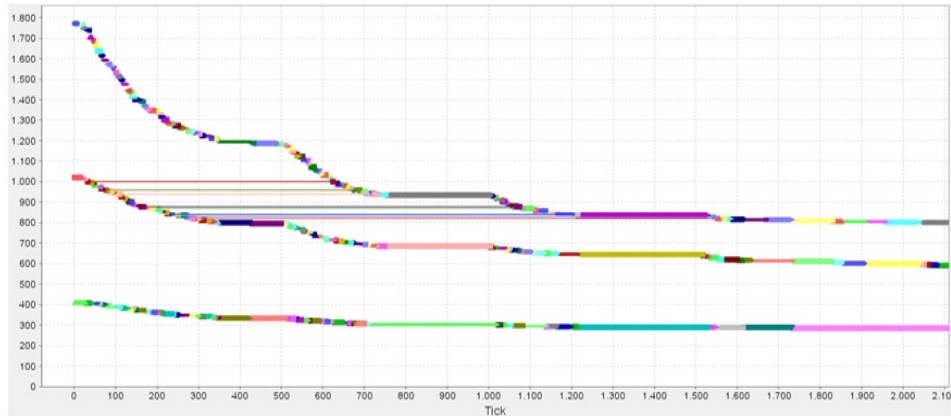


Fig. 8. Population development.

The choropleth maps on the left side shows the state at the beginning of the simulation. The right side is the state at the end. It can be determined, that all ethnic groups have defended their territory or have occupied adjacent territories.

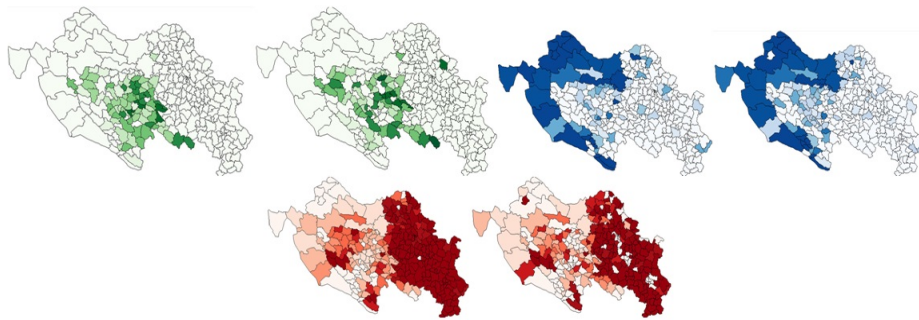


Fig. 9. Intensity of ethnic groups.

In the following lists of the most popular politicians are provided. The four types of actions that the politicians can undertake are the following: A1: holding a nationalist speech, A2: holding a civil speech, A3: holding a moderate nationalist speech, A4: doing nothing.

Table 1. Six most acceptable politicians in Bosnia

PolID	Ethnicity	n. speech	Type	popularity	avg
17	Serb	17	A1: 2 A2: 0 A3:0	114	6.71
11	Croat	20	A1:4 A2:2 A3:1	141	7.05
15	Serb	20	A1:0 A2:6 A3:0	145	7.25
6	Bosniak	20	A1:4 A2:2 A3:0	146	7.30
19	Serb	28	A1:2 A2:7 A3:1	206	7.36
2	Bosniak	19	A1:3 A2:1 A3:2	151	7.95

Table 2. Six most acceptable politicians in Croatia

PolID	Ethnicity	n. speech	Type	popularity	avg
49	Croat	27	A1:9 A2:0 A3:0	65	2.41
46	Croat	32	A1:11 A2:0 A3:1	125	3.91
31	Croat	32	A1:0 A2:11 A3:0	183	5.72
38	Croat	21	A1:4 A2:0 A3:1	122	5.81
87	Croat	7	A1:2 A2:0 A3:1	44	6.29
37	Croat	30	A1:6 A2:2 A3:1	190	6.33

Table 3. Six most acceptable politicians in Serbia

PolID	Ethnicity	n. speech	Type	popularity	avg
90	Serb	8	A1:3 A2:0 A3:0	28	3.50
68	Serb	28	A1:7 A2:0 A3:2	137	4.89
71	Serb	29	A1:8 A2:3 A3:0	154	5.31
59	Serb	29	A1:8 A2:1 A3:1	157	5.41
79	Serb	27	A1:5 A2:0 A3:0	149	5.51
60	Serb	29	A1:8 A2:1 A3:3	162	5.59

From the list of the politicians in Bosnia, it is evident that Bosniak politicians have kept their speeches fairly compensated. This confirms Fig. 7 where the average national and civil values are quite balanced.

On the two top places in all republics are Serb and Croat politicians, who have appealed especially to the citizen through national speeches. This confirms the rapid radicalization of these two ethnic groups by the high acceptance of these speeches.

Concerning the mechanisms of the escalation process an observation that was made during the simulation concerning the relationship between the parameters `avgOpinionMultiplier` and `demoValueDivider`. If a speech has taken place, then each citizen evaluates it. However, there exists also a common opinion about that speech in the neighbourhood. The first parameter is used to give such a common opinion a particular weighting. Herewith it is possible to increase or decrease the influence of the neighbourhood on each citizen. This is the point where the citizen decides whether to go to a demonstration or not. The greater the `avgOpinionMultiplier` is chosen, the more is he dragged by the crowd. The second parameter, `demoValueDivider`, is used to control the strength of influence of demonstrations on each participant. If a citizen decides to go to a demonstration, then the average orientation of all participants is used in order to update the orientation of each individual. The relation between the two parameters can be interpreted as follows: If the influence of the neighbourhood of an individual is small, the less he is directed to go to a demonstration. That means that the second parameter has no impact on the individual. In the case that the influence of the neighbourhood is high, then the second parameter determines the speed of the radicalization.

7. Outlook and Conclusion

The results presented here are the very first results. The model is not fully calibrated yet and further simulation experiments will be undertaken. Nevertheless,

simulation experiments allow to investigate the mechanisms of the process of securitization. The model shows that ethnic conflict can be triggered through the political level, but only, if in the particular ethnic group people exist who are at the beginning highly nationalized and pursue their own goals. In addition, it is also necessary that there are people which can be easily manipulated, so that certain targets can be exploited. Thus, the prime influence factor are the politicians. Nonetheless the citizens are not simply passive entities. This clarifies the role of the audience in the securitizing act [5]. The success of mobilizing attempts of politicians depend on the network structure of the citizens. Mobilization is only successful when it is enforced by the network. This result is substantiated by Horowitz's [43] observation of the central role of rumours in the escalation of ethnic violence. These are transmitted through networks that are implemented in the model. Thus the model allows to dissect the mechanisms of the relation between the actor groups in the process of securitization.

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