Encounters between Science and Technology Studies & Border and Migration Studies

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Encounters between Science and Technology Studies & Border and Migration Studies

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1. Introduction

This collection of chapters has been the result of a "Writing for Publication" Workshop, held in May 2022 in Athens, Greece. It supported the works of young scholars, Master or PhD students, in order to enhance critical thinking on the role of science and technology within migration-related phenomena and political fields. Organized by the STS MigTec network, which is an independent scholarly network, with support from the RISK CHANGE research project (2021-2022), which was hosted by the Department of History and Philosophy of Science (HPS), National and Kapodistrian University of Athens (NKUA), the workshop aimed at facilitating encounters between Critical Border & Migration Studies and the study of Science and Technology from the perspectives of the humanities and the social sciences (especially Science and Technology Studies as well as related fields such as History of Technology). The workshop was organized by Aristotle Tympas, NKUA, Greece; Lisa Marie Borrelli, HES-SO Valais-Wallis, Institute of Social Work, Switzerland; Olga Usachova, University of Padova, Italy; Mara Clemente, ISCTE – University Institute of Lisbon, Portugal; Emellin de Oliveira, NOVA School of Law, Portugal.

In the aforementioned workshop the participants shared work-in-progress writings that were collectively discussed in small groups, with sufficient time and dedication to work out argumentation, empirical case studies, theoretical reflections and contributions to specific pertinent literatures. The workshop included keynote speeches by Rocco Bellanova on "Violence and Datafication" and Niovi Vavoula on "The Changing Landscape of the Surveillance of Movement in the EU: A Fivefold Paradigm Shift". Additionally, sessions with

hands-on inputs, such as the one on "How to get published?" by Nina Amelung, stimulated discussions to facilitate knowledge exchange on experiences regarding publication processes. The small groups were facilitated by the three main discussants: Nina Amelung, University of Lisbon, Portugal; Olga Lafazani, NKUA, Greece; and Silvan Pollozek, European University Viadrina, Germany. Following the workshop, the editors of this collection invited participants to join for a publication project that provides a detailed and careful feedback process, taking into account that most of said participants were working towards their first publication. Through multiple rounds of reviews and revisions, and step by step, the authors advanced their chapters. Furthermore, an intentional choice was to provide a format and channel for publication that is open access in order to increase the visibility of the publication.

The four chapters presented here delve into different questions of how promises and imaginaries of data practices and infrastructures, that support either migration and border control or integration come into being, are implemented, and are resisted against by migrants and their supporters. What follows is a brief outline of the four chapters and a linking discussion on common themes that arise from and between the chapters.

2. Overview of contributions

Lucia Sestokas' chapter, entitled "Borders Beyond Borders: From an International Airport to a Federal Court", takes an interest in how state and non-state agents and agencies at the Guarulhos International Airport and the Federal Court of Guarulhos in Brazil proceed with intersecting migration and criminal policies. Based on ethnographic research, such as observations of court hearings regarding drug trafficking charges, case file analysis and interviews with relevant actors, the author argues that transnational crime is read by state actors through gendered and nationalized notions of travelers, supported by technologies that deepen suspicion towards certain groups, their bodies and belongings. The author underlines the role of technologies that support the construction of suspicion and criminality, while also practically being shared across borders.

The analysis shows how transnational crime is read in a gendered manner, but also how evidence (multiple trips and cash payments for flights shortly before the trip begins, for instance) function as markers of suspicion. Control does however also occur along lines of nationality and characteristics of luggage - detected with the support of technologies. In this regard, it is interesting that it is not only the traveler's race or nationality - but about luggage (weight, destination) that causes further controls and establishes a link between individual (state-agent driven) and technological suspicion.

In "Counting Clans: The production of statistical security knowledge on 'clan crime'", Salah E. El-Kahil proposes the careful study of the production of statistics and how they become markers of racial and ethnic differentiation and mobilize anti-Muslim narratives. The analysis sets out to explore different methods and quantification practices that produce statistical knowledge on "clan-crime" by German police administration and that enact the category "clan-crime" in different ways. With reference to critical security studies, El-Kahil analyses clan crime statistics as techniques of securitization, where individuals are made "guilty by association" (e.g. linking names associated to clans). He then counter-proposes a desecuritization approach to move against the current counting practices and the racializing effects they have. El-Kahil embeds discourses around security in a general discussion on knowledge authorities and current struggles to define expertise. Using the two research streams of sociology of quantification and theory of performativity, both grounded in science and technology studies, the author argues that, first, the rules of quantification rely on a qualitative definition of what should be counted and, second, that once produced, numbers shape realities, no matter how faultily they were collected.

In her chapter, titled "'Taking terrain away': How illegalized migrants experience and counteract technologies of mobility control at the Bosnian-Croatian border", *Joma Thomé* explores local authorities' strategies and technologies deployed to control migrants' mobility, as well as counter strategies of the latter. This chapter engages in ethnographic work, conducted at a Vučjak camp at the Bosnian-Croatian border; a camp situated on a former landfill and surrounded by unmapped, but active, landmines (which are dismantled after six months of use). Making use of concepts such as "subtraction technologies" and "infrastructural violence" in combination with "mobile commons", the author shows material, social and symbolic ways of how migrant infrastructure is destroyed. On the one hand, the paper focuses on the governing technologies by state actors of making spaces uninhabitable. This includes actively calling out of citizens supporting refugees, fining them, and thereby punishing solidarity. On the other hand, the chapter studies the technological skills of migrants who seek to counter these violent governing technologies and presents different forms of agency migrants come up with.

The final chapter of this edited volume is the one by *Elisa De Carvalho and Evelise Carvalho*, who find a retraction in government-led programs to support integration, with the current political climate shifting further to the right. In their work entitled "E-Governance and Migration: insights into fostering Settlement", the authors focus on technological progress and social inclusion reflecting on a global panorama. Both authors are interested in the use of modern communication tools and applications that allow for individual-state interaction,

specifically studying settlement processes for newcomers. Their study relies on various sources (literature review, interviews, mobile application analysis) that show the positive effects of technologies in supporting newly arrived migrants. They also show how the level of technological abilities serves as a sorting mechanism (and further deepens social inequalities). The chapter explores migrants' use of mobile technology, arguing that participatory involvement of migrants leads to better outcomes, while also underlining continuous hurdles. These include language (translation) and the offline availability of apps, as well as ways to log in (facial recognition, etc.).

3. On data practices, technologies and infrastructures of migration, borders and policing

All chapters offer a refined understanding of data practices, technologies and infrastructures in the realm of migration, borders and policing. The cases studied assemble diverse geographies. Moreover, the ones by De Carvalho and Carvalho, Thomé, and Sestokas focus on migration, borders, and technology beyond the Western European realm. The four chapters draw on rich empirical materials, gathered through qualitative data collection across the globe, making use of a variety of data to explore science and technology studies (STS) approaches to migration and border research: from interviews (De Carvalho and Carvalho, Sestokas) to online searches (De Carvalho and Carvalho), and from ethnographic observation (Thomé) to the tracing of digital and statistical sources (El-Kahil).

The authors engage with the different purposes and intentions attributed to data, technologies and infrastructures. By using an infrastructural lens, Thomé observes how migrants create their own infrastructure in light of a reduction and destruction of infrastructure around them intended to push them to move further. This stands in contrast to De Carvalho's and Carvalho's analysis on mobile applications to support integration, which seem to be built so as to assist migrants. Yet, both also mention the increasingly hostile climate and reduction of such support and the possibility to use the data collected through these applications against migrants.

The chapters also show how data, technologies and infrastructures, "make" people and enact specific attributes to marginalize them. Sesotaks and El-Kahil show how certain behaviors and traits become mobilized in racialized ways to render people suspected of crime. When engaging in spontaneous flight booking or carrying "suspicious" luggage, travellers come under the radar of law enforcement (Sestokas). In the German clan crime statistics, a specific name or individual misdemeanors become associated to organized crime, thus asserting that crime is an inherent feature of some ethnicities. Such racialization of statistics, due to

assuming that a person is "guilty by association" allows for an expansion of suspicion towards big groups deemed "foreign" (El-Kahil).

All the chapters highlight how governmental techniques and strategies cement diverse forms of segregation and suspicion. German clan crime statistics not only offers a possibility for German society to link patriarchy to non-German (and mostly Arab) populations, but it also allows to externalize sexism (El-Kahil). At airport controls and during drug trafficking trials difference is made between gender (linked to organized crime) and nationality, allowing rulings to disadvantage male non-Brazilian citizens (Sestokas). Yet, Thomé shows an even more direct and violent differentiation, undermining the solidarity shown by Bosnian citizens towards migrants. Finally, De Carvalho and Carvalho present us with the upsides and downsides of modern technology, as mobile applications for integration programs serve as a care and control possibility.

Taken together, the chapters portray the first steps into publishing made by these authors. We congratulate them on their accomplishments and we hope that what they learned during this process will help them find their own individual ways of presenting their research, writing, and reaching their readership.

Borders Beyond Borders: From an International Airport to a Federal Court

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Abstract

This article presents research that investigates the intersections of criminal and migration policies. The study delves into how state and non-state agents and agencies operating at the Guarulhos International Airport and the Federal Court of Guarulhos in Brazil perceive and construct categories that generate both displacements and criminality. The research methodology involved ethnographic studies of criminal hearings and case files, informal conversations and interviews with state and nonstate agents responsible for identifying and approaching individuals at the airport, as well as the analysis of court decisions of criminal cases. The argument posits that the practices of these agents and agencies intertwine the combating of crime, particularly the so-called fight against international drug trafficking and transnational organized crime, with border control and the regulation of migration. Within this intertwining, I also explore the role of nationality, gender, race, and class status in the intersectional construction of elements such as suspicion, danger, and criminality. The construction of these elements involves the utilization of various technologies, understanding technologies as a cluster of elements such as X-ray scanners, personal documents, official documents, regulations, expertise and agent performances, which build not only connections between different institutions in one nation state, such as between airports and courts, but also associations across national borders and with supra-state institutions.

Keywords: crime; migration; border; airport; criminal process

1. Introduction

The Federal Police agent testified that the defendant seemed very nervous in the checkin line. He reported approaching the defendant and asking him to go to the x-ray area. He and an x-ray operator ran the defendant's suitcase through the x-ray machine and the operator detected the presence of organic matter. He opened the suitcase and found a white powder that tested positive for cocaine. The agent reported that the defendant showed no reaction. [...] After that testimony, the prosecutor pointed out that "the [defendant's] passport showed an intense migratory flow in and out of the country, with a total of seven trips". He said the trips were of short duration and "incompatible with the defendant's financial status", which was "typical of a drug mule". He also pointed out that the purchase of the ticket was made in cash and on a date close to the trip, which was considered as a technique commonly used by "the organized crime". The prosecutor concluded that "for all these factors, the defendant at the very least is dedicated to criminal activities". [Excerpt from field notes, 2019.]

The episode described above was part of a criminal hearing, which took place at the Federal Court of Guarulhos in Brazil. These hearings involved individuals arrested for international drug trafficking at Brazil's primary international airport, the Guarulhos International Airport.

As part of my research, I attended such hearings in order to understand how state and non-state agents and agencies¹ understand and construct categories of displacement and of criminality. My methodology included ethnographic studies of criminal hearings, perusal of case files, as well as interviews and informal conversations with state and non-state agents.

Based on cases of non-nationals² undergoing criminal prosecution, this article aims to build an argument at the intersection of migratory and criminal policies. I will argue that the practices of state and non-state agents and agencies both at the airport and at the court intertwine processes of combating crime, specifically the so-called fight against international drug trafficking and transnational organized crime, with border control and the regulation of migration. This interweaving is accomplished by means of the interplay of various technologies, understanding technologies as a cluster of elements such as X-ray scanners, personal documents, official regulations, expertise and agent performances. These tools not only transcend the confines of institutions like the airport and the court but also traverse national borders, shared between nation-states and supra-state entities. This contribution aims to enrich recent research on the interlinking of crime and migration by examining cases of individuals on displacement accused of involvement in criminalized activities.

The article comprises five sections: The first, "Research Methodology", delineates the research field, conditions, and main concepts, and it provides a brief theoretical framework overview. "From the Airport to the Federal Court" offers an overview of Guarulhos city, focusing on the airport and the courthouse, along with the state and non-state agents and agencies involved in the criminal cases analyzed. "From Smiles to Suspicion" discusses how factors such as nationality, gender, race and class status intersect in constructing suspicion, danger, and criminality. "From Suspects to Criminals" details the work conducted by the analyzed agents and agencies. "From Migrants to Criminals" examines Brazil's migration law, reflecting on the construction of criminal and migratory categories. The paper concludes by highlighting some points that require further exploration in the future.

2. Research Methodology

This article is based on an ethnographic study, which was conducted between 2018 and 2021 and which delved into the practices of state agents and agencies engaged in the trial proceedings of individuals arrested at the Guarulhos International Airport. Between September 2019 and March 2020 I attended criminal hearings at the Federal Court of Guarulhos, spoke with individuals frequenting this space, and interviewed agents who

¹ I am referencing the term "state agents and agencies" as employed by Vianna and Lowenkron (2017) in describing the processes involved in the formation of the State, comprising governmental mechanisms. Silvia Aguião (2014) emphasizes the significance of an approach that depicts "the State" not as an inherently unified entity but rather as a series of processes involving the continual creation and re-creation of state-government structures.

² I employ the term "non-national" in reference to the terminologies used by authors within the field of criminology of mobilities such as Sharon Pickering, Mary Bosworth, and Katja Aas, who use expressions such as "non-citizen" (Pickering, Bosworth and Aas 2015) or "foreign-national" (Bosworth 2011). My intention is to emphasize the situation of individuals who reside in a country other than their nationality. I intentionally avoid using the category "migrant" in this context because I recognize it as a legal classification that consequently necessitates legal acknowledgment and implies, for instance, specific rights.

appeared more frequently at hearings and who were open to dialogue³. I conducted interviews with an interpreter, two public defenders, and a judge. Additionally, I had in-depth, although informal, discussions with a Federal Police agent, an airline staff member, two prosecutors, and three courthouse employees.

In addition to the ethnographic study conducted at the federal court, I compiled and analyzed the documents that comprised the cases relating to the trials I focused on. As these cases were not confidential, I had access to both the hearings and the case files⁴ via the Federal Justice website⁵. Understanding that abstract concepts gain materiality in criminal investigations through the production of documents (Lowenkron 2013), I treated them as ethnographic pieces that contribute to shaping reality (Vianna 2014). The ethnographic study of these documents involved understanding their flow throughout the process, along with an analysis of their form and content.

The attendance of hearings constituted a crucial element of the fieldwork. The richness of the hearings emanates from the diverse array of actors engaged within them, fostering a multifaceted analysis of the performance of state agents. This encompasses various aspects, including the documentation and execution of criminal proceedings by courthouse employees, the translation of hearings by interpreters, witness testimonies, the legal interpretations by lawyers, public defenders and prosecutors, as well as the sentencing conducted by judges. In the criminal processes that I analyzed, I documented the involvement of nine courthouse employees, eleven judges, six prosecutors, six public defenders, eight lawyers, five interpreters, and a total of thirty-five witnesses. Prison security officers and escort officers for the defendants in pre-trial detention were also present at the hearings.

Witnesses emerged as pivotal entities, comprising both state and non-state agents whose actions significantly influenced the identification and arrest of individuals subject to prosecution. Within this diverse group were Federal Police employees, totaling fifteen agents, one forensic scientist and one criminal expert. Additionally, there were sixteen airline professionals, encompassing X-ray operators and baggage handlers, one Federal Revenue

³ All the conducted interviews have been accompanied by the signed Informed Consent Form, endorsed by both the researcher and the interviewee. This form is among the necessary documentation mandated by the Research Ethics Committee in the Human and Social Sciences at the State University of Campinas for the approval of studies involving human beings. Furthermore, in each interview, explicit permission was obtained from the interviewees to record our conversations.

⁴ Article 792 of the Brazilian Code of Criminal Procedure stipulates that the "hearings, sessions, and procedural acts shall, as a rule, be public and take place at the venues of the courts and tribunals, with the assistance of the clerks, the secretary, the court officer acting as a bailiff, on specific dates and times, or as previously designated" (Brazil, 1941).

Through the Federal Justice website, I obtained access to various pieces of information pertaining to the legal proceedings, including the process data (such as identification number, initiation date, courthouse handling the case, specific crime(s) under judgment, current status, and location of the process) and data of the parties involved (such as the plaintiff, defendant, and their legal representatives), as well as the accusation and the court's verdict. While much of this information is publicly accessible, some documents were not open for public viewing. Documents that were unavailable for public access included the national criminal record of the defendant, issued by the Ministry of Justice, the criminal record certificate provided by Interpol, the criminal record from the defendant's country of origin, issued by the Consulate, as well as the migratory movement certificate, the expert report on the narcotic substance detailing its weight and nature, personal documents of the accused, and reports on seized cell phones and SIM cards, all of which were issued by the Federal Police.

inspector, two tax analysts from the Federal Revenue Service, an airline operations supervisor, and a military police officer.

Throughout the 26 hearings I attended, a total of 30 individuals faced prosecution. The aforementioned hearings involved defendants from various nationalities: a Namibian defendant, six Nigerian defendants, five Venezuelan defendants, two South African defendants, one Angolan defendant, one Spanish defendant, one Portuguese defendant, one Jamaican defendant, one Lebanese defendant (naturalized Brazilian), two Seychellois defendants, one Canadian defendant, one American defendant, four Brazilian defendants, one Surinamese defendant, one Peruvian defendant, and one Chinese defendant.

I mention the nationalities of the defendants as an aspect that played a pivotal role in shaping relationships between those facing prosecution and the agents and agencies involved in the criminal case. Nationality appeared as a significant factor in the case records, regarding the qualification of the defendants, particularly for non-Brazilian individuals, where consulate involvement was mentioned. During hearings nationality was often emphasized by the judge, the prosecutor, the lawyers, or even the defendants themselves. It was not only the defendant's nationality that was highlighted, but also that of other individuals implicated in the case: those who were involved in the transportation of drugs, those who made first contact with the defendant to facilitate the transport, those who were responsible for purchasing tickets and/or accommodation, or those who were involved in delivering the drugs and managed the transportation to the airport. Even when the defendant's nationality was not initially mentioned in their deposition, the judge or prosecutor specifically inquired about this information.

Nationality emerged as a significant factor contributing to differences⁶, particularly impacting the defendants, intersecting with other aspects like gender, race and class status. These facets appeared intertwined with perceptions of danger and suspicion, as I will illustrate in the following descriptions of two hearings, one involving a Namibian woman and the other a Nigerian man. Attending these two hearings provided deeper insights into the intricate interplay of gender, race, class status, and nationality, and into how they affected both the relations between the individuals facing criminal prosecution and the participating agents and the dynamics of the legal process. Anne McClintock (2010) contends that race, gender, and class are inseparable and cannot merely be retrofitted together like Lego pieces, but rather exist in interrelation with each other. Recognizing the significance of bodily boundaries in social and symbolic processes (Rui 2012), I also tried to take into account how gender, race and age was taken up and presented at the hearings and how such categories were reflected in the documented records as well as in the speeches by the judge, prosecutor, defender and lawyer.

⁶ Authors such as Avtar Brah (2006) exploring the concept of the "categories of difference", Adriana Piscitelli (2008) discussing "categories of social differentiation" and Laura Moutinho (2014) analyzing "social markers of difference" serve as references in analyzing how social relations intersect gender, race, class, sexuality, nationality, and other facets. In the examination of gender within transnational spaces, Sarah Mahler and Patricia Pessar (2001) introduce the notion of "gendered geographies of power", denoting individuals' social positions within power structures shaped by historical, political, economic, geographic factors, that intersect race, sexuality, ethnicity, nationality, and gender. These dynamics operate not only at national or supra-national levels but also at the individual or social group level.

Class status emerged as a challenging aspect to describe. Drawing from Pierre Bourdieu's theory (2007), I attempted to infer class status from individuals' attire, recognizing clothing as a potential indicator of social positioning. Additionally, class status manifested within the salary and roles of agents involved in prosecution, as well as in the income and occupations of defendants, often asked about during hearings and documented within the criminal processes. However, it is essential to note that the descriptions presented in this research predominantly stem from my observations of individuals present in the court, encompassing both defendants and agents involved in the prosecution.

In the following section, the paper focuses on individuals whose displacements were impacted not solely due to migratory processes considered irregular but also due to their involvement in criminal activities leading to legal prosecution. In order to explore the connection between displacement and punishment, I extended the research scope beyond the criminalization of considered irregular displacements⁷. For the analysis of the collected data, I refer to research on mobility, borders, criminalization, the state, and different forms of intersectionality.

3. From the Airport to the Federal Court: An Overview of the City of Guarulhos

In this section I will focus on procedures of arrest at Guarulhos International Airport and of trial at the Federal Court of Guarulhos and I will ask which migratory and criminal categories are articulated by state agents and agencies and how. São Paulo is a Brazilian state with one of the highest influxes of non-Brazilian individuals passing through border posts (Cavalcanti et al. 2020). Guarulhos is one of the epicenters of mobility and the city responsible for over 90% of these movements (ibid., 21). The relevance of the city of Guarulhos primarily emanates from the Guarulhos International Airport - Governador André Franco Montoro (GRU). It is the largest Brazilian airport, serving as the principal hub for most international flights to and from the country, and it notably emerges as the "primary and most significant air entry and exit point for narcotics within the national boundaries" (Hartmann et al. 2016, 4, translated by the author). Cases of international drug trafficking occurring at the GRU fall under the jurisdiction of the Federal Court of Guarulhos. Concurrently, the court assumes responsibility for adjudicating every individual apprehended at the airport. Both these spaces are interdependently construed as pivotal arenas both "in the battle against international drug trafficking in Brazil" (ibid.) and in managing transnational displacements.

Arrests made in *flagrante delicto*⁸ at the airport typically involve federal agencies such as the Federal Police and the Internal Revenue Service. Additionally, these operations entail the cooperation of airline staff, private security companies, and other non-state actors present at

⁷ It is imperative to underscore the increasing intertwining of criminal justice with border enforcement policies, leading to the utilization of punitive measures and practices involving the incarceration of migrants deemed "irregular". For comprehensive insights into migrant detention spaces due to reasons associated with irregular migration, refer to works by Turnbull (2015), Khosravi (2018), Brandariz (2021), Bosworth & Turnbull (2015), and Gerard & Pickering (2013).

⁸ According to the Brazilian Criminal Procedure Code, a *flagrante delicto* occurs when a criminal offense has recently been committed. The individual may be pursued immediately after committing the offense, or may be apprehended shortly thereafter with instruments, weapons, objects, or documents that would suggest their involvement as the perpetrator of the offense.

the airport. Upon reaching the court, these cases are adjudicated by judges, with the support of prosecutors, public defenders, lawyers, court employees, interpreters, and other relevant personnel.

While within criminal processes the categories of "mule" "drug dealer", "professional mule" and "occasional mule" are central, the categorizations operating within the airport span broader horizons. Individuals who face criminal charges at the Federal Court of Guarulhos have already been subjected to prior categorization processes administered by airport personnel, including state entities like Federal Police and Federal Revenue agents, as well as non-state actors like X-ray operators and airline staff. Categories such as "accused of international drug trafficking", "inadmitted", "asylum seeker", "irregular immigrant" and "victim of human trafficking" are crafted and mobilized by these agents within the airport precincts.

The actions of agents present at both the airport and the court intertwine categorizations of crime, borders, and displacement. In controlling substances, fighting against crime, and controlling borders and human mobility, the airport becomes a space that crosses criminal and migratory categories. In managing displacements, also the court becomes a border space, in which relationships between defendants and state agents, drug mules and drug dealers, vulnerable and not vulnerable, as well as between national and non-national, migrants and foreigners are separated, distinguished, and mediated.

4. From Smiles to Suspicion: Nationality, Gender, Race, and Class Status

In the following section I will outline how categories of nationality, gender, race and class appear in criminal hearings and in criminal process documents, and I will point out their role in the construction of elements such as suspicion, danger, and criminality. During my first day at the courthouse I attended two consecutive hearings: the first one involving a Namibian woman and the second one involving a Nigerian man, as depicted in the vignette at the outset of this article. While waiting for the Namibian woman's first hearing, the interpreter and the public defender arrived first in the courtroom. Public defenders and interpreters would often arrive before the hearings so that they could meet with the defendant. Both appeared to be in their thirties, Caucasian and blond-haired. The public defender wore a pantsuit ensemble with high heels and a black leather briefcase, while the interpreter wore jeans, a shirt, and dress shoes. Subsequently, the defendant, a black woman approximately 40 years old, arrived together with a prison security officer, a black woman in her fifties, as well as with an escort officer, a black man in his twenties with a military-style haircut. The latter maintained a serious countenance and upright posture throughout the entire proceeding, stationed by the door.

In addition to the salary difference between the state agents present at the criminal hearings⁹, the attire conveyed subtle cues about the individuals' roles in the room: while the public

⁹ Within the federal judiciary the monthly salaries of federal judges ranged between 28 to 57 times the minimum wage, and the monthly salaries of federal prosecutors ranged between 28 to 38 times the minimum wage. The monthly salaries of federal public defenders ranged between 19 to 28 times the minimum wage. The monthly salaries of Federal Police agents was approximately 10 times the minimum wage. Prison security officers and

defender wore formal clothes, the prison security officer wore a dark uniform branded with the Penitentiary Administration Secretariat insignia, whereas the escort officer donned camouflage and a belt with a pistol and handcuffs. The defendant, similar to other detainees brought from the penitentiary, wore khaki pants with an elastic waistband, a white short-sleeved shirt, and flip-flops. The judge and the prosecutor entered the room last, both Caucasian men in their forties, like most of the judges and prosecutors I observed in this space. The prosecutor wore a dark suit with shiny low shoes, while the judge wore the traditional black robe with a ruffled collar typical of magistrates.

In the second hearing, in which the defendant was a Nigerian man, the public defender, interpreter, judge, and prosecutor remained the same. Only the prison security officer and the escort officer changed. This time, three escort officers accompanied the Nigerian defendant. Unlike the previous officer, these agents were tall, robust, and notably stern in demeanor, besides carrying firearms and tasers. The Nigerian defendant, a black man between 30 and 40 years old, was ushered into the room with his head bowed and his hands handcuffed behind his back while being taken to a chair by one of the escort agents.

In both hearings the same Federal Police agent, a black man in his 40s, served as a witness, as he had carried out the arrest of both the Namibian defendant and the Nigerian defendant at different times. During the Namibian woman's hearing, he was asked by the judge if he recognized the defendant. He responded that he recognized her by her smile, stating that "Not everyone smiles like that." Conversely, in the hearing of the Nigerian man, he stated that, in general, recognizing someone can be challenging, but in this case he remembered the defendant appearing nervous and displaying no reaction when drugs were discovered in his suitcase.

When the judge read the charges, his speech revealed information about the defendants' nationalities, the intended trip destinations, the chosen airlines, the quantity of seized drugs, and the crimes the defendants were being prosecuted for. At the first hearing the Namibian woman was accused of carrying almost five kilograms of cocaine while attempting to board an Ethiopian Airlines flight to South Sudan. At the second hearing the Nigerian man was accused of carrying four kilograms of cocaine while also trying to board an Ethiopian Airlines flight, this time transiting through Addis Ababa (Nigeria), and with Lagos (Nigeria) as a final destination.

During the hearings the judge posed several questions, to which the defendant could decide to respond or not. One query pertained to whether the person has children, a factor which may enable a request for house arrest. The Namibian woman disclosed to the judge that she had children, but she clarified that they would reside with her sister in Namibia during the period in which she would remain in Brazil serving her sentence. This led the judge to rule her ineligible for house arrest based on maternity, as he believed her absence would not significantly impact her children. Conversely, the Nigerian man stated he had children in Brazil who resided in the country. However, no consideration for house arrest was deliberated at his hearing.

escort officers are state agents at the state level. Within the state of São Paulo their monthly salary was approximately 2 times the minimum wage.

Both defendants were convicted of international drug trafficking with the aggravating factor of transnationality¹⁰. The Namibian woman received a sentence of five years, eight months, and one day of imprisonment, starting with a semi-open prison regime, which allows leaving prison to work or study. Although the judge considered that "she participated in the criminal organization in a relevant way", the sentence indicated "no safe elements that attest that the defendant is part of a criminal organization dedicated to international drug trafficking". Her "clean background" and status as a primary defendant were the factors mentioned to justify the decision. The Nigerian man received a sentence of eight years and two months of imprisonment, starting with a closed prison regime, which means serving his sentence entirely inside the prison. His sentence posited that:

The circumstances of the crime lead to the conclusion that the defendant was part of a criminal organization dedicated to international drug trafficking, as he showed several other trips in a short period of time, which was incompatible with his financial situation, typical case of a drug trafficking mule, in addition to having a criminal record. [Excerpt from sentence, translated by the author]

The concept of the "dual production of gender and State" is highlighted by Adriana Vianna and Laura Lowenkron (2017) as an interdependent and mutually influential process. They assert that "gendered dynamics, practices, and imaginations, which permeate both individuals and social life, do not merely exist 'outside the state' but rather within and through it, they become viable and comprehensible" (Vianna and Lowenkron 2017, 2). This interplay involves a continuous process of generating official categories alongside the construction of "bodies, relationships, emotions, and individuals as (un)desirable and (un)intelligible" (ibid., 3). Within the criminal process, elements of femininity and masculinity, as well as aspects of nationality, are delineated as either valuable or not.

The perceptions of danger and criminality associated with the Nigerian man were constructed by multiple factors present, spanning from the statements of the judge and the prosecutor during the hearing to the insignias and weaponry of the escort agents accompanying him. These perceptions — analyzed and compared through my attendance of several hearings — are fashioned in juxtaposition with those attributed to the Namibian woman. As Angela Davis (2003) elucidates, the body holds a central role in constructing the concept of danger. Alluding to the overrepresentation of black and Latino men in US maximum security prisons, Davis

¹⁰ As outlined in the United Nations Convention against Transnational Organized Crime, an offense may possess a "transnational character" under various conditions: a) when committed in multiple States, b) when executed in one State, yet involves significant preparation, planning, direction, or control occurring in another State, c) when committed within a single State but involves the participation of an organized criminal group operating across multiple States, or d) when committed in one State but yields substantial effects in another State. The interpretation by the Brazilian Supreme Court of Justice asserts that the transnational aspect does not necessarily require the crossing of borders for its application. Rather, it is sufficient to demonstrate an intention to spread the consequences abroad. Despite being rooted within the nation-state's boundaries, the transnational element can operate without physically traversing them. This perspective aligns with Glick Schiller's conception of transnationality. While "global" characterizes decentralized processes stemming from specific national territories occurring in a global context, "transnational" pertains to processes rooted in and surpassing one or multiple nation-states. The term "transnational" describes "political, economic, social and cultural processes that extend beyond the borders of a particular state, including actors that are not states, but are shaped by the policies and institutional practices of states" (Schiller 1999, 96).

accentuates how race and gender are pivotal in shaping the notion of peril. On a similar note, Natália Corazza Padovani (2018) underscores the linkage between "Africans" specifically "Nigerians", with "danger" and "power" and criticizes racial biases that underpin the association between Nigerians and the transnational drug trade network.

Among the criminal cases analyzed, nine judges deemed the defendants to have "potential involvement with a criminal organization". All but one of the Nigerian defendants were associated with a criminal organization. Seven sentences alleged "multiple short-term trips incongruous with the defendant's financial situation — considered to be typical of a drug mule" as the primary grounds for involvement. In six cases, the nature and quantity of confiscated drugs were cited as justifications for the sentence. Judges argued that "it would be implausible to assume" that a "substantial quantity of narcotics" would be entrusted to an individual with no ties to the criminal organization or unaware of the illegal activity, since "no drug dealer would jeopardize this investment by employing an untrustworthy outsider" Two cases referenced criminal records, two cases mentioned third-party purchases of airline tickets and/or accommodations, and one case referenced "direct contact with recruiters".

The United Nations Convention against Transnational Organized Crime defines an "organized criminal group" as "a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offenses established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit" (UN 2004, Annex1). In Brazil, the law defines criminal organization as an "association of four or more individuals, structurally organized and characterized by the division of tasks, even if informal, with the aim of directly or indirectly obtaining any kind of advantage through the commission of criminal offenses. These offenses carry maximum sentences exceeding four years or possess a transnational nature" (Brazil, 2013).

Despite the legal definitions of organized crime, the category often emerged as a "phantom entit[y] to which any and all ills in our cities are attributed" (Telles and Hirata 2007, 176, translated by the author). Throughout the hearings and conversations I had with courthouse personnel, the concept of organized crime frequently referred to individuals who did not appear to be among those arrested, despite some defendants who were considered to be part of or associated with organized crime. During my interactions with an interpreter, he expressed that "it is difficult to catch the head [of the group]" and "no one knows who the head is". Other people shared similar ideas, indicating that ascending to the highest echelons of organized crime "requires ballast", so that "you can look at the person's face and know that the person is a criminal, but you need to have a justification for approaching this person". In another conversation with a judge, the challenge of "climbing up the hierarchy of crime"

¹¹ Organizations, such as NGO Instituto Terra Trabalho e Cidadania, assisting individuals accused of or convicted for drug trafficking have emphasized that in many cases people involved lack control over the quantity of drugs in their possession. This assertion is particularly prevalent among women apprehended for international drug trafficking. This perspective directly contrasts with the viewpoints of certain legal practitioners who assert that the amount of drugs carried denotes the level of involvement in organized crime. The Instituto Terra Trabalho e Cidadania has conducted comprehensive work on foreign women arrested for international drug trafficking in Brazil (https://ittc.org.br/geografia-da-criminalizacao-uma-analise-dos-locais-de-prisao-das-mulheres-migrantes/).

was attributed to the alleged involvement of authorities in these illegal activities, implying their potential profit from such involvements.

5. From Suspects to Criminals: Expertise and Technology

This section will analyze how migratory and criminal categories are created and operated by state agencies and agents. I argue that these processes are closely entangled with the use of technological devices and practices. In my analysis of criminal proceedings, various factors such as the frequency and duration of prior trips, their "compatibility" with the traveler's income, and details about the amount and type of drugs confiscated were instrumental in the categorization of individuals by judges, prosecutors, defenders, and lawyers. These factors, along with considerations of gender, race, class status, and nationality, contribute to the creation and operation of categories like "acquitted", "mule", "drug dealer", "professional mule", "occasional mule", or "part of a criminal organization", among others¹². These determinations appeared in case files through passport data, migration forms, Interpol documents, as well as in verbal expressions during interviews, shaping the work of agents and institutions involved in adjudicating these cases.

However, the formation of these categories does not exclusively begin or end in the courtroom with legal professionals. Instead, it is also tightly related with the actions of both state and non-state actors operating at airports. It is especially the Federal Police¹³ that initiates procedures which may subsequently turn into criminal cases. The expertise of identifying and approaching individuals and scrutinizing suspicious luggage involves the skills of Federal Police agents, Federal Revenue agents, x-ray operators, airline employees and more. This initial step significantly influences the lives of those entangled in the criminal justice system. Notably, this expertise is increasingly reliant on technological devices and extends beyond national boundaries.

Police expertise was evident in witness statements during the criminal hearings and it constituted a significant component in the categorization of individuals. Bruna Bumachar (2016) delineates how agents accumulate knowledge on the identification of potential suspects through training and work experience. They learn how to surveil mobility and analyze various indicators, such as ways of walking (especially when drugs are concealed on the body), signs of stress, types of suitcases, or travel routes. There is also a domain of expertise in legal operations that seeks to delineate who is a "drug mule", who takes part in

¹² The Brazilian Federal Supreme Court differentiates between a "drug dealer" and a "drug mule" regarding their significance within the drug trafficking activities. Drug mules typically occupy a role considered minor in drug trafficking, while drug dealers are perceived to have affiliations with "organized crime". Despite both being deemed culpable from a criminal standpoint, drug mules are subject to a more lenient legal procedure, often leading to the possibility of a reduced sentence. Furthermore, distinctions exist between "occasional" drug mules, who might have transported drugs on a single trip or occasionally, and "professional" drug mules, who are identified as individuals involved in transporting drugs repeatedly or habitually.

The Brazilian Federal Police is responsible for overseeing both criminal enforcement and migratory displacements. This agency holds authority over the entry and exit of individuals—both Brazilian and non-Brazilian—at national borders. It also processes and administers requests for migratory regularization while issuing necessary documents for migrants in Brazil. Additionally, the Federal Police plays a pivotal role in identifying and combating federal crimes, particularly international drug trafficking. In addition to these responsibilities, it also executes administrative measures concerning compulsory removal from Brazilian territory, including deportation and expulsion.

criminal organizations and who is innocent. As previously mentioned, factors such as past trips, their duration and frequency, the defendant's financial "compatibility" with such trips, as well as details about the seized drugs were critical in trials. Maria Gabriela Lugones (2017) describes how developing an instinct or "having a nose" for this line of work requires training and is deemed essential for the job. It is essential to "recognize alleged dangerous situations" and "differentiate them from similar scenarios that might not carry the same level of risk" (ibid., 19, translated by the author). This training is honed through years of experience to prevent errors in judgment while practicing this profession.

The "nose" is combined with the use of various technological devices, "whether they are new, such as biotechnologies and information technologies, or traditional, such as documentation, identification and population census" (Schiocchet 2015, 7, translation by the author). Processes such as document verification on airline websites prior to airport arrival or the physical examination of documents, bodies, and luggage at airports involve technologies ranging from x-rays, body scanners, passport readers with facial recognition, substance testing, as well as transnational databases containing travel records, criminal data and lists of individuals deemed suspicious.

According to my interlocutors, potential drug carriers can be identified in different ways. After expressing my interest in understanding the process for identifying people considered suspicious of being "drug mules" within the crowd, a Federal Police agent explained to me that

the profile of the drug mule changes over time... for instance, in some periods they may be Brazilian, while in others they might be African or from Eastern Europe. Those involved in drug trafficking alter their strategies once they realize they've been discovered. It's not just about varying nationality but also age and gender... I recently arrested an elderly man. Once you apprehend one, you start looking for others and often uncover more. (...) You can gauge the potential transportation of certain items by the suitcase's destination. For instance, drugs aren't commonly sent to China, right? Due to the death penalty for drug trafficking there. But gold is allowed. When we encounter a very heavy suitcase bound for China, we keep an eye out. Luggage headed to destinations like Johannesburg (South Africa), Abuja, or Lagos (Nigeria) are often subjected to drug searches. [Excerpt from field notes, 2019]

As explained by an airline employee, arrests can occur through "salon" operations, where Federal Police agents directly approach individuals who move around the airport. Additionally, the Federal Revenue conducts "on the ground" inspections in the luggage area. If narcotics are detected in a suitcase, the airline is notified and becomes responsible for identifying the passenger and contacting the Federal Police. In most of the cases I examined, the arrests at Guarulhos International Airport occurred during x-ray checks, when operators detected organic masses in luggage. Subsequently a Federal Police agent would inspect and test the substance within the suitcase. After the confirmation of a positive result for narcotics,

the individual was arrested in *flagrante* and taken to the Federal Police station, located at the airport. From there individuals would be transported to the courthouse¹⁴.

Both conversations emphasized that gender, race, social status, nationality and destination play an important role in the construction of profiles of those considered suspects. According to state and non-state agents, the profiles of people who carry drugs can vary over time. While the Federal Revenue and airline companies oversee luggage inspections, the responsibility of identifying individuals falls mainly to the Federal Police, often in collaboration with airline counter attendants. As explained by my interlocutor, "the Federal Police can pinpoint potential drug dealers by examining information such as the destination or the date of ticket purchase. A person might buy a ticket overnight if he's a businessman, right? Then, the police cross-check the passport details, examine frequent passport stamps and see [the person's face]."

As Colin Bennett and Priscilla Regan (2004) note, airports and air passengers are "intensely scrutinized [by] a range of surveillance techniques" (ibid, 450). They also emphasize that "the spaces in which the surveillance of mobilities regularly occur expands beyond those that are arguably hubs of mobility, such as airports, and now extend to any space in which people, objects or words move" (ibid.). Under the guise of protection and national security, passport control technologies serve as borders that filter individuals circulating not only through the airport, but also across borders, as shown by Gustavo Dias (2015) when analyzing the technologies implemented in Brazil.

Since 2006, the Brazilian passport has been machine-readable and made compatible with documental standards defined by the International Civil Aviation Organization (ICAO) and the International Organization for Standardization (ISO). This advancement allows the crosschecking of personal data of the passport holder, including fingerprints, signature and photograph, with data stored in a database and digitally accessible at check-in points. More recently, in 2021, the Automated Biometric Identification Solution (ABIS) was acquired and implemented in Brazil. The system is referred to by the Federal Police¹⁵ as a "system that will enable the identification of people through the collection, storage and cross-referencing of fingerprint data and facial recognition, in an accurate and reliable manner", also providing "services for controlling the issuance of passports, registration of foreigners, criminal record certificates and identification". The implementation of the system is said to contribute to the "modernization of the institution" and to provide state judicial police forces with "secure and efficient access to a national biometric database".

Airport-related technologies transcend the specific space of the airport also in the form of certain documents, regulations, databases, etc. At a transnational level, agencies such as ICAO

¹⁴ Since 2015, the Federal Supreme Court in Brazil has mandated that individuals arrested in *flagrante* must be presented in court within 24 hours for a custody hearing. These hearings are procedural acts where the individual arrested in *flagrante* has the right to be heard by a judge. The judge's role involves assessing the legality of the arrest, investigating any potential incidents of torture or ill-treatment, and evaluating the necessity and appropriateness of continued imprisonment. During these hearings the judge can determine the granting of freedom, either with or without the imposition of other precautionary measures.

The news released by the Federal Police is available at the following link: https://www.gov.br/pf/pt-br/assuntos/licitacoes/2018/distrito-federal/orgaos-centrais/cgti/audiencias-publicas/audiencia-publica-01-2018-cgti-pf/sei-5899965-audiencia-01-2018.pdf/view .

and ISO publish standardization rules for the performance of national agencies. Furthermore, agencies such as Interpol provide documents such as criminal records certificates and maintain databases shared among member states of people who are wanted, missing, or considered potential threats to public safety. At a national level, documents created by airport-based agents and agencies become integral to criminal proceedings later on. The police authority, typically the Chief Delegate of the Federal Police Station at Guarulhos International Airport, is tasked with the creation and provision of documents, such as the defendant's certificate of migratory movements, the expert report on the narcotic substance, the defendant's personal documents (usually the passport, to verify its authenticity), as well as the examination report of the defendant's cell phones and SIM cards.

As Taysa Schiocchet (2015) points out, the "processes of co-production between science, state identification mechanisms and government technologies" (ibid., 7, translation by the author) contribute to the legitimization of strategies of governmentality. The various state identification technologies and practices thus make up "sociotechnical networks of civil and criminal identification technologies and the practices of the bureaucratic-state apparatus of population control" (Fonseca and Machado 2015, 10, translation by the author). The operation of these technologies, which range from machinery to documents, regulations, expertise and the performance of agents, is not dissociated from selective practices.

The application of these technologies produce displacement controls. By proposing the notion of "regimes of mobility", Nina Glick Schiller and Noel B. Salazar (2012) show how, within the context of globalized capitalism, the control of displacements is laid out unevenly and carried out not only by the nation-state but also by other regulatory agents. If there are people whose right to migrate must be guaranteed, there are also those who are subject to doubts and questions regarding the legitimacy of their displacement. The existence of both serves to justify control mechanisms that act to identify them.

The proposal here is not to question whether people involved in criminalized activities are "correctly" identified. Rather, it is to analyze which people are impacted by such categorizations and surveillance and how these processes impact migratory trajectories, with the understanding that control and punitive policies are designed around specific bodies. This does not imply that these policies are flawed in their design or application, but rather highlights the inherent inequality ingrained in their conception, as proposed by Ferguson (2006), conceiving "failures" as integral components of power mechanisms and not necessarily as divergent from what is deemed as acceptable practices.

Although each agent contributes to the process of identifying and approaching people as well as of judging criminal cases and hence is an integral part of the ongoing enactment of state agencies and policies upon which they operate, none of them is solely responsible for them. The state structure effect (Mitchell 1991) ensures that sustaining these processes surpasses the individual capacities of those engaged, although their actions can notably mitigate several violences within this system. As Poliana da Silva Ferreira points out, institutional racism permeates "practices, processes, procedures, ways of documenting actions and communicating them, recruitment and professional identity, organization of positions and functions, interactions within and outside the institution" (2024, 36), gaining systemic form by going beyond individual behavior and manifesting itself in institutional conceptions. The criminalization of certain activities can be understood from the perspective of institutional

racism, making certain forms of policing over certain bodies possible, such as approaching individuals in check-in queues at airports or issuing judgments concerning the (il)legitimacy of certain migratory trajectories.

6. From migrants to criminals: separations and entanglements in migratory and criminal categories

In this section I will outline how the existence of a criminal case affects one's possibilities of displacement and how migratory categories are constructed in relation to criminal categories. Under Brazilian law, individuals who face prosecution or who have been convicted might encounter restricted access to regular migratory status and face potential expulsion and a ban from re-entering Brazilian territory (Brazil, 2017). This restriction is based on a premise that the State is allowed to select migrants (Carens, 2002) and to deny migratory status to those who are in conflict with the law.

Both in interviews and in informal conversations with state and non-state agents who were present at the airport and the court I repeatedly heard that "drug mules are not migrants". As I heard from a judge, they should not be considered as migrants since they had "no intention of migrating". Similarly, a public defender explained to me that he would not regard as migrants those who entered Brazil on a tourist visa. During criminal hearings I witnessed situations where judges addressed defendants with questions such as: "You're not a resident in Brazil, right? Did you come here only to transport drugs?" In one of the cases the defendant in question was Venezuelan and reported that, despite having an address in Venezuela, she was living in the city of Boa Vista¹⁶ and worked as a sex worker with the goal of earning a living and escaping the situation of poverty in which she found herself.

Based on the statements of state agents, committing a crime impacts the view of who should be considered a migrant and who should not. However, while crimes related to drug trafficking appeared to have an especially negative connotation, other crimes did not appear to carry the same weight among state agents involved in hearings. In another interview a judge remarked that "refugees using false documents to enter the country are migrants who committed crimes". In his view, the use of false documents or a false visa would be an example of a crime that would be committed by someone with the intention of migrating.

The state agents' statements refer to the idea that non-nationals who have been convicted of crimes in the country, especially the crime of drug trafficking, have no intention of remaining in the country. Regarding this argument, it is necessary to highlight two aspects. The first aspect concerns the effects of serving a sentence on the migratory trajectory of people convicted in the country. The second aspect concerns the migratory status prior to conviction.

Regarding the first aspect, Natália Corazza Padovani (2018) highlights that transporting criminalized substances might not directly relate to an intention to migrate to another country, but serving a sentence may create circumstances and possibilities for staying there. In other words, even if there was initially no intention to remain in the country, serving the

 $^{^{16}}$ Boa Vista is the capital of the state of Roraima, situated in northern Brazil. This state holds growing significance in the regional migratory landscape due to its location bordering Venezuela, serving as the primary entry point for Venezuelan immigrants into Brazil.

sentence obliges the person to remain there and, until the end of serving the sentence, the person may even wish to reside in the country. Whether or not the person wants to stay in the country, the challenges related to their stay in the country refer to the challenges faced by migrants in general, such as legal status, work, or access to public services. This indicates that individuals desiring to stay in the country must either seek means to fit requirements for a regular migratory status, or try to remain in the country by other means, which is often facilitated by support networks.

Regarding the second aspect, the profiles of criminally prosecuted people analyzed in this research indicate migratory experience prior to their convictions. Among the 28 defendants, 15 cases showed references to migratory experiences before the arrest. Allusion to residence in Brazil may appear in the criminal files in different ways: they mention the defendant's request for asylum (three cases), they list a Brazilian identification document (three cases), they provide a Brazilian residential address (three cases), they report about a Brazilian child (one case), and/or they refer to a previous conviction in Brazil (one case). These figures challenge the notion that individuals facing prosecution or those who have been convicted are not migrants or do not intend to remain in the country.

Being a migrant also appeared to have an impact on the criminal proceedings in another way. In several cases I reviewed, the fact that the defendant sought refuge in Brazil was highlighted in the criminal process as something that should be taken negatively into account when it comes to the conviction. In two cases in which the defendants were Nigerians, judges articulated the following:

[...] circumstances of the crime: deserve a negative assessment. This is because the defendant requested refuge for the Brazilian authorities, as stated in the certificate of migratory movements. The request for refuge followed by the practice of trafficking is quite an abusive conduct. Indeed, the public faith is affected by the misuse and diversion of the efforts undertaken by the Brazilian State to fulfill its international commitments and effectively protect human rights. The Federative Republic of Brazil is quite liberal in admitting foreign refugees and can only maintain this position if the public faith given to the documents and statements being presented by the alleged refugees is firm and respected. Conduct such as the one verified in the present case must be severely punished, as they affect this indispensable public faith, indirectly affecting the entire network of human rights woven by the Brazilian State. [Excerpt from sentence, translated by the author]

Circumstances concerning the nature and quantity of the drug are unfavorable. It is also understood that the status of refugee seeker deserves greater disapproval in conduct, as it is highly reprehensible for someone who flees persecution to commit a crime in the same place where he seeks protection. [Excerpt from sentence, translated by the author]

Adriana Vianna and Angela Facundo (2015) point out that administrators endeavor to discern the motives that drive individuals' movements across territories and borders and that these endeavors shape the categorization of individuals and their actions and relationships. Facundo (2014) further illustrates that these classification processes create "pure" personas like the "pure refugee" and the "true refugee", juxtaposed against figures such as migrants who do not intend to stay in the country for a long time or who are considered as "fortune

seekers". It becomes the work of a diversity of state and non-state actors to safeguard these categories from being "contaminated" by punishing individuals who might "corrupt" them.

In summary, individuals involved in criminal proceedings might already reside in Brazil or be traveling in the country at the time of arrest. Regardless of their situation before the arrest, they may desire to stay in or leave the country after the criminal proceedings are over. Not only does the Brazilian criminal justice system compel the person to remain in the country until the end of the sentence but also, given that this person has a criminal record, restricts his or her access to a regular migratory status. The disputes around migration categories are reflected not only in the legal barriers to accessing regular migration status, but also in the way state agents make moral judgments about who should or should not be considered a migrant.

7. Conclusion

Borders are established through the creation and implementation of categorizations that differentiate between the authorized movements of certain people and the prohibited and marginalized movements of many others (Glick Schiller and Salazar 2012). This paper focused on the ways in which these categorizations interconnect with the assessment of social ties, income-generating pursuits, and displacements. The practices of control and punishment adopt a transnational approach that operates beyond the confines of nation-states and involves actors beyond state entities (Glick Schiller 1999), whether they are non-state actors or supranational actors.

Contextualizing the criminalization of drugs also as a form of regulating certain bodies situates the fight against international drug trafficking within a transnational framework of border controls. Consequently, it is worth understanding that one of the numerous consequences of the "war on drugs" is the regulation of movements. Institutions like the court and the airport are built as integral parts of a transnational web of security and punishment devices.

The research presented in this paper focused on the intersections between criminal and migration policies as well as criminal and migratory categories by investigating the work carried out by state and non-state agents and agencies at airports and courts, responsible for combating crime, for border control, and for the regulation of migration. From the data collected in the field it was possible to understand that their practices represent a continuum between the airport and the courthouse, encompassing attributions and categorizations relating crime and displacement. The airport, in addition to managing international border security, becomes also a place of crime control, while the court, in addition to judging crime offenses, becomes also a place of displacement control.

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Counting Clans: The Production of Statistical Security Knowledge on "Clan Crime"

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Abstract

For a few years now, police administrations in Germany have been producing statistical knowledge on so-called "clan crime". While the category itself has received some criticism, the statistics have not been scrutinized yet. Based on an analysis of public documents, this paper addresses this research gap by focusing on three different methods of quantification. It argues that methods of counting clan crime racialize the phenomenon to various degrees while enacting anti-Muslim narratives. By focusing on clan crime statistics within critical security research, this research paper first describes clan crime statistics as techniques of securitization and it subsequently pleads for de-securitization through independent research. Second, the paper explicates my approach to the performativity of crime statistics which assumes that numbers are not just objective representations or subjective constructions of reality but rather they enact different versions of reality. I will then briefly describe my praxeographic approach and present empirical findings.

Keywords: clans; crime statistics; (de-)securitization; quantification; secrecy; anti-Muslim racism

1. Introduction

In August 2018 a well-known German newspaper ran the headline: "Investigations by the BKA. 200,000 criminal clan members in Germany" (Tschermak 2018)¹. In the accompanying article the newspaper reported on the supposed danger posed by a new breed of criminals – so-called "clan criminals". When questioned by journalists who were surprised by the large number, the Federal Police Office (Bundeskriminalamt) clarified that the figure was an estimate of "potential" (Klingst 2018)² clan criminals, i.e., the number of people with a surname that the police consider to be a clan and who could therefore potentially become clan criminals. In response, even journalists with a critical view of the new police category demanded "tangible figures" (ibid.; Schneiders & Wessel 2018)³. In the years that followed, several police administrations categorized and quantified clan crime along ethnic, cultural, and national lines and published the results in public reports. Based on different definitions and methodologies, the "clan" has been enacted as an official statistical category of state

¹ Translation by author.

² Translation by author.

³ Translation by author.

practice. Despite this continuous expansion of statistical security knowledge production about ethnic minorities by state authorities, there has been little academic research on how this knowledge is produced, what ideas it incorporates, and what onto-political effects its dissemination entails.

In accordance with this paradigm, Osborne and Rose, for instance, have demonstrated how the proliferation of opinion polls and the representative sample have resulted in the formation of "public opinion" (Osborne and Rose 1999), while Michel Callon has illustrated how certain theories about the functioning of economic markets have contributed to the emergence of these dynamics (Callon 1998). Similarly, Evelyn Ruppert and Stephan Scheel (2021) argue that a European population becomes legible and governable through statistical practices. For objective truth, such as the numerically proven security facts studied here to be produced, it must first be translated into chains of reference, for example through the application of rules and routines of attribution. In doing so, they create reality in a way that could be done otherwise. From this perspective, truth and reality are neither singular and universal nor relative, but relational, multiple, and situated (Haraway 1988; Law 2009; Mol 2002). In material semiotics, the use of methods to produce knowledge is therefore understood to involve what is termed "ontological politics" (Mol 1999). This term is intended to clarify the following: If reality is not fixed and set, but is co-actualized through knowledge practices, then the choice of a method always consists of a politics of what may be (Law 2009).

Based on these considerations, in this article I will examine the ways in which different versions of clan crime are realized through the methods of security agencies, and the ontopolitical effects this implies. I will demonstrate how clan crime is performed by means of various quantification practices in different ways. Clan crime statistics can have three main effects: first, all clan crime statistics that I examined in this article ethnicize clan crime as a phenomenon that can only exist in a specific ethnic group. Second, they naturalize clan crime as a way of being rather than a way of acting when they fail to differentiate between criminal offences but instead count all police records connected to certain individuals. Third, they collectivize clan crime as a bloodline attribute when suspects are not categorized individually but automatically as part of a larger family structure. This results in the statistical methods of counting clan crime racializing the phenomenon to various degrees, while also enacting a narrative of Islamic-tribal patriarchy that is established in anti-Muslim discourses. The methods of the security authorities not only enact different versions of clan crime but also implicit theories and narratives about national and cultural identity – one's own but also that of others. These are made explicit by tracing the socio-technical practices through which the statistics are produced.

In the following section, I will situate my work within critical security research, delineate my understanding of clan crime statistics as techniques of securitization, and subsequently plead for de-securitization through independent research. In the third section, I will explicate my approach to the performativity of crime statistics, which assumes that crime numbers are not just objective representations or subjective constructions of reality but rather *do* or *make* things as actors themselves. In the fourth section I will provide a brief description of my praxeographic approach and present and discuss my empirical findings.

2. Desecuritizing Clan Crime

Security has long been studied from the perspective of nation-states and their geopolitical interests as a condition that can be evaluated in an objective manner (Wæver 1995, 49). However, this neorealist approach has been subject to criticism, leading to the emergence of critical security research that focuses on the linguistic and constructive nature of security. The Copenhagen School of critical security studies posits that the determination of (in)security is the consequence of a process of securitization in which political elites postulate a threat by uttering a performative speech act (Wæver 1995). Such "securitizing moves" (Balzacq, Léonard, and Ruzicka 2016) would then be accepted or rejected in a public-political space. Consequently, attempts at securitization need not automatically lead to the desired outcome. For the Copenhagen School, the existence or absence of security can never be established objectively but is always the result of the discursive practices of a few (Buzan, Wæver, and Wilde 1998). Such speech acts are characterized as an "extreme form of politicization" (Buzan, Wæver, and Wilde 1998, 23) that allows political elites to act in ways that would be deemed unacceptable in "normal" political events.

The definition of securitization as a pure speech act and the a priori determination of political discourse as the only site of security production and contestation has been criticized by the Paris School (C.A.S.E 2006). The latter suggests that an analytical limitation to language risks obscures which non-linguistic and everyday practices can produce security-relevant knowledge and how power asymmetries become relevant in the process (Bigo 2002; C.A.S.E 2006, 457). Drawing on the works of Foucault and Bourdieu, Bigo (2002), one of the protagonists of the Paris School, therefore understands securitization as a process that is implemented not only by dint of linguistic expressions, but also through surveillance technologies, "professionalized security knowledge and bureaucratic practices" (Togral 2012, 32). Here, securitization no longer refers to the rhetorical induction of a crisis that legitimizes a policy of exception but describes a mode of governance in which areas of state rule, which were previously separate from security policy, are established as security problems (in this case, crime and migration) via the implementation of everyday and routinized security

practices (Togral 2012, 34). This difference is important because it illustrates that securitization can also take place largely covertly, without public discourse, and thus does not require the acceptance of recipients (Bigo 2000, 194). Hence, understanding security as a professionalized practice directs research attention to the "instruments of securitization" (Balzacq 2008).

The term de-securitization, in turn, is used to describe the processes by which threat constructions are weakened or reversed. For the Copenhagen School, de-securitization develops by way of discursive statements that can reverse securitization, for example, by employing objectivist, constructivist, or de-constructivist rhetorical strategies that resist dominant discourses (Huysmans 1995). However, there have been few approaches that have attempted to describe what de-securitization means when applying the practice-theoretical paradigm of the Paris School (Scheel 2020, 2). In Bigo's view, the knowledge of professionalized security experts is granted authority because they can point to exclusive access to the instruments of securitization, making their own knowledge production appear reliable, objective, and relevant (Bigo 2002). In this understanding, however, the knowledge production of the authorities cannot be well criticized by activists and critical scholars, for example, because as outsiders they do not operate in the bureaucratic security field of transnational communities of practice (ibid., 66). As a result, their own knowledge production must necessarily remain less credible (Bigo 2016; Scheel 2020, 8).

More recent approaches, however, criticize this position. Referring to Boswell (2009), Stephan Scheel argues for the rejection of clear demarcations between expert and non-expert knowledge. He understands the security field as a "trans-epistemic arena" (Knorr-Cetina 1982) in which not only security experts but also academics struggle for the authority to define knowledge (Scheel 2020, 7–9). With their institutional positions and academic titles, they would be able to muster the symbolic and cultural capital needed, for example, to examine and criticize police statistics. After all, the self-image of the scientific profession is to independently verify statements of truth (ibid., 8). Accordingly, Scheel suggests that desecuritization should be understood as an erosion of the epistemic foundation through which the so-called security experts maintain their authority, ergo their supposed expertise. This is central to the ability "to define and shape threats and corresponding security discourses" (ibid.) and must be examined and criticized accordingly if resistant narratives are to be effective.

What implications does this have for the study of clan crime in Germany? The term "clan" as an official category is used exclusively in the context of crime statistics, and knowledge about clans is produced by state officials in partly confidential practices in response to perceived

security problems. Despite the monopoly of statistical knowledge production as regards clan crime on the part of security authorities, there are ways for outsiders to critically examine and question the statistics. One method of examining these statistics is to analyze the assumptions made in them that place the non-German origin of suspects in a causal relation to the offenses they are charged with. This suggests a tight relationship between security problems and (certain types of) immigration. This relationship has not been analyzed yet and the contribution of this paper is the attempt to fill this research gap by underlining the need for critical researchers to analyze the methods, practices, and processes of how security professionals fabricate statistical knowledge on clans. In the following section I will therefore develop an approach to crime statistics that is informed by the sociology of quantification and a theory of performativity grounded in science and technology studies. The aforementioned theory considers the performative capacities not only of humans, but also of numbers, methods, and other technological devices. The aim of the paper is to demonstrate how the securitization of the clan category is not only implemented through discursive strategies but also through seemingly mundane and straightforward counting practices.

3. Toward a Performativity of Crime Statistics?

Security officials attribute crime statistics with the ability to depict events in an objective, neutral, and apolitical manner. They are particularly well suited for this purpose because in modern societies numbers are considered universal signs that always mean the same thing regardless of who uses them (Diaz-Bone and Didier 2016; Espeland and Stevens 2008; Hansen 2015; Mennicken and Espeland 2019). From its inception, crime statistics have been employed by the state as a tool for identifying and preventing deviant behavior, for example by means of the threat of punishment (Maguire 2012, 209). In recent times, the digitization of policing has led to a veritable "explosion of data on crime" (Maguire and McVie 2017). Security agencies utilize this data to inform the public about crime, identify crime patterns through statistical methods, and reduce crime with the help of preventive and interventive policing (Egbert and Leese 2021; Richard Victor Ericson and Haggerty 1997; Richard V. Ericson and Shearing 1986; Kaufmann, Egbert, and Leese 2019).

In many of these approaches, crime statistics are viewed as more or less accurate descriptions of reality. However, the production of police data and the dissemination of public crime statistics are structured by several practices. First, crimes must be detected before they can be expressed in numbers. For example, a comparison of police crime statistics with sociological victimization surveys reveals that a large proportion of criminally relevant acts are not reported, and thus they do not come to the attention of the police in the first place (Hope 2013). Security authorities are aware of this discrepancy and address it by

distinguishing between a *bright field* and a *dark field* of criminal activity. However, this distinction assumes that, with sufficient effort, police could expand the bright field and detect all instances of crime. However, counting crime is a more complex matter than it might seem at first glance. When reports are stored in police data systems they are not automatically counted as crimes in official statistics. This gap is referred to as the *gray area* of crime which is intended to describe the discrepancy between reports filed and recorded with the police on the one hand and published figures on the other (Bottomley and Pease 1986). This arises due to differences in documentation and categorization practices. While a *prima facie* model is used for some statistics or by some agencies, in which all police-registered data are counted, others use an *evidential* model in which available data are subjected to a selection mechanism. The rationale behind the decision to exclude certain reports from the official tally may vary. For instance, it may be determined that the evidence is not insufficient to substantiate the claim, a criminal complaint may be dismissed, or certain types of crimes may be deemed unworthy of reporting (Hope 2013, 49).

However, contributions from the sociology of quantification fundamentally challenge the understanding of statistics as objective representations of reality. Instead, they emphasize that the establishment of comparability using standardized units of measurement underlies all processes of quantification (Espeland and Stevens 1998). It is therefore essential to determine the method and criteria for counting before commencing any counting process. Since there are no natural indicators that could simply be "found", police must actively decide which crime figures to produce. Therefore, the act of quantifying entails translating qualitative differences into quantitative ones. Consequently, statistics are always constituted by what they are purported to describe (Espeland and Stevens 1998; Mennicken and Espeland 2019). The perception of numbers and numerical operations as neutral and objective is an "illusion" (Hansen 2015) that fails to acknowledge that statistical statements are based on a qualitative category formation that creates quantitative objectivity in the first place.

A perspective on crime statistics inspired by science and technology studies instead asks what statistics do *qua* actors themselves. Research has indicated that devices and methods enact or perform social reality. The term "performativity" originates from linguistic philosophy and it contains the metaphor of dramaturgical performance. It is meant to describe situations in which something said is also something done or has effects (Law 2015, 7). Consequently, for the study of knowledge production, performativity as a sociological concept proposes that when methods are used to describe and explain the world, this world is not simply found but it is always actively produced (Law 2007; Law and Urry 2004, 1). The use and dissemination of numbers can be understood as performative acts that shape and change what they produce

(Espeland and Stevens 2008, 403–4). Accordingly, Ian Hacking argues that statistics "make up people" (Hacking 1999). Using mental illness as an example, he illustrates how classification and quantification practices produce different versions of the realities they allegedly only describe. For instance, autism has long been commonly defined in a way that focuses on antisocial and anti-normal aspects, and the number of children with autism has been quite low. Nonetheless, the definition is less malicious today, and the number of children with autism is steadily rising. Hacking describes this development as a looping effect, a shift in what it means to be someone who has autism that can be traced to the development of the sub-category of high-functioning autism (Hacking 2007).

Objective truths such as the numerically "proven" security facts studied here must first be produced in chains of translation for example through rules and routines of attribution. In doing so, they make α reality in ways that could be done otherwise. Truth and reality from this perspective are not singular and universal, nor relative, but relational, multiple, and situated (Haraway 1988; Law 2009; Mol 2002). If reality is not fixed and set, but is co-enacted through knowledge practices, then the choice of a method always consists of a politics of what may be (Law 2009). Due to the assumptions and choices inherent in statistical methodologies, coupled with the pre-existing socio-material networks brought into play during the quantification process, the categories embedded in statistical methods not only embody the intended classifications but also give rise to what John Law has termed "collateral realities" (ibid.) - implicitly generated realities that unfold throughout the course of the process. In the statistics examined here, crime is grouped primarily along various ethnopolitical demarcations. In their analysis, Grommé and Scheel (2020) apply Law's concept to demonstrate that ethnic identity categories in government statistics also reflect underlying assumptions, theories, and narratives about national identity. These categories are seen as deeply embedded in the socio-material practices, with a clear distinction between "autochthones" and foreigners. By tracing and describing these practices in detail, Scheel and Grommé argue that it becomes possible to render the collateral realities visible. The argument I put forth is that similar implicit realities are enacted through the different versions of clan crime statistics. Thus, the aim of this article is to trace and describe the practices and collateral realities that make up the statistics.

In the following chapter, I will therefore briefly explicate my methodological approach, highlighting how quantifying practices in contexts of (post-)secrecy can be examined in terms of a praxeography.

4. Praxeography in the Context of Secrecy

Based on the assumption that (in)security is implemented not only through linguistic expressions but especially through knowledge practices, such as crime measurements, I had originally intended to ethnographically investigate the gradual translation of crimes and misdemeanors into statistics at police offices. However, in the several months that I was attempting to obtain permission for access, interviews, meetings, or software demonstrations, I was repeatedly rebuffed, put off, or ignored. Promises made were withdrawn or not kept. In any case, such "spins, stalls, or shutdowns" (Lippert, Walby, and Wilkinson 2015) were to be expected insofar as security research shows that the production of security knowledge is accompanied by secrecy practices by official administrations. Secrecy, while not an imperative, is a frequent response and strategy of security agencies to requests for external research projects (Belcher and Martin 2013; 2020; Dingli 2015; Walters 2014; 2021). How is one to address this?

Due to the blanket of secrecy that frequently surrounds the security field, the prevalent ethos in security research is to "discover and experiment with the productive possibilities of secrecy, fog, and obfuscation" (Birchall 2016, 161). Taking Birchall seriously, I want to move away from the term ethnography which is often used in connection with actor-network theory. It raises methodological expectations that are not met by the present work. In doing so, I refer to Christian Bueger (2020), who argues that the claim to "do field research" (ibid.) is a frequently formulated but not always well-justified claim due to the established status of the ethnographic method in the social sciences. Often, however, there is no field to be investigated, but rather a network of actors that is enacted in practice. Since the focus is not on cultures, but on socio-technical practices, Bueger proposes the term praxeography. In doing so, he emphasizes the multiple, fractal, and fragile characters of actor-networks that push questions of access into the background. Given that networks lack a center, it is not logical to wait for access to an "inner circle" (ibid.).

Following on from this, and building on the concept of "post-secrecy" (Walters and Luscombe 2019), it is important to note that while certain aspects of the knowledge production on clan crime remain concealed, a significant amount of information about the measurement methods employed by the authorities is publicly available. This is due to the fact that the methods have been documented and are subject to parliamentary oversight procedures and transparency norms. So instead of following reluctant actors, I have "follow[ed] the [digital] paper" (Lowenkron and Ferreira 2014) as part of a digital praxeography. In a flood of documents such as public statistic reports, project reports, position papers, parliamentary inquiries and answers, motions, and minuted debates at the state and federal levels, security

agencies' measurement practices are translated and publicly disseminated. Even if agencies do not wish for their methods to be observed directly, they do leave traces that can be investigated. I collected every public official document on the issue I could obtain, which amounts to approximately 100 documents, and I analyzed 25 of them for this article. I have additionally analyzed criminological literature which is produced at police universities and legitimizes the statistics.

The following section will reassemble the different categorization and quantification practices that make up clan crime statistics. My case selection is informed by the secrecy practices previously outlined. Given the limitations of my analysis, which is confined to publicly available documents, I will examine three methods that were publicly known in 2022. However, I will exclude any recent developments. By comparing the practices which translate regular figures on crime into figures on clan crime, it is my intention to reconstruct the realities they enact and to draw a conclusion on the effects they entail.

5. Enacting Clan Crime

I began this article by outlining my approach to clan crime statistics from the perspective of critical security studies. Drawing on discussions grounded in a practice-oriented understanding of security knowledge production, I argued that the monopolization of knowledge production on clan crime by security agencies is not an obstacle to independent research, as some researchers might argue, but rather the very reason why critical researchers need to intervene. I then proposed an understanding of crime statistics as performative, suggesting that rather than simply describing a singular crime reality, crime statistics themselves perform or make situated crime realities. They do so through the ontological assumptions made within the practices by which they are brought into being. Finally, I described how statistics operating with ethno-political categories enact narratives of national identity of both the imagined collective self and the other.

In this chapter, I will present empirical material from two sources. First, I will describe three methods that are used throughout Germany to produce statistics on clan crime. The methods have been used in different federal states and by different federal police agencies because, although there have been several national conferences on the subject, the police had not been able to agree on a common definition or method until recently. My aim is to show how variations in methodological practices, rather than leading to different descriptions of the crime phenomenon, perpetuate a mechanism of racialization to varying degrees. Second, I will expose the implicit theoretical assumptions underlying these statistics by tracing them back to the criminological literature through which they are publicly legitimized. These

supposedly scientific assumptions match established anti-Muslim racist narratives and explain the racializing acts the statistics perform. Accordingly, the objective of this article is twofold. On the one hand, I want to highlight how different methods of quantifying clan crime deployed by German state authorities contribute to various degrees of racialization of parts of its population. On the other, I want to show how academics working with the police legitimize these statistics by formulating anti-Muslim racist criminological theories.

The Name-based Research Method

The so-called name-based research method has been deployed by the police offices of Niedersachsen, Nordrhein-Westfalen, and Bremen. In this procedure, security institutions agree on a list of surnames that the police assume refer to clans, some members of which repeatedly commit crimes. Differing ways of spelling are collated into one category. This method results in lists comprising approximately 250 names, which are aggregated to approximately 100 clans. This is because the police argue that different ways of spelling can refer to one clan. The secret lists are produced in a yearly supra-regional collaboration of police offices and other institutions, including immigration and employment offices. Once the institutions have agreed on which family names refer to a clan, the list is compared retrospectively with police authorities' operational processing systems over a set period. Those who are unfortunate enough to be born with a surname included on the list and, simultaneously, recorded in the operating system for alleged criminal activity are then classified as clan criminals, with the respective offence(s) designated as clan criminality. This prima-facie model assigns all criminal charges unchecked as instances of clan crime (Landeskriminalamt Nordrhein-Westfalen 2019, 2020).

Despite the police repeatedly stating that they have been unable to agree on a unified definition of clan crime, a provisional definition was established by referencing the fixed definition of organized crime established by the security authorities in 1990. For instance, in North-Rhine Westphalia, clan crime is defined as:

"the commission of crimes with the participation of several persons, determined by the desire for profit or power.

- The common family or ethnic origin is deliberately included in the commission of the crime as a unifying component that promotes the commission of the crime or hinders the clarification of the crime,
- The commission of the crime is characterized by a lack of acceptance of the German legal system or system of values, and

• The offenses, individually or in their totality, are of considerable significance." (Landeskriminalamt Nordrhein-Westfalen 2019, 7)⁴

The fact that the definition of clan crime is formulated in reference to the established definition of organized crime points to its relatively recent history as a subcategory of organized crime, as well as to how it is perceived in public and portrayed by its proponents. With the name-based method, however, state criminal investigation departments count *all* (suspected) crimes committed by persons with specific surnames, and thus not a specific form of crime but any form of crime committed by a previously identified group of people.

The police practice of determining membership in a criminal clan based solely on a person's surname does not allow for the distinction of motives connected to an offence. Instead, it is merely used to define a group and count the acts attributed to it. The grouping of individuals and nuclear families into criminal clans suggests that this designates a criminal association characterized by family ties. However, this cannot be verified in any of the cases. The definition and its criteria do not point to individual cases but rather to the nature of families. The LKA NRW further restricts the category of clan crime to the ethnic minority of "Mhallamiye". The term refers to a dialect that used to be spoken in the province of Mardin which is located in Turkish territory (Ghadban 2000). The police posit that a migration flow at the beginning of the 20th century led to the majority of Mhallamiye fleeing to Lebanon, with many subsequently relocating to Germany due to ongoing experiences of discrimination during the Lebanese civil war. The statistics are intended to "first and foremost" describe crime committed by Mhallamiye as it is assumed that they primarily fit the vague definition. The extent to which exceptions are made remains unclear. For example, "real Lebanese" (Landeskriminalamt Nordrhein-Westfalen 2019a, 10)⁵ are excluded, yet the reason for this is unclear. It may be due to a lack of cases that fit the definition or a general decision to exclude them.

The numbers produced by the name-based method initially accomplish three things. First, they enact clan criminality as a collective phenomenon and thereby *homogenize* the characteristics of all family members, including those who do not become criminals. Even for non-criminal family members, it is assumed that if they do become criminals they can only do so in one way, and that is according to the definition of clan criminality. This practice is the reason why the Bild Newspaper was speaking about 200.000 (potential) clan criminals.

⁴ Translation by author.

⁵ Translation by author.

Belonging to one of the listed families is the first necessary condition for being prone to commit a clan crime. Second, counting all crimes *essentializes* the phenomenon as a natural and inseparable characteristic of families and of all their members. The numbers do not evaluate individual crimes but rather the criminal nature of families and family members. The assignment of cases to clan crime is thus carried out according to a deterministic logic that invokes membership in a group as an explanation for individual behavior. The fact that the police refer to the figures simply as general crime statistics downplays these processes. Since only Mhallamiye can become clan criminals on the basis of this method, it additionally *ethnicizes* clan crime as a kind of crime that can only be committed by a specific ethnic minority.

Clan Tags

In Berlin and Niedersachsen the police utilize digital *markers* or *tags* within their electronic processing systems to quantify clan crime. In Niedersachsen, where lists of clans were produced as early as 2003, police recently opted to abandon the name-based research in favor of the tags (Landeskriminalamt Niedersachsen 2020, 6; 2021, 6). Both police offices argue that the methodological shift enables the measurement of clan crime independent of ethnicity. However, is this truly the case? It can be argued that although tags redirect the focus from families to individual people, and thus do not *homogenize* the phenomenon, they do *essentialize* and *ethnicize* it.

In order to count clan crime, the LKA Berlin has developed two so-called "investigation supporting tags" (Landeskriminalamt Berlin 2020, 4-5)6, which were introduced in 2019. These allow the police to mark each suspect in their database (POLIKS) with the categories "clan" or "clan-environment". Instead of aggregating surnames into a criminal clan and retroactively categorizing all charges against this group as clan crimes, individuals are permanently tagged as clan criminals, and only all their individual recorded encounters with the police are listed as clan crimes. This includes alleged criminal charges as well as misdemeanors. In 2019 Berlin police assigned the tag "clan" to 316 people, while the tag "clan environment" was assigned to 72 people. 291 of these people are charged with 1013 felonies and 136 of them with 192 misdemeanors (ibid., 5). One instance of clan crime describes the crime of "bathing in places where it is not allowed", and three instances are listed as "unacceptable noise at night" (ibid., 33)7. Although misdemeanors and felonies are listed separately, these cases illustrate that from using public transportation without a valid ticket to murder, any incident that is

⁶ Translation by author.

⁷ Translation by author.

documented by the police is categorized and counted as a clan crime if a person is tagged as a clan member or affiliate. This means that what is actually being counted is not the nature of a particular crime, but the criminal nature of a person. Thus, the statistics produced by the markers still essentialize clan crime as a way of being rather than a way of acting, albeit not as an attribute of a family but of an individual.

Instead of Turkish-Arab "Mhallamiye" families, as in North Rhine-Westphalia, the Berlin reports speak of "members of ethnic isolated structures of Arab origin ('clans')" (Landeskriminalamt Berlin 2019, 7)8. This is supposed to be the phenomenon:

"[..] influenced by a parallel society that is evident in large parts of the community with Arab roots and that comes with lack of acceptance or even rejection of the systems of Values- and Norms prevalent in Germany." (ibid., 3)⁹

The LKA Berlin specifies that "Arab" refers to people whose ethnic origin can be attributed to a state that is a member of the Arab League, a loose confederation of Arabic-speaking countries. The report goes on to explain:

"In Berlin, approximately 4.01% of the resident population (150,705 persons) originates from the Arab League region. Of these persons, approx. 35.77 % are German nationals. [...] There are 29,561 immigrants from Lebanon, approximately 72.1% of whom are German nationals. [...] A not insignificant number of persons with 'unclear' or no citizenship are recorded, which leads to a blurring of these population shares." (ibid., 5)10

In detail, the counting practice works as follows: For police officers in Berlin there is a duty to report:

"[...] all criminal charges and misdemeanors which because of police experience allow the suspicion that they have been done by members of criminal members of structures with Arabic roots to the 'Centre for Analysis and Coordination for the fight against criminal structures' (ZAK BkS) within the bureau of investigation Berlin." (Abgeordnetenhaus Berlin 2020)¹¹

The ZAK BkS then examines each case individually with the preliminary definition of clan crime, always with more than one police officer. "Additional rules or recommendations

⁸ Translation by author.

⁹ Translation by author.

¹⁰ Translation by author.

¹¹ Translation by author.

do not exist" (ibid., 6)¹². This seems to mean that all police officers in Berlin are legally obliged to profile suspects with regard to the ethnic category of *Arab*, which cannot be derived from citizenship and can therefore only be assumed through phenotypes and the kinship of the suspects.

How does the ZAK BkS decide then who will be digitally tagged with the "clan" or "clanenvironment" tags? It is difficult to find a definitive answer to this question. Neither the police reports nor the parliamentary inquiries clearly state this. As in the reports from NRW, clan crime is first defined as a criminal phenomenon, but then limited to a specific ethnic minority, thus *ethnicizing* the phenomenon.

"In combating 'clan crime', the Berlin police initially focus on the criminality of members of ethnically segregated Arab structures whose ethnic roots can be traced back in particular to so-called Mhallami Kurds, Lebanese and stateless Palestinians and who immigrated from Lebanon as war refugees at the time. The affiliation of individuals or families to one of the aforementioned ethnic groups does not in itself explicitly justify classification under the term 'clan crime'." (Landeskriminalamt Berlin 2020, 6)¹³.

In addition to "Mhallamiye", "real Lebanese" and "stateless Palestinians" can now also be marked in the system. *Real Germans*¹⁴ and other ethnicities can now also be marked within the system but only with the marker "clan-environment". The statistics will then list all incidents together as clan crime incidents. The difference between the marker "clan" and "clan-environment", however, emphasizes that only "Arabs" can be assigned to the security problem, while other ethnicities and autochthonous Germans can never form a clan or even be actual clan members, even if they are heavily involved in crimes committed by specific clan members. In response to a parliamentary inquiry, the Berlin police added:

"Insofar as a case-by-case examination based on the definition of 'clan crime' reveals this, crimes committed by suspects of other ethnic origins can also be assigned to the phenomenon area of clan crime. There is currently no factually justifiable need for a fundamental expansion to include crime suspects beyond the

¹² Translation by author.

¹³ Translation by author.

¹⁴ Although the reports never mention the category of real Germans explicitly, it becomes enacted as an implicit category through constant essentialization of non-German ethnicities.

aforementioned group of persons, so there has been no exchange on this to date." (Abgeordnetenhaus Berlin 2020, 4)¹⁵

The police claim to be able to measure clan crime independently of ethnicity, pointing to individually investigated cases and a definition that is open in principle. However, there are enough indications to assume that what is actually being measured, or rather enacted, by such markers is the crime of parts of an Arab population, since almost all documents speak exclusively of social structures with Arab roots. Although the preliminary definition speaks only of ethnically isolated social structures, everywhere else the police are quite clear about which ethnic group is considered problematic. Against this background, it seems unlikely that the Berlin police would view clan crime as independent of an Arab ethnicity, and a comparison of the statistics from Berlin and Lower Saxony supports this assumption.

In Berlin in 2020, 45,36% of suspected clan criminals had German citizenship, 17,53% were Lebanese, 15,72% had "none" or an "unknown citizenship", 7,47% had dual German and Lebanese citizenship, and the remaining suspects are spread across 11 different citizenship categories (including other dual citizenship categories) (Landeskriminalamt Berlin 2020, 5). However, the distribution in the reports from Lower Saxony is much more diverse. There, where the definition shifts from an Arab ethnicity to all ethnicities, 46,78% of all suspects have German citizenship, 13,24% Turkish citizenship, 7,17% Lebanese citizenship, 4,92% Serbian citizenship, 4,86% Syrian citizenship, 9,30% none or unknown citizenship, and the remaining 10% have a total of 38 different citizenships (Landeskriminalamt Niedersachsen 2019, 9). The police emphasize that the statistics are not comparable because they make different assumptions and use different databases, but this is exactly the point I want to make here. Once they are compared, it becomes clear that different quantification practices produce different versions of the phenomenon that exclude each other. While clan crime in Berlin is enacted as an Arab phenomenon and police officers are demonstrably focusing on this ethnopolitical group when marking crime suspects, Niedersachsen seems to have different rules and routines that produce a greater variety of suspects' ethnicities. At the same time, both methods exclude Germans of no foreign origin or real Germans from the statistics if they are not connected to clan criminals with foreign roots. Contrary to the promise of being independent of ethnicity, the method of counting markers seems very much to be dependent

¹⁵ Although the reports never mention the category of real Germans explicitly, it becomes enacted as an implicit category through constant essentialization of non-German ethnicities.

on the assignment to an Arab (in Berlin) or any other (non-German) ethnicity (in Niedersachsen).

The Organized Crime Method

Like clan crime, organized crime in Germany is an extra-legal category. This means that it is not described in any legal text. While there is a law that refers to the formation of a criminal association (§129 StGB)¹⁶, the term organized crime derives its meaning not from lawmakers but from the federal police, which created the common definition in 1990. However, the subcategories of organized crime have been changing ever since. For example, in 2003 organized crime was subcategorized strictly along national lines. Later the police began developing categories such as "Russian-Eurasian crime" or "biker gang crime" ¹⁷ (Bundeskriminalamt 2019, 20–28)¹⁸. Since the 2018 report, the federal police office has also begun to list clan crime as a subcategory of organized crime in its public crime statistics, a move that preceded any other police institution.

To produce the statistics on organized crime the federal police has established the so-called *investigative method*. This procedure involves combining individual crime court cases into larger "procedural complexes" or "OC groups" (Bundeskriminalamt 2020, 11)¹⁹, which are then further grouped into the various subcategories. In the first step, only those crimes are combined to OC groups that allow the conclusion that they are related based on police investigations, and as a result, have become court cases. This is a significant difference to the previously introduced statistics where there has not been any legal indictment yet. In contrast to the other methods which assess the criminal nature of families or individuals, this method assesses the criminal nature of specific acts. To this end, the following definition is employed:

"Organized crime is the planned commission of criminal acts, individually or collectively, which are of considerable significance, determined by the pursuit of profit or power, if more than two persons involved work for a longer or indefinite period of time in a division of labor,> a) using commercial or business-like structures,,> b) using force or other means suitable for intimidation, or,> (c) working

¹⁶ The StGB or *Strafgesetzbuch* is the German Criminal Code.

¹⁷ Translation by author.

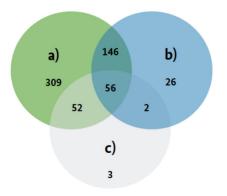
¹⁸ Translation by author.

¹⁹ Translation by author.

together to influence politics, the media, public administration, the judiciary, or the economy." (Bundeskriminalamt 2020, 10)²⁰

In contrast to the preliminary definition of clan crime, which lacks established rules for its use, the BKA writes in its definition of organized crime that, "in order for criminal activities to be classified as an organized crime [...] all general and additionally at least one of the special indicators of alternatives a) to c) [must] be found". This allows police to state in which cases which indicators are viewed as given and which are not. Graphic 1 presents a visual representation of all organized crime groups of 2021, specified according to the three indicators. This illustrates that the methods employed to quantify clan crime to date do not adhere to a clear definition or to straightforward indicators but they rather rely on a nebulous and highly subjective notion of what constitutes clan crime.

Figure 1: Distribution of the indicators for organized crime in Germany, 2020 (ibid., 10)



The second step raises the question of whether these OC groups should be considered cases of (organized) clan crime or not. Once again, a provisional definition is employed, with almost no reason for its implementation. The definition in question asks whether ethnic unity, patriarchal structures, and the rejection of "German values and norms" are included in a crime. In contrast to the first step, the police cannot indicate in which cases of (organized) clan crime which indicators are assumed to be met. To construct these groups, it is necessary that the "leaders [...] who determine the criminal activity of the OC groups" (Landeskriminalamt Nordrhein-Westfalen 2020, 24)²¹ meet the criteria. In addition, they must also belong to one of the six citizenship groups known from the name-based method. German

²⁰ Translation by author.

²¹ Translation by author.

is one of them and, although it is nowhere explicitly stated, it is evident that the police only list Germans with a "migration background" from one of these countries.

Nevertheless, this version of clan crime is considerably more diverse in composition than those produced with the name-based method or through counting tags. Even in cases in which "Mhallamiye" are considered central figures of the organized crime group, no corresponding background is attributed to the main part of the accused. The Federal Criminal Police Office notes in this regard:

"Although the extended families of the Mhallamiye or of Arabic and 'Turkish' origin are attributed a high degree of isolation from the outside world, this characteristic is not reflected excessively in the OC proceedings against these groupings. In only four OC groupings (2018, 2) did investigators find a homogeneous offender structure; all other OC proceedings were heterogeneous in terms of the nationalities of their members." (Bundeskriminalamt 2019, 35)²²

The statement is highly revealing. It challenges one of the central criteria of the clan definitions: ethnic unity and isolation. This demonstrates that when the contexts surrounding criminal incidents are subjected to some sort of examination, rather than mere assumption, clan crime is produced as a phenomenon that includes individuals with diverse ethno-political backgrounds, including Germans with no family history of migration. This is further apparent when comparing the different methods: The investigative method identified 500 individuals as clan criminals in North Rhine-Westphalia in 2021. They held 28 citizenships in total. In contrast, the name-based method counted 3,629 suspects in NRW for the same year, with only six citizenship categories. Nevertheless, the investigative method also ethnicizes clan crime, as the identification of an organized clan crime group is contingent upon the assignment of its leaders with pre-defined ethnic categories of belonging.

Summary

In summary, I have described three different socio-technical practices through which the clan category is enacted in official crime statistics. The comparison of the different versions of clan crime that were analyzed here illustrates that clan crime is not a phenomenon that simply exists, waiting to be identified. Rather, clan crime should be understood and studied as the result of different knowledge practices and translation processes. All three methods ethnicize crime, that is, crime is enacted along with markers of ethnicity. On the one hand, in the name-

²² Translation by author.

based method crime is additionally linked to an essentialized and homogenized understanding of belonging. On the other, counting tags produces an ethnicized and essentialized version of clan crime.

In the name-based method clan crime is staged as any crime committed by certain families that are attributed to the "Mhallamiye". This methodological choice ethnicizes clan crime, since attribution to this ethno-political group is a necessary condition for inclusion in the statistics. It also homogenizes the phenomenon because all family members are automatically considered members of a criminal clan as soon as they appear in the case processing systems. Since all crimes associated with a person are then automatically counted, it is assumed that these people can only become criminals as clan criminals. This way, clan crime is essentialized as an inseparable characteristic both of individuals (criminal record of a person related to "Mhallamiye") and of families (all persons with family names attributed to "Mhallamiye" are attached to the category of "clan crime").

The criminal investigation departments are aware of these acts of ethnicization because they advertise the transition to the tag analysis as a method that avoids the usage of ethno-political categories. However, even with the analysis of individual tags, clan crime continues to be enacted as an ethnic phenomenon because a non-German ethnic background is the necessary condition to be marked as a clan member. Because suspects are tagged individually, clan crime is not homogenized as a group phenomenon. However, once tagged, all crimes and even minor incidents recorded on a person, are counted as clan crime. This makes clan crime appear to be an essential characteristic of a person rather than a criminal act.

The investigative method identifies clan crime as a subtype of organized crime. In a first step, the characteristics of the crimes are evaluated, but the subcategorization is again done according to the origin-based indicators. This means that the investigative method also produces clan crime as an ethnic phenomenon.

6. The Collateral Realities of Clan Crime Statistics

In the previous chapter I described what it is that clan crime statistics do. They bring into being a reality based on the assumptions and practices necessary to produce them. But in addition to the different versions of clan crime that statistics enact, they also enact tacit assumptions and narratives that remain implicit in public reports. To make them explicit, I will analyze parts of a monograph written by a professor of criminology who supported the police in the city of Essen for three years in a research project on clan crime. Her book is dedicated to "police officers in training and further education as well as [to] all members of the authorities involved in the fight against clan crime" (Dienstbühl 2021, VII). In my attempts to gain access

to security institutions, the police have repeatedly directed my attention to this book. In addition, the author, together with the police, has published public reports in which she is praised by the local police chief. She is one of the central academic figures in the public discourse on clan crime, using the symbolic and cultural capital of academia to warn the public in shows and interviews about the danger of clans, migration, and anti-discrimination laws (Junge Freiheit Online 2020). Since I was unable to gain access to police officials involved in defining and measuring clan crime, the analysis of the book opens up an alternative route into the thinking that drives the development of clan crime statistics.

In her book, Dienstbühl articulates the objective-realist epistemological stance that she and the police use to understand clan crime. She emphasizes her desire to understand clan crime from a cultural perspective and to "comprehensively describe the developments of migration and crime [and] thus aptly describe the problems" (Dienstbühl 2021, 9). In doing so, she primarily formulates theories of cultural conflict. While, according to Dienstbühl, the "concept of family [...] in Western societies today is clearly more individualized than [...] 50 years ago" (ibid., 37), in "Oriental societies [...] the family is understood as a blood community that includes not only the nuclear family and the family of origin but also the families of siblings and descendants" (ibid.). Central to the socialization in these families is the "transmission of gender roles" (ibid.):

"[...] in oriental culture [...] [the] defense of innate honor within traditional families is immanently important and determines socialization. Especially men are taught the defense of honor as a task from birth. [...] The man is expected to sanction and punish any insulting behavior against a woman in his family, be it his wife, his sister, or his mother, immediately at the originator with publicity effect. Moreover, missteps by a woman affect the man's honor and harm her. Accordingly, it is the man's task to pay attention to the honor of the women in his family. Even more: it is his duty. Women are considered the property of men." (ibid., 38–39)

According to this view, violence is prevalent among people with an "oriental" upbringing because men who cannot fulfill this mission would lose their position in the community. The assumption is that honor-based violent behavior, anchored in the family and structured patriarchally, is one of the foundations of clan crime:

"In this respect, people who use violence based on their understanding of honor are initially no different from other users of violence. However, the underlying and justifying motive of honor defense is anchored in the collective and legitimized by it. Thus, it is not about individual naturalization of guilt; this question does not arise in the collective understanding" (ibid., 55).

In these text passages we find notions of essentialized cultural differences between social groups that are deeply rooted in racist discourse. Race theories have long been used in narratives of European superiority to legitimize colonial rule, slavery, and the Holocaust. Postcolonial research hints to the fact that these narratives continue to legitimize global structures of inequality but today they mostly appear in the guise of cultural narratives (Castro Varela and Dhawan 2015). Rather than being the result of racial belonging and biological predisposition, the inferiority of foreigners appears in culturally racist narratives as a consequence of cultural traits (Balibar and Wallerstein 2019; Hall 2000). While the characteristics of the West are characterized as modern and progressive, the others are seen as irrational and superstitious (Biskamp 2016, 103-4). Thus, the self-image of enlightened Europeans is complemented by a series of counternarratives based on the distinction of being un/civilized, which function as a negative mirror image. Here, difference is constructed in the form of identity communities that are both essentialized (that is, turned into essential characteristics of people) and homogenized (that is, collectives are imaged with common racial, religious, ethnical, or cultural characteristics). In this way, they construct deterministic and collective logics of ethnic identities that are used to explain social phenomena.

These narratives are also found in the police reports and public documents analyzed for this paper. They are very similar to anti-Muslim narratives, which ascribe patriarchal values to Muslims, supposedly mirroring Western values. "Because their culture is like this" (Shooman 2014), and because they are assumed to be stuck in premodern traditions, Muslims in Germany are described as coming into conflict with Western values and laws. Here, anti-Muslim culture narratives appear as a *specific* clan culture that explains individual behavior in a deterministic affiliation, albeit a tribal one.

In feminist literature the core of such narratives is described as an ethnicization of sexism. Following Gabriele Dietze, I further conceptualize the narrative of clan crime as "sexual exceptionalism" (Dietze 2019). This concept helps to understand the politics of explaining clan crime as the result of patriarchal values and practices that are thought to be absent from contemporary "Western" societies. By externalizing sexism as a cultural trait of Muslims while underpinning its potential threat with numbers, German culture is idealized, Islamic culture is devalued, and demands for more restrictive migration and integration policies are legitimized. At the same time, demands for more gender equality within the German society are implicitly rejected because patriarchal structures in western societies are vigorously denied. This insight is important because another central attribute to clan culture – patriarchy – is a concept originated in feminist literature. However, the way it is used by the police and

some academics perverts the original idea of male dominance into a racist trope of cultural inferiority. I argue that this renders the narrative of patriarchal clans as patriarchal itself – because it seeks to declare an unequal society as equal and, through this, implicitly opposes contemporary projects of emancipation from patriarchy.

Therefore, in addition to the various versions of clan crime, the police statistics also enact collateral realities with culturally racist narratives of irreconcilable cultural opposites and a false imaginary of a society free of male power and privilege. These collateral realities are embedded in criminological assumptions and practices of attribution and they legitimize a securitizing stance toward migration. Clan crime numbers and established ideas about Islam and "the Orient" are inextricably intertwined. The narratives of homogenous cultures make up the basic categories, pervade the routines of counting, and shape the interpretations of quantified aggregates. As a result, the statistics examined here produce a phenomenon of clan crime that essentializes collectives and culture as natural traits along ethnopolitical boundaries and seek to explain the behavior of individuals. While the limited scope of this article does not allow for a deeper theoretical reflection on these processes, my findings point to the urgent need for independent investigation and public critique of the production of security knowledge about clan crime.

7. Conclusion

Clan crime as a statistical category of crime is enacted in different ways through different quantification practices. As I have shown in this article, the statistics do three things. First, they all ethnicize clan crime as a phenomenon that can only occur in a particular ethnic group. Second, two of these methods essentialize clan crime as a way of being rather than a way of behaving because they do not distinguish between offences but count all police records linked to tagged individuals. Third, one of the methods additionally homogenizes clan crime as a family matter because suspects are not tagged individually but always automatically as part of a larger kinship structure. Comparing the different versions of clan crime raises the question of why they are staged in this way. If clan crime is a way of committing crimes, as the security agencies' definitions suggest, why is clan crime not measured among all criminals, but only among a certain segment of the population?

The definitions all refer to ethnic segregation and a value system that is in conflict with the German legal system. These indicators are derived from assumptions that explain clan crime as the result of cultural incompatibility. They assume that the Islamic-tribal socialization of clan members causes this clash of cultures. Although I was not allowed to observe counting practices directly, an analysis of the criminological literature published by academics working

at police universities allows me to trace the assumptions that form the basis of these statistics: clan crime arises from a patriarchal upbringing of clan members that cannot be found in German culture (Dienstbühl 2021). The assumptions underlying the statistics reproduce the narrative of foreign patriarchy but locate this dangerous culture in clan families rather than in Islam. In my view, this narrative reflects a "sexual exceptionalism" (Dietze 2019) through which sexism is externalized as a foreign threat, thereby legitimizing demands for restrictive migration policies.

In this paper, I have shown how categorizations of clan crime are racially charged. Should they be discarded altogether? Following (post-)ANT's performative paradigm, I would argue that the category could in principle be saved if the underlying assumptions were substantially revised and applied to every suspect, regardless of their background. However, these assumptions seem to be at the heart of why the category is needed in the first place. Linking the category of clan crime to a racialized notion of patriarchy serves political interests in relation to migration that call for more securitization and policing. Moreover, if patriarchy is understood as an "imported" power relationship, it can be argued that there is no need for further gender emancipation in German society. Instead, it can be argued that the only effective defense against the supposedly alien structure of male violence is a restrictive migration policy and rigorous cultural assimilation by certain, i.e., Muslim, migrant groups. Since this is indeed the position of some of the politicians responsible for the statistics, there is little reason to believe that there is much interest in overcoming clan crime.

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Taking Terrain Away: How Illegalised Migrants Experience and Counteract Technologies of Mobility Control at the Bosnian-Croatian Border

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Abstract

Since the summer of 2018, the Bosnian border city Bihać at the Bosnian-Croatian border has developed into a major transit spot for illegalised migrants on the Balkan route. Local authorities were increasingly restricting migrants' mobility and access to infrastructures like accommodation and public transport within the city until they were relocated by force into the newly established Vučjak camp in the summer of 2019. In this article, I analyse both the local authorities' strategies and technologies for controlling migrants' mobility and the migrants' ways of counteracting these. For my analysis on these forms of border control, I first mobilise the concepts of "subtraction technologies" (Aradau & Tazzioli 2019) and of "infrastructural violence" (Rodgers and O'Neill 2012). The article is based on ethnographic empirical data from a four-week stay within the camp as a medical assistant and photographer. Subtraction technologies, here understood as taking terrain away, bundle together seemingly disconnected practices of mobility control that fall into symbolic, material, and legal dimensions. Second, I argue that migrants' self-built infrastructures are material actualisations of "mobile commons" (Papadopolous and Tsianos 2013) and show how "taking terrain away" from migrants is not only disruptive but also productive, in the sense that migrants make terrain by creating alternative infrastructures.

Keywords: illegalised migration; mobility control; subtraction; infrastructure; camp studies; border technology

1. Introduction

Since the summer of 2018, the Bosnian city Bihać at the Bosnian Croatian border has developed into a major transit point for illegalised migrants on the Balkan Route. According to the International Organization of Migration (IOM), at first almost all migrants were accommodated in official IOM camps. As the number of newcomers increased over the

¹ For this article I have chosen the term "illegalised migrants" to distance myself from the debate on "irregular" vs. "illegal" migrants (see Triandafyllidou 2016) and the perceived need for securitization. While both terms technically refer to a legal perspective, they ultimately come from a misguided positionality of being able to judge a human being and their presence in a given country as illegal or irregular – thus, criminal, and not normal. I find the term "illegalised" much more suitable as it points towards the racist practice of the European Union of making legal migration almost impossible for people from formerly colonialised countries.

months, the few camps in Bihać quickly filled up; so, many migrants had to stay and sleep outside the camps while passing through Bihać towards the Bosnian-Croatian border. As a reaction to this development, the local administration and other actors started introducing measures that gradually restricted migrants' mobility and access to local infrastructures, such as public transport, (rental and camp) accommodation, and public (green) spaces like parks, the riverbank, shops, and cafés. Thereupon, migrants began dwelling in squats (abandoned houses), makeshift huts, (illegalised) rental accommodations, and open camps in public parks and peripheral green spaces around the city. Soon, the local police forces every so often – but not on a regular basis - destroyed migrants' self-built living infrastructures such as camps, fireplaces, and cell phone charging stations, dispersed migrants across the city, and compelled them to re-create their infrastructures again and again. A year later, in June 2019, Bihać had turned into a major transit city with hundreds of migrants passing by every week. The mayor of Bihać and local authorities established the temporary transit camp Vučjak and started resettling migrants from Bihać into the new camp by force. It was a two-hour march away from Bihać; it was set up on a former landfill for chemical waste, surrounded by unmapped yet active landmines from the Bosnian war in the 1990s. Vučjak camp became quickly scandalised as the "horror camp" in the press (Kosmo 2019). Continued pressure from journalists and members of the European Parliament led to its dismantling by local authorities six months later (December 2019). Some months later, the EU-funded camp Lipa was built, which is still active up to this day (as of April 2025).

During my stay at the camp in September 2019, I quickly realised that the whole process of (barely) accepting migrants' presence in the city at first, then gradually restricting their mobility, and ultimately relocating them by force to Vučjak camp was facilitated thanks to a chain of decisions made by local authorities. These decisions were about where the migrants were allowed to stay and how to structure their mobility and access to infrastructures, but also about destroying the migrants' infrastructures and living spaces. In particular, the destruction of infrastructures was used as a means of mobility control. It soon became clear to me that the migrants were gradually more and more delimited in the terrain they were allowed to tread on materially (space), socially (tolerance), and symbolically (law), until they were exclusively restricted to Vučjak camp and the route across the mountains into Croatia. It immediately caught my interest that, as a consequence, the migrants started building and using alternative and parallel social and spatial infrastructures both in Bihać and later in Vučjak camp. Despite its temporary nature, Vučjak camp was characterised by village-like infrastructures and economic practices conducted by migrants themselves, in the absence of care policies and actions. These are strong examples of migrants' agency and of their way of coping with and counteracting violent practices of mobility control and spatial exclusion.

This ethnographic article lays out and analyses the above outlined chain of events. With a focus on infrastructure, it examines the strategies and technologies employed by the local authorities to control the migrants' mobility, as well as how migrants cope with and counteract these strategies and technologies. More specifically, it asks how cutting down access to public infrastructures, such as running water and electricity, was mobilised as a device for mobility control, first in Bihać and subsequently in Vučjak camp, and how migrant residents managed to develop a village-like network of spatial and social interconnections despite these adverse conditions. For analysing mobility control by means of infrastructure, I suggest combining the concept of "subtraction technologies" by Aradau and Tazzioli (2019) with the notion of "infrastructural violence" by Rodgers and O'Neill (2012) and the notion of "mobile commons" by Papadopolous and Tsianos (2013). While subtraction is productive as an over-arching concept for analysing a diverse and seemingly disconnected set of practices of "taking terrain away" in order to urge people to move (elsewhere) (Aradau and Tazzioli 2019: 23), infrastructural violence helps to develop a material analysis that zooms in specifically on the destruction, hampering of access to, and omission of material infrastructures. Yet, these two concepts mainly focus on what is done to migrants by local state actors and do not take into account migrant practices of coping, counteraction, or circumvention. However, such an analysis matters because it refuses to reproduce narratives of omnipotent border control, migration as a threat, or migrants as passive victims. Therefore, the paper mobilizes the concept of mobile commons as it points to (relatively) autonomous forms of migration, the agency of migrants, and collective forms of solidarity that contest and shape attempts of violent bordering (Papadopoulos and Tsianos 2013; Johnson 2014; M'charek 2020; Rygiel 2011; Themann and Etzold 2023). The analysis is based on a four-week ethnographic stay in Bihać and Vučjak camp in September 2019 where I had access to the field (Bihać city and Vučjak camp) thanks to my voluntary position as a medical assistant, photographer, and translator for an international medic team.

In the following section, I develop an analytical heuristic that allows the analysis of both infrastructural violence as a border technology of subtraction and (collective) resistance through infrastructural means. Second, I provide a short overview of the historical development of the Balkan route and the situation in Bosnia and Herzegovina (BiH). Consequently, I present the ethnographic data and discuss the practices of mobility control and the migrants' ways of coping regarding the theoretical concepts. In this discussion, the analytical heuristic serves as a tool to encompass and to understand all the practices of mobility control on the ground, but also to discern the migrants' ways of coping and resisting. The discussion shows that the practices of subtraction and infrastructural violence aim at forcing migrants into a state of "convoluted hyper-mobility", while marginalising them

materially, socially, and symbolically and controlling their mobility. However, it also makes evident that these practices are not only disruptive but also productive in that migrants resist by creating and (re)building parallel needs-based infrastructures. Finally, I discuss the implications of the practices of mobility control in the case of Bihać and Vučjak camp.

2. Theoretical Concepts

The concept of subtraction (Aradau and Tazzioli 2019) is an umbrella concept to describe practices of mobility control as a *technology* and a strategy that exerts control over the migrants' autonomy of movement, that is, *how, where* and *at what pace* they move (5), but also stay. Subtraction is a technology of "prevention of stabilization" (17) and "continually making migrants move" (18), thus forcing them into a "convoluted hyper-mobility" (9). Subtraction frames such practices as "taking terrain away" from the migrants and *reducing* their "life spaces" (18). Taking terrain away must be understood quite literally and materially in the case of Bihać and Vučjak camp, specifically in the phase when migrants were removed from the territory of the city and forced to settle in Vučjak camp. Furthermore, subtraction also employs structural and political interventions on a legal and administrative level, mobilising "small and apparently insignificant details that don't amount to open antagonism, destruction or death" (Aradau and Tazzioli 2019, 20). This involves legislation and decrees such as banning migrants from using public transport but also hampering their access to asylum procedures and the obstruction or even open interdiction of the work of aid organisations.

It is important to note that subtraction as a technology does not primarily *destroy* infrastructures or living spaces but rather renders them unusable or inaccessible (Aradau and Tazzioli 2019, 18). This becomes quite clear when considering that the Bosnian asylum law itself has not been removed or suspended. However, access to asylum procedures was prevented by ignoring verbal asylum claims and not handing out the necessary paperwork. Another example is the burning-down of informal settlements and gear such as tents, tarps, and sleeping bags (also referred to as "domicidal" practices in Isakjee et al. 2020). In short, subtraction as a concept bundles together a variety of seemingly disconnected or ambiguous practices aiming at the same end goal of "making migrants move" (Aradau and Tazzioli 2019, 18) and, thus, controlling migrants' mobility and autonomy of movement.

Even though Aradau and Tazzioli call for attention to "subtractive practices" beyond the "incapacitation of infrastructures" (2019: 17), in this analysis I am linking the concept of subtraction with the concept of infrastructural violence by Rodgers and O'Neill (2012). The reason is that, in the case of Bihać and Vučjak camp, practices of mobility control are widely

administered via the restriction of access to, destruction and absence (all: the incapacitation) of infrastructures. Thus, it is crucial to include the analysis of the material ways and other forms of taking terrain away in an infrastructural sense. Infrastructural violence posits infrastructure as a means for social regulation and as something that can either be destroyed or to which access can be restricted or omitted in order to invoke suffering for a targeted group of people. Rodgers and O'Neill differentiate between "active" and "passive" forms of infrastructural violence. "Active" infrastructural violence involves the deliberate use of infrastructure, surveillance, and law enforcement to monitor and control vulnerable populations, either by an individual or a social group, designed to cause harm and suffering (Rodgers and O'Neill 2012, 406). This may include the public display of unwelcomeness, disgust, and insults towards migrants by state officials, shop owners, and local citizens, such as the use of signage on café and restaurant doors banning migrants from entering, or selforganized networks of "vigilante" citizens who denounce their own neighbours that rent out to or simply invite migrants into their houses. But it may also include the active destruction of migrants' self-built spaces or the banning of migrants from public spaces and public transport. "Passive" infrastructural violence, however, refers to "infrastructure's limitations and omissions" (407). This includes the lack of or highly restricted access to water, food, sanitation, and electricity in the city and the camp. Ultimately, both "active" and "passive" forms of infrastructural violence lead to the "physical exclusion from urban infrastructure" but also facilitate "forms of social exclusion" by "being disconnected from, or entirely left out of, infrastructural networks" (407). The complex nature of the situation in Bihać and Vučjak requires the combination of the concepts of subtraction and infrastructural violence in order to fully comprehend and include all dimensions of practices of mobility control on the ground.

As a reaction to their "terrain being taken away", migrants created a parallel infrastructure different to that of the locals while they still were in Bihać and their own infrastructure when they already were in Vučjak camp. Using these alternative and parallel infrastructures, improving them, and adjusting them to changes requires knowledge about their workings borne by those already present, those arriving and those leaving. This entanglement of knowledge and organizational elements is linked with the concept of mobile commons by Papadopoulos and Tsianos (2013). Mobile commons refers to "mundane organizational practices of mobile people" (Papadopoulos and Tsianos 2013, 179) and a reservoir of shared and social knowledge, thus an "organizing practice for supporting and facilitating freedom of movement" (191) and for "evad[ing] the control of mobility" (192). At this point I supplement my selection of concepts with that of mobile commons because the agentive practices of migrants (mobile people) are the subject of attention and theorisation. Mobile commons create answers to practices of taking terrain away by *making terrain*: by constantly (re-

)widening the access to or (re-)building (parallel) infrastructures, by making precarious and insufficient places livable (at least superficially and temporarily). However, within the concept of mobile commons it is not entirely clear whether material infrastructures organized by the migrants are included within the practice of mobile commons or whether mobile commons exclusively refer to "contents, practices, and affects" (192). In this case, I argue that material infrastructures such as makeshift huts, restaurants, or the mosque represent material actualisations of shared knowledge and (collective) action and organising and, therefore, fall within the realm of mobile commons. In fact, material infrastructures can be understood as conditions that enable mobile commons but also as projects of mobile commons that bundle together and materialize shared knowledge and collective practices in a certain region and place. Even though mobile commons have their own logic and dynamics, they are shaped and affected in many ways by practices of subtraction and infrastructural violence. In the face of systemic and recurrent restrictions to and destruction of infrastructures, migrants' self-built infrastructures are most often shaped by a need to ensure basic survival quickly and to provide maximum functionality for the least investment in terms of financial, material, and temporal resources.

However, it must be questioned whether the events in Vučjak camp really evaded the control of mobility and whether mobile commons develop autonomously, unlinked from migration government interventions, as Papadopolous and Tsianos (2013) suggest. The migrants were placed in this camp on purpose, and their freedom to act and innovate within this vacuum of state-institutionalised intervention was also *given and administered* within certain restrictions and, thus, *deliberately* to some extent. The migrants were *forced to rely on* mobile commons and mobile commons infrastructures, even though it did not seem very important for the local authorities to monitor whether the migrants could ensure their survival. They were purposefully put in a situation where they could cross the border to Croatia but they could also decide to stay in the camp as long as it existed (provided they did not dwell in the city of Bihać!). Also, the lack of minimal provision of food, water, electricity, shelter, and sanitation by international and local organisations forced migrants to come up with their own responses to these needs.

With subtraction as an umbrella concept, these three approaches have in common that they attempt to reframe and to rethink ways of controlling mobility. Subtraction and infrastructural violence supplement each other by shedding light on symbolic, legal, and material dimensions of taking terrain away as a technology of mobility control. The mobile commons concept focuses on migrants' ways of coping with these violent practices of mobility control.

3. Technologies of Mobility Control on the Ground in Bihać and Vučjak Camp

Bihać as a transit border city and Vučjak camp must be viewed in their historical and political context: the development of the "Balkan corridor" and the Balkan route in general. The Balkan route refers to the stretch of road between Turkey and Greece and the Western European countries along the Western Balkans, which has connected the Mashriq (East of the Mediterranean/South West Asia) region² to Europe for over a century: it was a migration route for guest workers from Turkey, Greece and Yugoslavia in the second half of the 20th century and for refugees from the 1990s onwards (Hameršak et al. 2020, 16). Today, migrants usually cross on foot and by other means of motorised transport from Greece to Western Europe. The "Balkan Corridor" refers to a concerted action in 2015 and early 2016 in which about one million refugees were let pass from the Greek Macedonian border to Hungary and later to Germany and Austria. Some researchers see this as a historical "unicum", a "stateorganized smuggling" or even a formalised corridor (Kurnik and Beznec 2020, 35). They discuss the development of the Balkan route and the "long summer of migration" as a "historical and structural defeat of the European border regime" (Hess et al. 2016: 6; quote translated by author) and as a "politicized [...] movement of migration against the European mobility order" (7). More recent work (e.g. Beznec and Kurnik 2020) reflects on the development of the Balkan route since the "long summer of migration 2015" from a postcolonial perspective that examines the agency of migrants and the local population. However, due to the tightening of Europe's external borders and illegal pushbacks, many migrants fail to cross the border even after repeated attempts and are stuck for months and even years in Balkan countries like Serbia and Bosnia and Herzegovina (see Lauer, Apelt, and Aschern n.d.). As a result, border hotspots (such as the Bosnian cities of Bihać and Velika Kladuša, also the capital Sarajevo) developed, cities in which migrants became stranded without being able to return or to continue their journey.

In the following subsections, I will present and analyse my ethnographic data on the process of banishing migrants from the city of Bihać and forcefully transferring them to Vučjak camp by means of infrastructural violence and subtractive mechanisms.

² Most commonly known as the "Middle East", a term that has been criticised for its orientalist, colonial and ambiguous nature and discursive dangers. See Karen Culcasi, "Constructing and Naturalizing the Middle East", *Geographical Review* 100, no. 4 (1 October 2010): 583–97, or Edward Said, Orientalism, 1st ed. (New York: Vintage Books, 1978).

3.1 Infrastructural Violence and Social Exclusion – Banishing Migrants from the City

Since Bihać served as a transit location to attempt a border crossing from non-EU territory into EU territory (from BiH to Croatia), most migrant activities revolved around resting, networking, stocking up gear, making smuggling arrangements and connecting online and offline with families, friends, and fellow travellers. Many had freshly arrived from the capital Sarajevo, whereas those who had recently suffered from pushback actions also took their time to heal from injuries sustained by brutal border guards and plain exhaustion. Since there were no other spaces available, the migrants used public spaces available to the "usual" citizens of Bihać: parks, the riverbanks, pedestrian streets, supermarkets, and cafés. In particular, the riverbanks drew the most migrants because it was the only source of tending to their hygiene. They could wash their bodies, clothes, and other items in the river water. Allegedly, there were even cases of migrants eating ducks from the river or catching fish in an attempt to fill their empty stomachs (Hromadžic 2020, 170).

A few images in particular burned themselves into how I picture this city: individuals and groups of young male migrants lying on grassy patches, often accompanied by their backpacks and plastic bags, crowding around supermarket entrances, sitting in cafés, squatting while looking at their smartphones, strolling through supermarkets trying to decipher the (Bosnian) writing on canned food which was an obvious favourite for the border crossings lying ahead. Some cafés and restaurants did not serve migrants, and they made this abundantly clear by tacking signs to their doors which read "migrants not welcome" or "migrants not allowed". When moving around the town, they were under constant observation by local police and the citizens of Bihać, who often cast suspicious glances, if not insulting comments, their way. All these actions by local citizens and policemen correspond with the concepts of "infrastructural violence" and "subtraction" because they aim at taking terrain away from the migrants and preventing access to material infrastructures through symbolic, legal, and infrastructural means. Private individuals who own cafés make use of their legal rights as householders to determine who shall be allowed or denied access to their premises. Visual and verbal assaults by pedestrians and policemen signal to migrants that they are not welcome and that they have to keep away. As a result, migrants were compelled and even forced to fall back on other cafés and other zones within and outside the city. At this point, migrants were already excluded from officially renting accommodation within the town and, therefore, they had to rely on unofficial rental agreements where they were subject to exorbitant prices and unforeseen evictions. Most of them, however, were forced to stay outdoors.

Another practice of taking terrain away was finding methods to restrict the rights of migrants in seemingly unimportant ways. Migrants were banned from public transport services and taxis, and locals were warned not to give migrants a lift in private cars. It is unclear whether these bans from public transport were based on legal acts³, but the alleged ban seemed to be common knowledge in conversations and interactions between migrants, volunteers, aid staff, policemen, and local citizens. Whatever the real legal situation might be, the actual practices were unambiguous. Migrants were pulled out of public buses by the police and by local vigilante groups under the pretext of "illegal travel without documents", since the majority of migrants in BiH travelled without papers. Yet, bus drivers did not have to fear sanctions for transporting migrants on public buses. Volunteers and aid staff were told not to transport migrants in private cars under the threat of being fined if they did. However, in cases of medical emergencies, migrants could be transported in official NGO vehicles or public ambulances. Neighbours would call out local citizens and volunteers who rented to migrants or let them enter their premises to take a shower4. These denunciations were based on migrants needing to have papers for renting officially or for being in private spaces of local citizens at all. These developments directly correspond to the element of practical interventions laid out in the concept of subtraction that existing laws were not changed or migrants' rights (i.e., right to asylum) itself were not abandoned. Instead, ways were found to systematically curtail migrants' rights by finding innocuous details (such as having no papers) in order to "subtract from the applicability of law itself" (Aradau & Tazzioli 2019, 22).

The *de facto* prohibition against using infrastructure like rental accommodation and public transport aimed at hampering access to existing infrastructural features to exclude and to invoke suffering for a specific group of people, i.e., the migrants. However, in combination with the overcrowded camps, these de facto bans resulted in parallel infrastructures that differed from the locals' infrastructures. The most visible materialisations of these parallel infrastructures were the newly erected makeshift huts at the city's periphery as well as the occupation of abandoned houses. Moreover, appropriating public spaces as "private spaces" where one could rest, sleep and bathe ultimately results from withholding sufficient spaces within the camps and from prohibiting access to rental accommodation. Additionally, not-registered taxi drivers could exploit the migrants financially by asking for exorbitant taxi fares

³ In fact, there did not seem to be an actual ban on the use of public transport in 2019 yet, because in the summer of 2020 an official legal ban for migrants to use public transport was introduced by the government of the Una Sana Canton (of which Bihać is the administrative capital) which was immediately denounced publicly by many official institutions, among them Amnesty International and members of the European parliament.

⁴ More on how locals took different positions of solidarity or "anti-migrant" stances in Elissa Helms' article "Social Boundaries at the EU Border: Engaged Ethnography and Migrant Solidarity in Bihać, Bosnia–Herzegovina" (2023).

because the migrants were not allowed to book taxis in a regular way. Lastly, these disruptions created the image and the necessity of the migrant *always walking*, from squats to supermarkets, from supermarkets to pharmacies, from pharmacies to the registration office, from the registration office to the camp, from the camp to the riverbanks and, ultimately, to the border. This observation is consistent with the case study of Calais, as presented by Aradau and Tazzioli, where migrants are made "hyper-mobile" (21) by spatiotemporal delimitations of where they can or should be at what time.

3.2 From Gradual to Complete Removal of Migrants from the City to Vučjak Camp

As more and more migrants started using Bihać as a transit spot in summer 2019, the locals of Bihać increasingly felt bothered (if not "invaded"). With an eye on the upcoming elections in 2020, Bihać's mayor decided to "relieve" the cityscape from migrants and to set up the Vučjak camp, thus assigning them a location. In June 2019, local police forces began evicting "stray" migrants from abandoned buildings and provisional self-built structures in and around the city of Bihać and expelled them from the city's territory, for instance from public parks and from the shopping street. Migrants were verbally informed by the local police forces that it had been decreed that they were not to dwell in the territory of the city anymore. In a second step, a few days later, the police rounded up about 850 migrants across the city and the periphery in a concerted action, and the police along with military personnel carrying guns and batons forced them to walk the ten kilometers from Bihać to the new camp in single file with their hands on the shoulders of the person in front of them. This forceful relocation into a camp that was located on a chemical landfill (and the way it was done) is a dark reminder of what Jews endured in Nazi Germany before they were deported into concentration camps. It is also symbolically reminiscent of the death marches in the final stages of the Nazi regime (see Blatman 2011) and takes the shape of a tour de force "cleansing act" to render the city a "migrant-free zone", similar to the Nazi terminology "judenfrei" (Jew-free), which referred to cities from which all Jews had been removed. Indeed, citizens of Bihać had organized protests where they carried banners reading "Free Bihać!" (Bathke 2019), invoking an image of migrants as a plague or infestation which had to be "taken care of" or "eliminated" (see the "Undesirables" by Boum and Berber 2023). The migrants were viewed and portrayed as a collective problem and racialised "Others" (Keskinen 2022) so as to justify the employed violence in the form of spatial exclusion and removal.

All the measures described above directly correspond to the practices laid out in the concept of subtraction and active infrastructural violence. While some of the practices may seem small and insignificant on their own, others are more direct and even spectacular (De Genova 2015).

Yet, the essence of the issue lies in the accumulation and intersection of practices that "took away terrain" or "subtracted" ground from the migrants, which eventually culminated in the relocation to Vučjak camp as an act of subtraction *par excellence*. These practices include the gradual reduction of access to rights, the hampering of access to or even the destruction of infrastructures and increasing physical and social exclusion. Subtraction and infrastructural violence as concepts are essential for understanding the steps that contribute to the process of employing socio-spatial injustice and suffering (Rodgers and O'Neill 2012, 405) and trapping migrants in "a lesser form of being" (Mbembe as quoted in Aradau and Tazzioli 2019: 22) as well as to the process of dehumanisation. Indeed, the "terrain" that slowly gets stripped away can be considered the humanity and mobility rights of the migrants, and thus their autonomy of movement.

Furthermore, an infrastructural approach to subtraction not only refers to diminishing a spatial terrain and controlling certain forms of mobility. It also heavily impacts migrants from a temporal perspective (Tazzioli 2021; also see Rydzewski 2023). In the context of deportation, Shahram Khosravi (2018) refers to the idea of stolen time: "When people are spatially removed, they are automatically robbed of an amount of time, [...] sent 'back to square one", holding them in a "condition of circulation". This is similar to Aradau's and Tazzioli's (2019) phrasing of "forced" (5) and "convoluted" (19) hyper-mobility, and it also corresponds to Rydzewski's analysis of structuralised waiting (2023) and Fontanari's (2019) discussion on temporal justice in the everyday life experiences of illegalized migrants in Europe. For the migrants in Bihać and Vučjak, the idea of stolen time becomes very explicit: for example, upon being banned from public transport they are forced to walk everywhere (the figure of the migrant always walking) within the city of Bihać or to hike two hours from Vučjak camp to Bihać to buy provisions. Not being allowed in certain areas such as the city center obliges them to walk even further distances to find cafés and shops where they are allowed. Within Vučjak camp migrants often spent at least two hours of their day queuing for food, as provided by the Red Cross. Even more so, the destruction of living spaces forces the migrants to spend time, energy and often money on rebuilding these spaces. On a larger scale, the fact that migrants are forced to walk the Balkan route (or at least long stretches of it) in the first place, rather than being able to apply for asylum or a visa and then take a flight to their destination country, showcases the idea of stolen time in a rather absurd fashion. Khosravi's remarks are very applicable to the context of irregular migration and the constant removal of migrants from their temporary places of residence and rest but also the recurring destruction of migrant infrastructures – maybe even more so since this occurred daily in Bihać and it is deeply embedded into the local practices of mobility control.

4. Infrastructural Omission and Mobile Commons Infrastructures– the Vučjak Camp

The campsite Vučjak was opened in mid-June 2019 and was closed by the local government in mid-December 2019, six months later. It housed between 1,000 and 1,500 residents at a time, mainly from Afghanistan and Pakistan. Local authorities flattened a former chemical landfill in the mountains and poured some gravel in the center. There was no electricity or running water. The camp was located in the middle of the woods, where landmines left over from the Bosnian war posed a considerable danger. Red signs with skulls and a map of the "Bosnian Red Cross" pointed out the mines. The danger from wild animals such as bears, wolves and snakes were also not inconsiderable - which is only logical, given that the name Vučjak derives from the Bosnian word for wolf: "Vuk".

In the beginning, Vučjak camp was nothing but bare ground. It was a two-hour march from Bihać, so access to the urban infrastructure was no longer possible except through great physical effort. It must be emphasized once again that the footpath to the town led through minefields from the Bosnian war that had not been located or defused yet. Furthermore, this new placement on a former landfill, where people had to live in a place that was literally created for throwing away rubbish, says a lot about the place migrants are given in society. The severely limited access to Bihać's infrastructure, coupled with the inadequacy of the camp, created a material and state-institutional vacuum that had to be filled by the migrants' own structures in order to survive in Vučjak camp at all. Due to the lack of electricity, camp residents operated their own electricity network powered by generators. Due to the lack of clean water, they organised the sale of water themselves. Due to insufficient food supply from the Red Cross, they created their own food supply chains, including food places the habitants designated as "restaurants". The major premise was to create something out of nothing that would be enough to survive, and to do so in a space where the migrants did not intend to stay for long. This act of infrastructural omission, no access to water, sanitation, food, and electricity, is a clear form of passive infrastructural violence geared towards creating bodily forms of suffering such as hunger, unhygienic conditions, being cold and wet, and diseases resulting from the lack of hygiene.

In the first few weeks the cornerstones of a future material and social setup emerged so that they resembled that of a village. The spatial infrastructures of the migrants were built around the geographical and visual centre of the camp, a half-open ruined building with a roof. The infrastructure of the local Red Cross was centred around the entrance area and, at first, consisted of a few containers and an assembly tent (later, the canteen). After a few days, the Red Cross started erecting large tents for dozens of people, medium-sized tents for up to six

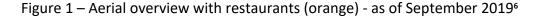
people, and basic hygiene facilities such as toilet containers and open-air showers. They also established a food distribution system: a small breakfast in the morning and a meagre portion of lunch in the afternoon. Entry to the camp was regulated through a police container one hundred meters before the camp on the only access road. Even though the provision of these services tackled the issue of infrastructural omissions, it did not achieve to address and eliminate all of them. Vučjak camp was intended to be so miserable a place that people would be forced to move on as soon as possible, and, therefore, it was applying a technology of "continually making migrants move" (Aradau and Tazzioli 2019, 18) "through the prevention of 'stabilisation'" (17). One indicator for this is that a muddy footpath at the back of the camp, leading into the surrounding mountains and forest towards the Bosnian-Croatian border, was left unguarded. However, this is where we also find a small but significant departure from the concept of subtraction, which purports the intention of forcing migrants into hyper-mobility. Vučjak camp assigns migrants a place of their own while forcing/willing them to move on across the Croatian border at the same time. Bihać's mayor clearly had Vučjak as a temporary transit location in mind, a location in which people would stay for a couple of days at most. But in reality and on the ground some people ended up staying in Vučjak camp for many months, with a few of them even intending to stay for longer (see the following section on mobile commons infrastructures). This happened due to numerous circumstances and because of a decision on the part of the migrants. In retrospect it is hard to say how this came to be, but considering the following section I would argue that nobody envisaged such agency and resilience by the migrants in the face of these unfavourable circumstances. For this reason, I am presenting the migrants' development of their own social and spatial infrastructures in such detail in the following pages, in order to showcase the migrants' ways of coping with and counteracting the violent situation they were placed in.

4.1 Mobile Commons Camp Infrastructures

Besides the infrastructures by the Red Cross described above, the migrants built a mosque very early on, in the first few weeks, a mosque housed in a tent leaning against the ruined building. Around the mosque, small provisional eateries arose very quickly, and they turned more and more into restaurants over time. Along the main streets (market streets), with the mosque as the central point of reference and organization, the provisional restaurants started

⁵ The erection of these infrastructures was made possible mostly thanks to the local authorities and the local Bosnian Red Cross. It needs to be noted, however, that the toilet containers and showers were quickly unusable because they were not being maintained, and there was running water available for only 30 minutes per day.

to appear from July onwards, becoming more and more elaborate until my departure at the end of September.





In the restaurants, meals were cooked in large quantities over an open fire and sold for a few pennies. For example, an elderly gentleman (the self-dubbed "Mc Afghani") sold fries he fried in a massive pan over the fire. Some restaurants served explicitly Afghan, others Pakistani dishes. The restaurants often included areas covered with tarpaulins and carpets on the floor or sofas that invited people to make themselves comfortable, rest, and socialise. When stepping on the carpets and blankets, the explicit rule was removing one's shoes. This indicates a cultural practice but may also be interpreted as a distinction between the hostile "outside" and the self-made "inside".

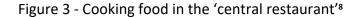
⁶ (Aerial) drawing by author.

Figure 2 - Socialising on the couches⁷



The "central restaurant" was very well equipped: shelves with goods and self-built tables with coolers and tubs to keep cold drinks like Coke and energy drinks. The cooking team even numbered up to four to five persons at mealtimes.

⁷ Picture by Dean Blažević.





Some fireplaces were embedded into the ground or piled high with clay and stones. They continuously produced bread because the ingredients - flour, salt, and water - were cheap. Of course, migrants could not buy the ingredients and materials for cooking themselves from the town because it was a two-hour walk away, so every morning a van drove in from the town to supply them with materials for cooking, drinks, utensils, and petrol for the generators. It is unclear who paid for this or how they divided the delivery costs, but it can be assumed that the main restaurants and food stalls shared it.

In addition to the more formal restaurants, informal cooking groups got together in small groups of three to six people, bought ingredients by visiting the town on foot, and cooked all of them together. In most cases, I observed that the cooking groups corresponded to a sleeping or travelling community, i.e., a group that shared one of the smaller tents. These groups had less extensive equipment than the restaurants - mostly no more than a scratched pot and a broken stirring spoon - and cooked over a fire in the open air, so they also had to rely on meals from the restaurants and the Red Cross when there was bad weather. However, the Red Cross only supplied (cooked) food once a day, and a small portion at that. Similar

⁸ Picture by author.

cooking groups were observed among underrepresented national minorities such as Bangladeshis, Nepalese, and Indians. The migrants also collected fruit, herbs, plants, and mushrooms from the surrounding forest which frequently led to stomach upsets and allergic reactions.

Besides providing food, the restaurants also functioned as social centres and meeting places where people smoked, drank, debated, and argued. The restaurants had generator-powered electricity, so camp residents could charge their mobile phones and listen to music for a small fee. An entangled nest of mobile phones fed on huge multiple plugs, all charging simultaneously. The restaurants served as an extended outdoor living room for social interaction, where the migrants could escape their cramped and stuffy tents. For example, there were scenes of groups of men dancing, singing, or getting together for a game of cards. The "central restaurant", attached to the mosque and the ruined building, quickly developed into an almost institutional establishment. It was always busy, had plenty of seats, was the most central, and granted access to the mosque. A possibly all-too-small detail provides a clue to the self-image and progressive institutionalisation of the "central restaurant": in September, the first non-functional additions appeared in the form of decoration, as the branches holding the roof tarpaulins were decorated with golden garlands. Decoration extends far beyond the cozy furnishings of carpets and sofas that serve comfort, thus satisfying a purely aesthetic need. This was followed shortly after by the installation of a cage with a bird, which was placed in such a way that it was visible from all sides and amused the camp inhabitants with its chirping.

The second largest restaurant, known as the "Blue Restaurant" (see Figure 1), was built later in August. It is remarkable that, unlike the other structures, it was planned in great detail and did not arise organically. The builders - a group of Afghan migrants - had put much thought into it, as the area and the framework of tree branches were precisely measured and marked out, and the fireplaces were planned in a symmetrical arrangement and pottered out of clay. The roof was built as a slope to ensure rainwater drainage, and the supporting tree branches were reinforced and fixed with clay pedestals.

Figure 4 - Construction of the 'blue restaurant'9



Other constructions were much less complex and gave a "cobbled together" makeshift impression so that individual components had to be repeatedly amended or renewed. The construction of the "Blue Restaurant" thus makes a clear statement about the planned duration of the stay in Vučjak camp because one would not build such a construction when planning to leave the next day. It seems that after a three-month stay, an inevitable resignation had set in among the builders, and the tendency to slowly prepare for an imminent "hibernation" in the mountains, or perhaps mainly financial profits were in the foreground. The hesitation, or lack of hesitation, to set up such a long-term structure, in fact, an entrepreneurial launch, reflects the way the migrants dealt with the continuous provisional conditions of camp life (see Inhetveen 2010; Minca et al. 2021; Diken 2004; Vasudevan 2015). Those who ran the restaurants in Vučjak camp were almost exclusively migrants who had already lived there since its emergence in June. In addition, the migrants engaged in various other economic activities, setting up an alternative economic infrastructure and showcasing a profound agency and entrepreneurial sense. The economic activity manifested itself most visibly in the form of restaurants but it also continued in the setup of pop-up food stalls, the

⁹ Picture by author.

establishment of an electricity network powered by generators, and the sale of other goods such as hygiene articles. An additional economic activity that contributes to the classic infrastructure of a village or town is the mobile barber shop run by Asif¹⁰. Equipped with a barber's coat, several pairs of scissors and an electronic shaver, he styled beards and hair for a small fee. Drug trafficking, sex work and aid in border crossings were also part of the economic life in the camp, even if hardly visible and only selectively.

Figure 5 - The barber Asif at work¹¹



The central restaurant and other restaurants in Vučjak camp markedly situated practices of mobile commons where "knowledge of mobility" (Papadopoulos and Tsianos 2013, 191) was created, extended, and exchanged, and informal economies unfolded and were being organised. Indeed, these practices lay in the "making of daily social relations, connections and conditions that evade the control of mobility" (ibid., 192). However, as already mentioned in the theory section and as it has emerged throughout the ethnographic analysis, mobile commons and its infrastructures are nestled into and intertwined with the practices of mobility control by actors other than the migrants but they do not *evade the control of*

¹⁰ Name changed.

¹¹ Picture by author.

mobility. Instead, they are reckoned with or even counted on by non-migrant actors and, thus, they constitute part of the control of mobility. Indeed, there is a socio-economic-spatial entanglement of relations and dependencies resulting from the minimal provision by local and international organizations, the provisional materiality of a campsite in the forest, the physical distance of the camp from the city, and the migrant mobile commons infrastructures. For example, the distance from the city produces the need to set up a camp infrastructure similar to a village in the first place. The minimal provision by local and international organizations necessitates mobile commons infrastructures to fill in the gaps, like small self-organized eating groups or restaurants that address the need for more than two small meals per day.

5. Conclusion

This article has analysed the strategies and technologies employed by the local authorities to control the migrants' mobility and access to infrastructures while also spotlighting the migrants' ways of coping with and counteracting these, especially in Vučjak camp. To make sense of and analyse the observed ethnographic knowledge, subtraction technology was a key concept for understanding mobility control while supplemented with infrastructural violence and mobile commons. Subtraction describes the act of taking terrain away from the migrants and ultimately relocating them forcefully from the town of Bihać to Vučjak camp in order to force them indirectly to move on towards Croatia by making camp life as unpleasant as possible. The concept of infrastructural violence is fruitful insofar as it frames the hampering of access to, the destruction of migrant infrastructures, and the omission of infrastructure as ways of marginalising and harming certain groups of people and of controlling their mobility. As such, it is directly linked to subtractive mechanisms which aim at forcing migrants into a state of "convoluted hyper-mobility" and "hampering the formation of collective subjects that could build spaces of life" (Aradau and Tazzioli 2019, 23). My analysis shows that it is not only fruitful but also necessary to couple the two concepts in order to encompass and understand all the practices of mobility control on the ground. Mobile commons as a concept describing the shared knowledge and organising practices of mobile people finds its application in the analysis of self-organised infrastructures and practices of the migrants that I frame as material actualisations of mobile commons.

The development of material, social, and economic infrastructures in Bihać and Vučjak camp clearly shows that subtraction and infrastructural violence are not only disruptive but also productive in the sense that it begets a parallel infrastructure born out of necessity, but also beyond it. Creating a parallel infrastructure should not only be connoted negatively, as it comes with positive implications: first, it reinforces the autonomy and agency of migrants

again as innovative and — to some extent — independent actors. Second, self-organised infrastructures are better tailored to meet the actual needs of the migrants because they are needs-based and they have grown organically within the community while empowering those who provide the infrastructures and services. This links again with the concept of subtraction because it looks at what kind of migrant subjectivities are being fostered "beyond the binary opposition between migrants' agency and victimhood" (Aradau and Tazzioli 2019, 5). Thus, all the social and economic activities of migrants fall onto a continuum between agency and victimhood, or they even reach beyond this.

Lastly, subtraction as a technology helps to understand Vučjak not as a place of confinement or detainment, even though it was their *assigned* location. "Taking away terrain" (subtraction) here, in its second stage (after being removed from Bihać), must be understood as forcing them indirectly towards the Croatian border by reducing the *terrain where they can be* (and go) while making it as unpleasant as possible. Bold and simple, the *terrain where they can be* is a former landfill; the *terrain where they can go* is towards the Croatian border and another uncertain (but hopefully better) future.

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E-Governance and Migration: Insights into Fostering Settlement

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Abstract

In today's society, especially in developed countries, the widespread use of mobile applications has become an essential part of daily routines, thus influencing various aspects of life, such as banking, work, and dating. This trend has also impacted migration processes, as digital media and mobile applications enable an interactive dialogue between the state and its citizens, and offer versatile functionalities that can be accessed anytime and anywhere. This article aims to shed light on the interplay between technological progress and social inclusion, focusing in particular on the potential for state actors to harness mobile technology to facilitate the settlement process of newcomers. This exploratory study includes a literature review, an in-depth internet search on media platforms, app stores and social media, a semi-structured interview and an analysis of mobile applications. Critical aspects such as app sustainability, information accuracy, language usability, offline responsiveness, co-creation opportunities, cross-sector partnerships and security were identified as key considerations from a technical perspective. The available applications focus primarily on providing information and geographic localization for migrants. However, governments can extend the functionality of existing migrant-focused applications through strategic partnerships, thereby enabling the implementation of transactional solutions, provided the systems are compatible with one another. When developing comprehensive solutions that combine all required services in a personalized environment, target groups should be involved in the development process to ensure that their needs are actually met.

Keywords: Appification; digital migration studies; migration; integration

1. Introduction

The proliferation of internet users and the accompanying increase in online activities worldwide have made e-government a central component of contemporary governance. This is especially true when integrating migrants into society, as the United Nations emphasized in 2022. E-government, or electronic government, uses information and communication technology (ICT)¹ for government services and operations, including digital interactions

¹ ICTs encompass internet access, wireless networks, smartphones, computers, and various media applications(McAuliffe, Goossens and Sengupta 2018).

between governments, citizens, businesses, heads of state, and international organizations (United Nations 2022).

There is a wide range of categories in the vast landscape of information and communication technology (ICT), particularly in mobile applications. Amidst this diversity, there is a notable need for applications that exhibit greater integration, especially in the context of government digitization (Maulana et al. 2020). In contrast to standard mobile applications, which are often tailored to specific needs, government applications have the potential to offer a wide range of comprehensive services, extending to integrated transportation systems, remote medical care, and other multi-layered functions (Maulana et al. 2020). This de-centralization is significant for marginalized groups such as migrants and disadvantaged populations unfamiliar with city services and agencies.

The 2022 E-Government Survey organized by the UN and entitled "The Future of Digital Government" (United Nations 2022) shows that the number of countries offering services online is increasing. Europe leads the index with a score of 0.83, followed by Asia and the Americas with 0.65 and 0.64, respectively, compared to a global average of 0.61 and a lower score of 0.4 for Africa. This underlines the differences and the potential for modernizing the public service.

Mobile devices and applications offer novel opportunities in the public sector, such as generating big data, improving decision-making processes, and transforming relationships between residents and municipal institutions (Ganapati 2015; Benton, 2014). The trend towards developing mobile applications that facilitate interaction between society and public authorities is gaining momentum worldwide (Berryhill and Tõnurist 2018). This momentum is likely attributed to the potential of Information and Communication Technologies (ICTs) to customize the provision and quality of services. This customization ensures that these services align more precisely with individuals' and communities' unique needs and aspirations (Albury 2005).

The intersection of technology and access to public services presents a nuanced landscape in which advances simultaneously facilitate and hinder inclusion. As Bekkers, van Duivenboden and Thaens (2006) point out, European modernization efforts in the public sector have leveraged the spread of information and communication technology (ICT) to improve service delivery. Digital tools such as websites, online platforms and mobile applications have significantly transformed accessibility and interaction with public authorities, promoting responsiveness and civic engagement (Carrasco-Sáez, Butter and Badilla-Quintana 2017; Mattoo et al. 2018).

However, this progress also reveals a kind of paradox: while technology expands access for some, it restricts or complicates it for others. This ambiguous tension can be illustrated by scenarios in which older people, struggling with the intricacies of mobile apps, are forced to navigate digital services such as Viva Wallet in Greece in order to access vital social services. Such cases illustrate the dual nature of technological progress in reshaping social inclusion and deserve a closer look.

Such cases poignantly underline the dualistic nature of technological progress in reshaping the landscape of social inclusion and therefore deserve closer consideration. In the context of Massey's theories (1991), this scenario illuminates how certain social groups may face hurdles in navigating technology-driven systems, reflecting the unequal distribution of mobility and control over mobility discussed by the author. Furthermore, it underscores the concept of differentiated mobility, where already vulnerable groups have a weaker hold (Massey 1991).

Increasing reliance on digital platforms for essential services can exacerbate existing social inequalities by further marginalizing people who cannot master these technologies. By examining the challenges these populations face in accessing digital services, we can better understand how technological advances simultaneously expand access for some and restrict it for others, crucially affecting the dynamics of social inclusion.

Addressing both universal and context-specific challenges as well as identifying critical service gaps for migrants are crucial for developing applications that effectively support migrants at different stages of migration (Bustamante Duarte, Degbelo and Kray 2018).

Against this background, this article discusses the interaction between technological progress and social inclusion, focusing in particular on the potential of state actors to use mobile technology to improve the well-being of migrants. The paper takes an exploratory approach and includes a comprehensive literature review on migrants' use of mobile technology, including extensive internet research on media sites, app stores and social media platforms. The research methodology includes semi-structured interviews and an analysis of mobile applications that provides insights into the technical structuring of these applications.

2. Theoretical Framework

Historically, migrants have employed diverse strategies to navigate the uncertainties associated with migration (Gordano Peile et al. 2016). Mirroring broader societal and technological transformations, the role of Information and Communication Technologies (ICTs) in managing and facilitating migration has grown significantly (Opas and McMurray 2015). ICTs have become a fundamental feature of recent waves of migration (McAuliffe,

Goossens and Sengupta 2018), enhancing the agency and skills of migrants (Greene 2019; Alencar, 2020; WHO 2018).

The extensive use of smartphones by migrants has transformed these technologies into a new ecosystem in their lives (St. George 2017). They use smartphones and mobile applications to obtain information about their destination country, visas, legal entitlements, housing, language classes, employment opportunities, social networks, etc. (Alencar 2018; Dekker et al. 2018; Dekker and Engbersen 2014; Moughrabieh and Weinert 2016; Rutkin 2016). They transform these applications into survival tools that are strategically deployed to ensure connectivity during migration journeys (Smets, 2018).

Upon settling in new countries, most migrants encounter a spectrum of challenges, including social isolation, information poverty, cultural barriers, limited knowledge of the local language, lack of trust, and limited access to services and healthcare (Almohamed and Vyas 2016; Caidi, Allard and Quirke 2010; Brown and Grinter 2016; Talhouk et al. 2016a). In this context, Harney (2013) and Gifford and Wilding (2013) argue for the empowering potential of mobile technology in enabling migrants to navigate these complexities and to expand their social horizons.

Smartphones, especially, are posited to engage otherwise inaccessible populations effectively. Vulnerable groups often rely on smartphones for internet access, especially in comparison to personal computers, while newcomers and temporary residents utilize cell phones to maintain connections with their families in their home countries (Benton 2014).

In this vein, Bobeth et al. (2013) assert the necessity of migrant-centric applications for successful integration, underscoring the intertwining of technology and migration in personal and administrative domains. This symbiotic relationship between technology and migration extends beyond individual settlement experiences, encompassing the utilization of digital media and mobile applications in public administration.

Using digital media and mobile applications in public administration is pivotal in facilitating dialogue between the government and migrant populations, offering interactive applications with diverse functionalities that are accessible anytime and anywhere (Allazo 2009). In this context, local governments are responsible for formulating strategies for digital inclusion, bridging the digital divide, and advancing ICT inclusion endeavors (Mattoo et al. 2018).

Contextual constraints, budgetary constraints, and the demand for personalized public services underscore the requirement for "smart public services" (Albury 2005; Hartley 2005; Simmons and Brennan 2017). Consequently, governments must reassess their conventional administrative models to address these pressing organizational dilemmas (Farazmand 2009).

It necessitates innovative alternatives that depart from the incremental policy changes characterizing traditional politics (Dye 2013).

While acknowledging the myriad benefits that mobile technology brings, it is essential to recognize the potential obstacles it presents, particularly in the context of refugees, whose use of cell phones is often intertwined with the insecurity of their circumstances, which are often characterized by a lack of stability and security (Baban et al. 2017). Of note is the phenomenon of "information precarity", where migrants are vulnerable to misinformation, stereotyping, and rumors, which can significantly affect their economic, social, and health conditions (Dekker et al. 2018).

Conversely, refugees have strategically used cell phones to mitigate these challenges (Khalaf 2016). However, it is imperative to note the emergence of counterarguments that question the legitimacy of refugees' need for humanitarian assistance based on the false assumption that cell phones are a luxury rather than a necessity (Awad and Tossell 2021).

Furthermore, the extensive use of technology in managing migration can reinforce existing power imbalances. Integrating technology into critical areas such as border control and immigration enforcement raises significant ethical, legal, and humanitarian concerns. Issues of privacy, human rights, and the potential for abuse are particularly alarming. Technologically enabled surveillance measures have raised fears that migrants' rights could be violated, particularly concerning privacy and freedom of movement. There is also a risk of misidentification and the resulting unjustified prosecution and detention of innocent people.

Migrants, particularly those from disadvantaged backgrounds, may have limited access to technology or lack the necessary digital skills. This disadvantages them when navigating complex systems that rely heavily on technological interfaces (O'Mara et al. 2012; Gigler 2015).

Challenges such as language and communication barriers, insufficient resources, limited internet access, and problems with the reliability and timeliness of information often need to be addressed for migrants. They often need more experience with geoservices, have limited motivation to engage with technology and integration applications, and face unfavorable socioeconomic and infrastructural conditions in their host countries (Bustamante Duarte, Degbelo and Kray 2018; Opas and McMurray 2015). The United Nations has advocated for concerted cooperation between mobile network operators, government agencies, and regulators in addressing these multifaceted challenges. Central to these efforts is improving accessibility by means of better network coverage, digital skills training for migrants, and costeffective connectivity solutions tailored to their specific needs (UNHCR 2016).

In response to migrants' diverse and complex needs during their settlement, governments have been instrumental in developing and introducing new technological solutions such as mobile applications (m-apps). These applications are increasingly recognized as pragmatic tools to meet their specific needs.

As Diminescu (2019) points out, smartphones have become a central tool for migrants, supported by the availability of applications that enable a range of activities such as socialization, communication, localization, information gathering, distance learning, banking, and access to government services. As the cost of smartphones and internet connectivity decreases and accessibility increases, digital technology is expected to play an increasingly important role in supporting migrants' journeys (Mattoo et al. 2018). This technological shift is not just a matter of convenience but has a transformative effect on the way it enables migrants to navigate, adapt, and integrate in new social and cultural contexts.

Bridging the digital divide is crucial for fully harnessing the potential of information and communication technology (ICT) to transform relationships between citizens and government. The digital divide refers to the disparity in ICT access, usage, knowledge, and skills among individuals, households, businesses, and geographic areas across different socioeconomic levels. Paradoxically, those who benefit the most from digital initiatives, such as individuals with low incomes and limited skills, often need more access to e-services. Governments recognize the importance of bridging the digital divide and developing strategies to fully empower vulnerable groups to utilize ICTs (Mattoo et al. 2018).

The increase in migration flows in Europe and the United States has led to the development of specialized applications tailored to the needs of migrants (Greene 2019; Alencar 2020; WHO 2018). They serve as lifelines that satisfy practical, emotional, and social needs and enable communication with distant relatives (Alencar 2018; Smets 2018).

Integration applications have been positively associated with higher levels of social integration and good health among migrants (Drydakis 2021). These apps encompass services related to public services, city transportation and maps, translation and voice assistance, and mental health support. They contribute to addressing practical, affective, and social needs, aiding them in navigating housing, employment, and familial uncertainties.

According to Drydakis's (2021) study conducted in Greece, mobile integration applications offer accessible platforms that facilitate migrants' access to customized online information and services, thereby playing a crucial role in their integration and well-being. These apps enable access to public services and assistance, networking, language acquisition, and employment. By enhancing information acquisition and communication skills while reducing

barriers to public service participation, integration applications can improve migrants' skills and human and social capital, leading to greater integration and well-being (Drydakis 2021).

Cities play an important role in the social and economic integration of their inhabitants, especially migrants (Penninx 2003). As key organizers and regulators of daily life, local governments have responsibilities and face challenges in shaping social inclusion and integration pathways. It is not uncommon for cities to take on tasks traditionally associated with higher-level governments, such as developing new policies and programs that address the needs and challenges of new residents (Ray 2003).

ICT service delivery must be tailored effectively to meet the needs of diverse social groups and to promote inclusion. By gaining a deeper understanding of the population's needs and ensuring that the needs of various groups are adequately addressed, the digital divide can be bridged, and service delivery can be enhanced.

While new technologies offer promising opportunities for migrants, they can also negatively impact diverse and disadvantaged populations. Smartphones, integral to "smart cities," generate substantial data that governments use for decision-making. However, communities that generate fewer data trails may be underrepresented in future city management and planning. Privacy concerns often limit the release of data, particularly among communities that lack trust in city institutions, such as minority groups who have experienced mistreatment by law enforcement. Additionally, new technologies can pose barriers for individuals needing more documentation or with limited digital literacy skills (Benton 2014).

It is important to note that while apps provide valuable tools for migrants, they cannot replace face-to-face interactions among social groups, which remain essential for effective facilitation. However, these technological advancements present promising opportunities. Access to city services through cell phones can help overcome language or literacy barriers and enhance interactions with city officials without the risk of discretion hindering access (Lipsky 2019). Recent developments in response to the refugee crisis in Europe demonstrate the significance of technology in promoting responsiveness and integration. These initiatives offer exciting possibilities for the future as cities strive to leverage the potential of the digital age (Mattoo et al. 2018).

Understanding the challenges migrants face, identifying critical service gaps, and tailoring ICT solutions are essential for developing applications that effectively support migrants throughout the migration process (Bustamante Duarte, Degbelo and Kray 2018). Cell phones provide a means to mobilize personal networks, alleviate fears and uncertainties, and expand social horizons for migrants (Harney 2013; Gifford and Wilding 2013). Furthermore, mobile

integration applications offer accessible platforms facilitating migrants' access to customized online information and services, promoting integration and well-being (Drydakis 2021). Governments must adapt and engage all stakeholders to ensure effective implementation and inclusive access to government services through ICTs (Mavropoulos, Tsakona and Anthouli 2015). By addressing these challenges and leveraging technology, governments can play a pivotal role in supporting migrants and promoting social inclusion and integration.

3. Material and Methods

This study employed a methodological approach consisting of three phases: literature review, internet data search, and semi-structured interviews.

The literature review delineated prevailing trends and debates pertinent to integrating e-government frameworks and applying mobile technology in migration scenarios. This comprehensive examination provided an understanding of the intersection between digital governance and migratory processes, highlighting the role of mobile technology as a pivotal element in contemporary migratory experiences.

The internet-based research explored various online platforms, including Facebook communities, Reddit, the Apple Store, Google Play, and other social media channels focused on online services and mobile applications targeting migrant populations.

The secondary data collected during the internet-based research identified multiple online services and mobile applications. While these applications may not be explicitly designed for

migrants, they are relevant to education, employment, networking, and health. A comprehensive overview of these findings is presented in Table 3.1.

Table 3.1: Examples of different ICT features available in the context of migration.

ICT Features	Study			
Advocacy	Belloni (2019)			
Assessing employment	Martin-Shields et al. (2019) - Campion (2018)			
Assessing housing	Martin-Shields et al. (2019) - Divia Mattoo et al. (2018)			
Blockchain technology in remittances sending	Gelb & Krishnan (2018)			
Border management technology	Kent (2018)			
Communication with Family and Friends	Kutscher & Kreß (2018)			
Decision Making and Preparation pre-departure (InfoAid)	Alencar, Kondova, & Ribbens (2018 - Gillespie et al. (2018)			
Enhance children's education	Acharya (2017)			
Entertain people in their leisure time	McAuliffe et al. (2018)			
Integration, reintegration, and migrants' identities	McAuliffe (2016)			
Explore information and provide various support services	Acharya (2017 - Campion (2018 - Divia Mattoo et al. (2018)			
Familiarize themselves with and adjust to new environments	Acharya (2017)			
Female and Pregnancy Health	Hababy (http://www.alessandrocrimi.com/hababy/index.html)			
Refugees NGO funding and volunteering	Divia Mattoo et al. (2018)			
Keeping ties with family and friends at home	Eminescu (2020)			
Learning a new language	Netto et al. (2022)			
Mapping solutions	Zijlstra and Van Liempt (2017)			
Online frauds	Alencar et al. (2018)			
Placement and settlement	Switzerland Geomatch (https://immigrationlab.org/geomatch/)			
Reconnect and maintain socio-cultural networks back home	Acharya (2017)			
Reporting War Crimes	EyeWitness to Atrocities (https://www.eyewitness.global/)			
Retrieve health information	Acharya (2017)			
Route Sharing	Papadopoulos & Tsianos (2013)			
Social Networking	Zijlstra & Van Liempt (2017)			
Support for the integration	McAuliffe et al. (2018)			
Surveillance	Eide (2020)			
Tracking migrants' movements through the border	Latonero & Kift (2018) Leurs & Smets (2018) – McAuliffe (2016)			

Source: Authors based on cited bibliography

To conduct a more targeted analysis, it is essential to differentiate between services tailored explicitly for migration-related purposes. Although many public authorities offer mobile applications as part of their public service portfolio, these applications may not provide specialized services for migrants. Therefore, migrants primarily rely on applications that offer partial services relevant to their needs, such as language learning or geospatial applications. Alternatively, there are applications specifically designed for migrants, but they do not encompass comprehensive services. Inclusion and exclusion criteria were defined based on information from the literature review and internet search to select mobile applications for further investigation. These criteria are outlined in Table 3.2.

Table 3.2: Criterium of inclusion and exclusion for the mobile application selection.

Criteria of Inclusion	Criteria of Exclusion Web Application, Portal, and Desktop Application			
Mobile Application (works online and/or offline)				
Available in Android and/or IOS	Available in Windows, Ubuntu, Linux, or macOS			
Not Available in Windows, Ubuntu, Linux, or macOS	Not Available in Android and/or IOS			
Facilitate Services Provision or Access	Communication and networking services			
Specific information or services targeting migrants, refugees, or asylum seekers	Broad Information or services provision of any inhabitant			
Multiple features tailored for newly arrived.	Specific unique service (language learning, health, geolocation, dictionary).			

Source: Authors.

The Miniila application, catering to the needs of unaccompanied children on the run, had to be excluded due to limited accessibility. Drawing from insights gathered through the literature review, five dimensions were identified for the tracking analysis: services offered, language accessibility, availability for download and offline access, supporting actors, and ease of application consultation. These dimensions serve as the basis for the subsequent analysis, and they are illustrated in Table 3.3.

Table 3.3: Selected Application Analysis

Name	Features	Country	Source	Developers	Accessibility	Languages
Ankommen	Introduction to the German language, answers to everyday questions about German society and life, and answers to questions regarding the asylum process, jobs, and apprenticeships.	Germany	Android iOS	Governmental Sector	Direct access to service Only Online	Five languages
Fin(da)way	Provide asylum seekers and refugees with a cell phone application specific to the migration department. The aim is to provide individualized information that is immediately available to help them understand the asylum application process and to speed up their integration.	France	Android iOS	Governmental Sector	Direct access to service Works fully Offline	Six languages
Gherbtna	Job positions, news, and information on studying in Turkey.	Turkey	Android	Private Sector	Direct access to service Only Online	One language
Integrate	It delivers mapping, useful information, and the latest news and events in different municipalities.	Germany	Android iOS	Social Fintech, municipalities, and local Ngo.	Direct access to service Works fully Offline	Nine languages
Merhaba Umut	Home language content and language learning, a speech translator, and information and communication support.	Turkey	Android iOS	Private Sector	Phone registration Only Online	Four languages
Migradvisor	Information about Caritas listening centers, embassies, prefectures, police headquarters, hospitals, schools, and post offices. Another section is devoted to "risk situations," which suggests what to do if you are a minor in cases of abuse, exploitation, and in situations of irregularity.	Italy	Android iOS	Local/International NGO	Direct access to service Limited Offline services	Four languages
RefAid	Provides information trusted services and accurate information near users.	World	Android iOS	International Organizations	E-mail registration Limited Offline services	Seven languages
Refugee Buddy	It delivers mapping, translation, translator, and information about the procedure for asylum seekers, general useful information, instructions in case of an accident, and the latest news.	Norway Canada Cyprus	Android iOS	Local/International NGO	Direct access to service Limited Offline services	Seven languages
Refugiės.info	Useful information about learning language, job search, housing, medical care, and other.	France	Android iOS	Local actors, volunteers, and national government	Direct access to service Only Online	Eight languages
Welcome to Germany	Specific information on immigration, labor market and educational opportunities, national and regional contacts, and explanation videos with subtitles.	Germany	Android iOS	Social Fintech	Direct access to service Works fully Offline	Fifteen languages

Source: Authors

Between July and August 2022, developers were contacted via email and/or LinkedIn with an invitation to participate in a semi-structured interview through a text file or an online conference. The interview questionnaire encompassed thirteen questions addressing various aspects, including the application's conception, development process, funding, selection of contacts and criteria, sustainability, and technical details.

Out of the initial selection of ten mobile applications that were contacted, only four responded to the primary contact person, and ultimately, only one agreed to a 50-minute video conference interview. When developers did not respond or declined to participate, supplementary research was undertaken to gather equivalent information from online sources. This additional data was collected to facilitate the analysis presented and discussed in the subsequent section.

Due to the disparity in data sources and limited availability of specific information from developers, the collected data is discussed in general terms. It is important to note that the applications mentioned in the analysis are used purely as illustrative examples to support the overall discussion.

4. Results and Discussion

The findings of this study reveal a cyclical pattern in the development of mobile applications dedicated to migrant populations, with new applications emerging to cater to specific groups, such as the influx of refugees from Ukraine. It is worth noting that several applications mentioned in previous studies are no longer available.

The rise and subsequent discontinuation of numerous mobile applications between 2015 and 2017 can be attributed to various factors. The prevalence of German applications during this period can be linked to Germany's adoption of a relatively open-door policy and its efforts to support and integrate the influx of migrants (Gaess 2017). However, it is essential to acknowledge that this approach faced criticism and challenges, leading to subsequent shifts in Germany's migration and border security measures. In response to concerns and public debates, Germany implemented measures to strengthen border security, particularly along its borders with Austria and other Schengen countries. These measures aimed to manage and regulate the flow of migrants effectively, address security concerns, and ensure the orderly processing of asylum applications.

The discontinuation of many applications after six years reflects the dynamic nature of migration policies, and the evolving challenges countries face in managing migration flows. It underscores the need for ongoing adjustments and adaptations to respond to changing circumstances and policy priorities.

Funding emerges as a critical factor in the sustainability of mobile applications. Developing and maintaining these applications requires technical expertise to ensure compatibility with new operating systems and to enhance usability. As shown in Table 3, most applications receive support from government entities, international NGOs, and even the private sector. Successful partnerships with local governments and/or international NGOs have proven fruitful, not only in terms of providing accurate information but also in offering financial and technical support to these applications. Mobile applications supported by government actors and institutions tend to have a longer lifespan.

To ensure affordability and sustainability, maintaining a single responsive and multi-platform website or platform is more practical than offering separate websites or mobile applications for different platforms, such as iOS and Android. However, providing offline accessibility becomes a challenge in such cases. The provision of offline application services becomes crucial due to migrants' limited internet access due to various constraints, including financial resources, geographic location, and data protection.

In terms of control and privacy, applications requiring user registration to access features may face resistance from users due to concerns about privacy and the security of personal information, particularly for undocumented migrants. Establishing control and privacy mechanisms remains a significant challenge in delivering digital services to migrants and building a trusting relationship that facilitates access to services.

Most applications included in this study offer extensive multilingual platforms. However, translation emerges as a significant cost factor in maintaining these applications. Another approach to overcoming digital illiteracy barriers is incorporating audio and video capabilities. Although this may increase costs, smartphone audio commands have shown steady improvement.

Regarding services, most applications commonly offer geographic localization and information. Implementing cross-country features poses challenges due to platform compatibility issues, but it can significantly enhance the utility of the applications. Government entities, local non-governmental organizations, and volunteers often collaborate as information providers in these applications, and this co-production positively impacts service quality.

Bustamante Duarte, Degbelo and Kray (2018) conducted workshops in Muenster, Germany, involving young displaced people and natives to collaboratively develop a mobile tool to support the former during their initial phase of (re)settlement. Their study demonstrated that

employing participatory design and research strategies is instrumental in engaging young displaced people and fostering trust while creating digital services tailored to their needs.

Among the applications examined, only one, Ghebtna, was explicitly developed by migrants. This particular application was conceived and built by a Syrian refugee in Turkey. The involvement of migrants with their existing experiences, resources, and skills can prove crucial to the success of initiatives despite their precarious situations (Millard 2019). This highlights the essential principle expressed by Omar Alshafai during the Nesta/Migration Hub Network Workshop in Berlin on March 9, 2017: "If you want to find a solution to refugees' problems, you need to talk to refugees, not about refugees."

Governments should consider leveraging Information and Communication Technology (ICT) to facilitate the settlement of migrants and deliver personalized services. The local level often possesses a unique advantage in respecting all stakeholders' human rights and local cultures, including host communities. It is vital to recognize that the issues and needs of stakeholders evolve, particularly within the broader context of societal developments and changing relationships (Millard 2019).

5. Final Considerations

The digital age presents both opportunities and threats for migrants, emphasizing the necessity of competent and trustworthy structures to support their utilization of digital services. This entails addressing technical aspects, understanding the specific needs of this population, providing accurate information, and fostering employment and participation. In light of the prevalence of misinformation, exploring and leveraging the potential of Information and Communication Technology (ICT) becomes crucial for connecting individuals and disseminating reliable information. There is significant room for growth in this realm, and governments should actively harness the capabilities of ICT to facilitate migrant settlement, integration, and the provision of personalized services tailored to their unique requirements.

Furthermore, applications and initiatives often arise from substantial volunteer engagement, initially supported by public policy and resources, sometimes with the involvement of stakeholders who can secure funding from governments or philanthropic organizations. Cell phones and integration applications can contribute to upholding human rights such as the right to information, family life, work and education, preservation of cultural identity, and mental health (Mancini et al. 2019).

The identification of and connection with migrants present challenges due to factors such as insecurity, lack of identification, language and cultural barriers, and the possibility of adverse reactions from segments of society (Millard, 2019). Reliable mobile applications that mitigate

uncertainties and foster social trust are crucial in ensuring accurate knowledge about migrants' rights and avoiding misunderstandings.

However, it is essential to acknowledge that mobile applications alone cannot solve the complex challenges associated with migration settlement. Comprehensive approaches encompassing political, economic, and social dimensions are necessary. Nevertheless, mobile technology can be valuable in these processes, fostering improved government-population relations. Well-developed applications can be adapted for use by the broader population, promoting innovation and accessibility and addressing the needs of both the host society and migrants in order to significantly enhance their overall impact.

Nevertheless, it is vital to recognize the inherent risks associated with control technology and surveillance mechanisms, which may pose significant threats to the information and data security of migrants. As technology continues to evolve, the benefits and risks for migrants are likely to become more pronounced. Consequently, it is necessary to reevaluate existing solutions and to implement measures so as to enhance stability and to improve the lives of displaced individuals. This calls for broader support for refugee settlement and strategies and a deeper understanding of unregulated migration through the lens of migrants themselves.

We can promote welfare by identifying and framing emerging issues positively and constructively. The current global political and social climate, characterized by the rise of xenophobia, right-wing regimes, and the ongoing pandemic, underscores the urgent need to effectively facilitate freedom of information while ensuring robust oversight to combat false, misleading, or inaccurate information, protect privacy, and enhance technology access for vulnerable groups.

To fully realize the potential and promise of technology in supporting the needs and aspirations of transnational individuals, adaptive and rights-based regulations, rapid intergovernmental and interagency collaboration, and well-defined public-private partnerships are indispensable. Intensifying efforts in harnessing the new capabilities of digital technology to engage with migrant communities and to ensure inclusivity is paramount in order not to leave anyone behind in the wake of technological advancements.

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