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“Crimmigration Control” across Borders: The Convergence of Migration and Crime Control through Transnational Biometric Databases

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Abstract: *»‘Krimmigration’ über Grenzen: Die Verwobenheit von Migrations- und Kriminalitätskontrolle durch transnationale biometrische Datenbanken«*. New cross-border regimes of biometrics and databasing in the EU are contributing to a conflation of the treatment of irregularity, asylum seeking, and criminality. States provide migrants’ biometric data to transnational databases that are increasingly interoperable in the area of migration and crime control, to be accessible for state-based law enforcement actors. This article uses the case of Eurodac – a biometric database initially developed for migration control purposes – to explore the ongoing expansion of law enforcement access to the collected information for the purpose of crime control. The article studies how borders are selectively made permeable for biometric data flows in the light of “crimmigration” discourses. It combines insights from critical migration, border, and security studies that address the increasing overlapping of migration and crime control in policy discourse, law, and surveillance technologies. The study addresses the reconfiguration of crimmigration – and the normalisation and diversification of the figure of the “crimmigrant other” – through the expansion of cross-border flows of biometric data by law enforcement.

Keywords: Crimmigrant other, bioborders, Eurodac, fingerprint data, data subjects, Crimmigration, Borders, Migration Management, Crime Control, biometric data.

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1. Introduction

An asylum seeker from Afghanistan was identified as a suspect in the rape and murder of a student at the University of Freiburg, in the German state of Baden-Württemberg, in October 2016. Fingerprints reportedly placed the migrant at two crime scenes – one in Freiburg and another on the island of Corfu in Greece. The person remained undetected, though he was previously known to Greek law enforcement system, having been convicted of attempted murder in Greece in 2013 after pushing a student off a cliff; the woman sustained severe injuries. The suspect received a 10-year prison sentence and was released on parole in 2015 due to overcrowding in Greek prisons and disappeared soon thereafter after failing to check in with his parole officers. He was not heard of again until after the Freiburg murder.

According to Greek law enforcement authorities and policy makers, the suspect could have been detected much earlier as he had been reported by Greece to the Eurodac (the European Dactyloscopic System) database. Eurodac is the European Union (EU) database that stores identification information, including biometrics such as fingerprints and other personal data of individuals applying for asylum. The database was initially created to manage asylum requests across Europe, assigning responsibility to a Member State to process asylum seeking requests. It was later also made accessible to law enforcement authorities.

The former German Interior Minister Thomas de Maiziere attacked Greece after the Afghan man had committed a violent crime in Greece and slipped through the criminal justice system. He had made his way to Germany where he now stood accused of murdering a student. De Maiziere said that the Greek authorities had failed to record an international search notice, neither with Interpol nor the Schengen information database. While the Greek government blamed the German authorities for not taking notice of the Eurodac database, the German authorities pointed the finger at the Greek authorities for not having used the other international information database channels used by law enforcement to keep track of criminals. In the aftermath of this particularly high-profile criminal case, the functioning (or rather, malfunctioning) of EU databases – which were established for migration control but also accessible by law enforcement bodies – became a highly contested public issue. It cast a damning light on the efficiency and efficacy of such means of control, despite the promise of the technological solutions of biometrics and transnational information databases. The Freiburg criminal case received international media interest in the debate over Member States' responsibilities to implement and fully apply existing EU information systems and support EU-wide police collaboration at the intersection of migration and law enforcement (Knight 2016).

This case introduces a complex techno-scientific topic that is highly entangled with Member States' geopolitical interests in and perceptions of surveillance regimes at the intersection of migration and crime control: transnational collaboration via information infrastructures and data exchange, including the very mundane and often untransparent operations of policing and migration management. This story illustrates how claims of Member States' "failure" to provide accurate and full contributions to information infrastructures are believed to be among the major issues preventing better and more efficient transnational provision of public security, crime prevention, and investigation. Furthermore, it mobilises the figure of the "bad criminal migrant," used to argue for the necessity of improving and stabilising such information systems, and the importance of collaboration across migration and law enforcement authorities to identify the persons most considered in such surveillance regimes.

In this article, I argue that while such public debates in the aftermath of individual crime cases serve to facilitate narratives – depicting migrants and a lack of Member State collaboration as problems to be solved with transnational technical solutions – they also contribute to the generalisation of criminal suspicion against migrants seeking protection. Migrants whose biometric data is stored in databases (initially installed for the purpose of migration management) are increasingly exposed to the normalisation and expansion of criminal suspicion. However – and here I make a claim that goes beyond previous findings – this exposure targets and potentially affects them in different ways due to the asymmetric engagements of Member States with biometric databases.

Eurodac, as one of the key databases, is an instrument that collects and compares the fingerprints of asylum seekers and irregular immigrants in a European database in conjunction with the Schengen and Dublin regime. It organises the data, helping to determine which EU Member State is responsible for processing an asylum application. A standardised procedure regulates the transfer of fingerprint data from national authorities to the central unit maintained by the European Commission to centrally aggregate the data. It is then compared with previous entries or, depending on the category of data, stored for later use. A "hit" results if a record already exists for a certain fingerprint. It is then concluded that a third-country national has been recorded multiple times and their data has already been transmitted by a Member State.

The initial purpose of the Eurodac database was limited. It was set up to facilitate the application of the so-called Dublin Regulation on asylum matters, that is, to assign a Member State's responsibility for individual asylum requests and prevent so-called "asylum shopping" (multiple attempts to request asylum in different Member States). Since the passing of new regulations regarding Eurodac in 2015, the EU has been explicit about the motives

for integrating Eurodac into its overall security schemes. With recent trends making various migration and crime control databases increasingly interoperable, further convergence between migration and crime control is likely to produce further consequences for the data subjects covered by these databases. As a continental database, Eurodac now involves more than 32 states and all levels of the European multi-level system. This includes border checkpoints, immigration authorities, administrators of the central database in Strasbourg, and their administrators at eu-LISA in Tallinn.

Eurodac is one of several databases initially set up for migration control, alongside the Visa Information System (VIS), Schengen Information System (SIS), and Entry/Exit System (EES). These databases offer increasingly expansive access for law enforcement bodies. These databases all make good case studies to investigate crimmigration, biometric databases, and the consequent criminal suspicion against migrants. Eurodac, however, is different from other databases as it is particularly focused on managing vulnerable populations such as asylum seekers.

Previous studies have looked at the dysfunctionalities in the operation of the Eurodac database across Member States (Aus 2006; van der Ploeg 2006; Kasparek and Tsianos 2015; Töpfer 2015; Meneses Queiroz 2019). Yet to be addressed, however, is how the ongoing convergence of migration and crime control through the asymmetric engagements of Member States' data practices with Eurodac may lead in diverse ways to the criminalisation of migrants. Therefore, in this paper I address the following questions: how did the increasing convergence of crime and migration control evolve with biometric databases such as Eurodac? How do these tendencies – convergence of crime and migration control and asymmetric engagements of Member States with Eurodac – play out for the affected migrants, the data subjects represented in biometric databases?

The next two sections of this article will answer these research questions. The first of these sections gathers the relevant analytical perspectives to answer the research questions – namely concepts of crimmigration and the "crimmigrant other." I then look at the appeal of seemingly infallible biometric technologies and analyses of capture borders for data flows. The second of these sections continues the analysis of the Eurodac database in three subsections. The article concludes with a summary of the findings.

2. "Crimmigration Control" across Borders: The Convergence of Migration and Crime Control through Transnational Biometric Databases

There are three relevant analytical perspectives on the shifting notions of borders, derived from the convergence of migration and crime control and its application in transnational biometric databases. By adding to the recently growing literature on shifting borders, this article complements the perspectives of physical territorial borders (see Gülzau and Mau 2021, in this special issue) with a focus on the legal and data related shifts and reconfigurations of bordering processes taking bodies to the centre of attention (similarly to Shachar and Mahmood 2021, in this special issue). First, I address the phenomenon of "crimmigration control" – the convergence of migration and crime control – together with the enactment of the figure of the so-called "crimmigrant other" (Franko 2020) – a growing group of persons targeted by migration and crime control regimes. Second, I address the assumed infallibility of biometrics and insights from critical social studies on biometrics. Third, I briefly discuss the legal and social studies literature on how crimmigration processes have entered and shaped biometric databases, outlining concerns about human rights, proportionality, and accountability. Most studies have focused on the larger databases, EU regulations, governance regimes, technological IT architectures, and conditions and practices related to biometric data. These studies rarely pay attention to the asymmetric modes of exchanging biometric data. Unequal data exchange practices derive from differences between Member States. Therefore, I refer to the notion of "biobordering" (Amelung, Granja, and Machado 2020). The term "biobordering" aims to capture the regulations governing how biometric data flows across nation state borders. Bordering dynamics encompass modes that emphasise territorial foundations of national state autonomy. Bordering dynamics describe the diverse national approaches to enacting the "crimmigrant other" in biometric data practices, contingent on national policy regulations, judicial traditions, technological infrastructures,[1] and techno-political cultural discourses. But at the same time, specific modes of biobordering may purposefully suspend national boundaries when establishing transnational biometric data exchange regimes to enable efficient and unobstructed data flows, and thereby may circulate certain notions of the "crimmigrant other" across borders.

[1] The use of the term "technological infrastructures" in this article refers to digital information and data infrastructures rather than to the physical border infrastructures of fences and walls that Gülzau and Mau (2021, in this special issue) refer to.

2.1 The Convergence of Migration and Crime Control and the Enactment of the "Crimmigrant Other"

Looking at recent developments in the convergence of migration and crime control – of what I will call here "crimmigration control" – at work in the context of Eurodac, there are clear indications of ongoing trends towards new forms of surveillance with biometric databases.

Crimmigration is a phenomenon that has been observed and reflected upon for almost two decades. The convergence of crime control and immigration management has been dubbed "crimmigration law" in the US (Stumpf 2006; Aas 2011). These two previously distinct legal spheres increasingly converge and overlap, particularly through the progressive criminalisation of immigration offenses and the construction of generalised criminal suspicion towards migrants.

Crimmigration control pulls together a regime of governance combining penal and military power with humanitarian rationalities (Franko 2020). Franko explains that the "crimmigrant other" figure helps to legitimise the use of force in fields lacking traditional forms of legitimacy (Bosworth and Aas 2013). Franko emphasises the "technicality" of crimmigration by studying the social production of the "crimmigrant other" figure, both as a central object of media and political discourse and a distinct penal subject connecting migration and the rationale of criminalisation and insecurity.

Constructing an "other" is beneficial to explain and cope with deviant forms of behaviour, and is a valuable resource in a society (Erikson 1962). References to the "crimmigrant other" help to legitimise othering processes that underpin the legal exclusion of migrants by manifesting assumptions of blameworthiness. In societies with a humanitarian and inclusive self-image, the division between "bad" and "good" migrants enables migrants to be socially excluded. The "crimmigrant other" concept shapes and destabilises contemporary notions of belonging (Franko 2020; Anderson 2013) by creating delineate boundaries and frameworks of who is considered to have legitimate membership of a particular community. Franko argues that "bordered penality," increasingly applied in contemporary migration policies, enables the questioning and cancelling of membership by making distinctions "between good and bad mobility, victims and offenders, and deserving and non-deserving migrants" (Franko 2020, 22).

The field of so-called crimmigration law provides the conditions to lower standards of rights for migrants (Franko 2020; Blasi Casagran 2021). Crimmigration law may lack public accountability and judicial oversight and prioritises ambitions of efficiency and expediency (Stumpf 2006; Bosworth 2013). Franko has convincingly outlined how the moral boundaries of the nation place the "crimmigrant other" normatively outside of those boundaries, thereby constituting and reproducing these very same boundaries.

As migrants are excluded from the nation state model of security, they may be included in humanitarian discourse. This discourse does not operate on the basis of emotion and morality, but instead the universalist understanding of rights (Franko 2020). The power to make distinctions between migrants with different statuses, protection rights, and needs is very much based on not only structuring and considering legal human rights, but also moral judgements.

While Franko opted to use the term *social production* of the crimmigrant other, I will further rely on the notion of *enacting* the "crimmigrant other" with biometric data practices. While the term social production may suggest that the figure of the "crimmigrant other" might be produced in a one-creational act, the reference to enactment enables understanding of the contingencies of continuous data practices at various sites that shape diverse versions of the "crimmigrant other." I follow the notion of "enactment" in Annemarie Mol's tradition of what she calls "ontological politics." This acknowledges that reality is not pre-given and singular but is enacted through practices in multiple versions (Mol 2002). Consequently, with "enactment," the emphasis lies on understanding how objects and subjects change over time and how their multiple enactments enable their identities to be fragile and to differ from site to site (Ruppert, 2011, 223). Scheel, Ruppert, and Ustek-Spilda (2019) have specified the understanding of "enactment" of migration through data practices in the context of migration management. Scheel, Ruppert, and Ustek-Spilda (2019, 583) suggest that migration data are not objective or neutral, but "fragile, mutable accomplishments that are invested with political and institutional agendas as well as commercial interests," and data practices enact migration-related realities as objects of government. In this sense, I understand the enactment of the "crimmigrant other" through biometric data practices as taking place through different forms of data practices and at different sites, shaping diverse ways to entangle criminal suspicion with migrants.

One such data practice is to build classification schemes to sort migrants when establishing and modifying data categories of biometric databases. The power to make distinctions has been increasingly used to differentiate "types of data" in order to sort "types" of migrants, configure their access to protection rights, and justify return procedures. The same power is used to dismantle distinctions when law enforcement has access to these different types of data/migrants, thereby expanding suspicion. Migrants of all different "types" are then exposed in a generalised form to the suspicion of the "crimmigrant other." Interestingly, the power to sort migrants to specify and classify the absence/presence of protection rights, and to reverse such classification to apply a generalised form of suspicion, is based on ways of perceiving migrants as the "crimmigrant other," segregated from EU Member State citizens.

Other data practices that enact the "crimmigrant other" involve the particular forms of interpretation and investigation of biometric evidence. These shape how data is entered into, compared with, and used in biometric databases (this is explored further in the following subsection). Different data practices can be found across nation states, rendered by specific regimes of exchanging biometric data. These affect how the "crimmigrant other" is multiplied across sites connected through transnational biometric databases.

2.2 Biometric Surveillance Technologies Connecting Crime Control to Migration Control

Fingerprinting, also called dactyloscopy, emerged in the late 19th century as an important forensic tool for police forces. Over time, the beliefs that no two individuals have the same dermal ridge patterns and that professional examiners make error-free fingerprint identifications took hold (Lynch et al. 2008, 10). Fingerprint experts established an uncontested authority of expertise and declaring a match between two prints in court was accepted as "unambiguous evidence of identity" (ibid., 11). The development of a distinct forensic profession of latent fingerprint (those fingerprints collected at crime scenes) examiners, trusted by the courts to declare whether two prints matched, became a crucial component of the evidence creation process of fingerprinting.

Identification of an individual relies on a match between two prints and relying on probability calculations. In most countries, a "points system" was used to declare a fingerprint match, with a specific number of points (16, 12, 8, etc.) as the threshold for declaring a match. This is despite the match being regarded as a binary either-or judgement with no grey zones in between (ibid., 12). Fingerprint examiners established the category of "inconclusive" for all fingerprint evidence that lacked sufficient clarity to make a certain judgment, thus circumventing ambiguity (ibid.). Fingerprinting underwent a credibility crisis around 2000 due to its lack of probabilistic underpinning and inconsistent application in the US. The paradigm of forensic DNA profiling – creating evidence and scientific certainty by relying on probabilistic calculations – became reinforced, and thus challenged previous epistemic rationales such as those underpinning fingerprinting (Lynch et al. 2008, 14; McCartney 2006). Nevertheless, fingerprint data is now widely regarded as reliable in the legal milieu and among the public.

Fingerprint data also became trusted as a reliable form of identification evidence due to its capacity to facilitate uncomplicated forms of data exchange and circulation. Its comparably simple findings can be shared and communicated seemingly safely and efficiently, and the data interpretation is established as depending little on experts. Therefore, it is not surprising that fingerprint technologies established themselves not only in crime control, but

also in migration control, including for automatic data exchange across borders. However, as McCartney and Graham (2018) highlighted, particular conditions – and in their view concerns – emerge regarding the validity of forensic science methods and the reliability of scientific evidence when data is transmitted (automatically or by human actors) between national policing and judicial authorities and, in particular, across nation state borders.

Various studies have documented concerns regarding biometric fingerprint technologies. Socio-legal and ethical studies have largely explored the impact on rights to privacy, liberty, moral and physical integrity, and human dignity (Aas 2011; Broeders and Dijstelbloem 2016; Schuster 2011). Critical issues concerning fingerprint databasing with Eurodac include the scientific reliability and uncertainty related to fingerprint technologies (Scheel 2013; Van der Ploeg 1999; Tsianos and Kuster 2016). Biometric surveillance technologies disguise the human bias inherent to the development and deployment of technologies in ways that we do not yet fully comprehend (Kloppenburg and van der Ploeg 2018). This impacts the awareness of "problems" entangled with such technologies and how they also affect those they target beyond the intended consequences.

In her book *Dark Matters: On the Surveillance of Blackness*, Simone Browne (2015, 115) discussed the case of US citizen Brandon Mayfield. A lawyer who had served in the US Army and a Muslim, he was wrongfully associated with the 2004 train bombings in Madrid, Spain, based on latent fingerprints. On May 11 of the same year, 191 people were killed in four synchronised bombings in commuter trains. The FBI matched Mayfield's fingerprints with latent fingerprints found on a bag containing detonator devices recovered by Spanish authorities from a vehicle parked at a train station. Although it later turned out that Mayfield's print was one of twenty possible matches, the FBI investigation used additional biographical information such as his military training, his religion, and the fact that he did not have a valid passport at that time, to establish him as a reasonable suspect. After spending 19 days in custody, Mayfield was released after Spanish authorities arrested someone else (Browne 2015, 115). Browne argues that there is a notion

> that these technologies are infallible and objective and have a mathematical precision, without error or bias on the part of the computer programmers who calibrate the search parameters of these machines or on the part of those who read these templates to make decisions [...]. (Browne 2015, 115)

Besides mobilising generalised suspicion against certain population groups, professionals involved in data practices interpreting and investigating evidence may enact and re-establish the figure of the "crimmigrant other."

The architecture of access to Eurodac data varies widely across Member States, in particular regarding the total number of designated authorities, but also with regards to the types of authorities that have access to data recorded in Eurodac, such as the Ministry of Interior or Ministry of Justice, asylum and

migration administration, or police authorities. Most Member States have one central authority with access to Eurodac, but some countries like Germany have more than 700 authorities from municipality to federal level with access to the database (eu-LISA 2021). In consequence, the number, training, skills, and professional cultures of staff accessing and comparing biometric identity data may vary substantially.

2.3 Modes of Biobordering and Nation State Borders that are Permeable for Biometric Data Flows

Border study scholars have extensively reflected on the relationship between state sovereignty, territory, and boundaries. Since the early 1990s, scholars have addressed the exercise of state sovereignty at great distances from national borders as "bordering" (Johnson et al. 2011, 61). This perspective has come with an argument that favours the inclusion of different – yet most often physical – sites for bordering practices beyond physical state borders. This has furthered the analysis of spatial sites *inside* sovereign territory and *beyond* state boundaries where bordering practices are carried out, for instance in the name of extending internal security, as is the case for the EU (Bigo 2014). Beyond the physical sites of bordering practices, the shift to using digital sites for bordering practices has evolved due to developments towards smart and digital borders (Trauttmansdorff 2017; Glouftsios and Scheel 2020).

At this juncture, I wish to note meaningful additions to confront the implications of biometric technologies and databasing with an understanding of borders. First, there is a focus on the "banal sites" of less visible, mundane, technocratic modes of governance (Walters 2008). Second, sites where technologies such as biometric identification are used to connect and structure institutionalised forms of cross-border collaboration in the name of security (Bigo 2008; Amoore 2006) are relevant to understanding how and where borders are established and configured. Analysis of non-physical sites of bordering practices has been accomplished by, for instance, studying the involvement of security professionals (Bigo 2014) or data analysts (Amoore 2011) in bordering processes.

While most border studies on biometrics in the EU have focused on the role of borders in relation to people, Amelung, Granja, and Machado (2020) argued that the shift towards attempts to make national borders permeable for biometric data exchange deserves further attention. The authors call such borders "bioborders" and show how they shape new forms of surveillance and foster suspicion of "risky groups" across Europe. Bioborders emerge as a result of heterogeneous attempts to organise border-crossings data across nation states and their national particularities. There is a multiplicity of nation states' national policy regulations and judicial traditions, as well as technological infrastructures and techno-political cultural repertoires, so these are

not coherent, smoothly performing operations. The authors recommend further study of bioborders and their constitutive components such as regulations, techno-scientific development of biometric technology, technical database infrastructure, and organisational imperatives and principles, including procedures for data protection and oversight mechanisms ensuring accountability of data exchange. Additionally, diverse dynamics of biobordering occur and can be analysed to reveal nation states' embedded traditions, rationales, and interests. These dynamics bring diverse social considerations of the associated ethical impacts for tracked and implicated people. The authors developed the notion of bioborders from a case study on the transnational system connecting national biometric databases using forensic DNA data – the so-called Prüm system – in the context of law enforcement primarily tracking the biometric data of criminal suspects, convicted offenders, and crime scenes.

Therefore, I suggest that the notion of biobordering also reveals the dynamics of political traditions, technological and operational rationales, and criminological interests of data exchange in the context of migration and border control. Transitions towards crimmigration control using data exchange in migration control are driven by similar inherent beliefs in security, and criminological interests in surveilling migrants' mobility. Policing and migration databases are increasingly connected in the EU, and there are efforts to make them "interoperable" to biometrically verify and cross-validate identity records. Leese (2020) has argued that this happens without dissolving their legal foundations and by introducing a new mode of "truth" production about what counts as reliable identity. With these shifts towards interoperability, new forms of collecting and sorting biometric data and categories of suspicion known from crime control and security contexts spill over into previously distinct regimes of biobordering.

3. Crimmigration along Reconfigured Borders for Biometric Data Flow: The Case of Eurodac

I begin this section by briefly outlining the evolution of attempts to harmonise European asylum policies. I focus on the interplay between EU institutions and Member States to raise awareness of the role of state sovereignty in the context of establishing transnational information databases such as the Eurodac database.

Historically, nation states played the dominant role in European asylum policy issues. They exercised influence on legislation in the European Council and in their implementation by exercising their rights as nation states. In a relatively short time, however, the EU established itself as a relevant stage

for agenda-setting in the field of migration and asylum policy. Indeed, since 1980, European policy development has noticeably evolved in response to an increase in asylum applications. This was achieved, until 1999, by intergovernmental cooperation. During this time, Member States and EU institutions put legal instruments in place that influenced the administrative practice of national asylum authorities. Cooperation between EU Member States began to transform after two major changes. The adoption of the Dublin Convention of 1990 introduced the rule that asylum procedures between Member States should be determined so that applications for asylum are made in the asylum seeker's first EU country of entry. At the 1992 ministerial meeting, Member States agreed to define the concept of so-called "safe" countries of origin and safe transit states. As a result, asylum seekers from these countries had to expect a more restrictive procedure, including a reversal of the burden of proof. The focus of intergovernmental cooperation was on police raids and enforcement as well as strengthened control mechanisms (Guiraudon 2003, 268). Further agreements were reached at the European Ministerial Conferences in 1994 and 1995. These included the resolution of readmission agreements with transit states that were considered safe. These agreements facilitated the deportation by national immigration authorities to these "safe" countries (Trauner and Wolff 2014).

The road to formal harmonisation was paved by the Amsterdam Treaty of 1997, which came into force in 1999. This emerged from negotiations between foreign ministries (responsible for the negotiation of treaty revisions, in this case the integration of the Schengen Agreement into EU law) and ministries of interior and justice (formerly responsible for the coordination of the Schengen agreement; Guiraudon 2003, 270).

The harmonisation of a uniform asylum system, the CEAS, had been a declared goal since the Stockholm Programme, a five-year plan from 2010 and 2014, with guidelines for justice and home affairs authorities of the Member States of the European Union. Though the ambition was to eventually arrive at a stronger de facto standardisation of asylum recognition processes, there was continued variation in implementation (Boswell and Geddes 2011, 163). This was not least due to the diverging interests of Member states, which intervened through the European Council, insisting on their sovereignty and thereby restricting the implementation of directives and regulations.

With the complex dynamics of European harmonisation efforts on the one hand and individual national interests on the other, European policy instruments had various impacts on national administrations (Heidbreder 2011). It appears that regulations and directives introduced at the European level played a role as transposed national law in national administrations, introduced as hierarchically enforced administrative standards. This includes all the directives and regulations introduced in the context of the CEAS. Sanctions for divergent practice could be implemented by referral to the European

Court of Justice. The Dublin and Eurodac regulations are also examples of a hierarchically enforced administrative standard. Although shaped by centralised European coordination, these relied heavily on interaction with national police, border guards, and asylum administrations. The establishment and connection of databases under the Eurodac Regulation as a tool for data collection and fingerprint matching was also used for the technical and operational standardisation of datasets and procedures; this process involved national border police, security, and asylum authorities.

At the same time, however, Eurodac has been used in quite different ways by Member States (including non-use in some cases). The unequal distribution of asylum seekers across Member States, legally established in the Dublin Regulation, puts a heavier burden on the EU's external countries and has motivated the circumvention of the tools used for initial registration of asylum seekers. The asymmetric distribution of asylum seekers in EU Member States has long been a subject of political debate, with calls for fairer sharing of the burden among Member States. The New Pact for Migration from 2020 is the most recent attempt to establish an all-encompassing and integrated migration and border management system.

Asylum policy and administration became increasingly affected by policies in the fight against terrorism and crime, and notions of security policies and related meanings spilled over when notions of security are constituted in particular ways by professional groups at the intersection of migration management and crime control (Bigo 2014; Huysmans 2006). EU and Member States' embedded rationalities and interests have shifted and expanded towards a focus on security issues as well as so-called "illegal migration" and its consequences for the opportunities to seek asylum.

3.1 From a Biometric Database for Asylum Management to an Interoperable System for Crimmigration Control

In the late 1990s, Irma van der Ploeg described the use of biometrics – the transformation of body features into readable digital codes – as "the next big thing in information technology" (van der Ploeg 1999, 295). Biometrics was named by MIT Technology Review in January 2000 as one of the "Top Ten" innovative technologies that will change the world. Aside from commercial interest, the biometric industry offered technical solutions to problems that primarily affect police and border guards (van der Ploeg 2003). Companies offering "Automated Fingerprint Identification System" (AFIS) and supporting tools have argued that this technique can be used to control or combat migration, crime, and terrorism; these companies thus have an interest in making their product as versatile as possible for a variety of applications (van der Ploeg 2006, 5). Biometric identification technologies such as AFIS have been associated with optimised efficiency and effectiveness of police

controls. This technology has combined speed and scientific accuracy in identification as well as multiple search capabilities in large datasets, increasing the effectiveness of police and border patrol (ibid.).

Upon the initiation of Eurodac, such technologies were therefore recommended to more simply and effectively control migration. At the same time, however, they were accompanied by few explicit conceptions of the society they should serve. Implicit in the process was the manifestation of the individual body's inscriptions, which equate them with identity and identification mechanisms. This commitment was met by taking fingerprints, collecting them, storing them in a central database, and linking them with biometric recognition equipment as well as enabling automated searches (see van der Ploeg 1999, 301).

Eurodac was initially developed for migration control purposes, e.g., to assist in determining the Member State responsible for processing an asylum application. It is one of many centralised database systems – besides VIS, SIS, Entry/Exit System – developed for the purpose of mobility control. Technical experts from the field of security technology and the biometric industry played a central role in developing and setting up the technological infrastructure. Later, the expertise of police dactyloscopy professionals and ministerial bureaucrats from national ministries of the Interior shaped the further development of Eurodac. Political negotiations to create a Europe-wide fingerprint database began at the EU level in 1992. The technically possible expansion of the database for purposes other than those originally defined quickly aroused the interest of both right-wing and left-wing politicians (Kasparek and Tsianos 2015). In particular, the question of whose biometric data should be collected revealed the divergent interpretations of technology among the various actor groups in different Member States. While some states particularly emphasised the protection of refugees, and thus identified the group of potential refugees within the meaning of the UN Convention on Refugees, those states that associated the instrument with the control of illegal migration in connection with human trafficking and organised crime stood in the way. In this way, the target group expanded to include those who, on an irregular route, cross European (external) borders or are illegally residing in an EU Member State (van der Ploeg 2006, 7). With the extended category of persons covered by Eurodac, the link between asylum seekers and illegality or illegal migration was initially pushed. Human rights organisations have always considered routine control of asylum seekers with biometrics a violation of human rights and, in particular, the right to privacy (van der Ploeg 1999, 300).

The first regulation of December 2000 finally created the legal basis for the comprehensive and systematic collection of biometric data. It required further regulation in 2002, which made technical and administrative implementation possible. Data was then collected from January 2003. During the

implementation of Eurodac, some Member States where a large number of potential asylum-seekers enter the EU's external borders, such as Italy and Greece, questioned both the Eurodac system and the legitimacy of the Dublin system, by de facto non-application of the regulation. The political concept of burden sharing between the EU member states, inherent in the two regulations, was undermined. Due to the non-registration of potential asylum seekers in some countries and the failure to assign responsibility for carrying out the asylum procedure, Eurodac was used in very different ways (Kasparek and Tsianos 2015, 14).

Since 2008, attempts have been made to amend the Eurodac Regulation to combat terrorism and crime. This was initiated by the European Commission, which is generally mandated by Member States in the field of justice and home affairs. However, these were met with wide resistance. Finally, in 2013, the Eurodac Regulation was rewritten (Mendos Kuşkonmaz 2013, 99). At the same time, following previous complaints from the European Data Protection Authority, data protection regulations were supplemented and specified. These included an obligation to inform persons affected by data processing as well as new retention periods for data (Kasparek and Tsianos 2015, 13-4). In 2015, the Eurodac regulation became operational, and Eurodac was formally integrated into the EU's overall securitisation ambitions. The age limit for biometric registration was lowered from 14 to 6 years, and access rights for law enforcement and Europol were extended (European Commission 2016).

In 2019, two Interoperability European Union (EU) Regulations entered into force. These merged six existing EU databases, initially created for security and border management purposes, into one single EU information system, among them the Eurodac database. Prevention, combating illegal immigration, and improving security within the areas of Freedom, Security, and Justice of the Union were the declared objectives. Recent EU regulations on interoperability across information databases in the EU ([EU] 2019/817 of the European Parliament and of the Council and [EU] 2019/818 of the European Parliament and Council) aim to include Eurodac so that diverse databases deriving from initially different purposes of migration, border, and crime control can communicate with each other. The interoperability initiative is clear about the ongoing purpose accumulation: "Eurodac is included in the scope of interoperability […] for the purposes of *preventing, detecting or investigating terrorist offences or other serious criminal offences*" (my emphasis).

The EU's 2020 "New Pact of Migration and Asylum" emphasises that the "new Eurodac would be fully *interoperable* with the border management databases, as part of an all-encompassing and integrated migration and border management system" (my emphasis, European Commission 2020). This technical description of this near-future-scenario – an upcoming transition to the migration and asylum information management infrastructure of Eurodac –

manifests the turn towards a further convergence of migration and crime control regimes.

With the extension of access to Eurodac for routine crime control applied to international protection applicants, migrants are exposed to generalised suspicion. A form of migration management has gradually emerged that criminalises immigration controls (Aas 2011). Eurodac, with its complex apparatus of a technical database and administrative processing, has been repeatedly identified as susceptible to technical errors (e.g., in individual cases, the detection of false hits that are not further verified) and human errors (e.g., the addition of false information to the person; Töpfer 2015), and the new trend towards interoperability adds additional concerns. Cristina Blasi Casagran (2021) identifies substantial challenges to human rights deriving from the interoperability of these different databases. This has implications for the data subjects collected in the Eurodac database, with concerns about the proportionality of potential violations of rights, such as data protection, and discrimination against third country nationals (Blasi Casagran 2021).

3.2 The "Crimmigrant Other" Enacted in Eurodac

While crimmigration has blurred the boundaries between immigration and criminal law, the Eurodac database has blurred the distinction between terrorists, criminals, and migrants. Meneses Queiroz (2019) showed how the Eurodac database has diverse tendencies to conflate asylum seeking with potential suspicion of crime, and outlined three developments demonstrating these directions: (1) the legal principle of purpose limitation, e.g., the erosion of principle and instead the conflation of the purpose of migration and crime control; (2) the type and amount of data stored, e.g., a significant increase in the personal data stored by these information databases, increasingly related to crime and law enforcement issues; (3) broader access of law enforcement authorities to these information systems contributing considerably to the transformation of their primary purposes. Providing law enforcement authorities with access to Eurodac brings together categories of suspicion to migrants (such as asylum seeking, potential illegality, irregularity, and criminality; Queiroz Meneses 2019). Blasi Casagran argues that the EU has clearly "become a 'Security Union' by prioritising collective security over individual fundamental rights," demonstrated in recent developments that provide law enforcement authorities with access to migration management databases, as well as by connecting migration and policing databases under the recent trends towards interoperability (Blasi Casagran 2021, 456). Critical legal scholars (Blasi Casagran 2021; Meneses Queiroz 2019) assume that the safeguards for third country nationals, including the most vulnerable migrants, are continuously lowered. In consequence, "crimmigrant"-othered

vulnerable populations are thus deprived of their basic human rights as enshrined in EU law and the EU Charter of Fundamental Rights.

According to the working paper by Niovi Vavoula (2020, 25) for the European Council on Refugees and Exiles (ECRE), while recent reforms proposed to Eurodac in the New Pact of Migration in 2020 are limited, they have substantial implications regarding the fundamental rights of asylum seekers and irregular migrants. In line with the Recast regulation 2016 proposal, Eurodac continues to progressively "eliminate the distinction between asylum seekers and irregular migrants in a security continuum that treats asylum seekers with increased suspicion of (unlawful) onward movement and criminality" (Vavoula 2020, 25). As the pact brings asylum and migration management under the same legal and policy framework, this comes with legal and practical consequences and furthers the blurring of the distinction between previously distinct and different policy areas: asylum, migration, police cooperation, internal security, and criminal justice. Vavoula concludes that exploiting available data to identify threats to internal security turns Eurodac into a multipurpose information system, regardless of whether persons may be vulnerable and in need of protection. As the legal grounds expand to identify and flag individual data subjects as risks to security, they may be more easily removed from EU territory, lose refugee status, or be excluded from the relocation process.

The conflation of legal categories of data subjects based on their bio-informational identification has led to a shift towards legal and datafied forms of surveillance of the "crimmigrant other" based on Eurodac. Furthermore, these crimmigration processes also shape the normalisation of the concept of "deserving" and "undeserving migrants." The data types included in the Eurodac database range from "asylum seekers" and "irregular migrants" to "illegally entering the EU at the external border or previously been found illegally staying in another Member State." This inherently establishes classifications over time, differentiating between "good" and "bad" migrants and forms of "good" and "bad" migration.

Naturalisation and neutralisation processes and the final depoliticisation of ongoing crimmigration processes are entangled with Eurodac. These processes have not been so fundamentally called into question as to jeopardise their further institutionalisation. Modifications and further development of the database have taken place, including an expansion of the group of data subjects whose fingerprints are taken, and extension of access to the database. Criticism of these processes has not led to significant public policy controversy.

Recently raised data protection concerns regarding the New Pact on Migration and Asylum – for instance by the European Data Protection Supervisor (EDPS 2020, 2021) – have been articulated in the form of accepting justification rationales while arguing for efficiency and efficacy as promises

entangled with interoperable databases in the context of migration management. Yet, EDPS recommends further consideration of privacy issues:

> The EDPS understands the need for more effective management of asylum and migration, but recommends [...] a fundamental rights and data protection impact assessment, [... and asks the Commission to clarify] the type of data stored in EURODAC in line with the data protection principles of necessity and proportionality. (EDPS 2020)

Despite criticism, the depolitisation of crimmigration has become entangled with biometric database advances due to the technological components of biometrics and databasing. In the case of Eurodac, this is mainly due to the technical possibilities of biometric data processing technologies and the increasing centralisation and interoperability of databases, disguising the gradual criminalisation of refugees. These processes become natural, as does the political dimension of using identity-determining technologies based on body characteristics. Overall, this takes place within the normalisation of moral economies, which build on othering processes to mobilise the figure of the "crimmigrant other" in European democracies. This is used as justification for the maintenance and expansion of migration management systems in the name of the efficiency and efficacy of crimmigration control and public security (Franko 2020).

3.3 Modes of Bioborders Asymmetrically Exposing Migrants to Processes of Crimmigration

In the following section, I refer to three aspects shaping asymmetric biometric data flows across nation state borders caused by specific modes of biobordering. These impact how Eurodac's data subjects become exposed to crimmigration processes and how the figure of the "crimmigrant other" is diversely stabilised and challenged across Member States.

The first aspect concerns which data is exchanged and accessed across which nation state borders. Law enforcement authorities can access Eurodac and compare data from international protection applicants with latent fingerprint data collected from crime scenes. Data searches in Eurodac can be conducted using data on different ascribed migrant statuses, ranging in their degree of entitlement to international protection and degrees of criminalisation (referring to irregularity and illegality). These data categories include data from: "asylum seekers" (category 1), "irregular border crossings" (category 2), "illegal stays in Member States" (category 3), "law enforcement searches" (category 4), and Europol searches (category 5; eu-LISA 2021). In 2019, Germany and Austria were the major users of this option. When conducting searches by law enforcement authorities with latent fingerprint data, Germany counted 100 "foreign hits" from asylum seekers' data while Austria created 33 local and 5 foreign hits with asylum seekers' data. The annual report

for 2020 should be considered in the context of the impact of the pandemic on migration and asylum administrative and law enforcement processes (eu-LISA 2021). In total, there were substantially fewer hits than in the previous year; a total of 74 hits deriving from searches with asylum seeker data, distributed across Germany (21), Belgium (12), Austria (11), Romania (11), and other countries with fewer hits (eu-LISA 2021).

While data is available on which country conducted searches resulting in hits, there is no information about how many searches were conducted that did not result in hits. The latter information would be useful for obtaining the number of attempts to make use of access and could guide further research exploring the presumptions of different Member States' personnel. However, the option seems to be used very asymmetrically and might be considered more or less useful by different Member States' law enforcement authorities. In consequence, however, asymmetrical "crimmigrant" surveillance puts international protection applicants under different levels of suspicion by different Member States' law enforcement authorities. The figure of the "crimmigrant other" is enacted; the criminalisation of migrants is achieved differently in practices by Member States' law enforcement authorities when using databases initially applied for migration control purposes.

The second aspect of asymmetric biometric data flows concerns the technological, scientific, and administrative dimensions of biobordering to ensure data accuracy when comparing Eurodac data with additional data from crime scenes. The expansion of data in the Eurodac database to include latent fingerprints retrieved from crime scenes, enabling searches for "unknown suspects" among international protection applicants, has important implications for data accuracy. The eu-LISA agency ensures that transmitted fingerprint data from Member States can be compared by the computerised fingerprint recognition system. However, since the Recast regulation came into force, it has been the responsibility of Member States' fingerprint experts to assess hits – according to national standards, not jointly agreed upon standards. So, while the automated comparison is the exclusive responsibility of eu-LISA, the diversity of Member States' standards, resources, and priorities play out regarding the validation of hits by experts. "False hits" can occur when comparing fingerprint data, and they have been and continue to be an issue for Eurodac (Töpfer 2015). In response, detected false hits are reported, and there is a central statistic and reporting system for them documented in the annual reports until 2019; the most recent annual report does not contain this information (European Parliament 2016a, 2016b; eu-LISA 2021). The responsibility of eu-LISA is to technically unlink relevant records in the case of a false hit. Furthermore, as the responsibility for underlying data quality lies with front-line officers from each Member State, mistakes may also happen aside from the biometric validation of a hit, when inserting names, addresses, ages, date of birth, types of crimes committed, etc. (Oliveira 2019). It has been

repeatedly reported that some Member States are more rigorous than others in maintaining data accuracy (FRA 2017; European Commission 2008). According to a recent interoperability regulation, the only official governance and control of data accuracy at the EU level is conducted by eu-LISA (Interoperability Regulation 818 2018).

The Eurodac Supervision Coordination Group is another oversight structure for data protection, composed of the national Data Protection Authorities and the European Data Protection Supervisor. The group's recent report states that Member States do not take equal care to respect data subjects' rights to information about the purpose, collection, storage, access to, and deletion of biometric data (Eurodac Supervision Coordination Group 2019). The group's latest activity report, published in 2020, found that none of the national data protection authorities that provided information had reported official complaints from data subjects regarding data processing (Eurodac Supervision Coordination Group 2020). There is no differentiated and comprehensive information available on the extent to which data subjects are informed about their rights in general, including the opportunity to file complaints, or on how migrants experience encounters with authorities. It is important, therefore, to contrast the lack of formal reported complaints with the existing differences across Member States with regards to, for example, the availability of interpreters, if and how checks take place on whether data subjects have actually understood the information provided, and if and how procedures to inform data subjects are documented (Eurodac Supervision Coordination Group 2019). Taking the limited data available into account, let me nevertheless suggest that the extent to which data subjects are informed of and able to claim their rights may vary greatly across Member States. Additionally, authorities in some countries have repeatedly received recommendations to train their staff to raise awareness of the "vulnerability" of migrants and ensure that information rights are guaranteed (Oliveira 2019). In consequence, data subjects are asymmetrically exposed to different Member States' fallibility in ensuring data quality, accuracy, and administering data subjects' rights.

Different issues, ranging from discrimination to data protection, have been raised and emphasised to challenge the normalisation of the figure of the "crimmigrant other." The UN Special rapporteur on racism and xenophobia, Tendayi Achiume, very recently warned that "data collection is not an apolitical exercise, [...] especially when powerful global north actors collect information on vulnerable populations with no regulated methods of oversights and accountability" (The Guardian 2020). International organisations and EU organisations such as the European Data Protection Supervisor (EDPS) or the EU Agency for Fundamental Rights (FRA) may occasionally serve as critical "watchdogs"; this is also echoed differently across Member States according to the particular lobby groups advocating for affected migrants' rights.

Therefore, the third aspect of asymmetries across Member States affects how critical public awareness exists.

Specific matters of crimmigration are rarely addressed. In countries at the forefront of expanding law enforcement access to biometric databases for the secondary purpose of security, such as Germany, organisations such as the network data protection expertise ("Netzwerk Datenschutzexpertise") openly criticise the expansion of purpose of the Eurodac database:

> In view of the basic legal requirements and the legal framework of GDPR and GDPR-JI, it is irritating with what nonchalance the purpose limitation requirements are ignored in the processing of biometric identification data in the law on foreigners and especially in refugee law. (Weichert 2021, 34, own translation)

A wider public awareness of critical issues might encourage individual data subjects to claim their rights when they are not correctly provided. Migrants and asylum seekers in different EU countries face different exposure to the risk of being considered "risky" and confronted with the figure of the "crimmigrant other" enacted through data practices: (1) by how suspicion is constructed through law enforcement in different Member States making diverse use of access to Eurodac; (2) by how misidentification may expose migrants to the risks of non-error prone technologies and how oversight and data protection measures are applied and made use of; (3) by how critical issues of discrimination, data protection, and non-proportionate surveillance are raised by advocate groups criticising aspects of such data practices and thereby stimulating collective public awareness for the potential problematic matters involved.

4. Conclusions

This article combines insights from critical migration, border, and security studies. It addresses the increasing overlapping of migration and crime control in policy discourse, law, and surveillance technologies to discuss the reconfiguration of crimmigration and the normalisation of the figure of the "crimmigrant other" through the expansive use of cross-border flows of biometric data by law enforcement. In the conclusion, I summarise my findings to answer the initial research questions: how did the increasing convergence of crime and migration control evolve with biometric databases such as Eurodac? How do these tendencies play out for affected migrants, the data subjects represented in biometric databases?

In this article, I developed my argument in two ways. First, I argued that the convergence of crime and migration control with biometric databases such as the Eurodac database contributes to the manifestation of the figure of the

suspicious and potentially law-breaking migrant, which Franko (2020) has called the "crimmigrant other."

Data subjects in the Eurodac database are confronted with enactments of the "crimmigrant other" in various ways. First, data subjects are exposed to national law enforcement authorities' searches and comparisons of latent fingerprint data from crime scenes. This implies an increase in exposure to more fallible biometric technologies due to potential technological or human error. Since the New Pact on Migration, there is now the possibility to flag data subjects in the database as potential risks to security, facilitating simpler exclusion from protection rights and furthering the potential criminalisation of international protection applicants. As vulnerable populations, these data subjects also have less access to claim their fundamental rights and less protection through reliable oversight and accountability regimes.

Second, the ways in which biometric data is exchanged and accessed by law enforcement authorities across nation state borders is asymmetric for different reasons and establishes unequal consequences of surveillance through Europe's techno-bureaucratic systems (M'charek, Schramm, and Skinner 2014). As law enforcement authorities across Member States make very unequal use of access to Eurodac – to ensure data quality and data subjects' rights – unequal consequences are particularly impactful on groups of migrants considered as potential lawbreakers. Thus, state sovereignty plays out in forms of diverse political and criminological interests and legal and technological conditions when operating biometric identification, and by distributed agency across actor constellations of for instance police forces, border control, and IT specialists, all alongside diverse preconceptions about Eurodac's target populations.

Overall, with the bulk of data contained in migration surveillance as well as in crime surveillance systems, there is a clear trend toward *pre-emptive* databases in migration (Amoore 2009; Broeders and Dijstelbloem 2016) and crime policy (Lyon 2014). The inherent pre-emptive logic follows these narratives: data is stored in the Eurodac database for the purpose of an initial asylum request in one country, but migrants might request international protection in other countries later on (generalised suspicion of "asylum shopping"). Once the data is collected, additional pre-emptive rationales for crime control apply, creating suspicion against the "crimmigrant other" who are not in a position to "opt out" or exert control over their data.

This article's findings add to those of previous studies depicting the unequal consequences of the EU's surveillance and crimmigration control regimes, and how asymmetrically law enforcement authorities across Member States access databases repurposed for crimmigration control. It focuses on how modes of biobordering modify the surveillance of the "crimmigrant other," thereby diversifying the enactments of the figure of the "crimmigrant other" across Member States and multiplying the forms of migrants' exposure to

criminal suspicion. This perspective tends to contribute to control-focused work on borders. As various scholars in critical migration studies have noted, such a control focus may involuntarily enforce the inherent claims of biometrics and border control regimes. For further research considerations, it is worth studying the diverse forms and practices of enacting the "crimmigrant other" across Member States, including migrants' experiences and how the normalisation of crimmigration is challenged in multiple ways. Yet, with regards to the recent developments of merging databases and expanding Eurodac towards interoperability, empirical studies focusing analytically on migrants' practices still need to be conducted. With this article, I wish to echo calls for accountability, transparency, and legitimacy, not only in terms of the consequences of crimmigration control databases on data subjects' human rights, but also on their contribution to generalising suspicion and criminalisation of migrants. Further research may also contribute to situate such calls in their specific national contexts of where they would need to be considered and taken care of.

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