



Conclusion

Abstract The concluding chapter reviews and compares the modes of biobordering at the EU level and in Germany, the Netherlands, Poland, Portugal and the UK with a particular focus on the transnational exchange of DNA data within the Prüm system. This analysis reveals the multiplicity of heterogeneous biobordering regimes that enact different visions of Europe and nationhood and that have implications for de facto hidden integration and disintegration processes in the EU. ‘European integration’ is believed to be achievable by the harmonization of scientific and technical procedures in different countries. However, the mandatory elements of the Prüm Decisions were politically enforced without taking into consideration the significant differences between EU countries. Thus, hidden disintegration comes as a contingency regarding operational and organizational traditions, legislation, the nature of the criminal justice system, and national variations around the human and economic resources to invest in forensic DNA databases and DNA profiling technologies. The conclusion ends with a proposal of a typology systematizing biobordering dynamics derived from the empirical case studies.

Keywords Biobordering regimes • EU • Prüm • Hidden integration • Hidden disintegration

INTRODUCTION

Over time, there has been an increasing expansion, in reach and scope, of biometric technologies and database systems used in the context of crime and migration control. Our brief summary of this range of biometric technologies and systems (in Chap. 2) showed how the melange of biometrics, datafication and technologies has reconfigured how we think about the mobility of people, surveillance, human rights and ethics. Furthermore, we demonstrated what modes of regulation are being enforced by that process and how notions of bioborders are being reconfigured.

We delved deep into the concept of biobordering (Chap. 3) in order to capture reverse patterns of bordering and ordering practices linked to transnational biometric data exchange regimes. The concept is useful in reconstructing how the territorial foundations of national state autonomy are partially reclaimed and, at the same time, partially purposefully suspended. In this sense, we mobilized the concept of biobordering to foster an understanding of the dynamics and impacts of the large-scale database infrastructures that archive and exchange biometric data across national borders.

Based on this framework, we provided a sustained analysis of the heterogeneous processes involved in ordering transnational biometric data exchange and the control of criminalized populations across EU Member States' borders, with a particular focus on the transnational exchange of DNA data within the Prüm system. We did so by, on the one hand, portraying the modes of biobordering at the EU level (Chap. 3) and, on the other, describing, analysing and comparing in detail the experiences and traditions of five EU countries that are part of the Prüm system: Germany, the Netherlands, Poland, Portugal and the UK (Chaps. 4, 5, 6, 7 and 8). More particularly, we explored how each country approaches the use of forensic DNA databases, the exchange of DNA data regulated under the Prüm system and recent applications of forensic genetic innovations. We have argued that, taken together, these co-dependent components reveal the multiplicity of heterogeneous biobordering regimes and enact different implicit visions of Europe and nationhood, with implications for *de facto* hidden integration and disintegration processes in the EU.

COMPARATIVE INSIGHTS

At a time when the European Union as a political institution as well as ideas of Europe are being challenged, the theme of simultaneous hidden disintegration and integration configured by technological projects is particularly relevant. Considering in particular the pressing contemporary challenges in the area of transnational crime control, the modes of biobordering that come along with hidden integration and disintegration found throughout our cases demonstrate a complex picture. In the following, we will summarize our major findings about the cases of Germany, the Netherlands, Poland, Portugal and the UK.

As a starting point, we assessed the specific situations of the countries by looking at the constitutive components of bioborders: (i) national DNA database regulations, legislative frameworks and governance principles in terms of norms sanctioning the collection, use and retention of DNA data, including data protection regimes; (ii) DNA technology development, including the scientific knowledge that DNA technologies build on; (iii) the technical database infrastructures necessary to digitally store and compare data and the definition and management of which data categories are and are not made accessible for data exchange; (iv) organizational imperatives and principles, such as reliability, transparency and public accountability.

Based on these country-specific insights, we then mobilized the three following dimensions to understand and compare the modes of biobordering at stake: (i) what data travels across borders, and data of what types of crimes and what types of criminals are potentially detected by Prüm and, thus, who counts as a suspect, offender or differently eligible for data exchange; (ii) the national legacies of DNA databases and DNA technologies and how they produce particular notions of nationhood and are linked to nation-state-bound legitimacy claims; (iii) the promises/expectations/concerns of Member States in deciding whether to commit, or not, to joining the transnational DNA data exchange system and how these co-produce notions of the integration/disintegration of Europe.

In terms of the first dimension—what data travels across borders and data of what types of crimes and what types of criminals are detected by Prüm—our analysis shows that multiple modes of biobordering occur and result in the creation of classifications of what counts as eligible categories for exchange via the Prüm system. Although data categories are technically standardized, the national DNA databases have very different

compositions—some are expansive and some more restrictive—and incorporated very differently affected social groups. While the UK holds about 10 per cent of its resident population in its database, Poland and Portugal hold about 1 per cent. In addition, when comparing across countries which data crosses borders, it becomes obvious that not only does the number of data categories made available vary (ranging from convicted offenders to suspects to missing persons) but does what is referred to by each category. While Germany stores and exchanges DNA data on offenders convicted for crimes such as full intoxication, defamation or burglary, Portugal exchanges data of offenders convicted to an effective prison sentence of three or more years for committing an intentional crime, which corresponds to crimes such as homicide and robbery with violence. Retention schemes are also very different across countries. While the UK allows for indefinite retention of convicted offenders, Portugal, the Netherlands, and Poland have clearly defined retention periods (Reed & Syndercombe-Court, 2016). Germany has defined periods for reviewing DNA profiles in order to either correct or delete them. Thus, categories that are technically standardized for data exchange assemble very different sets of data in the national DNA databases. Different types of crimes, variable timeframes and categories of involvement with the criminal justice system are thus integrated in the Prüm system, and the categories of data create ambiguity about what counts as ‘suspect’ or ‘criminal’, with consequences for affected person groups across Member States.

In addition, the dynamics of expanding data crossings across borders are also motivated by different rationales driven by each country’s strategic ambitions in international police collaboration. For example, Poland has quickly mobilized its resources and made data available as this made sense in the context of its own regulatory efforts of modernization and internationalization of police collaboration. The UK represents a very different situation: although it demonstrates interest in accessing data from other Member States, the UK has also engaged in regulating data crossings with attempts to limit exchange of its own data.

Regarding the second dimension, our analysis shows that the national legacies of DNA databases and DNA technologies produce particular notions of nationhood in relation to debordering and rebordering dynamics. Germany, the Netherlands and Poland can be classified as having implemented forms of debordering bioborders that facilitate cross-border DNA data exchange. Yet, the three of them have played different roles in diffusing this approach. Germany, in particular, performed the role of the political architect of the initial Prüm plan and attempted to expand it

beyond the starting group of Member States. In the aftermath of the Prüm Decisions, Germany continued to claim political and moral authority over other Member States in calling for proof of their commitment to debordering. The Netherlands has led the techno-scientific process of supporting the forensic technocracy across Member States through its contribution to the establishment of the technological scientific infrastructure for data exchange, as well as its support for training, pilot tests and evaluation visits for other Member States. However, the Netherlands has also had strong support from Germany and Austria in carrying out these tasks. The Netherlands has also engaged in explicit debordering dynamics by having Dutch forensic experts sharing expert and tacit knowledge on operating DNA data exchange and expending considerable effort in studying and monitoring cross-border DNA matches between the Netherlands and other operational Member States which also serves as an implicit control mechanism (see, e.g. Taverne & Broeders, 2015, 2016). Poland has, in a relatively short period of time, established a substantial number of connections with other Member States. In addition, Poland has caught up with the front-runners among the Member States, and it took the Prüm process as a stimulus for the establishment, implementation and expansion of its own DNA database. Portugal and Poland have in common that the national techno-scientific developments and advancements regarding their own DNA databases were motivated and stimulated by the establishment of the Prüm system. In both countries, joining the transnational exchange of DNA data and engaging with debordering dynamics represent another step in their quest for modernization, achieved through compliance with the international and EU standards of crime control and forensic genetics. Yet, Portugal remains a complex case because of its latent mode of rebordering (Amelung & Machado, 2019a).

Focusing on the latent modes of rebordering (in the case of Portugal) and ambiguous modes of rebordering (in the case of the UK), we come back to the legitimate rationales for hindering data exchange proposed by Hufnagel (2017) (referred to in Chap. 3). According to Hufnagel, specific arrangements—such as treaties or agreements with specific conditions attached to them—can stop data flows for specific purposes. We have seen that Portugal, due to its legal and judicial traditions, has maintained a regime of restrictive data inclusion criteria in its national DNA database and has defined very selective data categories for data exchange. More specifically, Portugal only exchanges data pertaining to convicted individuals and crime scene samples. In this sense, although Portugal has also fully enforced the requirements of the EU regulations and established, in

a relatively short period, connections with a considerable number of operational Member States, it still engages with rebordering dynamics by severely restricting the data categories available within Prüm. In the case of the UK, specific arrangements were installed as conditions for its participation in Prüm. Among them was the condition that it would only exchange categories of profiles from convicted offenders, crime stains and unidentified human remains and would not provide access to DNA profiles of suspects—one of the other very usual categories exchanged across Member States (Council of the European Union, 2019). This decision was modified in 2020, as the UK government announced its intention to begin exchanging suspects' data via Prüm. Such a decision that may be interpreted as a concession to the EU requirement to adopt logics of reciprocal data exchange in light of post-Brexit negotiations. The UK's restrictive arrangements came with the justification of Britain being responsible for its 'data subjects' in the database and for preventing their exposure to other foreign criminal justice systems. The UK, thereby, established a restrictive regime for exchanging the data stored in its rather expansive database, but the country's ambiguous approach originated in its generally sceptical attitude towards the other EU Member States (McCartney, 2013).

With regard to notions of nationhood, we have explored the cultural meanings of forensic DNA technologies in different countries, which are often embedded in a particular sociohistorical context. They are often interpreted as reconfirming politics of (non)belonging. This can play out, on the one hand, in the countries' internal relationships of belongings by affirming differences between typified suspect populations and typified non-suspect populations. This position has been explored through cases exploring modes of racism and discrimination towards minority groups in the Dutch and German context. On the other hand, the politics of (non) belonging can also play out in the complex relationships between a country and the EU by emphasizing non-belonging to (particular visions of) Europe. This was explored through the case of the UK's ambiguous mode of rebordering.

In terms of the third dimension broadening our understanding of modes of biobordering—that relating to the promises/expectations/concerns of Member States deciding to commit to joining the Prüm system and how these co-produce notions of the hidden integration/disintegration of Europe—the country cases presented examples of the dynamics, tensions and ambivalences of biobordering processes. The modes of

biobordering at the EU level result in debordered bioborders, and such modes emphasize in particular their legal, scientific, technical and political components. The levelling mode of ordering of the actor network at the EU level enforces a particular version of bioborders that reflects the political belief that the interoperability of DNA databases is a mere technical-scientific issue.

‘European integration’ is believed to be achievable by the harmonization of scientific and technical procedures between laboratories and police forces in different countries. However, as we have discussed, the mandatory elements of the Prüm Decisions were politically enforced without taking into consideration the significant differences between EU countries. Thus, hidden disintegration comes as a contingency regarding, for example, operational and organizational traditions, legislation, the nature of the criminal justice system, and national variations around the human and economic resources to invest in forensic DNA databases, DNA profiling technologies and other kinds of police information databases. Member States’ modes of biobordering vary with regard to how national autonomy and sovereignty are claimed, negotiated and/or suspended not only through legal and political bordering processes but also through scientific and technical bordering practices that correspond with techno-political cultures and manifest specific regimes for biological data retention and exchange.

Finally, differences exist with regard to the democratic processes involved in establishing the Member States’ modes of ordering with respect to transnational DNA data exchange. While Portugal, the UK, the Netherlands and Germany all provide some form of official public data about the DNA data stored in their databases, as well as about its exchange, Poland apparently has no official statistics in place. Portugal provides official data in the form of annual reports from its oversight body. Similarly, the Dutch custodian of the DNA database provides public data in its annual reports. Germany requires that requests for statistics on the DNA database be made through parliament (such requests are often initiated by opposition parties); the government then gives an official response about the data. In the UK, official statistics on the NDNAD are published several times a year, and there is an annual report covering several aspects of the NDNAD. Regarding Prüm, at the date of writing, DNA data exchange has been operational for less than a year. So far, the information provided on the number of hits within Prüm was provided in the written statement

announcing the UK's decision to exchange suspect data.¹ Nevertheless, given the UK's particular forms of governance, which respond to a commitment to public accountability and transparency (Amelung & Machado, 2019b; Granja & Machado, 2019), and the information made available in the 'Prüm Business and Implementation Case' (Home Office, 2015), it is highly probable that more data will be made available in the near future. Thus, we can distinguish between countries that proactively provide public data (the Netherlands, Portugal and the UK), countries that only provide data on demand (Germany) and countries that do not provide public data (Poland) on data exchange activities to a better understanding of the complex, multi-layered and hidden processes of integration and disintegration configured through the establishment of transnational technical infrastructures relying on forensic biological data, especially DNA data.

By reviewing our country case studies, we derived at a typology of biobordering dynamics which we summarize in order to provide a resource which may inspire future research (Table 9.1).

We distinguished debordering versus rebordering dynamics in order to explore expansive versus restrictive modes of biometric data exchange applied by countries, thereby making nation-state borders for biometric data flows more or less permeable. Furthermore, from the study of our country cases, we found different modes of debordering dynamics. Therefore, we specified that expansive biometric data exchange was either approached in a circumscribed or diffusive manner, for example, either focused on expanding nation-states' own biometric data exchange or focused additionally on expanding and disseminating debordering dynamics beyond own biometric data exchange. All country case studies,

Table 9.1 Typology of biobordering dynamics

<i>Debordering dynamics</i>		<i>Rebordering dynamics</i>	
Expansive biometric data exchange		Restrictive biometric data exchange	
Circumscribed debordering	Diffusive debordering	Latent rebordering	Ambiguous rebordering

Source: Authors

¹ Prüm—Data Sharing Update: Written statement—HCWS290 <https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2020-06-15/HCWS290/> (last visited on 19 June 2020).

Germany, the Netherlands, Poland, Portugal and the UK, we explored reveal that, by being operative in the Prüm system, they have incorporated as minimum conditions circumscribed debordering dynamics. Additionally, Germany and the Netherlands can be classified as cases of diffusive debordering dynamics.

Regarding rebordering dynamics, we learnt from our country cases that rebordering dynamics co-exist with debordering dynamics, however, in different ways. The two cases we studied differed regarding their forms or co-existence of re- and debordering. Portugal was classified as an example of latent rebordering and the UK as an example of ambiguous rebordering. For that reason we have specified a distinction of latent rebordering and ambiguous rebordering. While latent rebordering refers to some forms of restrictions to expansive biometric data exchange, we consider that description as suitable to cover permanent and stabilized latent forms of restrictions. Ambiguous rebordering instead emphasizes the uncertain and indistinct approach to establish or maintain reservations and exceptions from expansive biometric data exchange. Although motifs for rebordering in those two cases are diverse, different notions of protection of data subjects are behind these dynamics. Thereby, rebordering can be also interpreted as contesting visions of Europe which assume the unlimited and unproblematic exposure of data subjects across European countries' databases.

We hope that our typology may help future research to describe other countries' situations in comparison to the findings of this study. Future research may also explore if the conceptual proposals offered in this study may inspire other transnational regimes of biometrics and databasing in law enforcement.

Future research challenges are the ongoing developments regarding the empirical phenomenon of transnational biometric database systems such as Prüm in the context of law enforcement. This refers to the interoperability initiative and the attempts of centralizing databases further and thereby overcoming rebordering 'obstacles' on the one hand. But it also refers to attempts to increase logics of Prüm beyond Europe on the other hand. This includes ambitions to make data accessible beyond European countries dedicated formally to inclusive and open democracies, applying legal principles of proportionality and safeguarding human rights. In that context, re- and debordering might need to be reassessed, and rebordering once more might be even more important to maintain democratic and civil rights principles to protect data subjects.

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