Dana Wilson-Kovacs

55 Translation

Abstract: This chapter focuses on the concept of *translation* and its development in sociology and science and technologies studies, illustrating how it can help criminologists analyze different forms of digitized control. The chapter explains how *translation* can be used as a methodological device and conceptual framework to illuminate forensic practices in police investigations, and more generally the adoption and use of technologies in policing. Translational approaches can provide a multi-perspectival understanding of the contexts in which digitized control takes place, the technologies that help monitor it, and the justifications, motives, and practices that accompany the development and implementation of such technologies.

Keywords: translation, technologies, forensic support, police investigation, forensic evidence

Policing is increasingly dependent on digital technologies: from body-worn cameras to forensics databases and the extraction of digital evidence from mobile devices, such technologies contribute in different ways to criminal justice outcomes. Their utility, efficiency, reliability, and overall benefits need to be explained to various stakeholders, and their operation sometimes adapted for different law-enforcement scenarios. Often social science scholars refer to these processes as 'translation.' Originally theorized in the linguistic field in the 1950s (Brisset, 2010), translation has been mainly understood as transferring meaning from one language to another. However, the concept of 'translation' has also been used to describe specific processes in domains such as medicine and health care (e. g., Straus et al., 2013), anthropology (e. g., Asad, 1986), organizational theory (e. g., Wæraas and Nielsen, 2016), sociology, science, and technologies studies (STS—e. g., Woolgar et al., 2009), and criminology (e. g., Grieco et al., 2014; Pesta et al., 2019). Here, to translate something refers to "a complex process of negotiation during which meanings, claims and interests change and gain ground" (Wæraas and Nielsen, 2016: 237).

In criminology, meanings attributed to the term vary: in Anglo-American scholarship, translation typically refers to collaborative enterprises where academic researchers and practitioners disseminate research findings to other criminal justice stakeholders (Bales et al., 2014), although it has been used in other contexts as well, for instance to provide a conceptual framework for the explanation of penal practices (Carrabine,

Corresponding author: m.d.wilson-kovacs@exeter.ac.uk, University of Exeter, Department of Social and Political Studies, Philosophy and Anthropology.

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2000). Translational criminology seeks to demonstrate how academic research is used in evidence-based criminal justice policies and practices and can influence decision-making processes (Grieco et al., 2014). Topical literature here examines how researcher–practitioner partnerships may lead to better criminal justice outcomes, how law enforcement agencies use research to guide their decision-making and/or the barriers that prevent the use of such research (e.g., Telep and Winegar, 2015; Pesta et al., 2019).

While this preoccupation with the users of academic research is longstanding and befitting to criminological research (Holdaway and Rock, 1998), here we discuss translation as an extension beyond this established meaning to assist with the analysis of diverse forms of digitized control. In this sense, translation can help illuminate the contexts in which such control takes place, the technologies that help monitor it, and the motives and justifications that accompany the development and implementation of such technologies. Translation is typically multi-perspectival and accounts for the complex networks of exchanges and dependencies between the actors involved. A translational approach builds on insights from sociology and STS to study crime in digitized societies and further assist the development of criminology as a discipline (Heidensohn, 1998).

Understanding translation from a sociological lens

In sociology and STS, translation was originally articulated as part of Actor-Network-Theory (ANT), developed by French sociologists Michel Callon (1980, 1984) and Bruno Latour (1987), who used this framework to explain how actors seek to convince others to adopt their point of view in contexts such as technological innovations and scientific controversies, where there are divergent meanings and conflicting interests. Although Callon's and Latour's views on translation ultimately diverge, they shared an understanding of it as illustrating how power relations are constructed and maintained, in terms of "networks, alliances, points of resistance, instability and relative durability" (Carrabine, 2000: 313). Translation involves many different actors and is a complex process of negotiation "during which meanings, claims and interests change and gain ground" (Latour 1984: 237). The actors' own interests can be redefined and translated into networks of associations that result in the stabilization of scientific and technical objects. As such, establishing the latter does not depend on the usefulness of such objects, but on the successful building and maintenance of networks, structures, and associations that hold them together.

Callon's well-known example focused on the domestication of scallops and the fishermen of St Brieuc Bay (1984), where he identified four stages of the translation process: *problematisation*—where actors seek to convince others that they have the correct solutions and can establish obligatory passage points through them, *interressement*—where these actors "lock the other actors into the role that has been proposed to them" (1984: 190), *enrolment*—"a set of strategies in which researchers seek to define and interrelate the various roles they had allocated to others" (1984: 190) and *mobili-*

sation—"a set of methods used … to ensure that supposed spokesmen for various relevant collectivities are able to properly represent those collectivities" (1984: 190). Consider, for instance the development and implementation of software applications for predictive policing (see Prediction by Ķīlis, Gundhus, and Galis) The *problematisation* stage is illustrated by identifying the need to respond to incidents faster and more efficiently with the use of new technologies. The *interresement* stage typically articulates the values such technological applications can bring to policing, while *enrolment* seeks to gain the buy-in from those tasked with commissioning such technologies, usually policing users at senior level. Finally, *mobilisation* helps align the interests of law enforcement agencies with those of manufacturers and various other stakeholders, in order to bring the adoption of software applications into everyday policing.

Translation implies "transformation, deformations and dislocations" (Carrabine, 2000: 312). It involves both human and non-human actors and produces "convergences and homologies by relating things that were previously different" (Callon, 1980: 211). This understanding of translation has geometric, political, and semiotic meanings: geometric in the sense that different actors are mobilized in different directions for multiple ends, political in the sense that such actors will pursue their interests through power play, persuasion, and strategic manoeuvring, and semiotic because meanings transform as objects move across and between networks (Wæraas and Nielsen, 2016).

Stabilization is dependent on the ability to coordinate and manage how multiple and divergent actors with conflicting agendas reach consensus, even if this coordination is transient. Concepts such as 'boundary objects' (Star and Griesemer, 1989) and 'standardized packages' (Fujimura, 1992) have been proposed to describe "the interfaces between multiple social worlds" that enable "the flow of resources (concepts, skills, materials, techniques, instruments) among multiple lines of work" (Fujimura 1992: 170). Successful translations are accomplished through this tacit, invisible work of articulation, that involves "assembling, scheduling, monitoring, and coordinating all of the steps necessary to complete a production task" (Gerson and Star, 1986: 265). From laboratory studies (e. g., Knorr Cetina, 1999) to technologies (e. g., Pinch and Bijker, 1984), translation has helped unravel different epistemic cultures, their interactions and overlaps, and their taken-for-granted objects and practices. It has brought to fore the multiplicity of players, the strategies they follow and the alliances they mobilize, highlighting the negotiated, interactional nature of consensus formation and knowledge production. Applied to the realm of digital criminology, a translational approach can help criminologists explore in greater detail the situatedness and embeddedness of black-boxed (digital) technologies and practices and the ways in which different epistemic cultures and communities of practice contribute to their stabilization.

From employing AI in predictive policing, to the scrutiny afforded by automatic face recognition software, the monitoring provided by CCTV, and the identification of victims and suspects using digital and forensic genetic technologies, the technical has opened new areas of topical concern to criminological scrutiny. As sociological and STS scholarship has long established, the technical is never neutral and translation as a methodological approach can help capture the complexity and hybridity of its en-

tanglement. Egbert and Leese, for instance, build on Callon's and Latour's notion of translation to examine the 'hinges' (2021: 45) of predictive policing, more specifically the ways in which crime becomes digitally represented by data and algorithmically produced risk is established, communicated, and acted upon by patrol officers. Their processual understanding of predictive policing uses translation to highlight the gaps between domains and to outline how different logics become aligned. It demonstrates how an analytical approach focused on chains of translation (Latour, 1999) can aptly analyze how predictive police practices are established and knowledge and power are produced by alignments between data, software, analysts, briefings, maps, and patrol cars (Egbert and Leese 2021: 61). Here, configuring the sites and modes of translation appropriately is instrumental to its success. For Egbert and Leese (2021), officers, tasks, technologies, institutions, organizational discourses, and everyday practices must align so their rationales and operational capacities can produce what is known as predictive policing.

Translation in the social study of forensics and its use in policing

Using a broadly defined translational approach in the social science study of forensics can bring to fore the complexities behind the construction of forensic technologies and the recognition of expertise. Cole's work (2001), for instance, highlights the complex negotiations surrounding the acceptance, legitimacy, and judicial recognition of fingerprinting as a legitimate tool of identification. Similarly, the acceptance of DNA profiling in the US depended on overcoming the lack of early scientific consensus. DNA legitimacy was established via the standardization of its analysis (Derksen, 2000), its court acceptance (Lynch et al., 2008) and making the "FBI and its Hae III technology the obligatory passage point through which all actors had to pass if they wished to proffer DNA evidence in the American legal system" (Aronson, 2008: 201). Such translation extends to the implementation of new technologies, for instance in the deliberations surrounding the introduction of Rapid DNA solutions in policing in England and Wales (Wilson-Kovacs, 2022). While the need for the adoption of this relatively new forensic genetic tool for crime investigation has been articulated, justified, and resisted by various stakeholders, its introduction will also depend on its successful alignment to new public management demands for accountability, efficiency, and value for money.

At a macro-level, using a translational approach helps elucidate the motives, interests, and actions accompanying the development and use of technologies. At a micro-level, concepts such as 'alignment' and 'articulation' help explain how consensus is achieved between different actors and meanings are stabilized (e.g., Kruse 2020, 2021). This is particularly important in the case of forensic evidence and its journey through different epistemic cultures. The crime scene is a case in point: a space where actors from different epistemic cultures meet literally (e.g., police officers,

crime scene examiners, and publics) and symbolically (e.g. forensic scientists, jurors, and counsel). Kruse's analyses (2020, 2021) demonstrate how in their work, Swedish crime scene examiners (CSEs) translate their findings as well as mediate between the different epistemic cultures, by undertaking invisible articulation work to reconcile different viewpoints and stabilize the foundation upon which forensic evidence is to be built. Their simplified, standardized ways of presenting their work limits the frictions between the many actors involved.

Likewise, Wyatt (2014) discusses how in the investigation of volume crime in England and Wales, CSEs render the complexity of the crime scene into an ordered and coherent narrative for the officers involved in the investigation. This often produces the only institutionally sanctioned version of the crime scene and encapsulates many of the processes involved—from defining the limits of the crime scene itself, to assessing the risks of entering it, to complex decision-making about what may or may not be relevant to the investigation. In a similar way, Bechky (2021) shows how US criminalists working in forensic biology, chemistry, toxicology, and comparative evidence laboratories, translate their findings for lay and legal audiences (see Labs by Mazzilli Daechsel). Here, a broader understanding of translation is present, with CSEs and criminalists as the conduit between separate epistemic cultures.

Translation in digital forensics (DF)

While much of the social science scholarship on forensic evidence has focused on DNA and its social and ethical challenges (see DNA/Big Genome Data by Kaufmann), research that accounts for the production and use of digital forensic (DF) evidence is emerging. The DF community is an obligatory passage point in the creation of digital evidence, whose production resides at the intersection of competing commercial, governmental, and occupational interests. Divisions of labor, hierarchies of expertise, and inter and intra-professional exchanges are key to this production and can aid or disrupt the transformation of digital information into evidence (Wilson-Kovacs, 2021).

In an increasingly complex and rapidly changing technological landscape, with new types of offenses emerging, translation helps decipher the intricate arrangements, activities, and exchanges that assist evidential processes. Rappert et al.'s (2023) analysis of how police process indecent images of children offenses, for instance, discusses DF as a socially negotiated, collectively produced, and institutionally maintained set of practices. Documenting the formal and informal mechanisms through which large sets of data become discrete pieces of evidence, they question existing linear understandings of DF data processing and highlight the inherent difficulties of translating digital trace into usable information.

Similar to how chains of translation allow knowledge and power to travel through the organization from the desk of the analyst to the street level (Egbert and Leese 2021: 209), DF evidence is the result of sociotechnical practices that facilitate the successful transformation of digital information into evidential or intelligence data (see Intelli-

gence by Gundhus and Lundgaard). Its production depends on the standardized laboratory routines, guidelines, protocols, and standard operating procedures employed, and the documentation of the movement of evidential exhibits.

Analyses of the latter in the context of physical evidence show how they mask numerous actions involved in the flow of information: a photocopied signature on the form used to record the chain of custody, and the movements of samples between a police force and a laboratory before the completion of the chain, can bring to question the integrity of the sample and the admissibility of a DNA match obtained from its analysis (Lynch et al., 2008). Likewise, errors (see Error by Aradau), omissions and gaps in the officers' submissions of digital devices to the DF laboratory for analysis raise similar concerns. Unlike CSEs who typically rely on their knowledge and expertise to record a crime scene, DF examiners depend on the information provided by officers to complete their technical work. Wilson-Kovacs and Wilcox (2022) show how in DF officers often fail to include basic parameters to their requests for the examination of seized digital devices of suspects, witnesses, and victims. Translating the needs of officers into achievable investigative strategies and concrete results requires careful alignment of the parameters of a case with the most suitable method to produce a tailored analysis. It also involves communicating the results of the analysis back to the investigating officers, explaining their relevance and their methodological limitations. This more literal labour of translation and alignment illustrates the central role these actors play.

Conclusion

Translation can be broadly defined as the process through which actors construct common meanings and engage in continuous negotiation to achieve individual and collective objectives. Methodologically, a translation approach in digital criminology can help map the communities of practice involved and their multiplicity of interests, establish how technologies and information are stabilized, and explain the visions and expectations accompanying the design, development, and adoption of various digital tools in the prevention and investigation of crime. In a context where the production of evidence is increasingly black-boxed and made invisible by the technologies that assist with its creation, thinking through a translation lens about the trajectory of digital evidence from crime scene to court helps unpack the ways in which data are conceived, measured, and employed (Kitchin and Lauriault, 2014).

From the design, development, and adoption of digital tools in policing, to understanding how courts make use of new technological possibilities, translation can enhance empirical examinations of processes of evidence production and assist with the analysis of transnational co-operations between multiple national law enforcement agencies, as well as it can be equally beneficial to unpacking other facets of crime and justice in the face of ever-growing digitization.

Suggested reading

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