Population Objects: Interpassive Subjects

Journal Item

Population Objects: Interpassive Subjects

Dr Evelyn S. Ruppert
CRESC, The Open University
Forthcoming 2011 in *Sociology* 45(2)

Abstract

While Foucault described population as the object of biopower he did not investigate the practices that make it possible to know population. Rather, he tended to naturalise it as an object on which power can act. However, population is not an object awaiting discovery, but is represented and enacted by specific devices such as censuses and what I call population metrics. The latter enact populations by assembling different categories and measurements of subjects (biographical, biometric and transactional) in myriad ways to identify and measure the performance of populations. I account for both the object and subject by thinking about how devices consist of *agencements*, that is, specific arrangements of humans and technologies whose mediations and interactions not only enact populations but also produce subjects. I suggest that population metrics render subjects interpassive whereby other beings or objects take up the role and act in place of the subject.

Keywords

agencement, biopolitics, census, enactment, interpassivity, metrics, population, transactional data

Introduction

People are not governed in relation to their individuality but as members of populations. The embodied individual is of interest to governments insofar as the individual can be identified, categorised and recognised as a member of a population. This is the general problematic of governing, which is to know the nature and then govern and regulate the forces of the collective body, that is, the population (Foucault, 1997). Population is the referent object of biopolitics, a form of power/knowledge concerned with managing, regulating and maximising the potential of a population, dealing with rates, profiles, patterns, and probabilities about a population and its ever changing, flowing and contingent nature (Dillon and Lubo-Guerrero, 2008). Indeed, it is first through the identification of populations - of illegal migrants, terrorists or homeowners - that governing interventions are defined. While Foucault described population as the object of biopolitics he did not investigate the specific practices that make it possible to know and then act upon populations. To the contrary, he tended to naturalise population as an object on which power can act and as a thing that follows natural processes and laws (Curtis, 2002). However, particular techniques are required to provide detailed knowledge of a population and render it into thought, thereby enabling it to be evaluated, diagnosed and acted upon. This requires not only a language to describe the object of government but also 'the invention of devices to inscribe it' (Rose, 1996, p. 70).

Numerous devices have been invented to classify and inscribe identities as legal and bureaucratic categories, which have been fundamental to the multiple operations of the state (Caplan and Torpey, 2001). It is through a variety of practices such as censuses, surveys, birth registrations, and school attendance and tax records that governing authorities know populations and create a 'legible people' (Scott, 1998). Censuses have been key devices. Taken every five or ten years censuses

engage subjects in identifying with classification schemes that principally measure biographical characteristics such as gender, income, occupation and ethnicity, self-elicited identifications focused on categories of sociological interest. Out of this 'snapshots' or population objects are identified in reference to fixed points in time. The objects are defined by datasets that are separate and distinct from other population datasets compiled by government agencies.[1]

More recently, a number of technologically enhanced identification practices are being developed by government agencies that constitute a new kind of device. In the UK these consist of joined up government administrative databases, biometric passports and e-Borders databases that are being developed as alternative sources of national population statistics. Government agencies seek to use each of these practices not only to verify or authenticate identities but also record transactions with governments and movements across borders in databases. New information and communication technologies (ICTs) have in part advanced these practices as they enable the storing, maintenance, searching and linking of large volumes of personal identification data. New technologies also make it possible to join up and share databases and to incorporate new techniques such as biometrics and machine-readable microchips. Once joined up the different categories and measurements of subjects assembled in each database - biographical, biometric and transactional - can then be compared, combined and reassembled in myriad ways to produce population metrics (Ruppert, 2009a).

To date these identification practices and their associated databases have been principally analysed and critiqued in relation to their consequences for individual privacy, liberty, mobility, policing, data protection, discrimination and social sorting. Indeed, this has led some critics to declare this as the age of ubiquitous 'dataveillance,' (Clarke, 1988), the 'database state' or 'surveillance society' (G T. Marx, 1985). These assessments give rise to political strategies and interventions that focus on technological and regulatory solutions such as laws to protect individual data (Amoore, 2008). Concerns about privacy or surveillance are important but they do not attend to the object and subject effects of these different devices and the consequences for how citizens are constituted as members of governable populations. That is my interest.

In this paper I examine how different devices enact different populations as objects of concern and intervention. Specifically, I compare censuses and population metrics and ask what kind of object do these techniques enact? I am not concerned about which device provides 'better' statistics on population. Rather than an object waiting to be discovered by different devices, a population object is an accomplishment, a particular way of organising social relations. Correspondingly, subjects are not already and always there waiting to be identified. It is often argued that individuals are subjected to identification practices rather than subjectified by them. There is an assumption, especially in debates about privacy, that a true or authentic self is revealed or 'made public' by identification practices (Sewell and Barker, 2001). The subject is conceived of as either a passive recipient of practices or one who is engaged in active resistance. However, practices do not simply reveal subjects as already formed and unchanging but produce them and the particular capacities and agencies required for the technology to operate.

I account for both the object and subject by thinking of devices as involving different *agencements*, that is, specific arrangements of humans and technologies whose mediations, interactions and encounters not only enact populations but also produce subjects (Hardie and MacKenzie, 2007, Ruppert, 2009b). That is, I examine how both the objects and subjects of population are relationally represented and enacted by agencements, which configure action and agency in particular and different ways. While numerous actors are involved in the long chain of relations that make up agencements I focus on the subject rather than other agents such as government analysts,

technicians and policy makers. I briefly account for the agencements that enact populations through censuses but focus on those enacted through metrics and suggest some consequences for the agency and action of subjects. In particular I suggest that population metrics render subjects interpassive (Žižek, 2006) whereby other beings or objects take up the role and act in their place. I conclude by suggesting some consequences of population metrics for citizenship rights.

What kind of population object do metrics enact?

Identification practices consist of three types of classification - biographical, biometric, and transactional. Censuses principally measure the biographical and generally have included classifications such as name, address, sex, marital status, occupation, and ethnicity. Population metrics consist of all three classifications. I use this term to capture what identification practices do, that is, constitute subjects as combinations of categories - of genders, facial patterns, and conduct. In business, government and academia metrics or quantitative measurements are increasingly being adopted to evaluate and compare the performance and progress of people, groups, and things. For example, in education league tables and scores evaluate schools, in universities bibliometrics measure academic production and in health care, standards such as wait times evaluate service delivery. The same logic arguably applies to government practices that assemble biographical, biometric and/or transactional data to identify and evaluate the performance of individuals and populations (Ruppert, 2009a).

Identification practices consist of various combinations of categories that define 'data doubles' of subjects. Biographical data are the basic identifiers and locators of subjects and include name, date and place of birth, gender, and address. Biometric data are additional identifiers based on digital measurements of the physical attributes of bodies such as fingerprints, eye retinas and facial patterns. Biographical and biometric data are the core of what is sometimes referred to as 'identity management,' which is required to join up databases across government sites and functions. Different administrative systems define and constitute their target populations differently: for example, the general registrar (birth, death, marriage) and Home Office (passport and immigration). These differences in part are due to the different objectives of each agency (health, border control, etc.). Identity management involves standardising these classification systems so that they are comparable and databases can be joined up. This is part of the logic behind the Labour government's development of identity cards and a national identity register (NIR) in the UK, which were cancelled by the new Conservative-Liberal Democratic coalition government in May 2010. If implemented, the NIR would have contained information similar to that stored on the passport database. It would have included biographical data (such as name, address, date and place of birth, gender), biometric data (such as facial image and fingerprints), and administrative data (related to the issue and use of the identity card) (Home Affairs Committee, 2008). Connected to the NIR was the National Identity Card (ID Card), which would have contained a machine-readable chip with the same biographical and biometric data stored on the NIR. Beginning in 2008 the first identity cards were issued in the form of biometric immigration documents to foreign nationals.[2]

However, given the uncertainty about the future of both the NIR and ID cards alternative systems have been under development. The Identity and Passport Service (IPS) together with the Department for Work and Pensions (DWP) and the Driver and Vehicle Licensing Agency (DVLA) have been developing a minimum set of trusted identity data consisting of biometrics and a unique identifier (Home Office, 2009b). Everyone over the age of 16 applying for a passport will have these details added to the register beginning in 2011. Over time this is to include data such as that which would have been included on the ID card, and a unique identifier will be assigned to each

person.[3] The point is that there are many techniques to fulfil the objective of assigning a unique identifier linked to basic biographical and biometric data for every person to achieve 'identity management'.

While biographical and biometric data are principally used for the purposes of identification standardisation and verification, transactional data track the movement and conduct of subjects. Governing agencies are ever more interested in utilising transactional data, which are generated routinely as a by-product of everyday activities. The data are deemed more efficient and cost effective methods of knowing populations and also 'better information' for meeting marketing or evidence-based policy objectives (e.g., see Cabinet Office, 2006, Department of Health, 2008). This is in part based on the claim that transactions are measurements of what people 'actually' do. Commercial users also increasingly turn to transactional data to provide comprehensive or total counts of whole populations (sales, mailing lists, subscriptions). As Savage and Burrows (2007) suggest, the traditional market survey is being challenged by the proliferation of transactional data, which has the potential to provide continuous and current knowledge of whole customer populations. For example, the Tesco Clubcard tracks the transactions of all shoppers and this data can then be sorted and shoppers categorised into lifestyle segments such as the healthy or traditional consumer, or the 'price sensitive' shopper. The same can be said for government practices. People regularly transact with government throughout their lifetime and collectively these produce administrative databases. Each of these databases records not only a subjects' biographical data but also conduct or transactions in relation to government: their registration of life events, income earned and taxes paid, licenses obtained, borders crossed, visas acquired, benefits received, visits made to hospitals, and so on.

Current UK government policies on service integration and evidence-based policies depend on joining-up transactional data across government agencies. This is the logic of the 'Transformational Government' policy, which seeks to improve 'customer' service delivery and efficiency through the 'personalisation' of services and joined-up, multi-agency approaches to information sharing and the management of identity (Cabinet Office, 2005). Identity management not only makes it possible to join up databases, but also enables the data to be reassembled in myriad ways to identify 'new' populations. Since biometric and biographical data are standardised and stabilised, transactional data become the key basis through which population metrics identify and evaluate the performance of populations.

There are many examples of metrics in social and health services. For example, digital traces of transactions compiled in different government databases are matched up to identify and categorise populations of 'benefits thieves', tax dodgers, patients at risk of re-hospitalisation, security risks or frequent migrants.[4] The Every Child Matters programme consists of the Integrated Children's System (ICS), which integrates data from local and central government agencies on education, health, counseling, probation and so on (Department for Children, Schools and Families, 2007). The database is used to categorise children and to identify and predict the probability of a child committing crime, failing at school, becoming pregnant in their teens, becoming 'socially excluded' or 'at risk' of abuse or neglect.

Another example is the UK's e-Borders programme, which began to be implemented in 2009. The program involves the collection and analysis of data on everyone who travels to or from the UK by air, sea or rail and enables, among other things, detailed risk profiling of travellers based on passenger information provided by airlines and travel operators (Treasury Committee, 2008).[5] The information includes the machine-readable biographical data contained in a passport, and advance

passenger information that is collected by the carrier (flight number, details of reservations and payment, etc.). The data is screened and checked by running it against agency watch lists (police, Border and Immigration, Revenue and Customs) of people known to pose a threat and will be used to provide background checks for other agencies (e.g., Revenue and Customs to identify people who avoid paying tax by claiming to be resident outside the UK). Additionally the data will be used to compile profiles of suspect passengers and their travel patterns and networks (Home Office, 2009a). The data can also be shared with legally authorised government agencies and supplemented by telecommunications data (mobile, internet, email) collected as part of the EU Data Retention Directive.

The e-Borders program also forms a part of the UK government's strategy to construct more robust and timely population statistics. International migration is the largest component of population change in the United Kingdom - since the late 1990s it has exceeded the net effect of births and deaths and increased substantially following the expansion of the European Union (UK Statistics Authority, 2009, p. 1). Government proposals for new sources of population statistics are thus in large part motivated by the increasing difficulty of tracking mobile individuals who engage in international living and employment patterns or who migrate from EU and non-EU states. In the absence of a population register or ID card, administrative sources related to border management are identified as central to any future system for migration and population statistics as well as for achieving record linkage across different administrative sources such as employment and benefits (Office for National Statistics, 2007).

The examples illustrate the logic underpinning joined up databases: correlations in transactional categories can be used to identify populations, which then can be evaluated and targeted in governing programmes. Population metrics thus open up new possibilities of 'discovering' correlations in transactions that were hitherto unknown. For example, law enforcement and intelligence agencies 'connect the dots' in databases using techniques such as profiling, data mining, social network analysis, risk analysis, and other predictive technologies. The U.S. Department of Homeland Security's US VISIT programme integrates existing databases, from police authorities, to health, financial and travel records to identify suspect populations by categorising people into degrees of riskiness (Amoore, 2006). The same logic is being used in the design of the UK e-Borders programme.

In sum, the standardisation and stabilisation of biometric and biographical data and the joining up of transactional data across government (and commercial) sites and functions means that what varies or counts is conduct (movement, transactions). The recording of conduct has of course always been the basis of government administrative systems. The difference population metrics make is in the assembling of transactional categories in novel and myriad ways across governing sites to identify 'new' data doubles and populations.

Enacting population objects: from assemblages to agencements

Up to this point I have intentionally used the term 'enacting populations' rather than 'constructing populations'. As Law (2008) notes, the term construction is now 'endlessly contested.' In its stead researchers following science and technology, material semiotics or post-ANT approaches have adopted enactment, which embraces the performative domains of the 'social' where sociotechnical relations enact realities and representations simultaneously. They argue that construction suggests fixity, and does not capture the fact that 'maintaining the identity of objects requires a continuing effort' (Mol, 2002, p. 43). Construction evokes a building or edifice and does not

> …work so well if the focus is on process – and more importantly, continuing process. This is because, in this alternative way of thinking, the webs of relations only hold if they are enacted, enacted again, and enacted yet again – which may or may not happen in practice. But if we think in this way then we're no longer on the metaphorical equivalent of a building site. Instead we are in a world of performance or enactment' (Law, 2008, p. 635).

Thus, the term enactment is adopted to allow objects and subjects to change over time, enable their identities to be fragile and allow them to differ from site to site (Mol, 2002). Arguably terms like construction and making are often used with this understanding of change and process, but they are also used to connote the stabilisation of objects that become difficult to change and become immutable mobiles in part because of the investment in the infrastructures used to inscribe and sustain them (Latour and Woolgar, 1986). Indeed this is how censuses model populations, as presumably relatively stable objects that only need measurement every ten years. However, the fluid and changeable character of transactional data requires constant measurement and updating and thus populations are modelled as always in a process of becoming. This is particularly relevant to the e-Borders program and its role in the generation of population statistics. The premise of the program is that the border is not only a site of permission and exclusion, of enabling flows of people, things and capital or pre-emptive action against potential threats, but also a knowledge space whereby registers of movement and mobility enact population.[6] The digital management of borders involves bringing together data compiled at various points in time and across dispersed locations that register movement: from visa applications and ticket purchases to passport scans at ports of entry. As such, the border is deterritorialised and dispersed across various transaction points (Amoore, 2006) and population is constantly being performed again and again. In this way population metrics constitute control rather than disciplinary mechanisms for 'controls are a 'modulation', like a self-deforming cast that will continuously change from one moment to the other, or like a sieve whose mesh will transmute from point to point' (Deleuze, 1992, p.4).

But there is a further reason for adopting the term enactment. The concept also captures the understanding that population metrics, like other practices such as censuses, do not result in different perspectives on a population, a unified entity out there that is discovered. As Mol (2002) argues in her study of ontology in medical practice, 'perspectivalism' assumes a unified object that is viewed differently by different parties. Instead population is a 'precarious accomplishment,' which needs to be studied rather than assumed, not a singular entity but an outcome of multiple practices. Thus different devices are not different perspectives but, using Mol's conceptual language, multiple enactments of populations. That multiplicity is, I would argue, in part due to different sociotechnical arrangements and the role of subjects in enacting populations – both in relation to individual identification practices and the analytic procedures of combining categories to identify populations (e.g., data matching and mining).

Some researchers have declared that the multiplicity of sociotechnical arrangements means that the centralised Foucauldian-Benthamite panoptic model no longer holds and instead current practices constitute more decentralised Deleuzian assemblages or a network model consisting of digital flows of data (Dodge and Kitchin, 2005, Haggerty and Ericson, 2000, Hier, 2003, Lyon, 2003, Mathiesen, 1997). However, these accounts of networks and assemblages tend to interpret the subject as being manipulated or involved in acts of subversion and avoidance (e.g., Graham and Wood, 2003) or engaged in modes of 'popular' resistance through institutions such as the media (Hier, 2003). Whilst it is recognised that technologies are mediated 'at all levels, by social practices that interact with all aspects of the making and functioning of the technological system' the tendency is to assign those

influences to political, economic and social conditions (Graham and Wood, 2003, p. 228). As others have also argued, the subject and subjectivity in these accounts are understood as being formed through macro-social arrangements and reduced to informatic processes (Friesen, Chung, and Feenberg, 2005). The role and engagement of subjects is not investigated but conceived as being 'outside' rather than active in the constitution of practices.

However, practices do not simply reveal subjects as already formed and unchanging but produce them and the particular capacities and agencies required for the practice to operate. To be a subject is not to be subjected (connoting disciplinary power and domination) but to be subjectified (Foucault, 1983). The subject is not always and already there awaiting identification but rather is produced by particular practices (Ruppert, 2007). What practices do is produce 'data subjects' who engage and interact with other actors to identify and classify who they are. This is distinct from how the term is typically used in relation to data protection laws where it refers to a person to whom personal data relates. Under the UK Data Protection Act 1998 this includes the rights of data subjects to access personal data held by organisations.

I extend the term 'data subject' to include the practices through which one *becomes* data through interactions with numerous other actors and actants. Subjectification and enactment must be understood in relation to the configurations and arrangements through which people engage in creating 'themselves as 'legible' subjects' (Caplan and Torpey, 2001, p. 7). For example, how people identify themselves in relation to a series of categories on a census form differs from how they complete an application when applying for benefits. This understanding is best captured by conceiving of practices as *agencements*, the French version of assemblage that some researchers have adopted to bring to the fore how agency and action are contingent upon and constituted by the sociotechnical arrangements that make them up, which is often missing from accounts of assemblages. Rather than actors being understood as either individuals with inherent characteristics or as beings embedded in institutions, contexts or relations, actors are made-up by agencements (Hardie and MacKenzie, 2007). The concept is drawn from Deleuze:

> '*Agencer* is to arrange or to fit together: in one sense, *un agencement* is thus an assemblage, arrangement, configuration or lay-out……The other side of the word-play in the term *agencement* is *agence*, agency. We retain the French 'agencement' because this word-play does not carry over into its usual English rendering as 'assemblage', which thus has somewhat too passive a connotation (Hardie and MacKenzie, 2007, p. 58).

Agencement brings to the fore the mutually constitutive relations between logics, humans, and technologies, relations that Foucauldian analyses usually do not attend to. Data are not simply 'collected,' but are the result of multiple sociotechnical arrangements of technological and human actors that configure agency and action.

The relevance of agencements for understanding identification is evident in the great lengths to which authorities (and social scientists) go to mobilise the agency of subjects to identify through practices - from the formatting of questionnaires and how questions are posed to how identifications are classified and what categories are included. It is generally understood that the way a subject will identify is contingent upon these as well as other characteristics of the sociotechnical arrangement in operation. That is, different results (identifications) often follow from different questions, categories, or whether a subject is interviewed or self-enumerated, completes a paper or online form. Indeed, one criticism of sharing data across government functions is that the data generated at different sites are based on different 'collecting' practices.

However, the difference that identification practices make is usually recognised in relation to technical and operational issues rather than how subjects are produced and their agency and identification configured. For example, transactional data are considered more accurate and less subject to recall error or misreporting on the part of individuals in comparison to censuses or surveys (Jones and Elias, 2006). The difference is related to subjects' memories or the fact that while everyone is required to be included and that census questionnaires be completed truthfully, there is no process to verify answers and no direct consequences that result from how people identify. In contrast, legitimised and verifiable identifications are essential to the validity of government transactions and administrative systems. Identification that corresponds to the authoritative categories of a state classification system (e.g., gender, nationality, age) is in the interests of the subject who would suffer consequences if this correspondence was not secured. Indeed, when errors are made this can have grave consequences and can be difficult to challenge or change.

Rather than technical issues or whether practices result in more or less 'truthful' identifications, the differences between identification practices are due to how different agencements produce both different subjects and enact different population objects. Agencements are about how people 'do themselves' through identification practices, who are 'identifying data subjects' and not 'identified data subjects.' Subjects are at the centre because devices seek to elicit the 'truth' about them – a truth that is relevant to governing authorities - and a truth that devices go to great lengths to elicit. Technology constitutes one actant and one mediator. For example, biometrics are not merely descriptions of the body. Rather, scanners mediate identification by 'reading' the body in a particular way (van der Ploeg, 2003). As van der Ploeg advances, the body is 'not the unproblematic, natural prediscursive referent it is often supposed to be. Rather, it is a particular construction, a specific body ontology, ultimately sustained by pragmatic and operational definitions' (Ibid, p. 65). That is, the technology is organised and formatted in relation to specific governmental aims and objectives as well as technical and practical choices. As with scanners, a passport consists of the mediations and interactions of a sociotechnical arrangement of actors (bureaucrats, policy makers, technicians, legislators, subjects) and actants (information technologies, classification systems, imaging technologies). And the arrangements and requirements through which a welfare recipient identifies are different from those of taxation - from the officials, paper forms, computer databases, legislation, regulations, governmental aims and classifications to information technologies, agency offices, and so on.

Interaction thus occurs between many different actors and actants and there are many mediators configuring the agency and action of subjects. While paper forms and classification systems are preformatted, these are also overflowed by many other templates in circulation such as practical ones that subjects draw from in the categorisation of their identity. Subjects draw from a repertoire that includes categories circulated in news media, everyday contexts, legal and institutional settings and so on that contribute to their ability to render the event interpretable and which do not limit subjectivity but offer possible forms of subjectification (Latour, 2005). The same can be said of technologies such as data mining, which are based on sociotechnical configurations that involve data analysts and computer algorithms that are also overflowed. Machines or computer algorithms have access to only a small subset of the actions and objectives of users and so the capacity of an algorithm to identify patterns is constrained and configured by the pre-specified actions and decisions of the analyst. If there is co-construction it is through an iterative process between the data analyst and the specifications of the algorithm, a human-machine interface that is asymmetrical as the human actor has a greater competency to dynamically interact (Suchman, 2007). Techniques

such as data mining are thus part of long chains of interactions with actors such as data analysts whose judgments can influence outcomes (Canhoto and Backhouse, 2008). To this we can add the specifications of policy makers whose aims configure identification practices and devices.

In sum, the data subject's agency, action and identification with others spring forth or are mediated by particular sociotechnical arrangements of technologies, people and things of which they are a part. The possibilities and forms of agency and action are not open-ended but delimited and configured by these arrangements. Thus different agencements configure agency in different ways, in some cases engaging subjects creatively in making themselves legible and in other cases passively identifying and classifying subjects with little or no engagement on their part. How then do the agencements that make up population metrics produce subjects and configure their action and agency?

The interpassive subject

Whilst the role of subjects in practices like the census or sample survey has always been a matter of some debate, through these practices subjects could and have intervened individually and collectively to constitute themselves as populations and claimants of rights (Kertzer and Arel, 2002, Ruppert, 2008). In comparison, population metrics could be understood as depending less on the deliberate actions of subjects in the enactment of population.

Interpassivity is one way to characterise the subject's agency. It is a term developed by Žižek (2006) in relation to contemporary art and media and defined in opposition to that of interactivity. Interactivity means that spectators or consumers do not just passively observe but also contribute 'creative' activity for the completion and realisation of a work (Pfaller, 2003). Interpassivity is the inverse of this and involves other beings or objects that take up the role normally played by spectators and act in their place to consummate the work (Van Oenen, 2006). Pfaller connects interpassivity to the widespread phenomenon of people delegating their participation in culture to other beings and things – machines, people, and animals. While originally suited to the domain of the arts, Van Oenen suggests that the concept can work in the domain of politics and citizenship, which he argues are demonstrating a slow movement towards 'interpassivisation.'

For population metrics what is 'inter' or delegated is the enactment of population, which changes from regularised social events through which subjects identify to a series of individualised transactions with government (registering, applying, paying, moving), and 'stabilised' biometric and biographical measurements, which are much more difficult to influence and challenge. What people do in relation to government (transactions) becomes more central rather than what they say they do and who they say they are (subjective identifications). Interpassivisation refers to a kind of detachment, or loss of capacities or powers, where the subject is not passive but engaged in much doing: registering, applying, travelling, filing returns, and so on.[7] But through all of this doing subjects are less able to challenge, avoid, or mediate their data double and the enactment of population objects.

In comparison, traditional data sources are elicited through subject accounts to experts (censuses, surveys, interviews). In the 1950s this represented a shift from an emphasis on observation to an insistence on eliciting direct accounts (Savage, 2009). The shift was in part influenced by developments in psychology and the psy-sciences – of understanding the interior of subjects rather than observing their exterior. In regards to censuses, it was evident in the move to self-completed enumeration questionnaires and the introduction of 'other' categories and spaces for subjects to insert their own categories (see Ruppert, 2007). These devices thus constituted ways of engaging

subjects in enacting population and marked the remaking of the social sciences as well as government. In contrast, population metrics are related to a 'descriptive turn' in the social sciences that draws on the biological sciences to redefine interpretation away from causal, depth, models to patterns, regularities and 'surface' phenomena (Savage, 2009). The former are premised on a notion of the subject in which accounts are deemed to be true to the subject. Population metrics do not engage subjects in this way, but seek to categorise their specific interactions and transactions (from which the subject can be inferred). Subjectivity/identity is less an issue and instead associations and correlations in conduct are deemed more empirical and descriptive rather than subjective and meaningful.

Yet, subjective identifications have been central to rights and claims making. Through practices like the census, subjects could and have intervened individually and collectively to constitute themselves as groups and claimants of rights based on categories of identity (e.g., ethnicity, religion, sexuality, conjugal status).[8] Throughout the twentieth century various groups have engaged critically in the enacting of population through censuses as one of many means of articulating and claiming rights not only to resources but also to the truth about themselves. That is, they have not only challenged categories but also made this the basis of rights claims. If people no longer account or attest for themselves in the enactment of population what then are the implications for subjects and their capacity to constitute themselves as citizens who not only bear rights but also have the right to claim rights?

Conclusion

Population metrics introduce a tension between citizenship rights and the governmental aims of 'better' knowledge of populations to meet evidence-based policy objectives. I have argued that the former includes the right of citizens to engage in enacting population knowledge about them. However, the focus on transactions means that an individual's conduct history is more 'policy relevant' than other identifiers such as categories of usual sociological and social policy interest (e.g., ethnicity, religion). Does this then constitute a reconfiguration of citizenship rights whereby rights are based on associations and identifications not with other humans but with particular conduct, movements, and activities (and perhaps akin to how Latour (2005) defines the social as association)? For example, mobility leads to detection through transactions with commercial and government authorities such that citizens can then be segmented into different 'classes' of conduct. Different subjectivities and populations can thus be constituted and their performance evaluated - from businessmen, tourists, and transnational residents to irregular migrants, refugees and asylum seekers. Mobility thus becomes a key organiser in the enactment of populations where difference is constituted on the basis of transactions and governing organised in relation to such classifications.[9] But, border crossings have historically relied upon presenting one's papers and passport, documents that verify identity and grant the bearer all of the rights that go with this (Caplan and Torpey, 2001). With programmes such as e-Borders, patterns of travel, financial and consumer transactional data become new mediators whereby 'behaviour rather than background' become the focus of attention and decision (Amoore, 2009). With social programs such as Every Child Matters, patterns in transactional data across government agencies (education, housing, training, counselling) mediate the identification of children's service needs and the targeting of interventions and resources. Transactions and encounters with governments thus come to define policies and access to social resources as well as movement across borders rather than identities such as citizenship, culture, religion, or age. Another way of putting this is that identifications based on transactions and movements displace or trump more 'stable' forms (the passport, signature, name). What becomes

central are inferences and probabilities rather than established rights, what one does rather than who one is. As such, citizen rights are defined in relation to populations yet to come (e.g., children at risk), not identified by a particular social category but by combinations of conduct, not by causal relations but by associations and patterns in conduct.

Yet at the same time population metrics are mobilised by governing authorities as a way to transform information and data systems to meet the needs and expectations of modern citizens. One set of expectations is security - that citizens demand systems that can detect and pre-empt terrorism, child abuse, fraud, and other illegal conducts. The modern citizen is also understood as a consumer of public services who has changing and multiple needs that need to be tracked, joined up and assessed and thus the integration of data about them is advanced as a way of improving the efficiency, effectiveness and economy of service delivery. This rationality is increasingly adopted by governing authorities to enhance political legitimacy by promising to be more interactive and in ever-closer contact with citizens in order to meet their needs and demands. However in the process of doing so – for example, by making things easier for citizens as consumers of services, saving them money and time by not bothering them with uncoordinated bureaucratic systems or the constant requirement to identify themselves on forms - citizens become less engaged as these activities are given over to other actors. Their rights are confined to data protection and practices that are 'citizen-mediated' where mediation is the capacity of an individual to give direct and explicit permission for data sharing (Office for National Statistics, 2005).

What then are the possibilities of citizens mediating population metrics? While oppositional strategies such as avoiding or refusing to transact with government agencies may appear to be a form of resistance, they do not attend to the role of identification practices and population statistics in the allocation of social rights (e.g., welfare) and the achievement of social objectives (e.g., protection) (Higgs, 2004). The governmental aims of population metrics are not only punitive and disciplinary but also related to entitlements. Furthermore, for many citizens not transacting with government is impossible and would lead to considerable disadvantage (for example, social security recipients). Indeed, sites of governing that have most successfully implemented metrics are those related to marginalised groups. If population knowledge is indispensable to governing and the allocation of rights then what are the means and mechanisms for citizens to engage in the making of knowledge about themselves and the enactment of population? This is a question that needs to be investigated and which I have started by opening up a line of inquiry into how population metrics introduce new mediators, reconfigure the agency of subjects and enact different populations. It is a line of inquiry that could be taken further through the examination of specific practices and how they configure citizen mediation and intervention.

Acknowledgments

This work was supported by the Economic and Social Research Council (Grant RES-000-22-3493), *The Last Census: Governing Britain with Metrics.* An earlier version of the paper was presented at the 2009 CRESC annual conference, Objects: What Matters? I should also like to thank the comments and suggestions of two anonymous reviewers.

Notes

[1] Elsewhere I describe in detail how censuses inscribe populations as objects of knowledge and government (Ruppert, 2007, 2008).

[2] By September 2009 some 50,000 cards had been issued.

[3] Alternative identifiers such as NINs (national insurance numbers, which cover about 80% of the UK population) are proposed in the event ID cards and/or a National Identity Register are not fully implemented.

[4] For example, housing benefit records are routinely matched with social security, national insurance and tax systems. Customer data from gas, electricity and telephone companies are also used to identify properties that may be part of fraudulent claims (Bellamy, 6, and Raab, 2005). Patterns, inconsistencies, or contradictions in these transactional categories are identified (e.g., matching data in housing benefit and student award claims) and out of this a population called 'benefit thieves' is identified.

[5] The Home Office coordinates the programme in partnership with the UK Border Agency, which is responsible for delivering the programme with the support of the police and HM Revenue & Customs. The ONS has been participating with the Home Office to use the e-Borders data as part of the tracking and estimating of international migration.

[6] Several researchers have documented how the border is a site for enabling legitimate flows while pre-empting threatening and risky movements (see for example, Amoore, 2006, Valverde and Mopas, 2004).

[7] As van Oenen (2006) notes, the interpassive subject is not passive but engaged in much activity and doing.

[8] For example, the inclusion of a question on religion in the 2001 census of England and Wales, and the inclusion of the ethnic category of 'Irish' in the 2001 census of England and Wales.

[9] In the commercial sector, a good example is Tesco Clubcard transactional data, which is linked to geodemographic data to segment shoppers into lifestyle groups and used to inform marketing, planning and business decision-making.

References

Amoore, L. (2006) ‘Biometric Borders: Governing Mobilities in the War on Terror', *Political Geography* 25: 336-351.

——— (2008) ‘Governing by Identity’, in C. J. Bennett and D. Lyon (editors) *Playing the Identity Card: Surveillance, Security and Identification in Global Perspective.* London and New York: Routledge.

——— (2009) ‘Lines of Sight: On the Visualization of Unknown Futures’, *Citizenship Studies* 13 (1): 17-30.

Bellamy, C., P. 6, and C. Raab (2005) ‘Joined-up Government and Privacy in the United Kingdom: Managing Tensions between Data Protection and Social Policy.’ Part I, *Public Administration* 83(2): 393-415.

Cabinet Office (2005) *Transformational Government: Enabled by Technology*. London: The Stationary Office Limited.

——— (2006) *Reaching Out: An Action Plan for Social Exclusion*. London: The Stationary Office Ltd.

Canhoto, A., and J. Backhouse (2008) ‘General Description of the Process of Behavioural Profiling’, in M. Hildebrandt and S. Gutwirth (editors) *Profiling the European Citizen: Cross-Disciplinary Perspectives.* Belgium: Springer Science.

Caplan, J., and J. Torpey (2001) ‘Introduction’, in J. Caplan and J. Torpey (editors) *Documenting Individual Identity: The Development of State Practices in the Modern World.* Princeton, NJ: Princeton University Press.

Clarke, R. (1988) ‘Information Technology and Dataveillance’, *Communications of the ACM* 31(5): 498-512.

Curtis, B. (2002) ‘Foucault on Governmentality and Population: The Impossible Discovery’, *Canadian Journal of Sociology* 27(4): 505-533.

Deleuze, G. (1992) ‘Postscript on the Societies of Control’, *October* 59 (Winter): 3-7.

Department of Health (2008) *Developing the NHS Performance Regime*. London: Central Office of Information.

Department for Children, Schools and Families (2007*) ICS, CAF and ContactPoint - an Overview*. London.

Dillon, M., and L. Lubo-Guerrero (2008) ‘Biopolitics of Security in the 21st Century: An Introduction’, *Review of International Studies* 34: 265-292.

Dodge, M., and R. Kitchin (2005) ‘Codes of Life: Identification Codes and the Machine-Readable World’, *Environment and Planning D* 23(6): 851-881.

Dreyfus, H. L., and P. Rabinow (1983) 'The Genealogy of the Modern Individual as Subject', in H. L. Dreyfus and P. Rabinow (editors) *Michel Foucault: Beyond Structuralism and Hermeneutics.* Chicago: University of Chicago Press.

Ericson, R. V. (2007) *Crime in an Insecure World*. Cambridge: Polity Press.

Foucault, M. (1983) 'The Subject and Power', in H. L. Dreyfus and P. Rabinow (eds) *Michel Foucault: Beyond Structuralism and Hermeneutics.* Chicago: University of Chicago Press.

——— (1997) 'The Birth of Biopolitics', in P. Rabinow (eds) *Ethics: Subjectivity and Truth.* London: Penguin.

Friesen, N., G. Chung, and A. Feenberg. (2005) 'Experiencing Surveillance: A Phenomenological Approach.' In *Theorizing Surveillance: The Panopticon and Beyond*. Queen's University, Kingston, Ontario, Canada.

G T. Marx (1985) 'The Surveillance Society: The Threat of 1984-Style Techniques', *The Futurist* June: 21-26.

G. T. Marx (2007) 'Hey Buddy Can You Spare a DNA? New Surveillance Technologies and the Growth of Mandatory Volunteerism in Collecting Personal Information', *Ann Ist Super Sanita* 43(1): 12-19.

Gibbon, S., and C. Novas, eds. (2008) *Biosocialities, Genetics and the Social Sciences: Making Biologies and Identities*. London and New York: Routledge.

Graham, S., and D. Wood (2003) 'Digitizing Surveillance: Categorization, Space, Inequality', *Critical Social Policy* 23(2): 227-248.

Haggerty, K. D., and R. V. Ericson (2000) 'The Surveillant Assemblage', *British Journal of Sociology* 51(4).

Hardie, I., and D. Mackenzie (2007) 'Assembling an Economic Actor: The *Agencement* of a Hedge Fund,' *The Sociological Review* 55(1): 57-80.

Higgs, E. (2004) *The Information State in England: The Central Collection of Information on Citizens since 1500*. Palgrave MacMillan: Hampshire, England

Hier, S. P. (2003) 'Probing the Surveillant Assemblage: On the Dialectics of Surveillance Practices as Processes of Social Control', *Surveillance and Society* 1(3): 399-411.

Hildebrandt, M. (2008) 'Defining Profiling: A New Type of Knowledge?', in M. Hildebrandt and S. Gutwirth (eds) *Profiling the European Citizen: Cross-Disciplinary Perspectives.* Belgium: Springer Science.

Home Affairs Committee. (2008) *A Surveillance Society? Fifth Report of Session 2007-08*. Vol. 2. London: The Stationary Office Ltd.

Home Office. (2009a) *Managing Our Borders*. London: Identity and Passport Service.

———. (2009b) *Safeguarding Identity.* London: Identity and Passport Service.

Jones, P., and P. Elias (2006) *Administrative Data as a Research Resource: A Selected Audit*. London: Economic and Social Research Council.

Kertzer, D. I., and D. Arel (2002) 'Censuses, Identity Formation, and the Struggle for Political Power', in D. I. Kertzer and D. Arel (eds) *Census and Identity: The Politics of Race, Ethnicity, and Language in National Censuses.* Cambridge/New York: Cambridge University Press.

Latour, B. (2005) *Reassembling the Social: An Introduction to Actor-Network Theory*. Oxford and New York: Oxford University Press.

Latour, B., and S. Woolgar (1986) *Laboratory Life: The Construction of Scientific Facts*. Princeton, N.J.: Princeton University Press.

Law, J. (2008) 'On Sociology and STS', *Sociological Review* 56(4): 623-649.

Lyon, D. (2003) *Surveillance as Social Sorting: Privacy, Risk and Digital Documentation*. London and New York: Routledge.

Mathiesen, T. (1997) 'The Viewer Society: Michel Foucault's "Panopticon" Revisited', *Theoretical Criminology* 1(2): 215-234.

Mol, A. (2002) *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.

Office for National Statistics (2005) *Citizen Information Project: Better Sharing of Citizen Contact Information across the Public Sector.* London: HMSO.

———. (2007) *A Review of the Potential Use of Administrative Sources in the Estimation of Population Statistics*. London: HMSO.

Pfaller, R. (2003) 'Little Gestures of Disappearance: Interpassivity and the Theory of Ritual', *Journal of European Psychoanalysis: Humanities, Philosophy, Psychotherapies* 16 (Winter-Spring).

Rose, N. (1996) *Inventing Our Selves: Psychology, Power and Personhood*. Cambridge: Cambridge University Press.

Ruppert, E. (2007) 'Producing Population', CRESC Working Paper Series, Paper No. 37. Available at <http://www.cresc.ac.uk/publications/papers.html>.

Ruppert, E. (2008) ' "I Is; Therefore I Am': The Census as Narrative and Practice of Double Identification', Sociological Research Online 13(4).

Ruppert, E. (2009a) 'Numbers Regimes', CRESC Working Paper Series, Paper No. 68. Available at <http://www.cresc.ac.uk/publications/papers.html>.

Ruppert, E. (2009b) ‘Becoming Peoples: 'Counting Heads in Northern Wilds",’ Journal of Cultural Economy 2(1-2): 11-31.

Savage, M. (2009) ‘Contemporary Sociology and the Challenge of Descriptive Assemblage’, *European Journal of Social Theory* 12(1): 155-174.

Savage, M., and R. Burrows (2007) ‘The Coming Crisis of Empirical Sociology’, *Sociology* 41(5): 885-899.

Scott, J. C. (1998) *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven and London: Yale University Press.

Sewell, G., and J. R. Barker (2001) ‘Neither Good, nor Bad, but Dangerous: Surveillance as an Ethical Paradox’, *Ethics and Information Technology* 3: 183-196.

Suchman, L. (2007) *Human and Machine Reconfigurations: Plans and Situated Actions*. Cambridge: Cambridge University Press.

Treasury Committee (2008) *Counting the Population: Eleventh Report of Session 2007-08*. London: The Stationary Office Limited.

UK Statistics Authority. (2009) *Migration Statistics: The Way Ahead*? Report 4. London: UKSA.

Valverde, M., and M. Mopas (2004) ‘Insecurity and the Dream of Targeted Governance’, in W. Larner and W. Walters (editors) *Global Governmentality: Governing International Spaces.* New York: Routledge.

Van Der Ploeg, I. (2003) ‘Biometrics and the Body as Information’, in D. Lyon (eds) *Surveillance as Social Sorting: Privacy, Risk and Digital Documentation.* London and New York: Routledge.

Van Oenen, G. (2006) ‘A Machine That Would Go of Itself: Interpassivity and Its Impact on Political Life’, *Theory & Event* 9(2).

Žižek, S. (2006) ‘The Interpassive Subject: Lacan Turns to a Prayer Wheel’, in *How to Read Lacan.* London: Granta Publications.