Behavioral public choice and policing in America

Liya Palagashvili[1] and Nathan P. Goodman[2]

[1]Mercatus Center, George Mason University, Fairfax, VA, USA and [2]Department of Economics, New York University, New York, NY, USA
Corresponding author: Liya Palagashvili, email: lpalagashvili@mercatus.gmu.edu

Abstract
A substantial experimental literature in behavioral economics and psychology finds that individuals rely on heuristics and cognitive biases when they make decisions. These heuristics and biases impact the choices of individuals from all walks of life, including police officers entrusted with the power to enforce laws. Individuals act within an institutional context. We examine how the institutions that structure American policing interact with the heuristics and biases of individual police officers. We then suggest institutional changes that may result in better performance from boundedly rational police officers.

Introduction

In July 2016, police officer Jeronimo Yanez pulled over Philando Castile. Castile's girlfriend Diamond Reynolds explained what happened next. Castile "let the officer know that he had a firearm, and he was reaching for his wallet, and the officer just shot him in his arm" (quoted in Lopez, 2017). The officer killed Castile. A traffic stop ended in death.

Incidents like this have been a major subject of public controversy and have been an inspiration for protests associated with the Black Lives Matter movement, which has also been the subject of recent scholarly attention. We contribute to these discussions of police violence by examining them through the lens of behavioral economics. Behavioral economists study the role of biases and heuristics in individuals' decisions.

Daniel Kahneman (2011) popularized much of this literature in his book *Thinking, Fast and Slow.* He divides human thought into two broad categories or systems. System 1 is used when individuals think fast, relying on instincts, emotions, biases and heuristics. System 2 is used when individuals slow down and think deliberatively and logically. When Jeronimo Yanez killed Philando Castile, he was thinking fast. In a very short encounter, he made a decision that ended a human life. These types of split-second decisions are much more likely to be shaped by heuristics and biases than are decisions

that result from careful, slow deliberation. As a result, discussions of police violence can benefit from an analysis rooted in behavioral economics.

This analysis must not focus *solely* on the biases of individual police officers, however. These individuals act within an institutional context, and that institutional context shapes how boundedly rational agents behave. Researchers have applied behavioral economics to a variety of institutional contexts. Some have analyzed cognitive biases within a market context. These researchers often argue for interventions to correct dysfunctions that allegedly result from biased actions on the part of consumers, savers, investors and other market participants. Behavioral public choice scholars point out that heuristics and biases also influence political actions, and they analyze how boundedly rational individuals act within the context of various political institutions. A related literature on behavioral law and economics analyzes how cognitive biases interact with a variety of legal institutions. We contribute to these literatures by analyzing how boundedly rational police act within the institutional context of American policing. We identify specific aspects of American institutions that exacerbate the results of heuristics and biases, as well as institutional reforms that may result in better performance from boundedly rational police.

We proceed as follows. The next section elaborates on the theory of behavioral public choice and behavioral law and economics. We then explain several cognitive biases that are especially relevant for understanding police behavior. We discuss several institutions that exacerbate the undesirable results of these cognitive biases and suggest possible institutional reforms that could alleviate these undesirable results.

Behavioral public choice

Behavioral economics has documented the cognitive limitations and psychological biases that drive individuals to make sub-optimal choices, and thereby often lead to cases of market failures. Unlike the neoclassical model of rational choice, behavioral economists focus on the notion of bounded rationality to illustrate how people make systematic (as opposed to random) errors in computing different costs and benefits relevant for their decision-making. A common example of a cognitive bias is that individuals often overestimate the probability of a negative event (such as a terrorist attack) if there was recently a terrorist attack in the news, leading individuals to make erroneous conclusions about the likelihood of terrorist attacks.

Much of the literature in behavioral economics is dedicated to demonstrating how the rational choice model used in neoclassical economics fails to fully account for all forms of individual behavior. Kahneman and Tversky's work has been foundational in showing how individuals often make decisions using System 1 thinking – intuitive, fast or impulsive thinking – as opposed to System 2 thinking – rational, calculative thinking (Tversky & Kahneman 1973, 1986; Kahneman, 2011). Other areas of behavioral economics research have focused on the policy implications. Thaler and Sunstein (2008) and Sunstein (2014) pushed forth the notion of "nudge" and "choice architects" to argue that policies can be used in ways to help individuals improve their own lives and minimize problems of market failures. Their argument is that some choice settings where System 1 choices tend to be more error prone can be changed in a manner that benefits the individuals.

While much of the literature extrapolates from these biases to show how they could cause deviations from neoclassical predictions in markets, research in behavioral public choice and behavioral public policy applies the findings of behavioral economics to analyzing government or political actors. The research argues that the same biases leading to market failures can also be applied to understanding government failures. In other words, biases present in ordinary individuals (such as "availability bias" or "loss aversion" or "endowment effect") are also prevalent in political actors. As succinctly explained by Viscusi and Gayer (2015: 977): "as behavioral agents themselves, policymakers and regulators are subject to the same psychological biases and limitations as all individuals," which means that there are limitations in their ability to be effective "nudgers" or "paternalists" in correcting market failures that stem from behavioral biases in ordinary individuals.

Rizzo and Whitman (2019) have in fact illustrated how behavioral economists, perhaps also subject to their own biases, often overestimate the ability of policymakers to design beneficial interventions, given that policymakers are also subject to behavioral biases. Indeed, one study that provided an analysis of the literature found that of behavioral economics articles that discuss cognitive limitations of individuals and recommend "paternalistic" policy responses, 95.5% do not contain any discussions of the behavioral biases of policymakers (Berggren, 2012). The behavioral public choice strand thus applies behavioral economics insights to understanding political actors. Congleton (2022) points out that public choice economists, while not using the same language as behavioral economists, have long discussed the "biases" prevalent in political actors and have suggested specific institutional reforms that would "nudge" political actors to making better policy decisions – he explains: "Government officials also may benefit from nudges of various kinds both with respect to their own careers and in their roles as stewards of their polity's standing rules and procedures for making decisions. How to nudge government officials into making policy decisions that advance the interests of most voters is the main focus of the normative strand of constitutional political economy."

A related literature is called "behavioral law and economics," which applies the behavioral economics framework to criminal actors, public law enforcement, judicial actions and other aspects of the legal system. As described by Sunstein *et al.* (1998), if we can apply behavioral economics insights with more accurate assumptions about human behavior, that would allow us to have more accurate predictions and prescriptions about the law. Their study provides a comprehensive overview of how traditional law and economics prescriptions would change when we include behavioral insights. In particular, on law enforcement, Sunstein *et al* (1998) and Jolls (2005) discuss behavioral insights for thinking about potential offenders. For example, potential offenders will judge the likelihood of being caught for a crime by how available such instances are to them (availability heuristic), which depends on factors that are not related to the true probability of being caught. They argue that this suggests a prescription of having police officers available and present – assuming the goal is to deter potential criminals. As an example, they provide community policing which made police more visible and memorable (e.g., police were encouraged to walk their beats rather than drive in cars).

In a recent publication, Hübert and Little (2022) apply behavioral economics to understanding the racial disparities in policing. Their framework describes how police officers' beliefs do not accurately account for the fact that they will detect more crime in more heavily policed communities. This, in turn, creates a feedback loop where they assume that there is more crime in heavily policed communities and thus over-police certain groups because they inaccurately perceive that these areas and the groups in them have higher crime rates. Our paper is in a similar vein as Hübert and Little (2022) in that we apply behavioral insights specifically to police beliefs and actions to explain why we may see undesirable results, and we also discuss how institutional features can exacerbate these biases.

Heuristics and biases relevant for police actors

Daniel Kahneman's *Thinking, Fast and Slow* (2011) explains some foundational aspects of the literature. He discusses how human thought is categorized into two informational systems – System 1 and System 2. System 1 thinking is intuitive and fast (relying on emotions, biases and heuristics to make decisions), but could be more error prone. On the other hand, System 2 is more rational and calculative (using logic and deliberation to make decisions), but is more costly to undertake because it is slower. He acknowledges that each individual does rely on *both* System 1 and System 2 thinking, but that each individual is also different in terms of the degree that they rely on one system over another in their decision-making. Moreover, whether an individual relies on System 1 or System 2 also depends on the environment within which they are operating, and whether one type of decision-making apparatus in a given environment has been habituated overtime, such that it makes it more difficult for an individual to switch to a different system in the same context.

Decision-making based on System 1 and System 2 thinking is relevant in the police context because police officers are often exposed to environments where they must make split-second decisions, leading them to rely on emotions, heuristics and biases to make a fast decision. For example, a police officer who is in a situation where an individual reaches into his wallet to pull out his or her driver's license, the officer may (mistakenly) decide that the person is reaching for a gun and quickly respond by firing his or her own gun. Only seconds later does the police officer realize that he/she made a judgement mistake: there was no gun, and the person was only reaching for the wallet. At the same time, failure to respond to an actual gun could leave an officer or bystanders dead. In such tense situations, slow deliberation may not be an option. Yet errors in either direction can be deadly. As officers must rely on heuristics and biases for such snap decisions, the particulars of those biases matter. How those biases manifest will vary based on the institutional environment and the tacit presuppositions held by the officers. In the next two subsections, we outline the specific heuristics that police officers rely on which can help explain why they tend to often pull the trigger too fast.

The availability heuristic

The *availability heuristic* describes our inclinations to rely on information that comes to mind quickly (e.g. information that is recent and memorable) in order to make

decisions about the future (Tversky & Kahneman, 1973). A decision-maker may over-estimate the probability that an event will happen because he/she is relying on a recent and memorable event.

The availability heuristic can play out for any given police officer when he or other members of their department are exposed to violent and memorable events. Even if a police officer was not present at a recent shootout during a drug raid, which killed several members of his department, that event may be emotional and memorable, and thereby influence the police officer's estimation of the likelihood that a situation he is responding to will turn violent. The availability heuristic can thus lead to bad-decisioning making in a given moment because the police officer may be relying on information that comes most easily to mind (the recent shootout), but ultimately it is low-quality information and masks the police officer's ability to accurately judge the situation and probability that the current situation will suddenly turn violent. Because police officers, even if they are in different departments from each other, are con-stantly exposed to these events where "bad actors" were present and the situation had escalated, any given police officer may rely on these memorable events when they are on duty and thus overestimate the probability of a similar and hostile "bad actor" in their own situations.

The priming effect

Our brains subconsciously process information and develop habits. If we are exposed to certain stimuli, this can influence our responses to subsequent stimuli without our conscious awareness of it – this is known as the priming effect. Several experiments conducted by the psychologist John Bargh illustrated that if individuals are primed to act in a certain manner, they may become more likely to act in that way (Chartrand & Bargh, 1996). The priming effect has an important connection to the consumer spending literature because companies, through advertising, can prime individuals (without them realizing it) to be more receptive to a brand (sometimes called "behav-ioral pumping").

The priming effect is relevant for policing because various trainings and experi-ences can influence police officers to adopt a more "militarized" mindset. This is often a stated intention of those who are in the military: to "prime" individuals to act more aggressively. The problem, as we outline below, is that similar tactics are being used to prime police officers to adopt a more militarized mindset, which leads police officers to think and act more aggressively toward ordinary citizens. In this way, the priming effect within the police can lead to harmful outcomes for ordin-ary citizens as nonviolent situations escalate into violent ones when police officers (often subconsciously) act in an aggressive and violent manner.

Institutions that exacerbate biases

These heuristics and biases influence decisions across a variety of institutional con-texts. However, the institutional context shapes the particulars of how heuristics and biases influence decisions. In this section, we discuss several institutional contexts

that exacerbate the harmful effects of the heuristics and biases we discussed in the previous section.

Federal interventions that exacerbate biases

While policing primarily occurs at the local level, local police have become increasingly entangled with the federal government. This occurs through a variety of mechanisms, including federal funding, transfers of military hardware from the federal government, civil asset forfeiture and participation in task forces led by federal agencies such as the Drug Enforcement Agency (DEA) and the Department of Homeland Security (DHS). These interventions shift police attention from local conditions towards federal priorities. To the extent that these federal priorities highlight relatively rare forms of violence and conflict, they may prime officers to overestimate the prevalence or relevance of these forms of violence and conflict.

Federal funding of police has increased substantially in the United States. As Boettke *et al.* (2017: 922) point out: "From 1982–2007, state and local police expenditures increased by a little over 100%. During this same time period, federal police expenditures increased by more than 500%, which includes significant increases in grants to state and local police departments." This creates a different set of incentives for police than the incentives they would face if their primary source of revenue relied on a local tax base. If we assume rational police, they should respond to the incentives associated with federal transfers, shifting their "fiscal attention" towards federal decision-makers and away from local stakeholders (Boettke *et al.*, 2017). A similar shift in attention is likely for boundedly rational police as well. The difference is that after responding rationally to these incentives, their new set of priorities will also shape officers' experiences in a way that alters which issues they see as salient and which tools they are willing to use.

These increased fiscal transfers are far from the only federal policy that shapes local policing. The federal government runs an "equitable sharing" program, which creates incentives for local police to aid federal drug investigations by offering them a portion of any revenue gained through civil asset forfeiture. Empirically, it appears that civil asset forfeiture increases incentives to pursue drug arrests, as well as incentives to target black and Hispanic suspects (Makowsky *et al.*, 2019). These shifts in police activity may alter officers' patterns of interaction with members of racial minority groups, as well as increasing the proportion of interactions carried out through the adversarial frame of the "war on drugs." This can alter officers' tacit presuppositions, and therefore the interpretations of events that they will be biased towards embracing when they need to quickly assess a situation.

In addition to funding and civil asset forfeiture, the federal government also shapes local policing by transferring military hardware to local police. The Military Cooperation with Law Enforcement Act, passed in 1981, empowered the Department of Defense (DOD) to offer information, training, military hardware and access to military facilities to civilian law enforcement officers. Over the years, new programs were established to facilitate these types of relationships between the DOD and civilian law enforcement. For instance, new legislation in 1990 created the 1280 program that enabled the DOD to transfer surplus military equipment to

federal and state agencies involved in counternarcotics. These transfers were later expanded in 1997 to implement the 1033 program that transfers miliary hardware from the DOD to police departments (Coyne & Goodman, 2022). Some studies have found that these hardware transfers are associated with increased deaths of suspects at the hands of police (Lawson 2019; Delehanty et al., 2017). Some of this is likely to be a direct effect, in which police have tools that increase their lethality as well as their likelihood of entering situations that involve serious conflict. However, it is also likely that police militarization primes police to adopt a militarized mindset. By adopting this mindset, they implicitly perceive more people they interact with as enemies to destroy rather than citizens to protect and serve.

Another way that federal intervention alters police incentives is via federally coordinated task forces. These task forces promote coordination of state and local law enforcement with federal agencies such as the Federal Bureau of Investigation (FBI), the Drug Enforcement Administration (DEA), the DHS and sometimes members of the armed forces. Throughout the 1980s, the Reagan administration established several task forces that connected federal, state and local law enforcement agents as well as military personnel for drug interdiction and border security purposes. Since the terrorist attacks on 11 September 2001, interagency task forces have been largely focused on counterterrorism. The DHS supports a variety of fusion centers, which provide state and local police with various forms of information and support from DHS and other federal partners. "Fusion centers conduct analysis and facilitate information sharing, assisting law enforcement and homeland security partners in preventing, protecting against, and responding to crime and terrorism" (Department of Homeland Security, 2021). These fusion centers have faced a variety of criticisms related to transparency, privacy and civil liberty abuses (see Regan et al., 2015). Similar counterterrorism task forces are coordinated by the FBI as Joint Terrorism Task Forces. Herman (2005: 942–943) argued "the form of cooperation created by these joint ventures challenges the ability of any state or city to maintain accountability of its employees, to maintain any heightened state or local protection of civil rights and civil liberties, and to maintain its own structures governing policy-making authority." These task forces shift the attention of state and local police towards issues related to terrorism and national security. The security threats these task forces were created to address are quite rare (Mueller, 2006). Working on task forces that highlight these issues may lead state and local police to overestimate their prevalence or prime them to act more aggressively.

Bundled policing

Police work includes a variety of different types of work. Enforcing traffic laws is quite different from counterterrorism work, both of which are different from responding to an individual experiencing a mental health crisis. While there is some degree of specialization within police departments, these various services are all typically bundled together as "policing." Officers who specialize in different aspects of police work may serve on different teams, but they largely serve within the same department and receive much of the same training.

A police officer who has been involved in responding to a violent crime, or whose colleagues frequently do so, may be more likely to overestimate the probability that a situation will turn violent. This perception of imminent violence could lead the officer to be quicker to be violent himself, and to perceive otherwise innocuous actions as threats. The bundled nature of policing means that officers are often trained to respond to violent situations but spend much of their time responding to very different types of situations. This mismatch may result in mismatched attitudes and perceptions.

Social distance from community members

The mundane details of a job can impact how someone perceives those they interact with. One way of working as a police officer might lead an officer to perceive citizens as friends and neighbors, while another might lead the officer to perceive citizens chiefly as suspects, criminals, or enemies.

When police officers patrol via car, then their interactions with community members will be relatively limited. Generally, their interactions will begin when they initiate a potentially tense interaction, such as a traffic stop or detaining a suspect. By contrast, an officer patrolling a neighborhood on foot is more likely to experience casual interactions with residents and passersby in the neighborhood. The officer who drives a patrol car is more likely to have salient experiences that are tense and confrontational, while the officer on foot patrol will have such experiences but will also have personal experiences that might be more warm and friendly.

The physical distance created by an automobile is not the only factor that can create social distance between police officers and those they police. If an officer resides in the community she polices, then she is likely to have pleasant interactions with members of this community while she is off duty. By contrast, an officer who commutes to another city or neighborhood will only interact with the citizens of that place in the course of official duties. This officer may exclusively experience tense interactions and might start to see all members of this neighborhood as suspects rather than citizens.

The composition of interactions created by physical and social distance can prime officers to hold unfavorable expectations of those they police. Officers who are distant from those they police may only have tense experiences available to draw on, which will result in more tense interactions given the availability heuristic. Boundedly rational police may therefore engage more combatively if they are more distant from the people that they police.

Polycentric policing for boundedly rational police

If the institutions described above can exacerbate biases, then boundedly rational police are likely to perform better absent these institutional arrangements. This means limiting the federal interventions that shift police attention, unbundling the police and altering policing to encourage more direct community interaction. These reforms can be understood as moves in the direction of more functional polycentricity. A system is polycentric to the extent that it features multiple, independent centers of decision-making.

From the outside, polycentric systems can often appear chaotic, disordered, or like a patchwork. This can lead reformers to strive to render the system more rational and efficient by consolidating power. Sometimes, this has taken the form of deliberately unifying municipal government functions, including policing, into the control of a single larger jurisdiction. These consolidation efforts presented an opportunity for researchers to study the effects of consolidation compared with polycentricity. They found that consolidated police departments performed worse compared with smaller departments that were embedded within a polycentric system (for summary of this research, see Boettke *et al.,* 2013, 2016).

The benefits of polycentricity can arise from a variety of factors. One is the presence of interjurisdictional competition. Citizens can easily exit small jurisdictions, voting with their feet, which creates incentives for policymakers to adopt policies that attract and retain citizens. This incentive is particularly strong when policymakers and bureaucrats depend entirely upon local taxpayers. This is precisely why the federal policies discussed previously can be so distortionary, as they shift officials' fiscal attention away from local taxpayers and towards federal decision-makers. Removing these external sources of funding and resources would create incentives for local police to focus on providing local public services. This would shift the mix of police activity to be more representative of issues that are common within the local community. Rare events such as terrorism and federal priorities that are irrelevant to local stakeholders would therefore do less to bias officers' perceptions of what constitute salient threats than they do under our current entangled system.

A second move towards polycentricity that could improve policing is moving to "unbundle the police" (Thompson, 2020; Tabarrok, 2020). Right now, many disparate functions are bundled into relatively monocentric police departments. Unbundling some of these functions and placing them in the hands of other organizations, or even other professions, would reduce the number of interactions that become armed confrontations. One example of unbundling traffic enforcement from the rest of policing comes from England: "Highways England, which employs British traffic officers – distinct from law enforcement – who drive around in black and yellow livery, surveilling the streets" (Thompson, 2020). Unbundling of this sort allows for a greater division of labor, a greater polycentricity of organizations. Most saliently for our purposes, it means that people are less likely to rotate between roles that involve significant violence and conflict and roles that need not involve it.

Finally, shifting policing so that police are more embedded within local communities reshapes the composition of their interactions. If police no longer patrol in cars but instead patrol on foot, largely in neighborhoods they reside in, then we should expect a greater diversity of interactions. Many of these interactions are likely to be informal, friendly, or pleasant. This creates a different set of expectations for on-the-job interactions than prevail in a situation where all or most interactions involve tense situations such as a traffic stop, detaining a suspect, or being called to a crime scene.

By allowing for a greater diversity of organizations that are more closely tied to local context, polycentric policing has the potential to better align police with local community interests. Some of this alignment results directly from incentives, as in the case of fiscal attention. But some of it results from the pattern of interactions

that shape how boundedly rational police will act given the heuristics and biases that drive their decisions.

References

Berggren, N. (2012), 'Time for behavioral political economy? An analysis of articles in behavioral economics', *Review of Austrian Economics*, **25**: 199–221.

Boettke, P., L. Palagashvili and J. Lemke (2013), 'Riding in cars with boys: Elinor Ostrom's adventures with the police', *Journal of Institutional Economics*, **9**(4): 407–428.

Boettke, P., L. Palagashvili and J. Lemke (2016), 'Re-evaluating community policing in a polycentric system', *Journal of Institutional Economics*, **12**(2): 305–325.

Boettke, P. J., L. Palagashvili and E. Piano (2017), 'Federalism and the police: an applied theory of 'fiscal attention'', *Arizona State Law Journal*, **49**(3): 907–934.

Chartrand, T. L. and J. A. Bargh (1996), 'Automatic activation of impression formation and memorization goals: Nonconscious goal priming reproduces effects of explicit task instructions', *Journal of Personality and Social Psychology*, **71**(3): 464–478.

Congleton, R. (2022), 'Behavioral economics and the Virginia school of political economy: overlaps and complementarities', *Public Choice*, **191**: 387–404.

Coyne, C. and N. Goodman (2022), 'U.S. border militarization and foreign policy: a symbiotic relationship', *Economics of Peace and Security Journal*, **17**(1): 5–16.

Delehanty, C., J. Mewhirter, R. Welch and J. Wilks (2017), 'Militarization and police violence: the case of the 1033 program', *Research & Politics*, **4**(2): 1–7. https://doi.org/10.1177/2053168017712885

Department of Homeland Security. 2021, '*National Network of Fusion Centers Fact Sheet*', Last updated December 16, 2021. https://www.dhs.gov/national-network-fusion-centers-fact-sheet (accessed on August 18, 2022).

Herman, S. N. (2005), 'Collapsing spheres: joint terrorism task forces, federalism, and the war on terror', *Williamette Law Review*, **41**(5): 941–970.

Hübert, R. and A. T. Little (2022), 'A behavioral theory of discrimination in policing', *OSF Preprints*. August, 1, doi:10.31219/osf.io/g4c8w.

Jolls, C. (2005), 'On Law Enforcement with Boundedly Rational Actors', in F. Parisi and V. Smith (eds), *The Law and Economics of Irrational Behavior*, Stanford, CA: Stanford University Press, 268–286.

Kahneman, D. (2011), *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux.

Lawson, E (2019), 'Trends: police militarization and the use of lethal force', *Political Research Quarterly*, **72**(1): 177–189.

Lopez, G. (2017), 'Philando Castile Minnesota police shooting: officer cleared of manslaughter charge', *Vox*. June 16. Retrieved from: https://www.vox.com/2016/7/7/12116288/minnesota-police-shooting-philando-castile-falcon-heights-video

Makowsky, M. D., T. Stratmann and A. Tabarrok (2019), 'To serve and collect: the fiscal and racial determinants of law enforcement', *The Journal of Legal Studies*, **48**(1): 189–216.

Mueller, J. (2006), *Overblown: How Politicians and the Terrorism Industry Inflate National Security Threats, and Why We Believe Them*. New York, NY: Free Press.

Regan, P. M., T. Monahan and K. Craven (2015), 'Constructing the suspicious: data production, circulation, and interpretation by DHS fusion centers', *Administration & Society*, **47**(6): 740–762.

Rizzo, M. and G. Whitman (2019), *Escaping Paternalism*. Cambridge, United Kingdom; New York, NY: Cambridge University Press.

Sunstein, C. R. (2014), *Why Nudge? The Politics of Libertarian Paternalism*. New Haven, CT: Yale University Press.

Sunstein, C. R., C. Jolls and R. H. Thaler (1998), 'A behavioral approach to law and economics', *Stanford Law Review*, **50**: 1471.

Tabarrok, A. (2020), 'Why are the police in charge of road safety?', *Marginal Revolution*. June 9. Retrieved from: https://marginalrevolution.com/marginalrevolution/2020/06/why-are-the-police-in-charge-of-road-safety.html

Thaler, R. H. and C. R. Sunstein (2008), *Nudge: Improving Decisions About Health, Wealth, and Happiness*. New York: Penguin Group.

Thompson, D. (2020), 'Unbundle the police', *The Atlantic*. June 11. Retrieved from: https://www.theatlantic. com/ideas/archive/2020/06/unbundle-police/612913/

Tversky, A. and D. Kahneman (1973), 'Availability: a heuristic for judging frequency and probability', *Cognitive Psychology*, **5**(2): 207–32.

Tversky, A. and D. Kahneman (1986), 'Rational choice and the framing of decisions', *Journal of Business*, **59**: S251–S278.

Viscusi, K. W. and T. Gayer (2015), 'Behavioral public choice: the behavioral paradox of government policy', *Harvard Journal of Law and Public Policy*, **38**(3): 973.