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Are most journalists killed in democracies?

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Vanessa A. Boese-Schlösser

Are most journalists killed in democracies?

Discussion Paper

SP V 2024-501

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Research Area

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Research Unit

Transformations of Democracy

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Abstract

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by Vanessa A. Boese-Schlosser

Existing research presents conflicting evidence on how political institutions affect journalist killings. Some suggest most murders occur in the middle of the regime spectrum, while others indicate increased safety in democracies. Another perspective argues journalists are most vulnerable in democracies. This article uncovers which institutions effectively protect journalists. Using global data on journalist killings between 2002 – 2016, it showcases to which extent each of the three hypothesized relationships is empirically observable. My study provides a unified theoretical framework and reveals: Most murders occur in the middle of the regime spectrum. Electoral democratic institutions offer insufficient protection – journalists are safe only in liberal democracies. Demonstrating that evolving definitions of 'democracy' affect our conclusions, my article highlights the need to prioritize defining contemporary democracy. When studying journalist killings over the past two decades, the electoral to liberal democracy threshold holds greater importance than the democracy-autocracy distinction.

ARE MOST JOURNALISTS KILLED IN DEMOCRACIES? *

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This version: March 2024

Abstract

Existing research presents conflicting evidence on how political institutions affect journalist killings. Some suggest most murders occur in the middle of the regime spectrum, while others indicate increased safety in democracies. Another perspective argues journalists are most vulnerable in democracies. This article uncovers which institutions effectively protect journalists. Using global data on journalist killings between 2002 – 2016, it showcases to which extent each of the three hypothesized relationships is empirically observable. My study provides a unified theoretical framework and reveals: Most murders occur in the middle of the regime spectrum. Electoral democratic institutions offer insufficient protection – journalists are safe only in liberal democracies. Demonstrating that evolving definitions of 'democracy' affect our conclusions, my article highlights the need to prioritize defining contemporary democracy. When studying journalist killings over the past two decades, the electoral to liberal democracy threshold holds greater importance than the democracy-autocracy distinction.

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Introduction

Understanding how political institutions affect journalist killings is increasingly relevant in an age when freedom of expression is among the most threatened democratic attributes worldwide (Boese et al., 2022). The Nobel Peace Prize awarded to Maria Ressa and Dmitry Muratov in 2021 highlights the importance of defending freedom of expression against illiberal and authoritarian governments and actors.¹

Yet, previous research is surprisingly inconclusive in terms of identifying the political institutions that are particularly conducive to journalist killings: One strand of literature suggests a “more murder in the middle” mechanism whereby more instances of state repression (Fein, 1995; Regan and Henderson, 2002) and human rights violations (Davenport and Armstrong, 2004; Hughes and Vorobyeva, 2021; Whitten-Woodring, 2009) occur in countries in the middle of the regime spectrum than in full autocracies or full democracies. A second strand puts a “domestic democratic peace” argument forward, whereby state repression ceases once countries become fully democratic (Bueno De Mesquita et al., 2005; Davenport, 2007; Davenport and Armstrong, 2004; Hegre et al., 2001). According to this argument, we should expect journalists to be safer in democracies (see also Stier, 2015; Whitten-Woodring, 2009). A third strand of research argues that most journalists are killed in democracies (Asal et al., 2018; Carey and Gohdes, 2021b). Carey and Gohdes, 2021b emphasize the importance of local institutions in their investigation of journalist killings by the state in democracies: “Within institutional democracies, journalists are likely to be most vulnerable to state violence when working in remote areas with locally elected and powerful local authorities.” (Carey and Gohdes, 2021b, p.1226). Hughes and Vorobyeva, 2021 also analyze these subnational contexts in which democratic institutions do not fully permeate the state down to the local level and label them *subnational authoritarianism*.

This article, thus, addresses the question: Are most journalists truly killed in democracies? It examines the complex relationship between political institutions and journalist safety, shedding light on which institutions effectively protect journalists and

¹See <https://www.nobelprize.org/prizes/peace/2021/press-release/>.

which fall short. It shows that each of these strands of literature is right – at least in part – and explains the reasons for such different conclusions. By presenting a unified theoretical framework, my article bridges the gap between the three strands of literature. It also demonstrates the extent to which each of the above-hypothesized scenarios is empirically observable using replication data from Carey and Gohdes, 2021b. Their dataset covers journalist killings worldwide between 2002–2016. It extends their previous work (Gohdes and Carey, 2017) and as such builds on data from three different sources: RSF (Reporters sans frontières, 2023), IPI (International Press Institute, 2023) and CPJ (Committee to Protect Journalists, 2023a). As such, it is one of the most comprehensive resources available.

The short answer to my research question is: No, most journalists are not killed in democracies. My analyses reveal that most murders occur in countries within the middle of the regime spectrum. This is where the first strand of literature is right. However, since this “middle” is also where a democracy-autocracy threshold is set, how we define “democracy” and where that threshold is placed, fundamentally affects our conclusions: Using a very low democracy threshold (for example one that countries in the 19th century could already surpass) will yield the conclusion most journalists were killed in democracies, in turn granting credit to the third strand of literature. On the other hand, choosing a higher threshold (for example one that includes requirements for freedoms of expression and association, or individual liberties) will lead to concluding that most journalists are killed in autocracies. Moreover, after passing the threshold to liberal democracies, countries adopt norms and institutions that generate by far the safest working environments for journalists. These norms and institutions protect journalists from direct attacks as well as from being indirectly targeted (for example while covering a combat situation). In liberal democracies, pockets of subnational authoritarianism no longer exist to the same degree and journalist killings become rare events. This is where the second strand of research is right. The threshold that matters for political institutions understanding journalist killings after the year 2000, is the electoral to liberal democracy threshold, rather than the democracy-autocracy threshold. Finally, my analyses suggest

that journalist killings in autocracies are unobservable to a much higher degree than those in democracies. This skews the distribution of recorded killings in favour of autocracies.

My study highlights the importance of the evolving definition of *democracy* for our assessment. It emphasizes the necessity to engage in ongoing discourse about what democracy means today. Over time the definition of *democracy* in public and academic discourse has evolved. The liberal component (ensuring civic rights, protection of minorities, division of power, and constraints on the executive) has become a fundamental building block of *democracy*. Perpetuating a non-differentiated image of electoral and liberal democracy as a theoretical “whole” is dangerous at a time when autocrats such as Victor Orban push the idea of a so called “illiberal democracy” — an oxymoron. When analyzing the connections between political institutions and journalist killings post-2000, journalist homicides regardless of perpetrator, type of death, and possible motive should be related to a definition of democracy appropriate for the time period studied.

In the following sections, I first present the theoretical background (section), and then empirically demonstrate in four sections how choices about measuring and restricting the sample lead to substantially different conclusions. Section discusses how restricting the analysis to certain perpetrators and motives affects the results. Section illustrates the effect of different definitions of democracy. Section highlights the importance of including journalist killings regardless of whether journalists were targeted directly or indirectly, for example in a crossfire. Finally, Section provides evidence that journalist killings are better documented in democracies than autocracies, skewing the distribution of recorded killings against democracies.

How political institutions affect journalist killings

Under which institutional configurations should we expect journalist killings to occur? Figure 1 displays how journalist killings relate to political institutions. It orders national political institutions along a continuous axis ranging from closed authoritarianism (least level of democracy) to liberal democracy (highest level of democracy). To understand

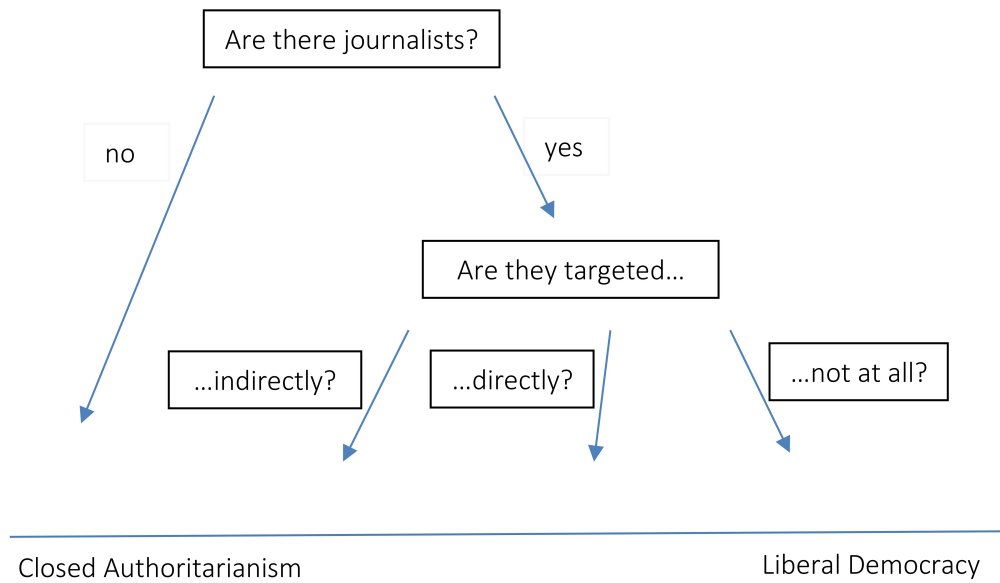


Figure 1. Linking journalist killings to national political institutions

the link between institutions and journalist killings, a first question should be “Are there journalists?”. If there are none, there is clearly a reason for their absence, e.g., whenever their work puts them in life-threatening danger (see for example Arsan, 2013, for a description of this mechanism in Turkey). We should expect these instances to be located towards the closed authoritarianism end of our regime spectrum. If journalists are working in a given country and year, the next question to understand how journalist killings relate to political institutions is: “Are the journalists targeted indirectly (e.g. through being caught up in a crossfire or combat situation while working), directly (i.e. targeted murder), or not at all?” Armed conflict situations are more likely to occur in autocracies than democracies (see Democratic Peace Literature, for an overview see Hegre, 2014). Thus, *ceteris paribus*, we should expect the indirectly targeted killings to occur more often towards the autocratic side of the regime spectrum. For the directly targeted murders, it is difficult to determine *a priori*. They certainly can also occur in democracies. The last option “journalists are not targeted at all” is one that we would expect to be observed only in highly democratic countries.

Carey and Gohdes, 2021b focus on one arm of Figure 1: the direct targeted killings. Within that arm, they narrow their focus further to investigate a) democracies only and b) direct killings by state and unconfirmed actors (as state agents are often suspected to be behind the unconfirmed killings, see Carey and Gohdes, 2021a, p.2). With this setup, they lay open the local mechanism through which journalists are directly targeted by the state. Their work thus greatly contributes to our understanding of directly targeted journalist killings in democracies. To understand journalist killings and the national political institutions in which they occur, however, more research is needed on all journalist killings regardless of perpetrator, research that includes indirect killings, and research that accounts for differences in observability of killings between democracies and autocracies.

This article addresses these issues. It builds on previous work in four ways to explain how national political institutions affect journalist killings: 1) **Perpetrators:** I analyze all journalist killings in the data rather than only direct homicides by the state. The latter only account for roughly 22.6% of journalist killings in the data.² 2) **Definition of democracy:** What we define as democratic has a substantive effect on our results. Depending on the threshold we can arrive at the murder in the middle conclusion just as much as the most or no journalists are killed in democracies conclusions. 3) **Indirect effects:** Political institutions also affect indirect killings, as journalists are more likely to be killed in armed conflict situations in autocracies. And finally, 4) **observability bias:** I present evidence that journalist killings in democracies are substantially better documented than in autocracies. The share of unobservable killings is likely much higher than in the present dataset. Below, each of these four points is discussed in its respective section.

²Killings by unconfirmed perpetrators account for another 44.17%. Even an analysis of killings by both of these perpetrator groups leaves out a third of the journalist killings in the data (those by other perpetrators or political groups).

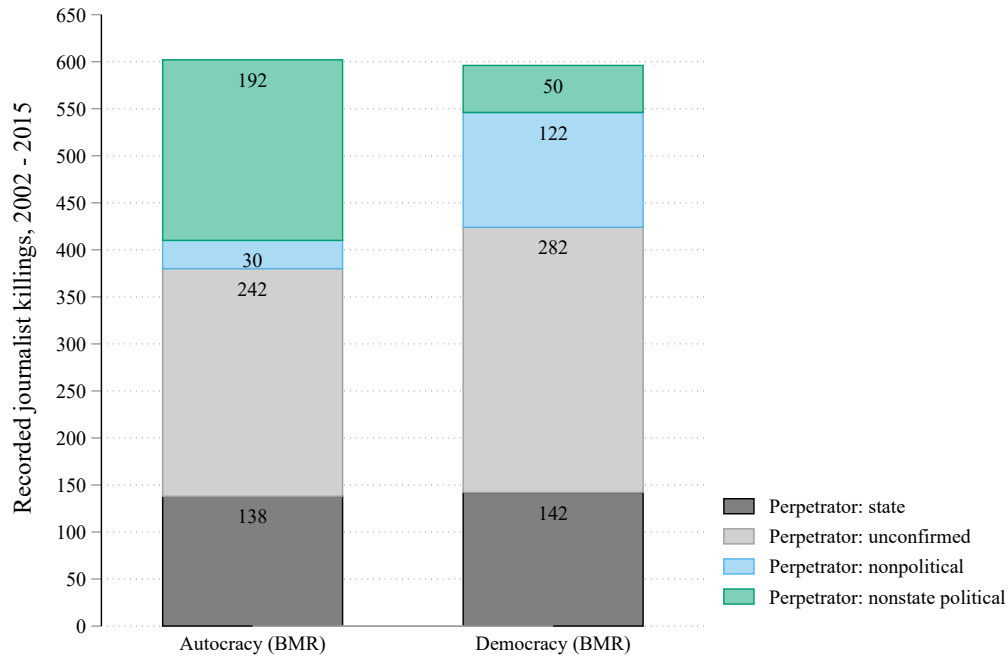


Figure 2. Number of recorded journalist killings by perpetrator and regime type according to Boix et al., 2013 (BMR).

Who murders journalists and why?

Several studies link journalist killings to the topics they covered, as well as to the (alleged) perpetrator.

In terms of perpetrators, state and non-state actors are commonly distinguished, as are political and nonpolitical groups (e.g. in Asal et al., 2018; Carey and Gohdes, 2021b).³ There is considerable uncertainty around the perpetrator classification, though, as perpetrators commonly seek to conceal their identity and thus often remain unconfirmed or unknown. As such, journalist killings by unconfirmed perpetrators are often likely to involve a state-related actor who manages to conceal their identity (Carey and Gohdes, 2021a, p.2). Even in cases where the perpetrator is identified as belonging to a criminal group, it can be a case of “privatized violence, that is, the existence of hit men and death squads in the service of” corrupt politicians and drug lords (Waisbord, 2002, p.104).

³Carey and Gohdes, 2021b, for example, distinguish between four types of perpetrators (see Appendix section H for more information): state agents, unconfirmed perpetrators, nonstate political and nonpolitical perpetrators (Carey and Gohdes, 2021b, p.1217).

Restricting the focus on journalist killings by a certain perpetrator substantially affects the number of killings included. Figure 2 displays the number of journalist killings by perpetrator in democracies and autocracies in the Carey and Gohdes, 2021b replication data. 602 journalist killings are recorded in autocracies and 596 in democracies between 2002 and 2015. In total, there are slightly more killings recorded in autocracies than democracies. Carey and Gohdes, 2021b arrive at the conclusion that most journalists are killed by democracy because they focus on killings by the state and unconfirmed actors only.⁴ Aside from the above-mentioned uncertainty regarding the perpetrator classification, any killed journalist is a reflection of the norms and institutions in place to protect the journalists. For this reason, I include all killings regardless of perpetrator type in my analyses.

In terms of topics, Hughes and Vorobyeva, 2021 find that “[m]ost killed journalists covered politics, corruption, human rights, or crime” while “[i]t was far less dangerous to cover business, sports, or culture”, p.1882. Investigative reporting on issues related to corruption (Bjørnskov and Freytag, 2016; Heyns and Srinivasan, 2013; Waisbord, 2002, e.g.) and wars or conflict (Saul, 2008) stand out as particularly dangerous endeavors for journalists. The uncertainty in terms of motive here is (similarly as with the perpetrator classifications) nonnegligible. The CPJ distinguishes between killings for which they “are reasonably certain were (...) because of their journalism [motive confirmed] and those who may have been killed for journalism or for another reason [motive unconfirmed]. If they were clearly not killed for their journalism, or died in an accident/weather event or because of illness – even if the accident was work-related” - the CPJ does not include them in their database (Committee to Protect Journalists, 2023b). Thus, for assessing the institutions in place to protect journalists, I include all killings, regardless of the topic covered.

In sum, previous studies have focused on specific perpetrators, and underlying motives/topics covered by the journalists killed. However, with the present paper, the

⁴See Carey and Gohdes, 2021b, Figure 1.

central objective is to discern how national-level political institutions influence journalist killings. Therefore, all topics and all perpetrator types are relevant in this context.

What is “a democracy”?

In this section, I demonstrate that what we define as “democracy” to a substantial degree determines which conclusion we reach - whether it is that most journalist killings occur in the middle of the regime spectrum, or in democracies, or whether democracies might actually provide the safest working environment for journalists.

To understand whether democratic political institutions matter for creating a safe working environment for journalist, a first step is to define the concept “democracy” in a way that is adequate for the time period under study. This is an essential step because the definition of democracy has evolved considerably over the past two centuries. During the 19th century, for example, female suffrage was not considered a necessary requirement for any country to be considered democratic. By the end of the 20th century however, it had become a necessary condition. Similarly, during the 20th century the common meaning of democracy developed from a largely election-centered perspective, to include aspects such as freedom of association and expression (Boese, 2019; Diamond, 2002; Teorell et al., 2019).⁵ In addition, aspects of liberal democracy have gained renewed importance. As the global number of democracies increased substantially during the latter half of the 20th century⁶, more and more people had access to electoral democratic institutions. However, political systems in which individual and minority rights were not protected or in which there was no fully developed division of power ultimately led to a growing demand for liberal institutions. Today, judicial and legislative constraints on the head of state as well as rule of law (including the protection of individual and minority rights) are considered core elements of democratic systems themselves.

⁵This discussion focuses on the evolution of democratic systems worldwide - rather than the evolution of theoretical thought or empirical measurement on democracy. Boese et al., 2022, describe the evolution of today’s liberal democracies since 1800 on different trajectories along the three dimensions competition, participation and constraints.

⁶Figure A1 in the Appendix displays the number of democracies and autocracies since 1900.

If journalists are killed, the institutional environment failed in providing necessary conditions for freedom of expression and in protecting its citizens from political killings. The former, freedom of expression, is a fundamental building block of electoral democracy (Dahl, 1971; Teorell et al., 2019), while the latter pertains to the protection of individual rights commonly associated with liberal democracy. Hence, the chances that a country in which journalist killings occur is still considered a democracy (let alone a liberal one) are very low.⁷ While this might seem endogenous, it is in fact a great achievement by democratic societies to include aspects relating to non-electoral institutions in the common perception of democracy. Liberal democratic systems today view the protection of individual liberties and guaranteed freedom of expression as their core responsibilities.

This awareness of democracy’s conceptual evolution over time should be met with its empirical equivalent. Along those lines, it is simple to show that the conclusion “most journalist killings by the state occur in democracies” Carey and Gohdes, 2021b rests on a very specific conceptualization of democracy. Below, I demonstrate that with other conceptualizations of democracy, one can arrive at both the “more murder in the middle” as well as the “least killings in democracies” conclusion.

Carey and Gohdes, 2021b rely on the democracy-autocracy dichotomy developed in Boix et al., 2013:” *We define a country as democratic if it meets the following conditions for both contestation and participation:*

Contestation

1. *The executive is directly or indirectly elected in popular elections and is responsible either directly to voters or to a legislature.*
2. *The legislature (or the executive if elected directly) is chosen in free and fair elections.*

Participation

⁷Wunsch et al., 2022, for example, emphasize the need for a “firm commitment not simply to democracy in its broadest sense, but to the specific principles of separation of powers and civil liberties that underpin liberal democracy” in the face of democratic backsliding (p.35).

3. *A majority of adult men has the right to vote.*” (Boix et al., 2013, p.1530)

Relying on this conceptualization, Boix et al., 2013 (in the following BMR) provide democracy-autocracy classifications for countries worldwide since 1800. One of the biggest strengths of this measure lies in providing such a long time series. However, for such a coding to be meaningful and display variation over time, a conceptualization of democracy needs to be chosen that was achievable at a comparatively early point of the time series. For example, if one were to define “democracies” as countries that fully satisfy both the electoral components (such as the institutional guarantees put forward by Dahl, 1971) and the liberal component (judicial and legislative constraints on the executive, individual and minority rights), then the first 150 - 170 years of the corresponding measure would in large shares be coded as autocracies. This, in turn, would make inference based on the first century and a half impossible. Similarly, the remaining years would then be mostly coded as democracies. Hence, any measure making a useful distinction over such a long time period will choose a threshold that is attainable comparatively early, so that it does not take over a century for the first variation in the dataset. It is precisely this threshold that is on the one hand BMR’s strongest advantage but on the other hand renders the measure difficult for an analysis of journalist killings and political institutions today.

BMR’s conceptualization of democracy does not capture several relevant components for a modern definition of electoral let alone liberal democracy. Returning to the female suffrage example above, it is clear that in the BMR coding scheme, female suffrage does not play a role. Neither does separation of powers, judicial or legislative constraints on the executive or protection of individual liberties. In the context of BMR’s long time series, this is understandable. Yet, it poses a problem for an analysis of the time after 2000. The participation criterion itself clearly does not meet current standards in any public or scientific perception of “democracy”. A country without full suffrage will hardly be considered a democracy at present. The democracy threshold is too low to capture differences between countries that are meaningful in understanding what sort of regimes kill journalists.

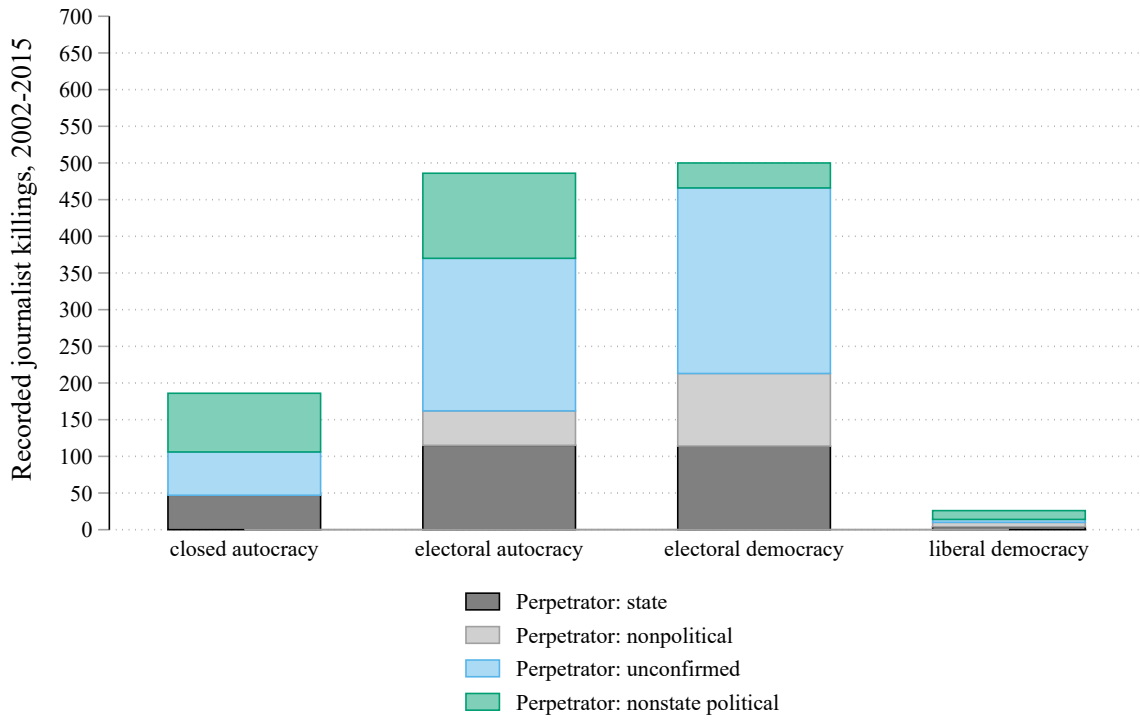


Figure 3. Number of recorded journalist killings by perpetrator and regime type according to the Regimes of the World (RoW), Lührmann et al., 2018.

How do these different conceptualizations of democracy matter for understanding journalist killings? On a cross-national perspective, the choice of democracy-autocracy concept and with it the choice of an empirical threshold affect our understanding of the institutional constellations that enable journalist killings.

The *Regimes of the World* (RoW) Index (Lührmann et al., 2018) is a categorical democracy measure and a suitable alternative to BMR for the application at hand. The RoW scheme distinguishes between two types of autocracies (closed and electoral ones) as well as two types of democracies (electoral and liberal ones). This categorization allows us to differentiate between different kinds of democracies as well as autocracies. Most importantly, it includes a broad range of criteria that a country needs to fulfill to be considered (liberal) democratic, such as individual liberties, constraints on the head of state, freedom of expression and association. Conceptually, this makes the RoW measure

ideal for distinguishing between democracies and autocracies today.⁸ Figure 3 replicates Figure 2 with RoW regime types and highlights my main argument: which regime type is found most dangerous to journalists depends on the regime categorization used! When relying on the RoW scheme, both the “more murder in the middle” theory as well as “no killings beyond a democracy threshold”-conclusions seem warranted.

Figure 3 allows for a number of interesting observations:⁹ First, most journalists are killed in autocracies (707, vs. 554 in democracies).¹⁰ Second, there is clear “most murder in the middle” evidence: of the four RoW categories, the countries in the middle (electoral democracies and autocracies) are most affected by journalist killings. 510 journalists were killed in electoral autocracies and 527 in electoral democracies. Third, liberal democracy stands out as the one category in which by far the fewest journalists are killed regardless of perpetrator type. Journalist killings happened in less than 1% of the liberal democratic country-years. In total, between 2002 and 2016, only 27 journalist killings are recorded in liberal democracies (as opposed to over 197 in any of the other regime types). Finally, it is worth noting that countries remain liberal democracies even if journalist killings occur (i.e. they are not automatically placed in a lower RoW category). Appendix section C provides background information on the liberal democracies in which journalist killings did occur.

These findings suggest a “*Liberal Domestic Democratic Peace for Journalists*”-Argument: Journalists are (predominantly) safe in liberal democracies. The autocracy-to-democracy threshold in the case of journalist killings is not as informative as the threshold between liberal and electoral democracies. This is a reflection of the explicit acknowledgment of freedom of expression and protection of individual liberties as fundamental building blocks of any liberal democracy discussed in previous sections.

⁸Few categorical measures exist that are designed to capture nuanced differences between regime types post-2000 and distinguish between different kind of democracies and autocracies. The vast majority of other categorical measure was also designed for long time series, for example the Lexical Index of Democracy Skaaning et al., 2015.

⁹Table A2 in the Appendix provides additional homicide numbers for each of the four perpetrator and regime categories, respectively.

¹⁰The BMR measure is not coded for 2016, while the RoW is. Hence, there is a difference of 63 journalist killings between Figures 6 and 2. Table A7 of the Appendix displays the distributions of these killings across regime categories and perpetrator types. 27 (19) of them happened in democracies (autocracies).

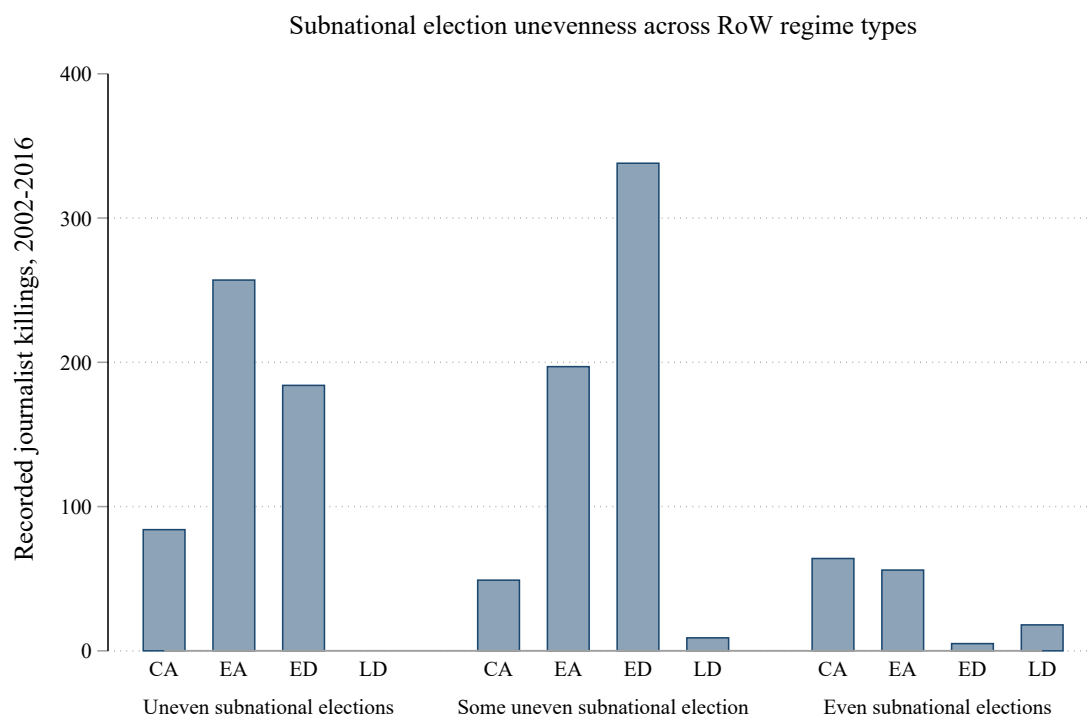


Figure 4. Number of recorded journalist killings by RoW regime category - distinguishing between three levels of subnational election unevenness. CA = closed autocracy, EA = electoral autocracy, ED = electoral democracy, LD = liberal democracy

Previous research found journalist killings to be problematic in democracies with subnational authoritarianism (Asal et al., 2018; Carey and Gohdes, 2021b; Hughes and Vorobyeva, 2021): “(M)ost journalists died in countries where formal democratic norms and practices at the national level encourage investigative reporting in local arenas where powerholders have incentives to violently suppress critical press coverage”, Hughes and Vorobyeva (2021), p.1873. Figure 4 confirms this. The Figure uses the V-Dem variable *Subnational election unevenness*¹¹ as a proxy for subnational authoritarianism. It shows the number of recorded journalist killings over RoW regime categories while distinguishing between cases in which there was widespread subnational election unevenness vs. some subnational election unevenness vs. cases where subnational elections were evenly free and fair. Most journalists are killed in electoral democracies with some or pervasive subnational unevenness. Electoral autocracies display similar results. Once countries

¹¹The variable is coded by country-experts and does not enter the Regimes of the World Index. More information on the variable can be found in Appendix A.

become liberal democracies, subnational election unevenness is no longer associated with journalist killings to the same degree.

In sum, the concept of democracy and with it the democracy measure applied substantially affects our conclusions: 1) if we assumed the low threshold of a 19th-century electoral democracy was appropriate for the time period between 2002 - 2016 and used the BMR measure, then “most journalists are killed in democracies” would be the conclusion; however, 2) if we choose to include more information on political institutions relevant for modern-day democracies (such as freedom of expression and association, or constraints on the head of state) and use the RoW measure, then we will find that most killings occur in the middle regime categories; and, 3) if we assume that contemporary democracies are a heterogeneous group and we further distinguish between electoral and liberal democracies, we will conclude that journalists are safe only in liberal democracies - the “*Liberal Domestic Democratic Peace for Journalists*”. The norms that come with a commitment to liberal democracy ensure that journalists in liberal democracies can work freer than anywhere else. Electoral democratic institutions are not sufficient to protect journalists. Finally, cases of subnational authoritarianism explain the “more murder in the middle” finding. Yet, these cases do not affect liberal democracies to the same degree as any other regime category.

How journalists are killed

How do these journalist killings occur? Previous studies, such as Hughes and Vorobyeva, 2021, rely on the CPJ classification (Committee to Protect Journalists, 2023a) and distinguish between murder,¹² crossfire/combat-related deaths,¹³ dangerous assignments,¹⁴ and disappearances with no resolution. Suicides pose another form of death that is difficult to categorize (Sarikakis et al., 2017, p.26). On the one hand because they are symp-

¹² “the targeted killing of a journalist, whether premeditated or spontaneous, in direct reprisal for the journalist’s work”, Committee to Protect Journalists, 2023a.

¹³ “a killing on a battlefield or in a military context”, Committee to Protect Journalists, 2023a.

¹⁴ “deaths while covering a demonstration, riot, clashes between rival groups, mob situations; this includes assignments which are not expected to entail physical risk but turn violent unexpectedly”, Committee to Protect Journalists, 2023a.

tomatic of the often intense pressures the journalists are subject to. On the other hand, homicides are often disguised as suicides.¹⁵ Therefore no dataset on journalism-related suicides exists.

Another distinction, which is more easily observable is between journalists killings resulting from directly targeted vs. indirect attacks. Following this distinction, Carey and Gohdes, 2021b exclude country-years with armed conflict from their analysis.¹⁶ They reason:

(We exclude) “killings that occurred in “conflict settings,” since we are only interested in cases in which journalists were directly targeted. As killings in conflict settings, we identify situations that suggest the murder was not directly aimed at the journalist, for example, if she was caught in cross-fire or died in a bombing not directly aimed at her.”

This decision directly affects inference about the types of regimes in which journalists are killed: conflict settings disproportionately occur in autocratic systems. Therefore, dropping the cases in conflict settings has two implications: first, more observations in autocracies are dropped than in democracies skewing the distribution of killings in the data in favour of autocracies. Second, this misses the causal connection between democracy and peace.

Illustrating the first point (autocratic observations being disproportionally dropped), Figures 5 and 6 show the total number of journalist killings recorded in the dataset in dark bars (divided by BMR regime type in 5, by RoW regime type in Figure 6).¹⁷ As in the previous section, the Figures again highlight that conclusions about which sort of regime is most dangerous to journalists depend on the regime classification (BMR vs. RoW). In addition, however, both Figures also present the total number of journalist killings in the data when observations in conflict settings are disregarded (light bars).

¹⁵See for example the death of Akshay Singh in July 2015, Committee to Protect Journalists, 2023c.

¹⁶Appendix section D further discusses why dropping such cases in country - year format adds additional problems: It implies dropping all journalist killings in a given country and year, as soon as at least one of them occurred in a conflict setting - even if all other homicides happened outside of conflict settings.

¹⁷Both graphs rely on the same set of observations.

Total number of recorded journalist killings (all perpetrators), 2002 - 2015.
 Light bars: same variable excluding observations in conflict settings.

Figure 5. By BMR regime type

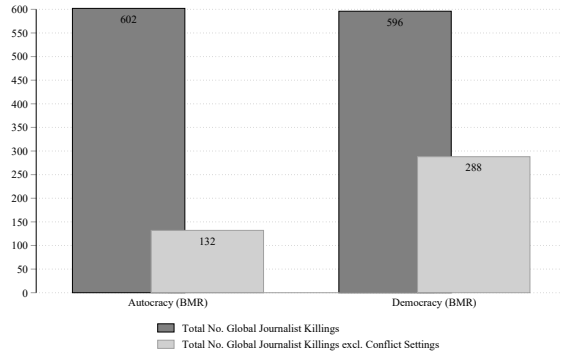
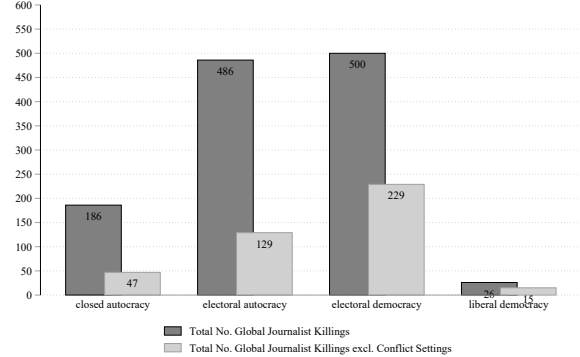


Figure 6. By RoW regime type



More journalist killings are excluded (i.e. the difference between the dark and the corresponding light bar is larger) in autocracies than in democracies - regardless of the regime classification used. This skews the distribution of journalist killings against democracies. These differences imply that certain countries almost "disappear" from the sample, as can be seen in Appendix section E. The section presents two world maps - one showing all journalist killings between 2002 and 2016 and the other only cases without armed conflict. The resulting differences in countries included in the samples are stark.

Moreover, disregarding indirect killings, i.e. cases in conflict settings, misses the causal connection between democracy and peace (the second point above). (Liberal) democracy is strongly linked to human security and peace, both domestically and internationally. Several studies confirm the democratic peace: Democracies do not fight wars against each other (see e.g. Altman et al., 2021; Hegre, 2014). Related to the more murder in the middle argument, research has demonstrated that countries with medium levels of democracy, such as electoral democracies, and electoral autocracies, are the most prone to civil conflict (see e.g. Gates et al., 2006). This is likely due to factors related to regime instability, such as partial disenfranchisement, irregular leadership changes, executive attempts to grab or keep political power, and weak state institutions. Regime instability also likely (at least partially) explains why most journalist killings also occur in countries at the middle of the regime spectrum. In contrast, liberal, high-quality democracies are

the most likely group to have peace *and* protect journalists. Liberal democratic institutions produce regime stability and this stability, in turn, implies journalists operate in a predictable and safe environment.

In conclusion, previous research has focused on different types of deaths, for example distinguishing between direct and indirectly targeted killings. National level democratic institutions, however, do not only protect journalists directly but also indirectly through making a peaceful environment much more likely than autocratic ones. Thus, additionally considering these indirect effects is relevant for fully understanding how the political regime affects the likelihood of journalist killings. Disregarding these indirect effects implies disregarding a larger share of homicides in autocracies than in democracies and skews the distributions of killings in favour of autocracies.

Data quality in democracies vs. autocracies

My final argument for why democracies actually do provide safer work environments for journalists than autocracies is data quality. As Carey and Gohdes (2021b) acknowledge :

”Additionally, data quality might be greater in democracies. Autocracies frequently impede the gathering of reliable data on journalist killings, particularly in remote areas, despite the extensive efforts of organizations aiming to collect this information (see Hollyer et al., 2011).” ¹⁸

During World War II, the US military famously approached Abraham Wald, then professor of statistics at Columbia University, seeking his help in identifying the weakest spot on their airplanes, to identify the parts that needed more protection. They supplied him with data on how many bullet holes were detected in each section of the planes that had returned from combat. Wald, however, realized that in this case the *unobservable* was more important than what they did observe: there was a survivor bias in the bullet hole statistics, because planes that were fatally shot did not return from combat.¹⁹ Similarly, in the case of journalist killings the *unobservable* is highly relevant to get the full picture.

¹⁸Carey and Gohdes (2021b), footnote 1, p. 1218.

¹⁹For a more enjoyable summary of Abraham Wald’s merits, see Ellenberg, 2014, pp.3.

To uncover the *unobservable*, we turn to two variables identified as closely linked to journalist killings in section . Absence of harassment of journalists and freedom from political killings describe the environment in which journalists operate. The V-Dem dataset offers expert-coded empirical counterparts to these concepts.²⁰ The variables describe the work environment and go beyond journalist killings. They capture whether journalists are subjected to harassment (for example “threatened with libel, arrested, imprisoned, beaten or killed” Coppedge et al., 2021, p.201), whether political killings²¹ are practiced, and if so, how frequent and established these infringements on personal rights are.

The expert judgment of the working environment should be related to the number of journalist killings. Without any observability bias, this relationship should be the same across regime types.²² If the relationship is different in autocracies than in democracies a likely reason is at least in part that journalist killings in autocracies are not recorded (to the same degree as in democracies). The more autocratic a regime, the more able it is to control whether journalist killings are publicly noticed. “When these autocrats kill, they seek to conceal their responsibility.” (Guriev and Treisman, 2019, p. 100). This affects the number of journalist killings in the data. However, it should not affect how country experts evaluate the journalists’ working environment, i.e. the two V-Dem variables.

Using factor analysis, I thus extract a latent factor from the two variables on (harassment of journalists and freedom from political killings): this factor represents an expert-coded assessment of journalist’s working environment in a given country and year. It is continuous and ranges from 0 (least free working environment) to 1 (most free working environment).

The relationship between coder assessment of the working environment and journalist killings observed differs between democracies (blue lines) and autocracies (orange lines). Figure 7 displays this relationship. Each dot represents a country-year observation.

²⁰These variables are *v2clkill* and *v2meharjrn*. Appendix section F provides more information on their coding.

²¹Political killings are defined as “killings by the state or its agents without due process of law for the purpose of eliminating political opponents” Coppedge et al., 2021, p.173.

²²This is based on the assumption that experts coders err to the same degree in democracies as in autocracies.

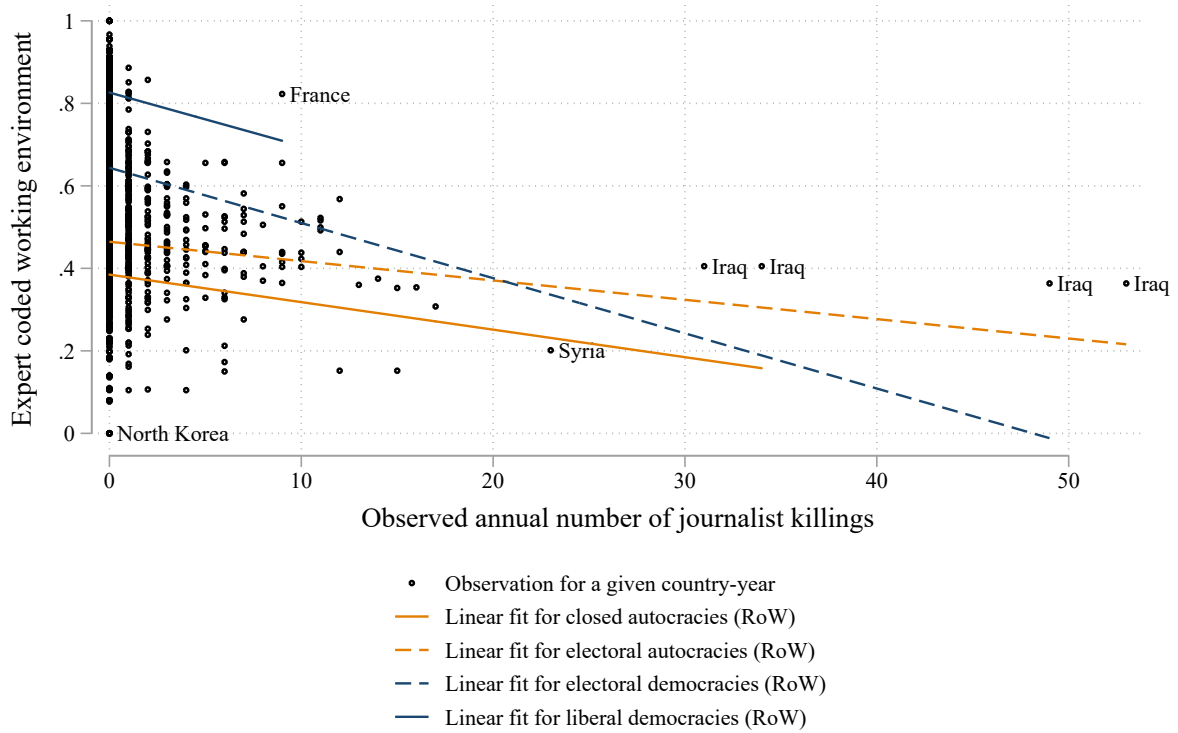


Figure 7. Expert coded assessment of journalist’s working environment vs. observed journalist killings. Blue lines show the linear fit for democracies (RoW), orange lines for autocracies (RoW). Dashed lines for the middle categories (electoral d/a).

For each of the four RoW regime types, a linear fit is also presented. The Figure shows that while the slope of the linear model for the democratic regimes is almost identical, it is different for each of the autocratic regimes.²³ This suggests that either expert coders systematically differ in their assessment of the working environment between democracies and autocracies or journalist killings are systematically less observable. Given the reality of social science research, the explanation is probably a bit of both.

There are also some additional points of Figure 7 worth noting: First, again a “most murder in the middle” relationship is visible. Most journalist killings occur in working environments from around 0.2 to 0.6. Also, the slopes of electoral democracies and electoral autocracies differ the most. If we assume expert coders to code with the same reliability in all categories, this would suggest journalist killings are unobservable

²³If there was perfect information, all journalist killings would be observable and all experts would have full information, then the relationship between observed killings and the working environment should be the same for democracies and autocracies, i.e. the slope of the linear regression line should be the same.

to the highest degree in electoral autocracies. Second, the observations for North Korea (2002-2012) score lowest on the work environment variable and have 0 journalist killings. This is interesting because North Korea is a case for which the answer to the question “Are there journalists?” posed in Figure 1 would likely be “no”. The country is one of the starkest closed autocratic systems worldwide. One would not expect many journalist killings due to the fact that one would not expect journalists to work out of North Korea unless they are directly instated by the regime. Third, the journalists killed in the Charlie Hebdo and Bataclan attacks in 2015 are visible (observation labelled “France”). Fourth, the extreme outliers (≥ 20 journalist killing per year) all occurred in conflict countries and years: either in Iraq or Syria. Appendix section F shows that the results remain the same even without these outliers. Fifth, the two V-Dem variables do enter the RoW-index, but to a vanishingly small degree.²⁴ Therefore, to address possible endogeneity concerns, Appendix section F also presents replications using the BMR measure. The results remain the same.

Finally, it bears noting that the issue of poor data quality in autocracies reaches far beyond the number of journalist killings and is well documented. Autocracies have been shown to manipulate official statistics, for example growth statistics or Covid-19 death rates (e.g. Adiguzel et al., 2020; Annaka, 2021; Magee and Doces, 2015). In addition, an environment in which fear of state retaliation leads to self censorship in survey respondents (e.g. Tannenberg, 2021). Finally, higher levels of accountability and constraints on the governing bodies in democracies are associated with transparency in democratic systems (Hollyer et al., 2011).

Hence, in conclusion, we need to be aware of the fact that an important share of the data is likely *unobservable* before drawing conclusions.

²⁴The variables a part of a group of around 40 different indicators entering the Electoral Democracy Index and/or the Liberal Component Index, which in turn both constitute but small parts of the RoW index, see Lührmann et al., 2018, Figure 1, p. 64.

Conclusion

This article answers the question of whether most journalists are killed in democracies: No, they are not. In the time period studied (2002 – 2016), most journalist killings were recorded in autocracies. In addition, the paper makes three contributions: First, my findings show that liberal democracies provide by far the safest working environment for journalists. The number of journalists killed is lowest for liberal democracies regardless of who the perpetrator was. Today, the protection of individual rights (such as freedom from political killings) as well as freedom of expression (i.e. allowing journalists to work without harassment) are considered among the most fundamental building blocks of liberal democracies. Often, these elements form the crucial difference to electoral democracies. The latter are located towards the middle of the regime spectrum and are countries in which these attributes are not necessarily realized. “Democracies” as such are no observable homogeneous group – rather there is a vast heterogeneity between different democratic regimes. Journalists in electoral democracies are often killed in contexts of subnational authoritarianism, i.e. in which democratic institutions are not equally functional in all parts of the country. While journalists in these cases are able to investigate and publish their findings, local politicians often have enough influence to silence them.

The second contribution of this article is to highlight democracy’s indirect effects on journalists’ working environment: Democracies are less likely to engage in wars. Democratic institutions function as peaceful conflict resolution mechanisms (Hegre, 2014). As such, they create a framework in which journalists are less likely to be killed in conflict settings.

Third, and finally, this paper addresses the substantial differences in data quality and availability between democracies and autocracies. Journalist killings in autocracies are much less likely to be noticed internationally than in democracies as autocratic governments often have better means (e.g., a tighter control of the bureaucracy, no accountability mechanisms etc.) to conceal their actions. My results show that the relationship between country-expert evaluations, the journalists’ work environment, and

recorded journalist killings is different for democracies and autocracies. I argue that this is at least in part driven by journalist killings being less observable in autocracies than in democratic countries.

Studying the extent of the unobservable killings across regimes as well as the connection between political institutions and journalist suicides remain interesting avenues for further research. Similarly, investigating journalist killings by state actors abroad, i.e. in other countries, is of high current relevance.

In sum, this article underscores the importance of (liberal) democratic institutions in securing a safe working environment for journalists. In addition, it also emphasizes the need for differentiation between different degrees/varieties/realizations of democracy. Such attention to what democracy **is** and what it **is not** is essential at a time when influential autocratic governments proclaim themselves paradoxical types of democracies (e.g. the Chinese Communist Party labelling China a socialist consultative democracy or Victor Orban labelling Hungary an illiberal democracy), and where the third wave of democractization has already led to the demise of 36 actual democratic regimes.²⁵

²⁵Boese et al., 2021.

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Online Appendix for the Manuscript
Are Most Journalists Killed in Democracies?

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A What is “a democracy” - additional material

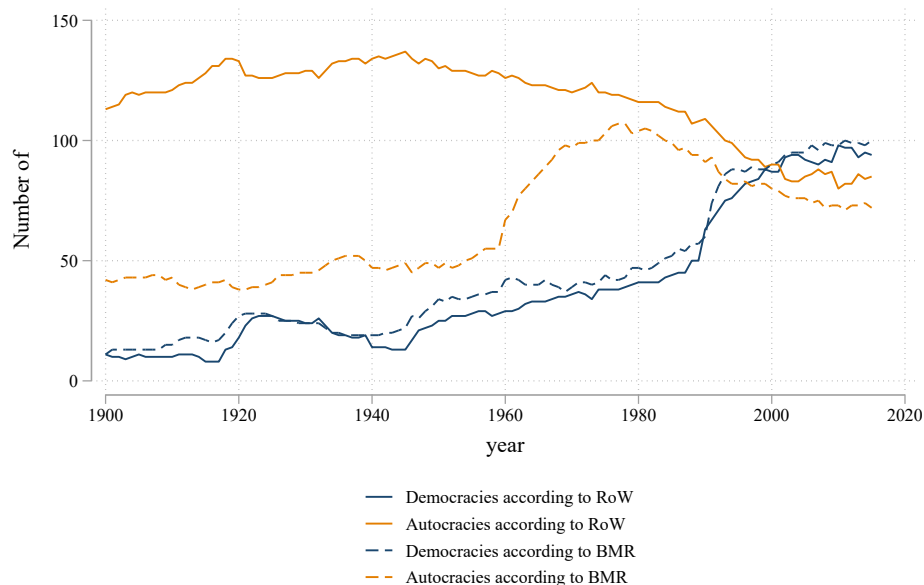


Figure A1. Number of democracies and autocracies over time according to Lührmann et al., 2018 (RoW) and Boix et al., 2013 (BMR).

Examining the number of journalist killings in democracies versus autocracies using the BMR conceptualization, Table A1 echoes Figure 2 and displays that slightly more journalist killings are recorded in BMR autocracies (602) than in BMR democracies (596).

Regime Type	All obs. N	Cases with at least one journalist killed								Total no. JK
		perpetrator: N	state max	other N	max	unknown N	max	polgroup N	max	
Autocracy	1040	8.21%	15	2.51%	3	9.37%	40	4.54%	28	602
Democracy	1345	6.29%	6	5.84%	7	9.29%	9	2.10%	9	596
Total	2385		15 (A)		7 (D)		40 (A)		28 (A)	1198

Table A1. Descriptive statistics for recorded journalist killings by BMR regime type. Case=“country-year” observation. Left: number of observations in the sample; middle: summary statistics for a restricted sample of cases in which at least one journalist was killed; right: total number of journalists killed. *Max* refer to the annual maximum number of journalist killings.

Cases with at least one journalist killed										
Regime Type	All cases	perpetrator: state		nonpolitical		unconfirmed		nonstate political		Total no.JK
	N	N	max	N	max	N	max	N	max	
Closed Autocracy	358	8.10%	7	0.28%	1	7.82%	23	6.70%	11	197
Electoral Autocracy	798	8.77%	15	5.51%	3	12.41%	40	4.39%	28	510
Electoral Democracy	777	9.14%	4	8.24%	7	13.51%	9	2.32%	8	527
Liberal Democracy	628	0.48%	2	0.80%	2	0.80%	1	0.48%	9	27
Total	2561		15 (EA)		7 (ED)		40 (EA)		28 (EA)	1261

Table A2. Descriptive statistics for recorded journalist killings by RoW regime type. Case="country-year" observation. Left: number of observations in sample; middle: summary statistics for a restricted sample of cases in which at least one journalist was killed; right: total number of journalists killed. *Avg.* and *Max* refer to annual number of journalist killings, while *Total* shows the sum over all years (2002-2016).

Regime Type	All cases N	Cases with at least one journalist killed														Total No. JK
		perpetrator: state					other				unknown					
		%obs. with jk	Avg.	Max	Total	%obs. with jk	Avg.	Max	Total	%obs. with jk	Avg.	Max	Total			
Autocracy	961	8.74	1.63	15	137	2.71	1.15	3	30	9.47	2.58	40	235	40		
BMR autocracy - RoW democracy	74	1.35	1.00	1	1	0.00			0	8.11	1.17	2	7			
BMR democracy - RoW autocracy	137	15.33	1.67	6	35	12.41	1.41	3	24	27.01	2.86	9	106	16		
Democracy	1198	5.26	1.70	4	107	5.09	1.61	7	98	7.26	2.02	9	176	38		
Total	2370	7.13	1.66	15	280	4.39	1.46	7	152	9.32	2.37	40	524	95		

Table A3. Descriptive statistics for recorded journalist killings by regime type distinguishing between the disagreement cases between BMR and RoW.

Detailed comparison - BMR vs. RoW

Tables A4 and A5 provide some first summary statistics for the number of recorded journalist killings in the data and the regime categories they are placed in.

According to BMR, 602 journalist killings occurred in autocracies and 596 in democracies (63 journalist killings are recorded in country years for which no BMR measure is available, see below).

According to the RoW measure, 589 journalist killings occurred in autocracies and 413 in democracies.

Table A4. Number of journalist killings recorded in the replication data (2002-2016) by BMR regime type

Journalist Killings in. . .	perpertrator:				all jk
	state	other	unknown	polgroup	
...Autocracies	138	30	242	192	602
...Democracies	142	122	282	50	596
BMR Missing	5	8	33	17	63
Total	285	160	557	259	1261

Table A5. Number of journalist killings recorded in the replication data (2002-2016) by BMR regime type

Journalist Killings in. . .	perpertrator:				all jk
	state	other	unknown	polgroup	
Closed Autocracy	48	1	62	86	197
Electoral Autocracy	116	49	218	127	510
Electoral Democracy	117	104	272	34	527
Liberal Democracy	4	6	5	12	27
Total	285	160	557	259	1261

Observations coded by RoW but not by BMR

The Carey and Gohdes, 2021b replication dataset contains a total of 63 journalist killings for which the corresponding BMR variable is missing. These journalist killings occurred in 22 countries (5 by the state, 8 by nonpolitical, 33 by unconfirmed, and 17 by nonstate political actors). The following two tables provide more information on these are the observations:

Country	state	nonpolitical	perpetrator:		all pereprtrators
			unconfirmed	nonstate political	
Afghanistan	0	0	2	8	10
Bangladesh	0	2	0	0	2
Brazil	1	0	2	0	3
Burma/Myanmar	0	0	1	0	1
Democratic Republic of the Congo	0	0	1	0	1
El Salvador	0	1	0	0	1
Guatemala	0	0	3	0	3
India	0	1	4	0	5
Iraq	1	0	4	2	7
Jordan	0	1	0	0	1
Kenya	0	1	0	0	1
Mexico	2	2	6	0	10
Pakistan	0	0	1	0	1
Peru	0	0	1	0	1
Philippines	0	0	3	0	3
Somalia	1	0	1	0	2
South Sudan	0	0	1	0	1
Syria	0	0	1	5	6
Turkey	0	0	0	1	1
Ukraine	0	0	1	0	1
United States of America	0	0	1	0	1
Yemen	0	0	0	1	1
Total	5	8	33	17	63

Table A6. Number of journalist killings in observations for which there is no BMR democracy measure in the replication data. All killings occurred in 2016.

Regime Type	state	nonpolitical	perpetrator:		all perpetrators
			unconfirmed	nonstate political	
Closed Autocracy	1	1	3	6	11
Electoral Autocracy	1	2	10	11	24
Electoral Democracy	3	5	19	0	27
Liberal Democracy	0	0	1	0	1

Table A7. Number of Journalist Killings recorded in Carey and Gohdes, 2021b coded by the RoW but not by BMR. All killings occurred in 2016.

v2elsnlsff - Subnational election unevenness

Coppedge et al., 2021, p. 88:

“Question: Does the freeness and fairness of subnational elections vary across different areas of the country?

Clarification: Subnational elections refer to elections to regional or local offices, as specified above.

Responses:

- 0 Yes. Subnational elections in some areas of the country are significantly more free and fair (or, alternatively, significantly less free and fair) than subnational elections in other areas of the country.
- 1 Somewhat. Subnational elections in some areas of the country are somewhat more free and fair (or, alternatively, somewhat less free and fair) than subnational elections in other areas of the country.
- 2 No. Subnational elections in most or all areas of the country are equally free and fair (or, alternatively, equally not free and not fair).”

B Disagreement Cases

The countries that BMR and RoW disagree on play a decisive role in informing us about the institutional constellations that are (not) conducive to journalist killings.²⁶ The changing definition of democracy over time becomes visible when examining these disagreement cases over time. BMR and RoW categorizations disagree upon countries in the middle categories (electoral democracies and autocracies) - there is no disagreement about liberal democracies or closed autocracies. The number of BMR democracies that are autocracies by RoW standards is consistently higher than the other way around and increasing over the most recent years as the BMR democracy threshold is too low for demarcating modern day democracies and autocracies in the middle of the regime spectrum (See Figure A2 of the Appendix). Replicating Tables A1 and ?? for cases in which BMR and RoW agree or disagree (see Table A3) confirms that the cases that BMR identify as democracies, but that the RoW scheme does not are those most affected by journalist killings.²⁷

Tables A8 and A9 list those countries for which BMR and RoW disagree on whether they are autocracies or democracies during 2002-2016. There are 17 countries, which BMR classifies as autocracies, but the RoW scheme considers them as democracies (see Table A8). On the other side of the spectrum, there are 29 BMR democracies that are categorized as autocracies by the RoW (see Table A9).

Replicating Figures ?? and ?? for only the disagreement cases (see Figure A3) confirms that the cases that BMR identify as democracies, but that the RoW scheme does not are driving the finding.

Finally, there are 46 journalist killings which can be classified according to the RoW scheme, but not according to BMR (since their coding is only available until 2015). Section ?? provides more detailed information on these cases.

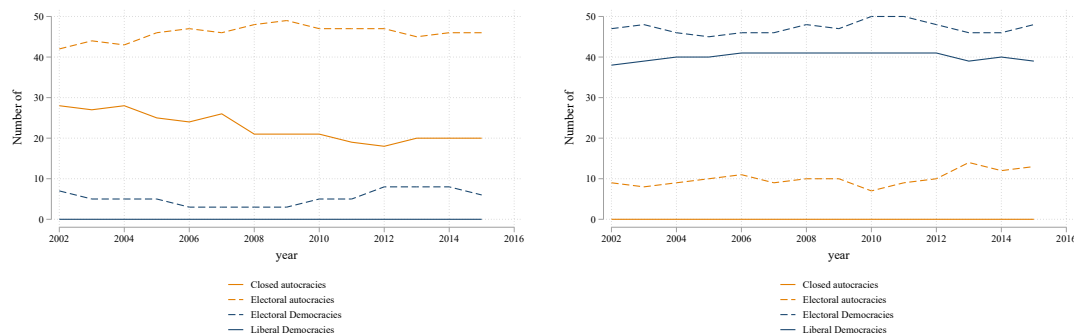


Figure A2. Comparison of the Boix-Miller-Rosato (BMR) and the Regimes of the World (RoW) measures. Graphs display the annual number of countries in each regime type according to the RoW. Left: Among **BMR autocracies**. Right: Among **BMR democracies**.

²⁶See also Kasuya and Mori, 2022 for a detailed investigation of the thresholds across different categorical democracy measures (including BMR and RoW).

²⁷Figure A3 further visualizes this finding as well.

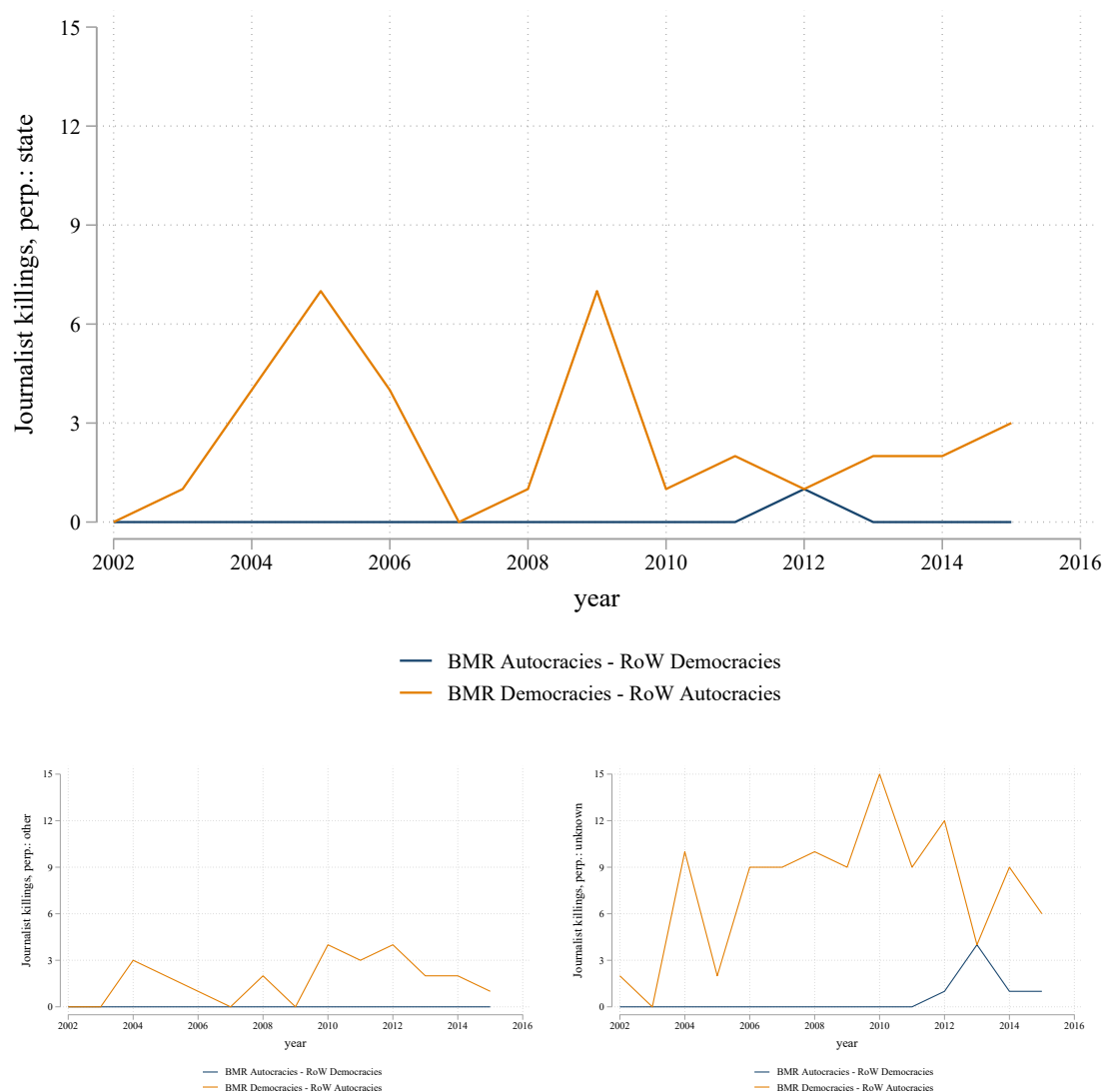


Figure A3. Annual journalist killings for the two groups of countries on which BMR and RoW disagree: the BMR democracies coded as autocracies by RoW (orange) and the BMR autocracies coded as democracies by RoW (navy). Top: Journalist killings by the state. Bottom left: journalist killings by other actors. Bottom right: Journalist killings by unknown actors.

Country	N	Start year	End year
Bhutan	7	2009	2015
Burkina Faso	13	2002	2014
Ecuador	1	2002	2002
Fiji	4	2002	2005
Guinea-Bissau	1	2015	2015
Lebanon	6	2010	2015
Libya	1	2013	2013
Maldives	1	2012	2012
Mali	2	2014	2015
Namibia	14	2002	2015
Nigeria	3	2012	2014
Paraguay	1	2002	2002
Solomon Islands	4	2002	2005
Sri Lanka	1	2015	2015
Tanzania	6	2008	2014
Tunisia	3	2012	2014
Zambia	6	2002	2007
Total	74		

Table A8. Disagreement Cases: BMR autocracies that RoW categorizes as democracies, number of years, as well as start and end year for which BMR and ROW disagree.

Country name	N	start year	end year
Albania	3	2002	2004
Bangladesh	10	2002	2013
Burundi	11	2005	2015
Central African Republic	1	2002	2002
Comoros	1	2015	2015
Fiji	2	2014	2015
Honduras	6	2010	2015
Kenya	12	2002	2013
Kosovo	1	2006	2006
Madagascar	6	2002	2007
Malawi	8	2002	2009
Moldova	5	2005	2009
Montenegro	3	2013	2015
Mozambique	2	2002	2003
Nepal	3	2008	2013
Nicaragua	9	2007	2015
North Macedonia	4	2012	2015
Pakistan	8	2008	2015
Papua New Guinea	12	2004	2015
Philippines	6	2004	2009
Serbia	3	2013	2015
Sierra Leone	1	2002	2002
Solomon Islands	1	2006	2006
Sri Lanka	5	2005	2009
Thailand	2	2011	2013
Turkey	3	2013	2015
Ukraine	9	2002	2015
Venezuela	2	2003	2004
Zambia	2	2014	2015
Total	141		

Table A9. Disagreement Cases: BMR democracies coded as autocracies in the RoW scheme. Number of year, as well as start and end years of disagreement.

C Journalist Killings in Liberal Democracies

Liberal Democracy	No. of JK by perpetrator:				Total
	state	unconfirmed	nonpolitical	nonstate political	
Costa Rica	0	0	1	0	1
France	0	0	0	9	9
Greece	0	1	0	0	1
Israel	4	1	0	3	8
Japan	0	0	1	0	1
Latvia	0	1	0	0	1
Netherlands	0	0	1	0	1
South Africa	0	1	0	0	1
United States of America	0	1	3	0	4
Total	5	6	6	12	29

Table A10. This Table shows the number of recorded journalist killings in Liberal Democracies, divided up by perpetrator type

From 2002 to 2016, journalists faced grave threats to their safety and security across different parts of the world, including liberal democracies. There were 18 journalist killings in the United States, France, Greece, Japan, Poland, and South Africa.²⁸

USA

Between 2007 and 2016, four journalists in the United States experienced fatal encounters partially under mysterious circumstances, underscoring the perilous nature of investigative journalism. On August 2, 2007, in Downtown Oakland, Chauncey Bailey, a journalist, was shot dead. He became the victim of a crime syndicate he was investigating for a story.²⁹ On August 26, 2015, in Moneta, Virginia, journalist Alison Parker and cameraman Adam Ward were shot dead on live television by a former colleague.³⁰ The reasons behind the killing of freelance journalist Jacinto Hernández Torres in 2016 remain mysterious. However, his daughter Aline suspects a link between his murder and the sensitive stories he was investigating on illegal immigration and human trafficking.³¹

France

In 2015, France faced severe challenges to press freedom and safety, with journalists becoming direct targets in extremist-led attacks, most notably the attack on Charlie Hebdo and the tragic events at the Bataclan Theatre. On January 7, 2015, eight journalists, including Bernard Maris, Bernard Verlhac (Tignous), Elsa Cayat, Georges Wolinski, Jean Cabut (Cabu), Moustapha Ourrad, Philippe Honoré, and Stephane Charbonnier (Charb)

²⁸All sources/websites in provided in this section were accessed in Sept. 2023.

²⁹<https://www.latimes.com/archives/la-xpm-2007-aug-03-me-oakland3-story.html>.

³⁰<https://www.nytimes.com/2015/08/27/us/wdbj7-virginia-journalists-shot-during-live-broadcast.html>.

³¹<https://www.theguardian.com/media/greenslade/2016/jun/17/police-find-body-of-murdered-us-freelance-journalist>.

were killed in an attack on the magazine Charlie Hebdo.³² In the "November 2015 Paris attacks", journalist Guillaume Barreau-Decherf became one of the victims at the Bataclan Theatre, another terrorist attack.³³

Other liberal democracies

Isolated journalist killings also occurred in other liberal democracies such as Greece, Japan, and South Africa. In July 2010, Sokratis Giolias, a Greek investigative journalist, was shot outside his home in Athens in an attack connected by police to leftist terrorists.³⁴ Freelance journalist Satoru Someya was kidnapped and murdered by two men in 2003. He reported for various magazines about organized crime in Tokyo.³⁵ Michael Tshele, a freelance photographer, was shot dead on January 13, 2014, while photographing a protest in South Africa.³⁶

Israel and the Occupied Palestinian Territory

While Israel did not witness any journalist killings during the period in consideration (2002 to 2016), the Occupied Palestinian Territory experienced many such incidents. Between 2002 and 2014, 19 journalists were killed in various areas, including Gaza City, Gaza Strip, Jenin, Ramallah, Rafah, West Bank, Shijaiyah, and Beit Lahiya.

No journalist killings are recorded in Israel during 2002-2016 by any other source. In the Carey and Gohdes, 2021b replication files, there is no explanation who these killings in Israel refer to. Thus, it seems likely that the 8 killings coded for Israel in the replication data in fact happened on Palestinian Territory.

³²<https://www.bbc.com/news/world-europe-30719057>.

³³<https://cpj.org/data/people/guillaume-barreau-decherf/>.

³⁴<https://www.bbc.com/news/world-europe-10684185>.

³⁵<https://cpj.org/data/people/satoru-someya/>.

³⁶<https://cpj.org/data/people/michael-tshele/>.

D Documentation of Carey and Gohdes, 2021b Replication Data

Table A11. Journalist killings in Russia, 2006, according to replication data from Carey and Gohdes, 2021b

year	country	state	other	unknown	armedconf
2006	Russia	2	1	2	1

Table A12. Variables names in manuscript vs. dataset

Variables names in...	...manuscript:	state	unconfirmed	nonstate political	nonpolitical
	...dataset:	state	unknown	polgroup	other

Perpetrator Types: No description of the variables in the replication dataset. In the manuscript (p.1217), Carey and Gohdes, 2021b mention four categories of perpetrators: “We distinguish between murders that were carried out by state agents, unconfirmed perpetrators, nonstate political or nonpolitical perpetrators”. Since there is no explanation in the data (e.g. variable labels) or the Online Appendix (Carey and Gohdes, 2021a), I matched the variable names from the manuscript with those from the dataset as displayed in Table A12.

Codebook Describes a Different Dataset: The Codebook or Online Appendix describes a different dataset from the data provided in the replication materials of Carey and Gohdes, 2021a. The Online Appendix instead describes a dataset of journalist killings that is in *journalist-country-year-format*. Accordingly, there should be one entry for each journalist killed. For example, Anna Politkovskaya’s death would represent one row entry, with information that she was killed in Russia in 2006 under corresponding column variables of that entry. The replication data, on the other hand, is in *country-year-format*. That means that Anna Politkovskaya is not explicitly mentioned. Rather, her murder is included in the number of journalist killings in the row-entry of Russia-2006. Thus, a substantial share of the data described in the Online Appendix is not available to researchers working with replication materials, and has to be accessed and inferred through the 2017 dataset.

Original Dataset from Gohdes and Carey, 2017: The dataset described by the Online Appendix is presumed to belong to the Gohdes and Carey, 2017 paper. In this dataset, individual journalist deaths from 2002 to 2014 are included with a total of 1491 deaths across 89 countries. Referring back to the issue of variable name matching in A12, the corresponding paper (Gohdes and Carey, 2017) states that “if the killing of a journalist can be linked to officials of the government, military, the police, pro-government militias, paramilitary groups or troops, national guards or death squads, intelligence or security agents, or international forces working for the government, the perpetrator is coded as belonging to the State. If a journalist was killed by a political group that was not part of the government, by a rebel, religious, or extremist group, by antigovernment militants or tribal groups, the perpetrator is coded as being a Non-state political group. Killings committed by criminals, mobs, drug gangs or influential

families are coded as Non-political actors. Some journalists in the database died of other causes, such as natural disasters, diseases or in accidents. These are coded as Accidents. Accidental deaths are excluded from all analyses. All other recorded killings are coded as Perpetrator unconfirmed” (p. 162). In footnote 6 of the same article, it is also stated, ”We include confirmed and unconfirmed killings in our database, but we differentiate between death by accident and deaths perpetrated by other individuals”. However, in the open-access dataset from this article, only the unique entries of ”unknown”, ”state”, ”non-state” and ”others” are coded under the ”perp.cat” variable, and ”accidents” cannot be located. If we go by the Online Appendix that was originally released for the Carey and Gohdes, 2021b paper, then a variable coding for ”perpetrator known” should be available to indicate whether a death was coded as an accident, but this variable is in neither the original nor the updated dataset. This makes it difficult to reconstruct and assess the accuracy or reliability of the replication material of Carey and Gohdes, 2021a, as it requires inference and assumptions that the data can be directly interpolated from the Gohdes and Carey, 2017 replication material. As seen in Table A13, this is a challenging task.

Table A13. Comparison of number of journalist killings in the original dataset (Gohdes and Carey, 2017) and in the updated dataset (Carey and Gohdes, 2021b). Two subsets were made of the updated dataset, one for 2002 - 2014 to allow for comparison with the original dataset, and one for 2002 - 2016 to show the complete dataset.

dataset	years	journalist killings
Original	2002 - 2014	1491
Updated	2002 - 2014	1086
Updated	2002 - 2016	1262

Because the original dataset was put together using three different sources from the RSF (Reporters sans frontières, 2023), IPI (International Press Institute, 2023) and CPJ (Committee to Protect Journalists, 2023a), these data were also explored to gain a better understanding of how the replication dataset was collected. As below, inclusion and exclusion criteria of the three sources were quite clearly described by their original sources. However, it is not entirely clear the details that each organization used as, for example, a rubric in deciding which category to place the journalist’s death in, and the confidence/certainty involved in including/excluding the journalist’s death from their respective databases.

- **Committee to Protect Journalists (CPJ):**

- CPJ distinguishes between journalist deaths that have their ”motive confirmed”: they are ”reasonably certain” the death occurred for their journalism work; ”motive unconfirmed”: deaths that may have occurred due to their journalism work or for another reason; and when journalists were clearly not killed for their journalist work, died in an accident or weather event - even if it was work-related, or due to an illness, then those journalists’ deaths were not included at all (Committee to Protect Journalists, 2023b).

- Beginning in 2003, CPJ began including the deaths of media support workers, including translators, drivers, fixers, security guards, and administrative workers. Only confirmed cases of media workers’ deaths being work-related are included in the database, but in CPJ’s statistical analysis of journalists’ deaths, media support workers are excluded (Committee to Protect Journalists, 2023a).

- **International Press Institute (IPI):**

- Journalists’ deaths are included in this database if, in IPI’s assessment, “have been directly targeted in retaliation for their work or journalists who have been killed while reporting, including while covering armed conflict”. Cases are categorized according to the situation of the journalist’s death: whether they were “targeted due to work”; “covering armed conflict/violence”; “covering civil unrest/protest; “on assignment; or “circumstances unconfirmed”, where “it cannot be ruled out that this journalist was targeted but additional information is needed” (International Press Institute, 2023).

- **Reporters without Borders (RSF):**

- Journalists’ deaths are included “only if RSF has established that their death linked to their journalistic activity”. Journalists’ deaths that have not yet been confirmed to be linked to journalism work are not included, along with journalists who were killed for “reasons unrelated to their work” (Reporters sans frontières, 2023).

Table A14. Comparison of number of journalist killings in 2002 - 2014 as recorded by the CPJ, IPI and RSF

dataset	years	journalist killings
CPJ	2002 - 2014	1100
IPI	2002 - 2014	1183
RSF	2002 - 2014	1154

Table A15. Comparison of number of journalist killings in 2002 - 2016 as recorded by the CPJ, IPI and RSF

dataset	years	journalist killings
CPJ	2002 - 2016	1281
IPI	2002 - 2016	1419
RSF	2002 - 2016	1345

Collapsing by Year: Collapsing the killings over journalist to get to a *country-year*-format has two dire implications: a) dataset users cannot identify the journalists or look up additional information, and b) in cases with armed conflict, all journalist killings are treated as if they had occurred during armed conflict. This is not necessarily the case,

as the example of Anna Politkovskaya in Russia in 2006 and Table A11 shows. Since the only armed conflict variable given is the one displayed in the table (named `armedconf`, without a label), we can also not say which of the 5 journalists killed in Russia in 2006 were killed as part of which armed conflict scenario.

Recovering information is partially possible from the original dataset (Gohdes and Carey, 2017) which has information on individual journalist killings. However, a level of uncertainty remains as information about each journalist must be inferred. As journalists are anonymized to their ID numbers across the three datasets from RSF, IPI and CPJ, one must then examine the date of the journalist’s death. This is helpful, but the date of the journalist’s death is also only available at the resolution of the month and year, and not the day. Finally, due to the dataset differences shown in Table A13, one cannot use the original dataset to unequivocally identify which journalists are included or excluded in the updated dataset of Carey and Gohdes, 2021b. An example of a journalist’s death we chose to exclude from the analysis is that of Dusko Jovanovic who was killed in Podgorica, Montenegro on May 28, 2004. While in the dataset from Gohdes and Carey, 2017, a journalist’s death occurring in 2004 in the country “Serbia and Montenegro” is coded - which we presume to be of Dusko Jovanovic - we cannot be absolutely certain as to whether, and how, Jovanovic’s death was aggregated into the dataset from Carey and Gohdes, 2021b. This is because the country “Serbia and Montenegro” no longer exists in the updated dataset. While “Montenegro” does not exist in the original dataset, it exists in the updated dataset, but only from 2006 onward in line with the restoration of its independence in 2006. Instead, “Yugoslavia”, which had not existed in the original dataset from Gohdes and Carey, 2017, appears in the updated dataset from Carey and Gohdes, 2021b and is coded from the years 2002 to 2016. Due to these described difficulties in reconstructing the data from Gohdes and Carey, 2017 to Carey and Gohdes, 2021b, all journalist deaths occurring in Yugoslavia were excluded from the analyses.

E Worldmaps of journalist killings, 2002 - 2016

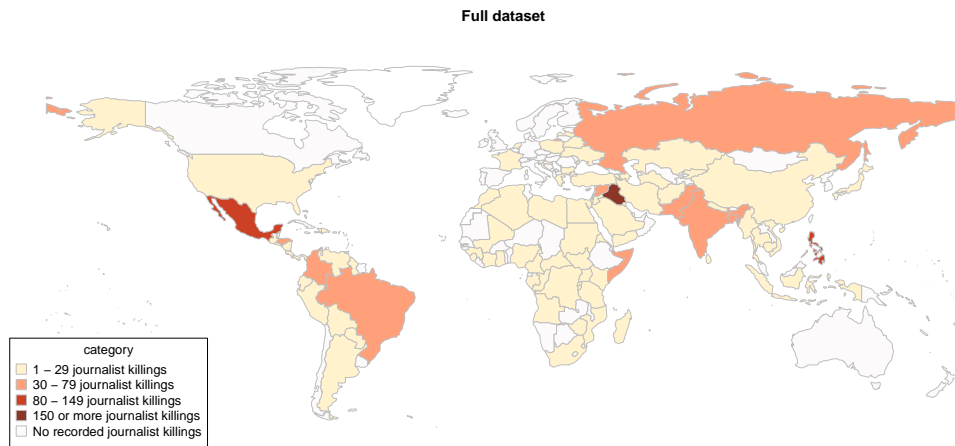


Figure A4. Worldmap of recorded journalist killings, 2002-2016.

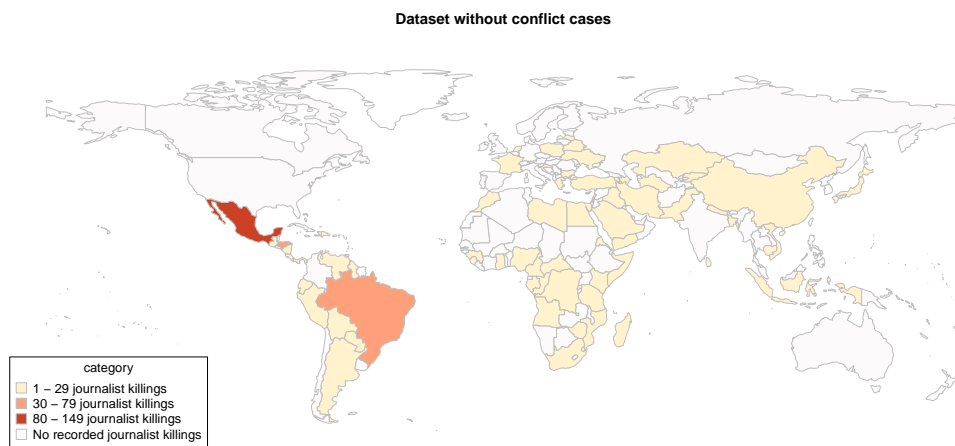


Figure A5. Worldmap of journalist killings **without conflict settings**.

F Data Quality

v2clkill - Freedom from political killings

Coppedge et al., 2021, p. 173:

“Question: Is there freedom from political killings?”

Clarification: Political killings are killings by the state or its agents without due process of law for the purpose of eliminating political opponents. These killings are the result of deliberate use of lethal force by the police, security forces, prison officials, or other agents of the state (including paramilitary groups).

Responses:

- 0 Not respected by public authorities. Political killings are practiced systematically and they are typically incited and approved by top leaders of government.
- 1 Weakly respected by public authorities. Political killings are practiced frequently and top leaders of government are not actively working to prevent them.
- 2 Somewhat respected by public authorities. Political killings are practiced occasionally but they are typically not incited and approved by top leaders of government.
- 3 Mostly respected by public authorities. Political killings are practiced in a few isolated cases
- 4 Fully respected by public authorities. Political killings are non-existent.”

v2meharjrn - Harassment of journalists

Coppedge et al., 2021, p. 201:

“Question: Are individual journalists harassed — i.e., threatened with libel, arrested, imprisoned, beaten, or killed — by governmental or powerful nongovernmental actors while engaged in legitimate journalistic activities?”

Responses:

- 0 No journalists dare to engage in journalistic activities that would offend powerful actors because harassment or worse would be certain to occur.
- 1 Some journalists occasionally offend powerful actors but they are almost always harassed or worse and eventually are forced to stop.
- 2 Some journalists who offend powerful actors are forced to stop but others manage to continue practicing journalism freely for long periods of time.
- 3 It is rare for any journalist to be harassed for offending powerful actors, and if this were to happen, those responsible for the harassment would be identified and punished.
- 4 Journalists are never harassed by governmental or powerful nongovernmental actors while engaged in legitimate journalistic activities.”

Robustness Checks for Figure 7

Replication of Figure 7 using BMR and the 2 category version of RoW:

Figure A6. Regime type according to BMR (Boix et al., 2013)

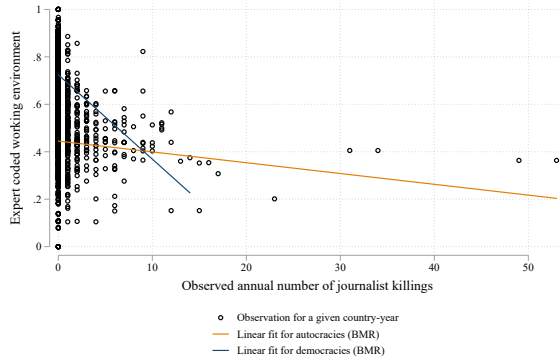
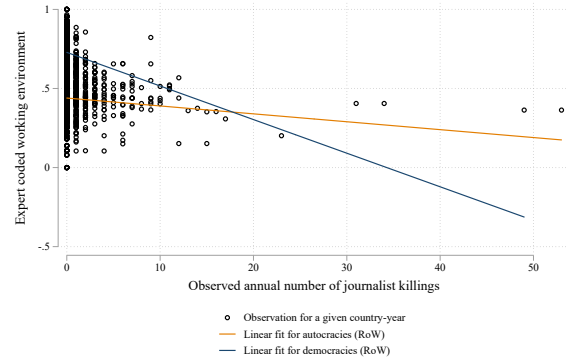


Figure A7. Regime type according to RoW (Lührmann et al., 2018)



In these Figures, the relationship between expert coder assessment of the working environment still differs from the observed number of annual journalist killings.

Is this driven by outliers? No. The differences in the relationship between coder judgement and observed journalist killings persists even if dropping the outliers. The next Figures replicate Figures 7, A6, and A7 dropping the outliers (i.e. country-years with more than 20 annual journalist killings).

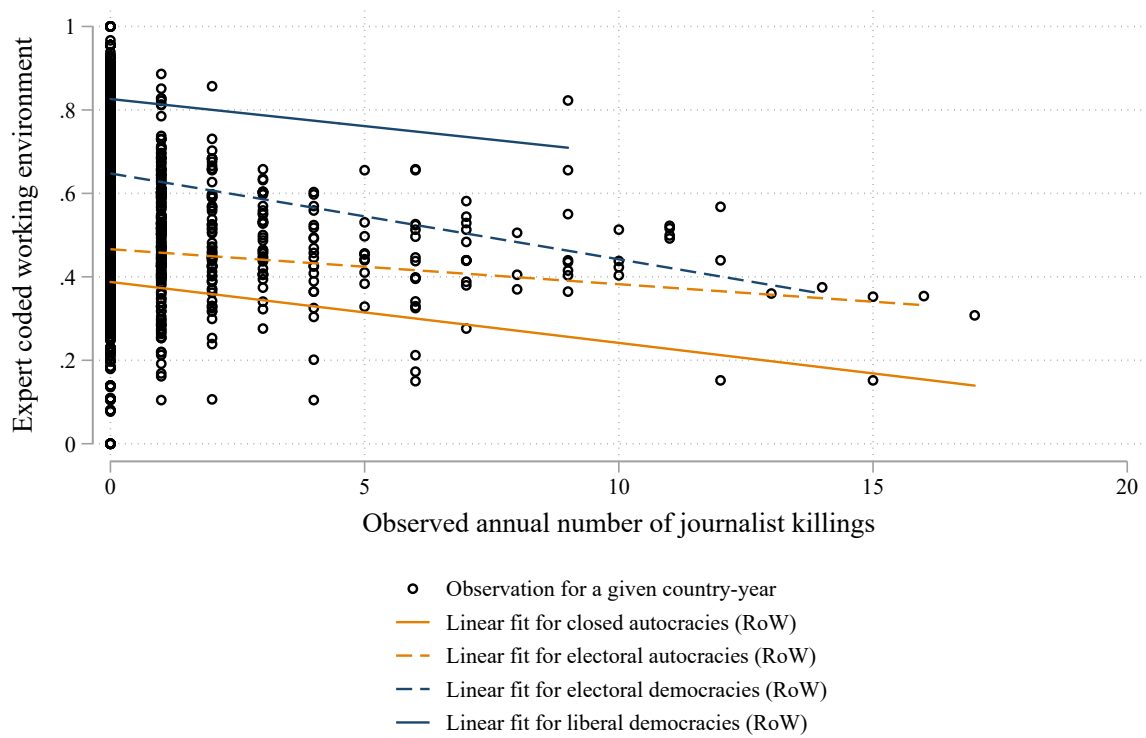


Figure A8. Replication of Figure 7 without outliers.

Figure A9. Regime type according to BMR (Boix et al., 2013)

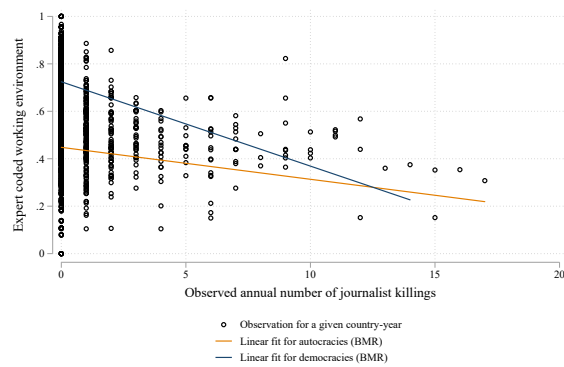
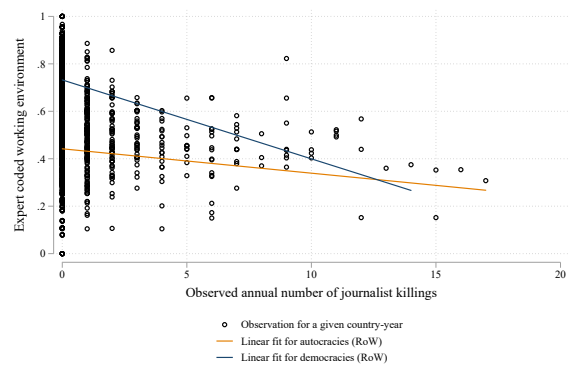


Figure A10. Regime type according to RoW (Lührmann et al., 2018)



G Countries switching regime categories

Most countries remain in the same regime category throughout the time period under our study. The following tables list which countries switched between democracy and autocracy (and vice versa) according to the RoW and the BMR Index.

According to the RoW, 33 (of 179) countries switched between democracy/autocracy during the time period 2002 - 2015 with a total of 49 switches. 20 countries only switched once. The rest switched more than once with a maximum of 3/4 switches in:

- Montenegro [2004-05 (A→D); 2005-06 (D→A); 2009-10 (A→D); 2012-13 (D→A)],
- Nepal [2008-09 (A→D); 2011-12 (D→A); 2013-14 (D→A)], and
- Thailand [2005-06 (D→A); 2011-12 (A→D); 2012-13 (D→A)].

According to the BMR, 24 (of 174) countries switched a total of 31 times during 2002 - 2015. 5 countries switched more than once. Maximum number of switches is 3. They occurred in

- Bangladesh [2006-07 (D→A); 2008-09 (A→D); 2013-14 (D→A)], and
- Thailand [2005-06 (D→A); 2010-11 (A→D); 2013-14 (D→A)].

H Appendix for Hughes and Vorobyeva Analyses

Re-coding of countries in CPJ data to match V-Dem data: Within the CPJ data, journalist killings occurring in the now-dissolved Yugoslavia were re-coded according to "location" variable, which gives finer resolution of the geography in which the journalist died.

While Serbia did not gain independence until 2006, and Kosovo until 2008, we still needed to give a code to these journalist's deaths within these localities, in order to group it with the V-Dem's RWI.

Table A16. Re-coding of country from Yugoslavia to Kosovo, according to "Locality" information from CPJ

year	journalist's name	locality	originally coded country	re-coded country
1999	Volker Kraemer	Kosovo	Yugoslavia	Kosovo
1999	Gabriel Gruener	Kosovo	Yugoslavia	Kosovo
2000	Shefki Popova	Kosovo	Yugoslavia	Kosovo
2001	Bekim Kastrati	Kosovo	Yugoslavia	Kosovo
2001	Kerem Lawton	Krivenik, Kosovo	Yugoslavia	Kosovo

Table A17. Re-coding of country from Yugoslavia to Serbia, according to "Locality" information from CPJ

year	journalist's name	locality	originally coded country	re-coded country
1999	Shao Yunhuan	Belgrade	Yugoslavia	Serbia
1999	Slavko Curuvija	Belgrade	Yugoslavia	Serbia
1999	Xu Xinghu	Belgrade	Yugoslavia	Serbia
1999	Zhu Ying	Belgrade	Yugoslavia	Serbia
2001	Milan Pantic	Jagodina, Serbia	Yugoslavia	Serbia

Table A18. Cross-tabulation of CPJ data, subsetting from 2002 - 2015, on type of death with ROW based on V-Dem v.9. N/A recoded to "Unconfirmed Motive", aligned with originally coded variable "Motive" (all "unconfirmed" cases under "Motive" had "N/A" as values in the "typeOfDeath" variable). Yugoslavia is dropped in the dataset. Dusko Jovanovic's death is additionally dropped as we suspect his death was coded under Yugoslavia in the Carey and Gohdes, 2021b dataset. Journalist deaths occurring in "Israel and the Occupied Palestinian Territory" were also recoded to "Israel" to match the Carey and Gohdes, 2021b dataset.

type of death	closed autocracy	electoral autocracy	electoral democracy	liberal democracy
Crossfire	97	58	19	13
Dangerous Assignment	18	54	29	4
Murder	68	196	222	12
Unconfirmed Motive	45	168	188	4
Unknown	2	2	0	0
Total	230	478	458	33

Table A19. Comparison of how different papers define journalist killings

paper	source dataset	perpetrator (who)	manner of death (how)	topic/motive (why)	location
Hughes and Vorobyeva (2016)	CPJ (1992-2016)	N/A	murder, all combat related, dangerous assignment, disappeared	N/A	national level: regime type; local level: in/out of capital
Asal et al. (2018)	CPJ (1992-2008)	N/A	N/A	N/A	national level: regime type
Carey and Gohdes (2021)	CPJ, IPI and RSF (2002-2015)	state, unknown, polgroup and other	N/A	N/A	national level: regime type; local: killed in/out of capital