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ORIGINAL ARTICLE

Not so remote drone warfare

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Abstract

Drone warfare is the most emblematic manifestation of so-called remote warfare. And yet, how 'remote' is it really? Based on extensive interaction with French drone crews, and interviews conducted in 2020, this article shows how drone warfare is not so new, not so distant, not so different, not so indifferent, and not so riskless. In other words, how distancing is a constant in the history of warfare; how the cliché of the drone pilot killing people between the groceries and the family dinner is a partial reflect of reality; how the videogame-like immersive environment of drone pilots is not that different from the one of modern inhabited aircrafts; how drones contradict the widespread assumption that propensity to killing is proportionate to physical distance from target; and finally how drone warfare is not that riskless, at least compared to its most likely alternatives. Therefore, drone warfare is not that remote.

Keywords Drones · Remote warfare · Distance · Risk · Killing · France

In war as in love, to end it, you
have to see each other up close
Napoléon Bonaparte (Gourgaud 1823, p. 115).

In recent years, research on 'remote warfare' (RW) developed considerably as an important dimension of the changing character of warfare in the twenty-first century. Defined as 'a strategy of countering threats at a distance, without the deployment of large military forces' (Watts and Biegon 2017, p. 1; Knowles and Watson 2018, p. 2), RW encompasses a broad set of actions, including the use of proxies (local security forces), of private military and security contractors, of special forces, and of air strikes. It is undoubtedly a trend of contemporary warfare and it involves many

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perils, in terms of protection of civilians, long-term instability, and democratic control, to name just a few (McKay et al. 2021).

RW is first and foremost characterized by distance. And the use of drones is a preferred illustration of such distance, and by extension of RW itself, because the pilot can sit several thousand kilometers from his target. However, it is not that simple, as this article would like to demonstrate. This article denounces the common perceptions and clichés which often portray a rather negative image of drones as remote killing tools.

The literature on RW contains many fantasies on drones, starting with what they are. For example, some speak of 'the agentic capacity of drones; the absence of human bodies' (Demmers and Gould 2020). In reality, drones do not have an 'agentic capacity' because they do not decide (choose and engage their targets): some of them do contain automated flight features allowing them to take off and land without human intervention, and even conduct 'intelligence, surveillance, reconnaissance' (ISR) missions with humans largely 'on the loop,' only supervising the aircraft. However, as far as selecting and engaging the targets are concerned, humans are very much 'in the loop.' Even partially autonomous lethal weapon systems currently in development 'cannot take lethal initiatives' (Vilmer 2021).

Such common confusion with autonomous weapons contributes to the demonization of drones. Indeed, drones require significant human support: for the US Air Force, operating an orbit of four MQ-9 Reaper within a 24 h shift requires 210 personnel, including pilots, sensor operators, intelligence analysts, and lawyers (Elish 2017, p. 1104). That makes a lot of 'human bodies,' so much that Colonel Fontaine, the first French MQ-9 Reaper squadron commander, is known to repeat that there is 'nothing more manned than an unmanned system' (Fontaine 2020). For all those reasons, it is preferable to talk about 'remotely piloted aircraft systems' (RPAS) rather than 'unmanned aircraft systems' (UAS), because the latter gives the false impression that drones do not have a crew.

This article is mostly based on the French experience of this matter, which can be useful to put things into perspective, for a number of reasons. First, because France is a counterexample to a presumed Western affinity for RW, Paris has not taken a decision to avoid boots on the ground, opting to deploy more troops in recent years than in the previous decades (Fernandez and Vilmer 2020). Second, France is also less risk-averse than most of its allies and it has a widespread reluctance toward the idea of fighting from a distance (CDEC 2019). Third, France, only the second European country to deploy armed drones in strike operations since December 2019, also has the specificity of deploying its drone pilots in theater.

Based on extensive interaction with French drone crews in France and in the Sahel since 2013, and interviews in 2020, this article argues that many of the foundational arguments for drones as remote weapons are myths, namely: that the remoteness of drone operators is or expresses something new; that they are always distant from their targets; that they are really different from the pilots of 'manned'

or 'inhabited' aircrafts,[1] to the point that drone pilots are often mocked as 'cubicle warriors' (Mayer 2009), 'desktop warriors' (Calhoun 2011, p. 379) being part of a 'Chair Force' (McCloskey 2009); that physical distance makes them affectively indifferent, making killing easier (and RW problematic); and finally that operations are riskless (Henriksen and Ringsmose 2015).

Not so new

RW, particularly the use of drones, is often described as 'a new way of war' (Rogers 2012; Gross 2016; Martin and Steuter 2017; Demmers and Gould 2020). However, human capacity for killing at a distance dates back to the Paleolithic era (Churchill and Rhodes 2009) and it 'has been key to survival throughout history' (Rogers 2019a, p. 90). As Colonel Ardant du Picq (1947, p. 54) wrote in his notes before being killed in 1870, 'to fight from a distance is instinctive in man. From the first day he has worked to this end, and he continues to do so,' using missile weapons operated by muscle power (javelin, sling, bow), mechanical power (catapult, crossbow) or chemical power (guns, cannons, rockets, missiles) (Krebs 2004, p. 243–244). And always, it has provoked moral indignation.

In Ancient Greece, 'archery was stigmatized,' like other means (stones, slings, javelins) of leveling the battlefield 'in favour of the coward who fights from afar' (Trundle 2010, p. 145). Archery was commonly associated with cowardice, deception and treachery, for example in Homer's *Iliad* (Homer 1951, p. 119 and 244). Then came the first artillery: when, around 370 BC, Archidamus, the king of Sparta, first saw 'the missile shot by a catapult,' he lamented that 'Man's valour is no more!' (Plutarch 1961, p. 133). In the Middle Ages, the use of bows and crossbows against Christians was banned by the Second Lateran Council (1139), without much effect. In the 16th Century, the chevalier de Bayard[2] had captured crossbowmen executed 'on the ground that their weapon was a cowardly one and their behaviour treacherous' (Keegan 2004, p. 333).

The introduction of firearms provoked a similar backlash. In Egypt, the Mamluks refused to adopt them: 'God curse the man who invented them, and God curse the man who fires on Muslim with them' (Ayalon 1956, p. 93). In Europe, the gun, like the bow, was a threat to the social order because of their equalizing power: In his memoirs, Blaise de Montluc, a sixteenth century Marshall of France, wished that the arquebus was never invented, because it allowed 'so many brave and valiant men to die at the hand of the most cowardly and fearful ones, who dare not look in the face of the one they kill from afar' (de Montluc 1592, p. 6).[3] A couple of years later, Miguel de Cervantes in *Don Quixote* (1605) denounced the artillery as 'an invention which allows a base and cowardly hand to take the life of a brave knight' (de Cervantes 2006, p. 364). In 1814, Benjamin Constant lamented: 'The new way of fighting, the changes in weapons, artillery, have deprived military life of what made

[1] In this article, I will use inhabited/uninhabited rather than the usual manned/unmanned terminology for the reasons highlighted above.

[2] Pierre Terrail, seigneur de Bayard (1475–1524).

[3] My translation. Unless otherwise indicated translations are mine.

it most attractive. There is no longer any struggle against danger… We no longer enjoy… the development of our physical and moral faculties, that made hand-to-hand fighting so attractive to the heroes of antiquity or to the knights of the Middle Ages. War has lost its charm' (Constant 1988, p. 55).

The first submarine attacks at the beginning of the 20th Century triggered a similar reaction. Being invisible from the surface ('the first weapon to glimpse the possibility of vanishing completely from human view') (Germain 2015, p. 1073), able to attack anonymously, and often choosing civilian ships as their targets, the general opinion was that 'the submarine was at best a nuisance and a cowardly weapon employed only by weak naval powers' (Haffa and Patton 1991, p. 259). In 1901, British Admiral Sir Arthur Wilson described them as 'unfair, underhand, and damned un-British' (Lowe 1993, p. 72). 'For them, the war became a game, a sport, a kind of hunt in which, having dispensed and distributed murder, they needed to do nothing but enjoy the spectacle of the agony of their victims. They, meanwhile, would be sheltered from any attacks and, once back in port, they could busy themselves recounting their hunting prowess,' commented the French Admiral Raoul Castex (1920, p. 121).[4] The parallel with the drone debate is striking.

The first aerial bombing happened in 1849, when the Austrians attacked Venice by releasing up to 200 unmanned hot-air balloons, each loaded with a bomb (Kennett 1982). In 1911, the first bombs (hand grenades) were dropped from an Italian plane in Libya, against rebel forces loyal to the Ottoman Empire. WWI was a milestone as, 'for the first time in history… very long-range weapons were used on a massive scale. With artillery guided by radiotelegraphy, and weapons operated from previously unheard-of places (in the air and under the sea), targets were increasingly disappearing from the field of vision of the fighter who was deploying them' (Germain 2015, p. 1068). The longest range of any artillery weapon ever dates back to this period: the *Pariser Kanonen*[5] were able of firing a 106-kg shell to a range of 130 km in only three minutes. They were used between March and August 1918 to shell Paris from a distance of 121 km. In the air, German rigid airships of the Zeppelin Company were designed for long distance: they bombed London between 1915 and 1918. The British press called them 'baby killers' (Fegan 2002) because the bombs killed civilians indiscriminately, and sometimes children.

Drones were born during WWI as well: the French captain Max Boucher invented the first radio-controlled, remotely piloted aircraft, a Voisin 150 HP that flew a thousand meters at an altitude of 50 m with a payload of 95 kg, on July 2, 1917 (Lecerf 1920). The 'Kettering Bug' developed at the same time in the US was a flying bomb, as it exploded on target, and therefore a precursor to guided missiles, rather than drones. In 1936, the French writer Georges Bernanos imagined that 'Tomorrow, the best killers will kill without risk. At thirty thousand feet above the ground, any bloody engineer, nice and warm in his slippers, surrounded by specialist workers, will only have to flip a switch to assassinate a city and then head quickly

[4] Quoted by Chamayou (2015, p. 91).

[5] Often confused with the *Minenwerfer-Gerät* (M-Gerät), popularly known as 'Big Bertha,' a siege howitzer that had a much smaller range (9.3 km).

for home, his only fear being that he will miss his dinner. Obviously, no one will call this employee a soldier. Does he even deserve being called a military man?' (Bernanos 1967, p. 211). Again, the parallel with today's drone debate is obvious.

Another important distance weapon of the 20th Century is the missile. The first examples were the German V-1 and V-2 fielded in 1944; these weapons had a range of 250 and 320 km, respectively. Today, intercontinental ballistic missiles have a minimum range of 5500 km. The Russian SS-18 Satan has a range of 16,000 km. The five permanent members of the United Nations Security Council (China, France, Russia, the United Kingdom, and the United States) 'can hit any place on earth with a missile' (Peçanha and Collins 2018). Finally, the ultimate abolition of physical distance is accomplished by the cyberattack, which can have kinetic, lethal consequences while coming from literally anywhere on earth.

This brief historical survey puts the drone in perspective. It helps to outline that the so-called remote warfare that drones are supposed to incarnate today comes 'after a century-old process of blurring the distinction between front and rear' (Germain 2015, p. 1068). It was in 1944, not in 2010, that American aviator Charles Lindbergh wrote: 'In modern war one kills at a distance, and in doing so does not realize that he is killing' (Lindbergh 1970, p. 920). Far from being the only weapon operating at a distance, the drone is only one of the latest in a millenary history, where risk non-reciprocity, i.e., the ability to reach an enemy unable to fight back, is a constant both as a fact and as a norm: 'reciprocal risk is not, and has never been, an essential component of IHL or the law of armed conflict… the strategic goal in all military engagements has been to maximize lethality to the target while minimizing risk to the operator' (Ohlin 2017, p. 3). Moreover, since 1945, even more since the end of the Cold War, risk non-reciprocity is also a consequence of the asymmetric nature of most engagements.

One can therefore expect the historians of the future to look at our moral debates on drones and 'remote warfare' with the same curiosity we have when we read today of knights' harsh accounts regarding bows or firearms. As a matter of fact, many parts of Chamayou's *A Theory of the Drone*—like this one: 'What is taking place before our very eyes is a switch from one official ethic to another: from an ethic of self-sacrifice and courage to one of self-preservation and more or less assumed cowardice' (Chamayou 2015, p. 101)—could have been written in the Antiquity or the Middle Ages in *A Theory of the Bow*, or *A Theory of the Gun*.

Not so distant

Distance is a complex and relative notion. First, it is not only objective and physical. It is also subjective and psychological, as explained by James Rosenau with his notion of 'distant proximities,' 'subjective appraisals—what people feel or think is remote, and what they think or feel is close-at-hand' (Rosenau 2003, p. 6). Drones are a good illustration of that because, contrary to regular aircraft pilots (or soldiers operating artillery, mortars and long-range missiles 'who may also have little sense that they are firing at people at all [because] they direct their attacks against points

on a map or grid coordinates') (Schulzke 2017, p. 70), drone crews actually *see* what they are doing though a high-definition video feed, and that makes all the difference.

Their immersion goes beyond sight: 'When drone crews are called upon to provide close air support to ground troops, their sensory geography expands because they become immersed not only in video feeds but also in a stream of radio communications and online messaging with ground troops via MIRC' (Gregory 2014, p. 10). As a French drone crew member explains: 'when we follow French troops on the ground, we always hear them, and that gives me the impression of being on the ground with them, of being a little closer' (interview 2020).[6] An American officer adds: 'you hear the AK-47 going off, the intensity of the voice on the radio calling for help. You're looking at him, 18 inches away from him, trying everything in your capability to get that person out of trouble.' (McCloskey 2009). For that officer, the perceived distance is 18 inches, the distance from his screen, even though he actually is thousands of km from the combat. And it is reciprocal: 'when the drone leaves the operation zone, the people on the ground or in the air we're in contact with all tell us 'have a safe trip back.' It means that, for them, we're not several thousand kilometers away, we're totally *in* the action,' explains a French drone pilot (interview 2020).[7]

For that reason, proximity should not be reduced to physical distance to targets. The technology having the ability 'to both separate and connect the warrior to the fight' (Campo 2015, p. 8), a drone crew are both very distant and very close from their targets at the same time. In that sense, it would be 'too reductive' to say that this process of 'respatialization… simply distance drone operators from the battlefield' and 'more accurate to say that they scramble relations of distance, making them simultaneously more elongated and more compressed in ways that are subjectively confusing and paradoxical,' as Hugh Gusterson (2014, p. 198–199) explains. It is therefore relevant to distinguish between *physical distance* and *perceptual distance*. What matters psychologically is the latter (Martin 2015, p. 6). This is evidenced by the fact we can feel empathy for fictional TV series characters, for example.

Second, as far as physical distance is concerned, the fact is that not everyone is far away in drone warfare. We all heard the story on the Air Force Reaper crews in the US, who 'commute to work in rush-hour traffic, slip into a seat in front of a bank of computers, 'fly' a warplane to shoot missiles at an enemy thousands of miles away, and then pick up the kids from school or a gallon of milk at the grocery store on his way home for dinner' (Martin and Sasser 2010 p. 2). It usually serves to mock those ''office warriors' and lament that 'war is not war anymore' (Calhoun 2011, p. 379 and 377). It is this cliché about drones, spread by movies such as *Good Kill* (2014), that came to incarnate 'remote warfare.' While this is certainly a part of drone warfare today that raises important issues, it is not all of it, and ignoring the

[6] Master sergeant X, image operator at the 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

[7] Lt. Col. X, head of the 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

rest is a reductionist fallacy, reducing the drone question to a certain kind of drone and a certain use of it, by the US Air Force and CIA.

First, these so-called reachback or remote-split operations (RSO) are possible only with satellite-linked drones such as medium-altitude long-endurance (MALEs, like the Reaper) platforms or HALEs (high-altitude long-endurance, such as the Global Hawk) platforms. Only the former can be armed. Both are the biggest and best-known drones, but they make up only a small percentage of all drones used in armed conflicts. In contrast to satellite-operated MALEs and HALEs, radio-operated drones making up the vast majority of drones in armed conflict, are characterized by a limited range forcing their crews to be on the battlefield. The most widely adopted drone in the world is the RQ-11 Raven with a range of 10 km. There are smaller drones, like the nano- and micro-drones used by special forces, the size of an insect or a bird, with a range of approximately 1.5 km; and bigger ones, like the tactical drones the size of a small plane (wingspan of 10 m or so) and a line of sight data link giving a maximum range of 200 km.

Second, not all states having MALEs use them for 'reachback' operations. Out of the 19 states operating armed drones at the time of writing, only 10 of them launched strikes beyond their borders (in chronological order: the US, Israel, the UK, Iran, Turkey, Pakistan, Saudi Arabia, UAE, France, and Azerbaijan).[8] All platforms used in these operations were MALEs, capable of long-distance control. However, most of those operations were launched in the immediate vicinity of the intervening state. It is unclear, for instance, if Turkey used their MALEs as such, i.e., with the satellite link and not the line of sight, for their operations in Syria and Libya. Only the US, the UK and France launched strikes beyond multiple borders, several thousand miles away. And, contrary to a widespread prejudice, the US does not *always* operate its MALEs from home: while the US Air Force and the CIA fly more 'reachback' missions (while also sending pilots to bases in Afghanistan, Iraq or the Sahel), the US Army operates its Gray Eagles drones in situ, in Iraq for instance. This illustrates a difference in strategic cultures between the Air Force and intelligence services on the one hand, acclimated to acting at a distance, and the Army who value physical courage and is more uncomfortable with waging war remotely.

France chose not to use reachback despite having successfully tested the capacity in 2014[9]: French drone crews have always been operating them in situ. They were physically on Bagram Air Base in Afghanistan between 2009 and 2012, and are on Niamey Air Base in Niger since 2013. All the drone crews I asked whether they were under the impression of conducting a 'remote warfare' answered by the negative *because* they were deployed: 'being in operation on the theater means that I don't have the impression of being in a 'remote warfare' more with a drone than with any

[8] https://dronewars.net/who-has-armed-drones/.

[9] 'French Air Force tests Harfang UAV's reachback capabilities,' airforce-technology.com, June 30, 2014.

other military aircraft,' explained a former Rafale pilot now piloting Reaper drones in the Sahel (interview 2020).[10]

This choice, to deploy the drone crews on the battlefield, is the product of several factors. First, French military ethics in general (Vilmer 2020) are dominated by the Army and continue to emphasize contact with the enemy[11] as the gold standard of courage in particular and military virtues in general (Royal 2012, p. 109–121). There is a deep reluctance toward long-range weapons, driven by the belief that 'soldiers in a war conducted entirely at a safe distance would no longer be anything but technicians of death,' as the Chief of Army Staff explained (CDEC 2019, p. 20). Contact entailing a certain amount of physical risk is valorized, not only as something contributing 'to empathy and a sense of responsibility toward others' (Royal 2012, p. 110); but also as what legitimizes the right to kill (risk reciprocity).

This sentiment is stronger in the Army than in the Navy and the Air Force: to General François Lecointre, the Chief of the Defence Staff, who said that 'It is the sacrifice of one's own life that makes the obligation to kill morally bearable,' Lieutenant Colonel Florian Morilhat, an aviator author of a book on *Ethics and Air Power* (2020), responded: 'It would be a chivalrous duel. The approach is noble but, in my opinion, the goal remains to win the war while preserving as much as possible our population and our system of values. Anything that can avoid putting us in danger is good to take. Fortunately, we are not in a logic of cannon fodder' (Guibert 2020). However, the culture of contact and risk reciprocity ultimately penetrates the entire military as the Major General of the Defence Staff, then an Admiral, confirmed: 'face-to-face confrontation, which remains a constant feature of warfare,' is an important part of 'our national strategic culture': 'Agincourt, Verdun, Monte Cassino, Adrar des Ifoghas [Mali]: suffice it to say that the French armed forces have never been shy about getting involved in close combat' (CDEC 2019, p. 64).

This also partly explains why France missed the turn to drones, compared to the US or Israel, and why it took so long to arm French drones—a decision taken in 2017, when a dozen countries already had armed drones. Among other factors, in particular political prudence on what was then considered a sensitive issue, there was a reluctance within the armed forces for both pragmatic and ethical reasons: some within the Air Force were worried that developing a drone capacity could 'cannibalize' other programs; and others, mostly within the Army, considered that it was illegitimate for drone pilots to kill precisely because of risk non-reciprocity, because they do not put their own lives at risk (Vilmer 2017). Once that decision was taken, the only way to stick to the French military ethos was to deploy drone crews on the battlefield and certainly not do reachback.

Second, the American precedent did play a role of deterrent. It showed the pernicious effects of reachback, not only in terms of its psychological impact on the drone crews waging war from home, but also in terms of human resources: military personnel deployed at home are not available on a 24/7 basis like deployed personnel, meaning reachback missions require more operators than their in situ counterparts.

[10] Cpt. X, remote pilot, 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

[11] *Au contact* was the name given to the reorganization of the French Army in 2015 and is still used as a general conceptual framework for the Army.

Even if it wanted it, the French Air Force would not have the manpower, today, to conduct its operations in reachback, from Cognac Air Base.

Third, the French military experience identified clear advantages to in situ operations including the clarity of the situation ('we can't be confused, we're at war, there's no ambiguity') and the total availability 24/7 ('we have nothing else to do, no private or professional diversion, we're dedicated to the operation') (interview 2020).[12] Also, the colocation with other services and platforms (ISR planes, fighter jets, ground troops) creates 'a real synergy, we learn to work together, these are real tactical laboratories. For certain missions, for example, fighter jets pilots come to our Reaper cockpit to see the situation before taking off' (interview 2020).[13] Special forces, which are the main interlocutors of drone crews, usually spend a couple of days on the air base before being sent back to France and, often, 'they come see us to discuss the mission, and meet in person the team who helped them from the air' (interview 2020).[14]

Another advantage is financial and symbolic reconnaissance: military personnel receive a bonus when deployed, and they are eligible for medals: 'for master sergeants paid €1,500 net per month, being deployed twice a year puts butter on their bread, and it is a symbolic recognition of what is accomplished' (interview 2020).[15] Finally, being deployed affords more opportunities for intelligence gathering. Even if going out of base is strictly limited for security reasons, discussions with locals help the drone crew to understand the local culture, especially concrete things like family, marriage, children, or cooking. These experiences are relevant because 'these [patterns of life] is what we observe with the camera and this knowledge will help us clearing it out, to identify suspicious activities' (interview 2020).[16]

Another French operational reality is the cockpit of four: The French Reaper cockpit contains not only the 'remote pilot' (*pilote à distance*) and the sensor operator, like in the US version (cockpit of two), but also the 'back bench' made of a tactical coordinator (intelligence officer) and an image operator/interpreter. In the US, those four people are in three different places, sometimes on different continents. In France, the intent was precisely to avoid such segmentation, in the belief that it can 'generate a lot of errors' because 'people only care about their segment' (Dubet and Moricot 2016, p. 153). Colocation offers advantages in terms of cockpit resource management and crew dialogue: freedom of expression, including dissenting opinions, is encouraged. It helps to limit potential perception biases and talking about missions can also help to better 'digest' the stress of seeing very graphic images.

[12] Cpt. X, remote pilot, 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

[13] Lt. Col. X, head of the 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

[14] Chief warrant officer X, sensor operator, 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

[15] Lt. Col. X, head of the 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

[16] *Ibid*.

The perception among French drone crews today is that 'there is a French model, and now that we have a very satisfactory operational experience, we can say that this model is much more harmonious, in terms of respect for humanist values, than the 'reachback' model' (interview 2020).[17] Other nations currently reluctant to arm their drones could see this 'model' of operating them in situ, and the French precedent in that matter, as an acceptable compromise: in Germany, for instance, the SPD initially supported acquisition of armed drones provided that they are based in theater (in the country in which they are used),[18] before changing their mind and finally opposing the weaponizing of drones—for now.[19]

Not so different

Those criticizing the drone for being a tool of 'remote warfare' seem to ignore similarities between this platform and 'normal' inhabited aircraft. Like drone pilots, today's fighter pilots act beyond the visual range. The evolution of speed (supersonic aircrafts); of radars able to detect and track enemy aircrafts with a range in excess of 100 km; and of air-to-air missiles able to reach them at such distance, all made dogfights (battles with other aircrafts at close range) increasingly rare. With one exception (the 2019 Indo-Pakistan aerial skirmish), the last dogfights happened during the Gulf War, in 1991. Today, air-to-air battles generally occur beyond visual range[20] and are rare, as planes are mostly engaged for ground attacks. These missions do not require pilots to see their targets, because precision-guided munitions allow them to attack at night, through clouds, and long ranges (some air-to-ground strategic cruise missiles have a very long range of over 2500 km).

Like drone pilots, fighter pilots can follow individuals on the ground. When the sky is clear, they can see their targets with their targeting pod, displaying images in the cockpit. Inhabited aircraft can follow individuals, just like drones do, though with less comfort, definition, and precision owing to their smaller screens. They are also limited by a shorter endurance than drones, and therefore spend a much shorter time over a target.

Like drone pilots, some of them can have a peace/war dissonance issue because they return to a base after missions and conditions can seem quite 'normal.' Lt. Col. Grossman was not referring to drones when he wrote, in 1995, that 'the combatants in modern warfare pitch bombs from 20,000 feet in the morning, causing untold suffering to a civilian population, and then eat hamburgers for dinner hundreds of miles away from the drop zone' (Grossman 2009, p. 99). During the 1999 Kosovo aerial campaign, French pilots were based in Istrana Air Base, Italy (about 35 km from Venice). One of them said:

[17] Lt. Col. X, head of the 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

[18] 'SPD unter' strengen Bedingungen 'für Einsatz bewaffneter Drohnen,' tagesspiegel.de, June 28, 2020.

[19] 'No armed drones for the German army—for now,' dw.com, December 14, 2020.

[20] Beyond-visual-range missiles are capable of engaging targets at ranges of 37 km or beyond.

> The day before [a strike], we were in a restaurant eating a pizza, having a beer with friends, everything was fine. We're leaving from our hotel, we get to the plane and then we have to convince ourselves that we're over a hostile territory… I go from my air conditioned-sanitized environment to war, in a hostile theater, and that is hard… It was common to see families [of pilots] arriving because Italy is nice and, again, there was this fracture between everyday life and the few hours we spend over a hostile territory to drop bombs… It was a disaster for the families as for the pilots… We should not mix everything up (Dubet and Moricot 2016, p. 192-193).

Like drone pilots, fighter pilots also have an immersive, computerized video-game-like cockpit. Modern jets have a holographic head-up see-through display on which a computer displays a number of data feeds and instruments (that is not unique to planes, some tanks also use a helmet-mounted heads-up display). A Rafale fighter is so computerized that it is sometimes called a 'Windows plane': 'With Link 16 [a data link network used by NATO], you can fire at someone with no contact. Your partner gives you an info and you fire on that info' (Dubet and Moricot 2016, p. 115–117). Fighter pilots are now so technology-assisted that 'there is no more good pilots. There are managers, drone-pilots,' laments one of them (Dubet and Moricot 2016, p. 122). It is revealing that, with the always-increasing range (of radars and missiles) and computerization of the cockpit, some fighter jet pilots who started a long time ago on more rudimentary aircrafts, see themselves as becoming increasingly *like* drone pilots.

In many cases, this change occurs in real rather than relative terms: since 2017, there are more drone pilots than pilots of inhabited aircraft in the US Air Force and, in many countries (including France), most drone pilots are former fighter jet pilots. With two rare exceptions (when they have to use their cannons[21] or do a show of force, i.e., a brutal descent to fly very close to the target), the distinction between flying an inhabited or uninhabited aircraft is difficult to discern not in general—the physical experience of flying is indeed a major difference—but in terms of distancing and relationship to the target. Pilots are basically doing the same things, having the same remote and virtual relationship to their targets. A former Rafale pilot who is now remotely piloting a Reaper drone confirms: 'I didn't feel more distance on a drone than on a standard aircraft, really, because we were already distant before' (interview 2020).[22]

[21] Rarely, aircrafts use their cannon, when they have no other option, for example when the enemy is too close to friendly troops to which the aircraft provides support, and for that reason cannot use a bomb which would harm them both. That happened a couple of times in Syria/Iraq and the Sahel: Rafale fighters used their Nexter 30 canon at a range of 800–1,500 m. That of course increases considerably the risk for the pilot, to be hit by an anti-aircraft weapon.

[22] Cpt X, 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

Not so indifferent

Most of the literature on RW is critical: it assumes it is a negative trend because it made 'liberal democracies becoming not less, but more, war-prone. (…) The violence is executed so remotely, that it becomes invisible, uncared for, and even ceases to be defined as such' (Demmers and Gould 2020). This relies on the widespread assumption that propensity to killing is proportionate to physical distance from target, as famously argued by Lt. Col. Grossman in *On Killing* (2009, p. 98): the assumption is that, as the physical range increases, human's natural resistance to killing erodes and it becomes easier. It is therefore supposed to be easier with a drone than with a tank, with a tank than with a rifle, with a rifle than with a knife, and with a knife than with your bare hands. As a WWII RAF Bomber Command veteran said 'It's one good thing about being in an airplane at war: you never touch the enemy. You never see the whites of their eyes… You drop a 4,000 lb cookie [high explosive bomb] and kill a thousand people, but you never see one of them.' About the night bombing, he said: 'Those sparkling lights on the velvet background, they weren't people to me, just the target. It's the distance and blindness which enabled you to do these things' (Taylor and Davison 2004, p. 282–284).

However, this distance rule also suffers serious objections. One is the irrefutable fact that the most atrocious international crimes of the last thirty years (genocides, ethnic cleansing and other crimes against humanity) have occurred at close range: in Rwanda (where the main weapon was the machete), Bosnia, Democratic Republic of the Congo, Darfur, Iraq, Syria (ISIS controlled territory), and Myanmar. This is true for war crimes caused by combatants as well: US Marine infantrymen killed 24 unarmed Iraqi civilians (including women, children as young as 1, and the elderly) during the Haditha massacre (2005) by shooting their victims from close range. In these many examples, the short distance, face to face and eye contact were not barriers to killing. So much for Levinas' maxim that 'the face is what forbids us to kill' (Levinas 1995, p. 86).

A second objection is the drone itself. Of course, it is possible to find testimonies of drone crews explaining how they became emotionally distant. But it is equally possible to find others saying that they did not. And if we ask jet and bomber pilots if they feel emotionally distant from their targets (the lack of research in that field is itself revealing of a bias presuming that this problem only affects drone pilots), we find the same perception of distance in some of them. There is no evidence uninhabited platforms are worse in this respect. On the contrary, there are reasons to believe they are not. As a Mirage 2000D pilot explains: 'In my plane, I never see blood, I never see people dying, they're nothing but little black dots on the ground. So, I don't have the materialization, in the end, of what I produce as an effect. I see a crater on the ground, smoke, but I never see shreds of flesh, I will never see dead people' (Dubet and Moricot 2016, p. 175). Drone pilots, by contrast, not only have a better view of the effect of their attack, but they also observe their work for longer; while pilots of inhabited aircrafts drop their ordinance and then return to base. Those who killed 40,000 people in

one night in Dresden in February 1945 did it by pressing a button. Drone pilots press a button as well, but they maintain permanence, and conduct a detailed bomb damage assessment: counting the dead and seeing burned, mangled bodies is part of the job. This is where it can get very difficult, as an American drone crew remembers:

> We kill him... that's the first time I saw someone dead and we zoom in to view the dead body and get BDA [bomb damage assessment]. Right then, it hit me. My heart just started pumping. I went home that night and couldn't talk with my wife…. then about four days later I started thinking about a kid growing up without his father that I had killed… Finally, about two weeks later I broke down. I couldn't hold it in anymore and I had to seek help (Campo 2015, p. 7-8).

From that perspective, the armament of the French Reaper at the end of 2019 paradoxically made things a little easier because 'with the blast of bomb which saturates the image, the fire and the smoke, we finally don't see much. Before [the armament], there were many missions where we [drone crews] worked with helicopters firing bullets, and we saw more disturbing things' (interview 2020).[23]

'When it is too difficult, we zoom out to protect ourselves,' explains a French image operator. And if they do not, it is the responsibility of the commanding officer to do it, to counter a potential voyeuristic temptation. 'Some images stay with us. At the time, we don't realize. It's after, a few hours or days later, when we still think about it, that we say to ourselves 'maybe it's not normal'' (interview 2020).[24] It is, again, the responsibility of the commanding officer to constantly fight this impression of normality, to make it clear to his team that they are in a situation of war.

Moreover, in the case of a strike to kill a particular individual (so-called personality strikes), they not only see the person but know who they are. Crews follow a target for days, weeks, sometimes months. They know the targets family and friends. 'We see them playing with their dogs or doing their laundry. We know their patterns like our neighbours' patterns'; 'I saw them having sex with their wives. It's two infrared spots becoming one'; this is how 'war somehow becomes personal' (Abé 2012). Hugh Gusterson (2016, p. 7) calls this 'paradoxical mix of closeness and distance in the relationship between drone operators and their targets' a 'remote intimacy.' While increasing the physical distance between opponents, drones reduce the perceptual distance and what I called elsewhere the *epistemic distance*, that is, what we know about the other (Vilmer 2013). The pilot who spends weeks observing an individual 24/7 is not exactly distant from them when it comes to killing. In a way, the operators are closer to the target than any combatant on the ground who can make eye contact with their opponent but knows nothing of their life. Time makes

[23] Chief warrant officer X, sensor operator, 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

[24] Master sergeant X, image operator at the 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

the difference, because in that case it produces knowledge: permanent observation of a target, even contactless, through a sensor, produces intelligence and proximity.

However, drone opponents have an additional objection. They say it is not only about distance but also about the interface: in 2010, Philip Alston, then UN Special Rapporteur on extrajudicial, summary or arbitrary executions, wrote in his report that 'because operators are based thousands of miles away from the battlefield, and undertake operations entirely through computer screens and remote audio feed, there is a risk of developing a 'Playstation' mentality to killing'[25]—a point that a British NGO, the Fellowship of Reconciliation, developed a couple of months later in a report (FoR 2010). Like the previous assumption that the propensity to killing is proportionate to physical distance, 'no such evidence of that exists' (Dunlap 2014, p. 126). On the contrary, there are many testimonies of drone crews insisting that 'It's nothing like a video game. Nobody gets hurt in video games. I hate that comparison' (Campo 2015, p. 7). Even ignoring those statements, one would have to consider the following points.

First, it would again not be a phenomenon specific to drone platforms. The April 2018 missile strikes against Syria as a response to the Douma chemical attack, for instance, involved US, UK and French forces, but no drone. Missiles were launched from submarines, ships and planes, hundreds of kilometers away from their targets. The sailors and aviators never actually saw those targets. Like a drone crew, they undertook the operation entirely through computer screens. Modern planes also have immersive, computerized videogame-like cockpit, as some armored vehicles, ships and submarines. That is not new: commentators used expressions such as 'Nintendo warfare' during the 1991 Gulf war (Operation Desert Storm) to describe 'strategy and tactics plotted on computer screens and executed on remote video displays' (Mitchell 2000, p. 125; Griffin 2010, p. 27). That is not specific to long-distance weapons either: even infantrymen, the ones fighting at the closest possible range, have their interface when they are fighting at night with a thermal-imagery or night-vision device providing 'a superb form of psychological distance by converting the target into an inhuman green blob' (Grossman 2009, p. 170)—demonstrating that one can be physically very close and nevertheless seeing reality through a technological filter.

Second, contrary to a widespread prejudice, 'there are no empirical data supporting the assertion that remote warfare is accomplished in a perfunctory manner and without emotional consequences' (Chappelle et al. 2018, p. 2). On the contrary, psychological studies demonstrated that 'participation in remote warfare elicited emotionally and socially complex responses that included a sense of responsibility and psychological connectedness to the battlefield' (Chappelle et al. 2019, p. 87). One famous symptom is the fact drone pilots experience mental health problems, a huge amount of stress, and sometimes posttraumatic stress disorder (PTSD), not less but as much as inhabited aircraft pilots (Otto and Webber 2013; Chappelle et al. 2014a, b, 2018, 2019). That seems to indicate that, despite the interface, the drone crews are not emotionally disconnected. That is because, just like inhabited aircraft pilots, they

[25] UN Doc. A/HRC/14/24/Add.6 (May 28, 2010), para. 84.

are connected through their senses, in particular touch, sight, and hearing (however differently: touch is less pronounced because of the lack of flying sensations, but sight and hearing may be exacerbated); because despite being physically far, they are very close in terms of perceptual and epistemic distances; and of course because they kill. Studies also demonstrated that 'being responsible for the death of another human has emotional repercussions independent of the physical dangers of combat' (Chappelle et al. 2018, p. 2). Such psychological consequences can be caused by an action (firing when one should not, i.e., lack of precaution in the attack), as much as by inaction (not firing when one should, i.e., excess of precaution in the attack—which in the case of a close air support mission could indirectly cause the death of friendly forces).

Third, even if, at the beginning, some drone pilots (particularly those of the younger generation already familiar with videogames) could be under the impression that it would be a similar experience—all the more than videogames themselves are increasingly more realistic and are appreciated by military personnel for that reason—they soon understand the difference. Not only because, as Gregory wrote, 'immersion in video games is discontinuous—levels are restarted, situations re-set, games paused—[while] immersion in the live video feeds is intrinsically continuous' (Gregory 2011, p. 198), but also because of the following factors:

> the methodology used to detect the enemy, the research work requiring attention and vigilance very quickly leads to a fairly strong immersion; and then there is the weight of responsibility, of deciding whether or not someone is an enemy, that power to kill is where you leave the videogame. It's also not as easy as a videogame, in that you spend hours and hours searching or waiting, you don't have the adrenaline (interview 2020).[26]

In that process of educating the drone crews not to see it as a videogame, the cockpit of four is an advantage because of the deliberation and mutual control it implies: 'If pilots were alone in the cockpit, these [distancing] issues could perhaps be a problem. But because we are four, with four different perception biases, they neutralize each other a little. If there's one who is a little too much in videogame mode, there will always be another to remind him 'wait, these are women and children'' (interview 2020).[27]

Fourth, that weight of responsibility is actually heavier: 'I feel it a lot more today on drone than I did on a fighter jet,' explains a former fighter pilot who became a drone pilot, because the drone crew does the entire 'kill chain' (find, fix, track, target, engage, and assess). While an inhabited aircraft pilot is given a target and his job is just to drop a bomb on it, the drone crew scans an area, searches for suspicious activities, labels someone as enemy, tracks this person, kills him, assesses the damages and provides a feedback. For the former, the stress is about a technical gesture (making sure the bomb reaches its target): other people decided who the target

[26] Lt. Col. X, head of the 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.
[27] *Ibid*.

was, thought of the potential collateral damages, and will assess the damage done. The pilot drops his bomb and leaves. On the other hand, the drone crew chief bears the responsibility of choosing to kill someone, taking the risk of making collateral damages, doing the act itself, and he then sees in great details the consequences of his actions and, perhaps, deadly mistakes. An additional responsibility as mission manager, explains one of them, is that 'I know I'm taking three other persons with me, and I can literally destroy them. If we make an error, if we kill women and children that we didn't see, there will be of course judicial consequences, but that is ok because I trust my chain of command; on the other hand, there are members of the crew who will never get over it' (interview 2020).[28]

Fifth, and more generally, a large body of literature in psychology has found no link between videogames and violence (Gallar and Ferguson, 2020). Therefore, the entire basis of the so-called Playstation's argument against drones relies on a false premise, and seems to be based more on personal prejudice than empirical evidence.

Not so riskless

In the very specific case of American or British drone pilots doing 'reachback' from home, not only the risk is not zero psychologically, as we have seen—and those wounds can be unhealable—but one should not artificially isolate them as they are only pieces in a complex system. Out of the 210 personnel it takes to operate an orbit of four MQ-9 Reaper within a 24 h shift, no less than 61 are 'forward deployed, physically near the zone of operation' (Elish 2017, p. 1104). Among them are pilots doing takeoff and landing using line-of-sight data links and therefore 'physically based at an airfield within 500–1000 miles of their targets' (Rogers and Michel 2020, p. 2). All these in addition to the Launch and Recovery crews also stationed in theater; and the fact that drones often support ground forces, Special Forces or allied forces, who are taking a lot of risks. Even at home, the US Air Force and CIA operators are at risk; if their identities were to become known, they would be potential targets for a terrorist attack. With drones now becoming airborne symbols of evil, crystallizing terrorists' desire for revenge, this domestic threat for drone operators is real.

Now, if we do not reduce 'the drone' to the way the US Air Force and CIA use them, then we need to acknowledge that most of the drones used in armed conflict in the world today are operated from the battlefield. For all those operators, from the Special Forces at very close range to those flying MALEs behind the fences of an air base, the risk varies but is never zero. Those air bases in Afghanistan, Iraq or the Sahel have been or can be attacked anytime, by rockets, kamikaze mini-drones, or even ballistic missiles as the ones launched by Iran against the US military Ayn al-Asad airbase in Iraq in January 2020. Everyone on base is a potential target. In that respect, drone pilots are not different: 'they are in the same situation than three

[28] *Ibid.*

quarters of the personnel. I mean, on the 5,000 [French] military personnel currently deployed in the Sahel, how many really go out in the field? Not all of them, for sure,' explains the head of the French drone squadron based in Niamey (interview 2020).[29] Not to mention the support teams, instrumental to killing because they bring munitions, gas and food, but physically far from it.

'The soldier puts himself in the potential to lose his life, that's true. He's taking a risk. But the goal is not to lose it, if we want to win the war. And it's certainly not specific to the drone. There are a bunch of units that shoot from far away' (interview 2020).[30] Indeed, drone crews are in a similar situation than artillerymen 'out there in the field' but firing a launch rocket 70 km from a terrorist position. In both cases, they use tools allowing them 'to project power without projecting vulnerability,'[31] as USAF general Deptula said of drones, and there is no risk reciprocity in that the person killed cannot replicate. Same thing obviously for the sailor launching a cruise missile from the sea, hundreds of kilometers away, and the pilot dropping his bomb high in the sky. As Bradley Strawser asked, 'How fair is the present fight between an F-22 pilot flying at altitude delivering a precision missile and a tribal warrior wielding a rocket-propelled grenade?' (Strawser 2010, p. 356). As these examples show, if asymmetry is a moral issue, then it has nothing to do with the drone itself but is rather linked to the changing character of warfare. Moreover, it is possible to show, as Marcus Schulzke (2014) did, that asymmetry may not be such an issue.

Conclusion: Not so remote warfare

This article attempted to show how drone warfare is not so new, not so distant, not so different, not so indifferent, and not so riskless. In other words, how distancing is a constant in the history of warfare—which has always, to an increasing extent, been 'remote'—how the cliché of the drone pilot killing people between the groceries and the family dinner is an impressive but partial reflect of the reality of today's drone warfare, where many drones are operated in situ; how the computerized and videogame-like immersive environment of drone pilots is not that different from the one of modern inhabited aircrafts; how drones contradict the widespread assumption that propensity to killing is proportionate to physical distance from target, because drone crews can be both physically remote and perceptually, emotionally and epistemologically very close to their targets, which can be difficult for them because of the risk of PTSD and the weight of responsibilities; and finally how drone warfare is not that riskless, at least compared to its most likely alternatives which are other long-distance weapons. The logical conclusion to be deduced from all those premises is that drone warfare is not *that* remote.

[29] Lt. Col. X, head of the 33[d] Fighter Wing of reconnaissance, surveillance and attack, interviewed by the author in Cognac, on July 7, 2020.

[30] *Ibid*.

[31] General David Deptula at CNN's Amanpour, aired November 24, 2009.

This is a general conclusion, not limited to the French case, despite the fact that the empirical material for this article came from interviews with French drone crews. The conclusion that distancing is a constant in the history of warfare is universal, it isn't specifically French; that drones can also be operated in situ is best exemplified by the French case but the US Army is doing it as well; that the environment of drone pilots resembles the one of inhabited aircrafts stands for all machines, French but also American, Chinese, Russian and Turkish ones; that drone pilots can be both physically remote and emotionally close is best exemplified by the American example (and all studies on drone pilots' mental health problems quoted in this article are American); and that drone warfare is not that riskless compared to the most likely alternatives is not specific to the French case, most of the examples given in this section being, again, American.

However, this article is limited to the case of drones, which is only a segment (remotely piloted aircrafts) of a larger part (remote weapons systems, including missiles and loitering munitions) of remote warfare (RW) in which 'remote technologies play a role, but remote warfare encompasses a broader set of actions' (Watson and McKay 2021, p. 7), as shown in the introduction. So the question is: to what extent can this deconstruction work be applied to other dimensions of RW? In order to illustrate how a similar approach can be usefully applied to RW in general, the last part of this conclusion will briefly enlarge the focus. Just like drones often sparks off a number of clichés, RW is sometimes caricatured as a zero-risk way of war, specific to liberal Western democracies, hidden from the public and making governments feel unaccountable (Demmers and Gould 2020). Such a view is indeed questionable.

First, one imagines that the families of the 20 Americans killed in action in Iraq or Syria since 2014, 66 in Afghanistan since 2015,[32] as well as the 50 French soldiers in Sahel operations since 2013,[33] would all disagree with statements such as RW 'allows states to wage bloodless wars,' 'with zero direct risks and no returning body bags,' our soldiers being 'not exposed to the enemy at all' (Demmers and Gould 2020).

Second, it is true that the US—and, to a lesser extent, the UK—led the way, RW being for them largely a blowback of risk aversion and war fatigue after the wars in Afghanistan and Iraq. There was indeed a shift from Bush's large deployments to Obama's 'smart power' and 'stealth strategy.' However, less is not none; today's interventions may have a lighter footprint, but boots on the ground are still the rule rather than the exception for most military operations. Many American and British soldiers are currently deployed in armed conflicts. As this article illustrated with the case of France and its use of drones, there are also counterexamples to the presumed Western affinity for remoteness. Moreover, it is now obvious that "this trend of remote military engagement is not confined to 'the West'" (Watson and McKay

[32] US Department of Defense, *Casualty Status*, as of June 21, 2021 (https://www.defense.gov/casualty.pdf).

[33] Elise Vincent, "Risques et périls de la fin de 'Barkhane' au Sahel," *Le Monde*, June 11, 2021 (https://www.lemonde.fr/international/article/2021/06/11/risques-et-perils-de-la-fin-de-barkhane_6083674_3210.html).

2021, p. 10): Russia, Iran, Turkey, the Gulf states and a couple of African states are also increasingly resorting to air strikes, drones, special forces and private military companies—for reasons apparently unrelated to the type of political regime. Also, it is not the U.S. but China who is the biggest proliferator of armed drones in the world: 11 out of 18 countries that obtained armed drones from 2011 to 2019 obtained them from China (Horowitz et al. 2020). Having demonstrated their effectiveness in the 2020 Nagorno-Karabakh war, Turkey is also becoming a major player on the market of armed low-cost drones (Stein 2021). Finally, the use of remote technology is not the sole privilege of states: the use of drones by non-state actors is increasing exponentially (Rogers 2019b; Lasconjarias and Maged 2019).

Third, the belief that RW 'is shrouded in denial and secrecy' (Demmers and Gould 2020) is also debatable: there have never been more books, articles and reports on drone strikes, special forces operations or private military companies. American and French drone bases frequently welcome journalists. Lack of government transparency can indeed be an important problem, but it is also increasingly denounced. In our digital age, where everyone with a smartphone is a reporter and open-source intelligence (OSINT) techniques have developed considerably, it is almost impossible to conduct a completely secret operation. The investigative journalism and OSINT platform Bellingcat illustrates this point with particular impact, having documented the use of chemical weapons and cluster munitions in Syria; extrajudicial killings in Venezuela; the poisoning of Skripal, Navalny, and others; and many other supposedly remote, discreet, or secret operations.[34] And fourth, as for a lack of accountability, there is on the contrary a growing tendency of judicialization of external military action: families sue the state in courts and soldiers are more and more treated as normal citizens (Ekins et al. 2015).

All of this is not to say that 'remote warfare' is not a relevant concept: when defined reasonably, as not specifically new, nor Western (Watson and McKay 2021), it can indeed help in understanding the changing character of war. However, when caricatured, most of the time for ideological reasons, RW becomes a straw man fallacy: like the journalistic 'zero dead doctrine' which no state ever adopted, what is being criticized is largely a construct. Why should we care? Because as long as these clichés about drones or, more generally, RW obstruct the academic and public debate, the legitimate concerns about protection of civilians, long-term instability, and democratic control, among others, cannot be adequately addressed.

Declaration

Conflict of interest The author states that there is no conflict of interest.

[34] See bellingcat.com.

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