

Language, Cognition, and Drone Warfare: Applying Cognitive Linguistic Tools in the Critical Analysis of Drone Discourses

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This paper presents a cognitively oriented analysis of metaphorical and descriptive language, showing how an understanding of cognitive linguistics can be employed by scholars working on drone texts to enhance and support their analyses. Cognitive linguistics provides a powerful framework for understanding the conceptual structure of language, and the choices made by authors in the ways they choose to construe their experiences. Conceptual Blending Theory and Cognitive Grammar's notion of construal are introduced as linguistic frameworks through which the ideological structures of drone discourses can be interrogated. Overall, it argues that approaches from cognitive linguistics offers valuable resources for understanding how common patterns in discourse (re)produce and resist ideological stances on drone warfare, and it provides example analyses from a range of sources to demonstrate how these particular frameworks can contribute to the analysis of language and ideology.

KEYWORDS Drone warfare, cognitive linguistics, metaphor, Cognitive Grammar, Critical Discourse Analysis

1. Introduction

In the acknowledgements of his book *Hunter Killer: Inside the Lethal World of Drone Warfare*, retired drone pilot Lt. Col. T. Mark McCurley reflects that he was encouraged to write an autobiography of his career as a drone operator 'so the world could share in our collective experience' (McCurley and Maurer 2016: p.346). In scholarship around drone warfare, written and spoken discourse has provided important contextualising data in a number of analyses, ranging from

transcripts of drone operation (Gregory 2011; Chamayou 2015; Cockburn 2016; Wilcox 2017), to operators' written and oral testimony (Daggett 2015; Parks and Kaplan 2017; Bentley 2018; Lee 2018) to the study of drone fictions in written and multimodal contexts (Smethurst and Craps 2019; Adams 2021). Given that language is central to the sharing and interpretation of experiences and perspectives, the study of drone discourses should draw on and develop systematic linguistic processes by which to examine the linguistic choices made by speakers and writers under analysis. Voice (2022) details how linguistic analyses of the discursive construction of point of view in drone operator autobiography can help shed light on the ideological perspectives which underpin their narration, and this essay seeks to continue the application of cognitive linguistic resources to discourses of drone warfare. With a focus on cognitive approaches to metaphor (Fauconnier and Turner 2002) and grammatical structure (Langacker 2008), these approaches are presented as part of a stylistic 'tool-kit' (Wales, 2014), with the aim that they may be incorporated into interdisciplinary critical projects interested in discursive representations of drone technology and its operation more broadly.

A cognitive approach to language and its relationship to social structures is central to sociocognitive models of Critical Discourse Analysis, where discourse and cognition represent two points of triangulation in relation to social structure. As van Dijk (1993: p. 208) puts it:

it is theoretically essential to understand that there is no other way [besides social cognition] to relate macrolevel notions such as group dominance and inequality with microlevel notions as text, talk, meaning and understanding.

Given the scholarly interest in the phenomenology of drone warfare as mediated and transformative of participants' experiences of space, action, and persons (Chamayou 2015; Daggett 2015; Wilcox 2017; McSorley et al. 2019), cognitive linguistic approaches to language provide an opportunity to explore how authors transform and convey their lived experiences through language, as well as the ability to critically analyse the perspectives and beliefs which underpin them. Indeed, research from the United States Airforce itself has noted how quotations from interviews with drone operators can 'provide an insight into the RPA aircrew mentality' (Campo 2015: p. 7). From a more critical perspective, Rabbani (2022), notes the 'alarming preponderance of metaphors and passive-voice reporting' in mainstream media articles concerning drone strikes, but does not discuss examples or provide analyses of the structure or of these linguistic features. With the further nuance afforded by fine-grained linguistic analysis, this article seeks to provide resources which allow for closer critical examination of the precise role of language in the ideological construal of events and experiences.

The analyses presented in this paper draw on and examine a range of drone discourses. Three book length autobiographies comprise the longest and most in-depth narratives of US military drone pilot and sensors' experiences: *Predator* (Martin and Sasser 2010), *Hunter Killer* (McCurley and Maurer 2016) and *Drone*

Warrior (Velicovich and Stewart 2018). In each case, the book has been co-authored with a professional writer. Though it is not possible to distinguish between language choices made by operators themselves and their co-authors, each text is an authorised account of the operator's experiences, and their language can be treated as representative of their beliefs and perspectives. Following frameworks for the application of cognitive linguistic methods to Critical Discourse Analysis (Hart 2008; 2014), which take ideology to be 'a systematic body of ideas, organized from a particular point of view' (Hodge and Kress 1993: p. 6), this paper is concerned with the demonstration of how interdisciplinary scholarship might utilise linguistic tools to further support critical analyses of such texts using systematic resources to explain how evaluative perspectives can be constructed through language.

Additional analysis is supplemented with further data such as oral interview data (Campo 2015), alongside assessments of how previous scholarship has considered the language of drone technology (Keene 2015; Wittmann 2017), as well as the language used by drone strike victims in recounting their experiences (Abu Saif, 2015), in order to contextualise and contrast the linguistic choices and patterns which comprise discourses of drone warfare more generally. In describing the world via particular lexical and grammatical choices, speakers and authors offer their conceptualisations to their readers as ways of making sense of the world. These are not neutral descriptions, but selective language choices which cognitively-oriented Critical Discourse Analysis can analyse, in order to explain how the nature of drone warfare is revealed and concealed variously through language.

2. Squashing bugs and playing games: the metaphors of drone discourses

Cognitive linguistics centres around the notion of language as a process of conceptualisation: mental simulations are modelled after perceptual processes and embodied experiences (cf. Barsalou 2003; Lakoff and Johnson 1999; Croft and Cruse 2004; Evans 2019). Cognitive theories of language aim to reflect these conceptualisation processes in order to account for the way meaning is produced and organised in lexical and grammatical choices. Metaphor is a clear example of conceptualisation in action, as it involves the mental mapping of comparisons between two or more concepts. By way of demonstration, consider the metaphors present in titles of the three commercially published autobiographies by drone operators:

- a) *Predator*: The remote control air war over Iraq and Afghanistan
- b) *Hunter* killer: Inside the lethal world of drone warfare
- c) Drone warrior: An elite soldier's inside account of *the hunt* for America's most dangerous enemies

In each case, an embodied and relatively easily understood source domain (here, HUNTING) is mapped onto a target domain (DRONE WARFARE), which is the concept being described by the metaphor (cf. Lakoff and Johnson 1980). In mapping the target domain to the more readily understood structure of the source domain, abstract or unfamiliar concepts are rendered more easily intelligible. Each of the phrases above therefore exemplifies a different iteration of the same conceptual metaphor: DRONE WARFARE IS HUNTING.

According to Semino (2021), ‘any metaphor can only ever convey a partial representation of a particular phenomenon’ (52). Choosing to describe an individual, group, or event in metaphorical terms necessarily foregrounds certain aspects of the target through comparison to the source, while simultaneously backgrounding those features which are not shared between the metaphor’s conceptual domains. Identifying source domains has therefore often been the basis for Critical Discourse Analyses of metaphor (cf. Charteris-Black 2004; Koller 2004; Goatly 2007; Musolff 2012; Gibbs 2017). Indeed, where metaphor has previously been discussed in the context of drone warfare (cf. Chamayou 2015; Vågnes 2017; Wilcox 2017; Ramazani 2018; Chandler 2020), discussion has focused on the author or speaker’s choice of source domain. However, not all conceptual metaphors are employed identically. Following Hart (2008; 2014) there is also a need to explore the process by which metaphorical meaning is produced on a case-by-case basis. For instance, while the conceptual metaphor of DRONE WARFARE IS A VIDEO GAME is used in a number of texts examined below, an analysis of its composition in individual iterations reveals significant variation in its meaning and function. Conceptual Blending Theory (Fauconnier and Turner 2002) is therefore employed below to show how such nuances can reveal ideological difference and cross-purpose communication in the representation and critical study of drone warfare.

The diagram in Figure 1 (adapted from Fauconnier and Turner 2002: p. 46) demonstrates the core principles of conceptual blending. Four mental spaces are represented by circles: two input spaces, a generic space, and a blended space. The input spaces are the left and rightmost circles within the diagram, and represent the mental spaces in the ideas, objects, or events being compared in the process of producing the metaphor are conceptualised. The solid lines which connect these input spaces are ‘vital relations’, or connections between conceptual elements shared within each input space. The uppermost circle represents the generic space, in which common elements of both inputs are contained ‘at any moment in the construction of the network’ (Fauconnier and Turner 2002: p. 47). The final circle represents the blended space into which structure from the input spaces is projected in order to produce a conceptual blend.

When elements of the input spaces, alongside the structures from the generic space, are projected into the blended space to produce an *emergent structure*, represented by the box within the blended space in Figure 1. This is the unique product of blending, and is ‘meaningful precisely in its newness. It is both more than the sum of its inputs and different from them’ (Schneider 2012: p. 6). As a ‘site for central

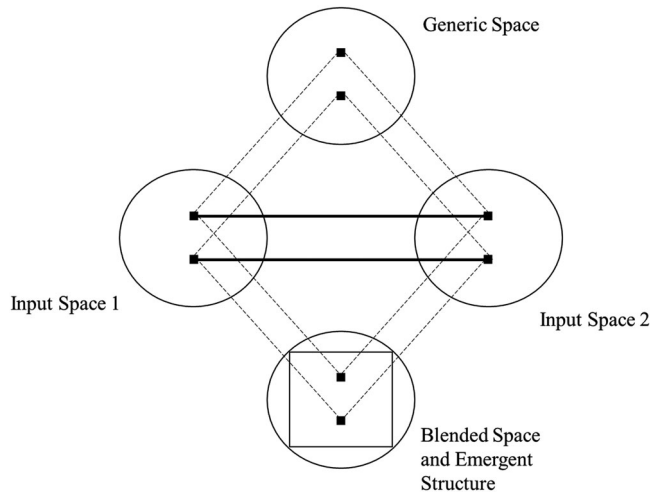


FIGURE 1 The basic conceptual blending network.

cognitive work' (Fauconnier and Turner 1996: p. 115), blending is not exclusive to metaphor, but rather a theory in which metaphor is accounted for as a kind of cognitive operation central to our way of engaging with and understanding the world more generally. Most importantly, it allows not just for the reader to use their understanding of the world to make sense of discourse, but for blends offered by the discourse to serve as 'a local guide for thinking, feeling and acting' (Hart 2014: p. 142) for readers and listeners to make sense of the propositions within the discourse. For drone discourses, this allows for a consideration of both how authors make sense of drone operation and warfare on a phenomenological level, and how their choices of metaphor function ideologically to guide the reader's understanding of drone technology and operation.

For example, Figure 2 diagrams the hunting metaphor from the subtitle of Velicovich and Stewart's (2018) autobiography *Drone warrior: An elite soldier's inside account of the hunt for America's most dangerous enemies*. Elements shared by both inputs (the concepts of hunting and drone warfare) are represented in the generic space, with the final blend producing an emergent structure in which these aspects of both inputs are compared.

Beyond simply noting the conceptual connection made here between drone operation and hunting, blending diagrams such as this allow for a nuanced analysis of the ways in which these categories have been compared in the metaphor's construction. The act of hunting entails the presence of a hunter, a role which is here blended either with the operator or the drone itself. Even Velicovich, who serves as a sensor operator rather than a pilot, is able to use this blend to evoke comparisons between himself and the implicit hunter figure to take a more conventionally active role. Enemy combatants, meanwhile, occupy the same conceptual role as animal prey, foregrounding the 'radical power disparity' (Calhoun 2015: p. 168) between drones and their targets.

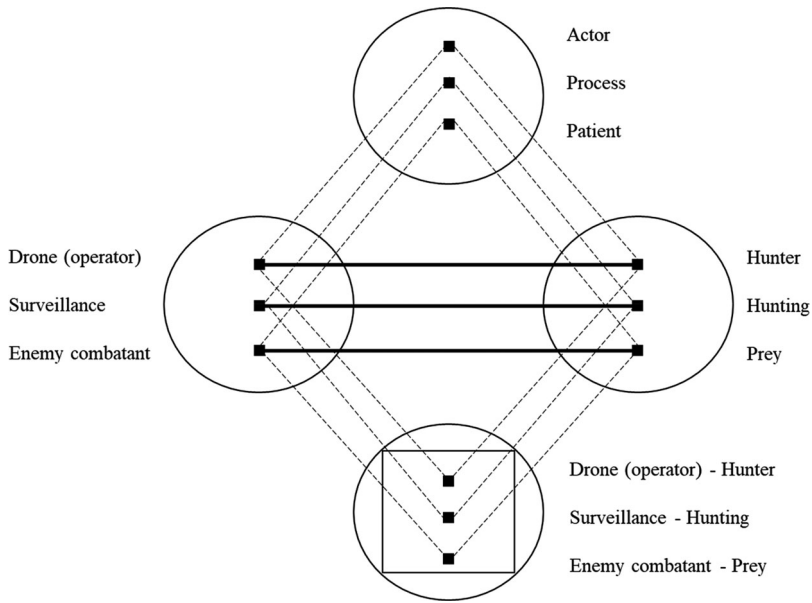


FIGURE 2 Blending network for ‘the hunt for America’s most dangerous enemies’.

As Hart (2008: p. 97) notes, selective projection of input space elements for blending ‘is a pragmatic phenomenon ... ideologically, speakers may choose to recruit particular structure in order to promote a certain perceived reality’. Beyond the initial selection of a source domain for comparison, the foregrounding of specific conceptual elements within a blend gives authors a means of framing their narration within a particular ideological perspective. In the opening lines of *Predator*, for example, Martin and Sasser (2010: p. 1) describe ‘perfect conditions for cockroaches and other vermin to venture out of the gutters’. Distinct from the hunting metaphor embedded in the book’s title, these first lines of *Predator* establish a blend in which humans positioned spatially beneath the drone are compared to insects. Elsewhere in the book, explicit comparisons are made between enemy combatants and other forms of vermin, as ‘insurgents were like having a house infested with rats; the more of them you killed, it seemed, the more they bred’ (252). Like the conceptual blend of enemy combatants and prey, the emergent structure of a comparison between insurgents and vermin entails other relational elements: if enemy combatants are vermin, then their presence is invasive, and their extermination is justified. Metaphorical expressions such as these, which devalue the lives of others and justify or marginalise violence in doing so, are well documented. Scarry (1985) includes such metaphors in her typology of linguistic strategies through which ‘injuring can be relegated to a still visible but marginal position’ (72). What a Blending Theory-driven analysis contributes to this process, then, is the ability to describe and critique not just the source domain of the metaphor (e.g. hunting), but the more precise conceptual elements which differ or remain consistent across each use.

Although Byrnes (2018) has criticised *Predator* as being a ‘laughably unrealistic’ (98) portrayal of drone warfare, the linguistic patterns it makes use of are prevalent across the language of military drones, from operators’ speech and writing to technical vocabulary. ‘Bugsplat’, for instance, was initially employed as ‘official terminology used by US authorities to refer to the individuals killed by a drone’ (Keene 2015: p. 22), and is also the name of US Department of Defense software used to model explosive damage (Wittmann 2017: p. 40). Similar comparisons have been noted in interviews with other drone operators. Pilkington (2015) draws on such a quotation as the headline for his article: ‘Ever step on ants and never give it another thought?’, while an RAF Reaper operator similarly claimed that ‘I was told [...] that when I dropped a bomb on someone, I should think about it as if I were stepping on ants’ (Rayment 2020). Evidently, the conceptual metaphor ENEMY COMBATANTS ARE INSECTS pervades military thought, and its conceptually consistent integration into training, advice, and technical terminology reveals an attitude towards real and hypothetical individuals targeted by drone strikes grounded in an interconnected perception of moral, social, and technological superiority.

While conceptual metaphors such as DRONE WARFARE IS HUNTING and ENEMY COMBATANTS ARE INSECTS appear to be blended using consistent inputs across speakers and discourses, this is not the case for every metaphor of drone warfare. Throughout drones discourses, blends comparing drone warfare and video gaming are regularly evoked. This comparison is notably made by a drone operator quoted in Singer (2009): ‘It’s like a video game. It can get a little bloodthirsty, but it’s fucking cool’ (308-9), and has often been discussed as evidence of a ‘“PlayStation” mentality’ (Cole et al. 2010; Keene 2015: p. 22). Abu Saif (2015), writing from the ground in Gaza during drone and other military operations, imagines that ‘it must be quite entertaining for those soldiers, sitting at their computer screens; it must feel like the best video game ever’ (31), and that the people of Gaza are seen as ‘characters in a video game’ (66). Additionally, Campo (2015) reports direct quotations from interviews with active Predator drone operators, reproduced below, in which the conceptual blend of drone operation and video gaming is evoked negatively:

‘If I was playing a video game I could hit reset’

‘It’s stressful, serious, and complicated’

‘Nobody gets hurt in video games’

Importantly, the evocation of a negative still requires its conceptualisation (cf. Nahajec 2021). Though each sentence above produces a blend of the same input spaces (‘VIDEO GAMES’ and ‘DRONE WARFARE’), the variation in their focus demonstrates how different users select distinct elements of each input space in the blending process associated with this metaphor. For the operator quoted by Singer, as well as critics of drone warfare, emphasis is consistently placed on the connection

between drone operation and the entertainment value of video games. While one negative blend recorded in Campo (2015) rejects this comparison directly, it is notable that each speaker evokes distinct conceptual elements in the blending process to foreground dissimilarities between drone warfare and video gaming.

Similar input spaces are evoked in *Drone Warrior* (Velicovich and Stewart 2018), although with different elements again occupying the generic space: ‘Like a video game, he worked the drone with a remote control. It reminded me of an old-school, handheld Sega Genesis with the video screen in the middle and two joysticks on either side’ (27). Here, the video game input is evoked not to describe the processes of targeting and killing, but rather the embodied phenomenon of handling the controls of a light drone craft. Notably, where Velicovich has elsewhere been asked whether his work was ‘just a video game’, he has stated that it was ‘much more than that’ (Simon 2017), suggesting an awareness of the negative connotations of the metaphor as used by others. The blend created in *Drone Warrior*, however, draws only on embodied, physical experience as the vital relation between the drone and video game input spaces, without including broader phenomenological or emotional values. For Velicovich, comparisons between drone warfare and video game technology simply provide a practical shorthand for explaining unfamiliar equipment in recognisable terms, and backgrounding the possible connotations of triviality against a more mundane foreground of physical similarity reconstrues the similarities between drone and gaming technology by sidestepping the ethical focus of the metaphor as used elsewhere.

So while the same conceptual metaphor of DRONE WARFARE IS A VIDEO GAME is evoked across all of the texts above, an analysis of the blending processes involved in each reveals how different speakers and authors select distinct elements for projection within the same input spaces. By introducing Blending Theory into the analysis of metaphors of drone warfare, the discussion above has shown how the ability to identify constituent elements within conceptual metaphor affords greater nuance for critical study. As a result, the study of variation in the different realisations of a conceptual metaphor can accommodate a plurality of perspectives regarding the nature, experience, and ethical stakes of drone warfare. Where these blends are inconsistent across discourses, further observation of the patterns and differences in future uses of these blends may show if speakers eventually converge around a generally accepted blend of these inputs.

3. Cognitive Grammar: kill chains and action chains

Just as metaphor can be analysed as a system for making sense of ideas and experiences, so too can the grammatical structure of language. Like Blending Theory, Cognitive Grammar (Langacker 2008) takes language to be part of a broader system of embodied cognitive processes, and aims to represent this system in its account of grammatical structures. Indeed, Croft and Cruse (2004: p. 40) note that ‘all aspects of the grammatical expression of a situation involve

conceptualisation in one way or another ... Whenever we utter a sentence, we unconsciously structure every aspect of the experience we intend to convey'. The analysis in this section begins with extracts from different drone operators' writings, showing how similar grammatical structures reveal how they construe themselves agentively, before turning to the language of a victim of Israeli drone strikes (Abu Saif 2015) in order to understand how grammatical analysis might reveal the linguistic patterns which inform the resistance of dominant narratives of drone warfare.

While Langacker's development of Cognitive Grammar focuses primarily on language at a clausal level, other researchers have adopted the framework for study of discourse: initially literary (Harrison et al. 2014; Harrison 2017; Stockwell 2020), but more recently with active consideration of its applications to non-literary discourses (Hart 2019; Giovanelli et al. 2021). Within this work, particular interest has been given to Cognitive Grammar's approach to grammatical construal, which describes how different grammatical arrangements affect the conceptualisation of objects and events in four different dimensions: focus, specificity, prominence, and perspective. To illustrate how these aspects of construal function together, Langacker presents the 'canonical event model' (2008: p. 357): a prototypical example of the conventional structure of simple, transitive, active clauses (e.g. 'I kicked the ball', or 'I killed the enemy soldier'). As Figure 3 shows, a volitional agent typically exerts force, which impacts upon a patient. This transfer of force is viewed externally in the third person, marked by the 'V' to represent the viewer's perspective.

Manipulation of this description into different forms shows how grammatical choices influence the reader's perspective on the actions and events being described. For instance, passivised clauses (e.g. 'the target was hit') render absent the agent of the action, and the source of the transfer of force, while alternative descriptions might profile the same event with different aspects configured within the immediate scope of attention. 'I fired a missile', for instance, has the same grammatical event structure as 'I killed the soldier', but its specificity foregrounds only part of the scope entailed by the latter construal. In other words, these *reconstruals* demonstrate that grammatical choices actively influence readers' perspectives. Different construals of drone operators' actions and behaviours place conceptual emphasis on different points in the process of drone operation, and the analysis of which aspects are foregrounded or backgrounded reveals how the authors understand, or wish others to understand, their roles and responsibilities.

Central to the organisation of drone warfare is the notion of the 'kill chain' (Currier 2015; Cockburn 2016). The decision to launch an attack from a drone is not made by a single individual, but rather a complex network of actors involved in the 'chain' of command and authority. When drone operators engage in strike action, then, they do so as the result of being authorised to act by their commanders. With the individual who fires acting on a series of orders and intelligence analysis, responsibility for the act of violence is diffused and nebulous. In such

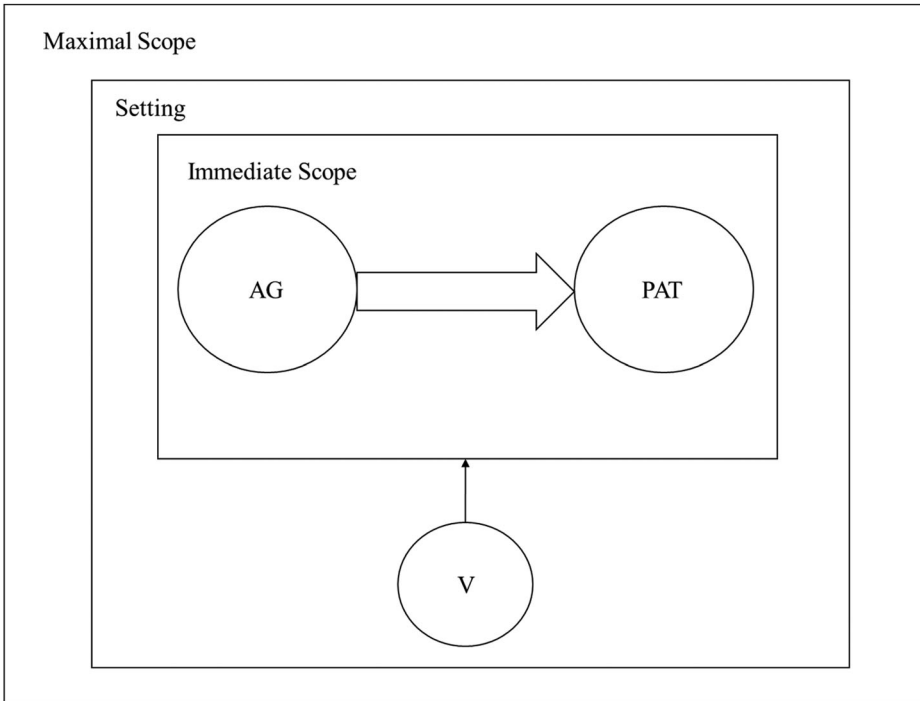


FIGURE 3 The canonical event model.

circumstances, Protevi (2013: p. 130) describes how ‘the practical agent of the act of killing is not the individual person or subject, but the emergent assemblage of military unit and non-subjective reflex’.

Close grammatical analysis shows how drone operators might choose to construe themselves within this emergent assemblage. Martin and Sasser, for instance, describe the moments before an attack as follows:

Rules of engagement permitted an air strike during a hostile troops-in-contact. I spun up a Papa missile as I circled wide to avoid other air traffic while I dropped altitude to 6,500 feet. In the meantime, the ground battle captain authorized me to kill the sniper position (2010: p. 305).

While the canonical event model discussed above exemplifies the construal of a single event, it is possible for events to be causally connected to one another, in what Langacker refers to as an ‘action chain’: ‘a series of forceful interactions, each involving the transmission of energy from one participant to the next. In principle, an action chain can be of any length.’ (2008: p. 355-6). Langacker visualises an extended action chain as a series of billiard balls where spatial movement causes a transfer of force, beginning with one agent and passing the force through several other participants in the action chain, leading to a final transfer of force which alters the state of a patient. In this extract, the first potential actor is not Martin

himself, but the permission granted to him by the rules of engagement. Martin is instead construed as an agent who transfers force in a localised scope ('spun up a Papa missile'; 'circled wide'; 'dropped'). However, with the act of killing – itself profiled as a transfer of force towards location of the 'sniper position' rather than the sniper as an individual, the initial agent is the authorising captain.

While this example demonstrates how responsibility for authorising an act of violence can be displaced, an earlier passage in which Martin observes another pilot conducting a strike in which civilians are killed leads to the following reflection: 'The responsibility for the shot could be spread among a number of people in the chain – pilot, sensor, JTAC, ground commander. That meant no single one of us could be held to blame' (212). Rather than profiling a single individual or process within the kill chain, this construal profiles the chain as a whole within the immediate scope of the reader's attention. Given that Martin contributed to the further development of the USAF kill chain protocol (2010: p. 222), it is perhaps not surprising that *Predator* draws attention to this process.

While the profiling of the kill chain as a whole may reflect the practical structure of drone operations, the inability to attribute responsibility to individuals within the process may feel unsatisfactory both to readers and authors. For instance, consider the following interview quotation from Jay, a Reaper pilot (in Lee 2018: p. 1): 'I dropped my son at school in the morning, continued on to work and, within a couple of hours, killed two men'. Not only does such a construal simplify the strike process, but the author is positioned conceptually as the initial actor at the head of the action chain, profiling himself as the single intentional actor in the process of the lethal drone strike. In such contexts, Protevi (2013) has argued that soldiers may be 'irresponsible in taking responsibility, in taking upon themselves moral agency, when practical agency lies elsewhere' (135).

Other authors adopt yet different strategies for the construal of violent events. In *Hunter Killer*, McCurley and Maurer (2016) describe how 'I pulled the trigger. Twin white-hot flashes erupted into the HUD as the missiles left the rails and raced toward the target' (131). Here, the operator is again positioned at the head of the action chain. However, it is notable that the chain itself ends before the missile reaches its target. While *Hunter Killer* goes on to describe the impact of the strike, this follows an extended description of the actions and reactions of others in the scene, drawing the reader's attention away from its connection to this initial action chain. This construal retains a sense of agency for McCurley, while its specificity allows the description to break away before the chain of events described becomes lethal. Drone operators' descriptions of their roles within acts of violence are therefore highly variable, and Cognitive Grammar's approach to grammatical construal allows for analyses which can make fine-grained distinctions between the ways the position themselves agentively.

Chouliaraki (2014) argues that contemporary discourse produced by soldiers about their role in military action makes a meta-ironic shift away from the modernist futility of the First and Second World Wars. Instead, their function is described

less in terms of the violence it produces, but instead in terms of the longer-term humanitarian goals they intend to produce. Similar observations can be made about the way drone operators construe their actions. *Hunter Killer*, for instance, describes McCurley's disappointment at the possibility of operating a UAV without engaging directly in combat:

I'd signed up to make an impact on the war effort. I wanted to do something productive to keep Americans safe. Just watching a blacked-out hut in the middle of the night didn't exactly fit that bill. Shooting was why I wanted to be a fighter pilot in the first place. It wasn't like I wanted to kill people. But it felt like we were being productive if we destroyed something. (McCurley and Maurer 2016: p. 53)

In terms of the construal of McCurley's actions across this extract, low specificity ('do something'; 'make an impact'; 'destroy something') makes it unclear exactly what kind of action McCurley wants to perform. Indeed, where the more specific action of 'shooting' is introduced, construals in which this is interpreted as an act of violence as negated, as it is explained that McCurley does not want to kill. Within this broad focus, only certain aspects of the action process are prominently profiled. Specifically, attention is drawn to positive consequences ('make an impact'; 'keep Americans safe'), rather than the specifics of the action which brings them about. As a result, violent actions and their immediate consequences are backgrounded.

The immediate scope of the event construal in this extract is therefore broad, and refers to the consequences of war as a longer-term process of maintaining national security. Violence is construed in terms of protection, and the grammatical structure of the clause means that McCurley's actions are construed in relation to the Americans he keeps safe, rather than those killed or harmed in the process of drone operation. Where these initial processes are further defined, it is interesting that the scope is extremely narrow. The absence of prepositions and the vaguely defined grammatical object 'something' foreground the acts of shooting and destroying, while any sense of *what* is being shot or destroyed is backgrounded.

Overall, McCurley and Maurer's construal here foregrounds two aspects of violence relating to drone warfare: the initial act (shooting or destroying something), and the long-term social benefits. In cognitive linguistic terms, these clauses are each separate 'windows of attention' (Talmy 2000). Described as 'a way of focusing attention on a particular subpart of a path of motion' (Evans and Green 2006: p. 198), the windowing of attention in this sentence foregrounds the initial and final stages of the event process under description. The events which might occur between these initial and final windows, then, are 'gapped', a process whereby 'rather than a sentence delineating the entirety of a concept (A > B > C), the medial portion is instead omitted (A > C)' (Harrison 2014: p. 56). Here, the medial portion of the actions construed by McCurley and Maurer are the immediate processes involved in military drone operation. What McCurley *does* is less important

described (represented by dashed lines in the diagram) are the consequences of missile strikes beyond the tightly-framed scope of their pre-explosive ('slammed') and controlled ('exactly on') impact with their 'target', a construal which itself profiles the advantageous military aspect of the drone's strike.

Additionally, the nominalisation of 'firing' renders the initial agent of the action chain absent altogether, and transforms the passage from a description of a specific act to an abstract construal of the principle of missile fire. In this sense, drone strikes are presented as utilitarian, with a rhetorical emphasis on the positive effects for a greater number of individuals than are harmed directly by the individual strikes. The extended coordinate clauses present a number of ways in which the negative impact of killing is outweighed by long-term, abstract benefits. This effect is complemented by the favourable comparison to carpet-bombing techniques, with Martin and Sasser establishing a binary choice between the two methods of attack as viable courses of action. While it is understandable that individual soldiers would want to find ways to construe their actions positively, to do so whilst erasing the act of killing itself does little to assuage the public perception of drone pilots as emotionally distant from the conflicts in which they engage (Royakkers and van Est 2010; Strawser 2013; Daggett 2015).

While the analysis of metaphor suggested some emerging commonalities across the texts considered in this paper, a comparison of their grammatical structures when describing similar events to one another reveals a diverse range of strategies for representing drone operators' experiences discursively. Embedded within the emergent assemblage of the kill chain, drone operators' narratives necessarily contend with the ethical issues of personal responsibility through their grammatical choices, and the aspects of the chain they choose to foreground. As an analytical tool, Cognitive Grammar is therefore ideally situated to express the interconnection between language, the perception and expression of causality and agency, and subsequent social assessments of responsibility.

These same tools can also be used to explore the contrasting experience represented in *The Drone Eats with Me* (Abu Saif 2015). A diary of life in Gaza during the 2014 Israeli offensive, Abu Saif's writing provides a dramatic account of how drone strikes were experienced by victims on the ground. Recording one such attack, writes that:

'Tonight the drone knocked at our door. It's ram and suddenly there's a colossal explosion, extremely close. Closer than the cupboard. Closer than the clock on the wall. I jump out of bed, and start searching around to see if it was inside the house. Hanna wakes up and points to the window. It's dark outside. The full moon doesn't help' (171)

As with drone operators' narratives, Cognitive Grammar's notions of event structure and scope help identify and describe important stylistic elements of Abu Saif's construal of events. While the initial sentence provides a euphemistic summary of the narrative in which the drone acts upon the author's house, the

ensuing narrative is more fragmented in its description. The explosion itself is construed existentially as an object rather than a process, breaking any sense of a clear chain of action between the drone's 'knocking' and the subsequent explosion, with the author and Hanna also taking agentive roles. At the same time, the repetition of the deictic 'closer than ...' narrows the scope of attention, leaving the reader disoriented, with no clear sense of causality and context, helping to convey Abu Saif's own experience.

The result of such a representation is comparable to the mystification of actors and violence noted in Hart (2021), but the immediate scope of construal in *The Drone Eats with Me* is not always limited to the immediate present. Kanwal (2020) has noted that Abu Saif's diary challenges the erasure of human agency in drone surveillance and violence, and 'juxtaposes Palestinian subjectivities held under the sign of erasure vis-à-vis the omni-technical objects of warfare' (245). One way in which he achieves this is through the extension of the immediate scope of reference when describing drone activity. For example, he asks:

'What if the operator of a drone hovering over my building is annoyed by the steam coming from the coffee maker, steaming up the window, and therefore his view into my house on his computer screen somewhere in Israel?' (214)

Just as the authors of *Hunter Killer* and *Predator* foregrounding higher order values to persuade the reader of the moral value of their work, Abu Saif broadens the immediate scope here to foreground the human involvement in technologically mediated acts of surveillance and violence, resisting the view of 'a drone' in isolation from its operator(s). Though physically distant from the battlefield, Abu Saif's use of scope constantly reminds the reader of the operator's active presence and engagement in conflict, and the power they wield over those they surveil through the drone's presence alone.

This same process is taken further when, reflecting at the end of his diary, he writes that:

'Now I can eat alone with no drone watching over me. No longer will I have the pilot of an F16, or the captain of a warship out at sea, or soldiers huddled in a tank two miles away, or the drone operator sitting at a desk in Israel, or Netenyahu, eating with me.' (234)

This series of prepositional phrases serves to extend the immediate scope of attention far beyond the initial scene of the author eating alone. Instead, the foregrounding of the additional previous participants parallels the notion of 'intimate distance' (Wilcox 2017), with the full range of human actors in the political and technological assemblage of warfare borne actively in mind. From this perspective, the distance of the drone operator is not a distinguishing quality, with pilots and naval captains each construed alongside an explicit reference to their physical distance from Abu Saif's location. Carvin (2015) has critiqued the focus of drones scholarship on the novelty of the technology without considering the technological

precedent for distance between aggressor and victim in wartime violence, and Abu Saif's language here reiterates the similarity between all these forms of political and military force in their consistent oppression of their victims. Through linguistic construal and the control of conceptual scope, Abu Saif is able to contest and reframe not just the absence of the drone operator from the site of conflict, but also the way in which the perspective of the aggressor is centred in scholarship for its perceived novelty, when for the victim drone warfare's similarities with more conventional modes of conflict may constitute its most urgently impactful qualities.

4. Conclusions

Language choices provide a window into both the phenomenological and ideological perspectives which permeate military drone cultures, and this paper has shown how cognitively linguistic methods of describing language can function as powerful tools for the analysis of linguistic data in drones scholarship. There are distinct trends in the ways key concepts are represented both across drone operator autobiographies and in other forms of drone discourse. The Blending Theory-based analysis above has shown how the analysis of ideology in metaphorical language can go beyond the identification of source domains (e.g. HUNTING, INSECTS, or VIDEO GAMES), and analyse the ideological differences which distinguish different iterations of the same conceptual metaphor across discourses. Meanwhile, the application of Cognitive Grammar to drone operator and strike victims' narratives of warfare has shown how different perspectives are conceptualised through the linguistic construal of scope and causality.

Linguistic construal relies on the construction of a particular vantage point from which objects and events are viewed, and future research on the language of drone warfare would benefit from the consideration and comparison of further perspectives on the nature of drone warfare. Understanding how drone technology is construed from the external perspective of newspaper reports, for instance, could throw into relief the conceptual contrast between drone operators and their victims' understanding of their actions, and how the same events are perceived by others. The discursive application of cognitive linguistics is rooted in literary analysis (Giovanelli and Harrison 2018; Stockwell 2020), and it would be interesting to compare the linguistic patterning of fictional and non-fictional representations of drone warfare to understand how military and public construals of the technology and cultures compare. Smethurst and Craps (2019) and Adams (2021) both provide recent lists of drone fictions across a range of written and multimodal media.

By introducing Blending Theory and Cognitive Grammar as resources within a toolkit for discursive analysis, this paper encourages further development of the critical cognitive linguistic analysis of drone discourses beyond the necessarily limited selection of text explored above. Daulatzai and Ghumkor (2021), for example, have rightly identified the privileging the experience of Western drone

operators as an ethical issue within contemporary drones scholarship, and the analysis of extracts from *The Drone Eats with Me* above has demonstrated how one victim of drone warfare has used language to conceptualise his experiences and resist the ideological erasure of the human agent in technologically mediated conflict. The continued linguistic analyses of a range of texts and voices – from operators and military training to victims and critics of drone warfare – will therefore be essential to producing a rounded critical understanding of the breadth of drone discourses. Cognitive linguistics offers interdisciplinary scholars a range of resources to engage with these discourses, in order to critically interrogate the linguistic nuances of emerging and continuing trends in the way the language of drone warfare is produced, understood, and resisted.

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References

- Abu Saif, A. 2015. *The Drone Eats with me: Diaries from a City Under Fire*. Manchester: Comma Press.
- Adams, A. 2021. *Death TV: Drone Warfare in Contemporary Popular Culture*. Oxford: Drone Wars UK.
- Barsalou, L. 2003. Situated Simulation in the Human Conceptual System. *Language and Cognitive Processes*, 18(5-6):513–562.
- Bentley, N. 2018. Fetishised Data: Counterterrorism, Drone Warfare, and Pilot Testimony. *Critical Studies on Terrorism*, 11(1):88–110.
- Byrnes, M. 2018. Review: We Kill Because we Can: From Soldiering to Assassination in the Drone age. *Air and Space Power*, 32(4):95–99.
- Calhoun, L. 2015. *We Kill Because we Can: From Soldiering to Assassination in the Drone age*. London: Zed Books.
- Campo, J. 2015. Distance in War: The Experience of MQ-1 and MQ-9 Aircrew. *Air and Space Power Journal*, 27(3):3–10.
- Carvin, S. 2015. Getting Drones Wrong. *The International Journal of Human Rights*, 19(2):127–141.
- Chamayou, G. 2015. *Drone Theory*. London: Penguin.
- Chandler, K. 2020. *Unmanning: How Humans, Machines, and Media Perform Drone Warfare*. New Brunswick: Rutgers University Press.
- Charteris-Black, J. 2004. *Corpus Approaches to Critical Metaphor Analysis*. Basingstoke: Palgrave Macmillan.
- Chouliaraki, L. 2014. From War Memoirs to Milblogs: Language Change in the Witnessing of War, 1914–2014. *Discourse & Society*, 25(5):600–618.
- Cockburn, A. 2016. *Kill Chain: Drones and the Rise of High-Tech Assassins*. London: Verso.
- Cole, C., Dobbing, M. & Hailwood, A. 2010. *Convenient Killing: Armed Drones and the 'Playstation' Mentality*. Oxford: Fellowship of Reconciliation.
- Croft, W. & Cruse, A. 2004. *Cognitive Linguistics*. Cambridge: Cambridge University Press.
- Currier, C. (2015) The kill chain: The lethal bureaucracy behind Obama's drone war, *The Intercept*, 15 Oct, Available from: <https://theintercept.com/drone-papers/the-kill-chain/> [Accessed: 15th February 2021].

- Daggett, C. 2015. Drone Disorientations. *International Feminist Journal of Politics*, 17(3):361–379.
- Daulatzai, A. & Ghumkor, S. (2021) 'Damage control: The unbearable whiteness of drone work', *Jadaliyya*, 16 March, Available from: <https://www.jadaliyya.com/Details/42483> [Accessed May 3rd 2022].
- Evans, V. 2019. *Cognitive Linguistics: A Complete Guide*. 2nd ed. Edinburgh: Edinburgh University Press.
- Evans, V. & Green, M. 2006. *Cognitive Linguistics: An Introduction*. London: Routledge.
- Fauconnier, G. & Turner, M. 1996. Blending as a Central Process of Grammar. In: E. Goldberg Adele, ed. *Conceptual Structure, Discourse and Language*. Stanford, CA: Center for the Study of Language and Information (CSLI) Publications, pp. 113–130.
- Fauconnier, G. & Turner, M. 2002. *The way we Think: Conceptual Blending and the Mind's Hidden Complexities*. New York: Basic Books.
- Gibbs, R.W. 2017. *Metaphor Wars: Conceptual Metaphors in Human Life*. Cambridge: Cambridge University Press.
- Giovanelli, M. & Harrison, C. 2018. *Cognitive Grammar in Stylistics*. London: Bloomsbury.
- Giovanelli, M., Harrison, C. & Nuttall, L., eds 2021. *New Directions in Cognitive Grammar and Style*. London: Bloomsbury.
- Goatly, A. 2007. *Washing the Brain: Metaphor and Hidden Ideology*. Amsterdam: John Benjamins.
- Gregory, D. 2011. From a View to a Kill. *Theory, Culture & Society*, 28(7-8):188–215.
- Harrison, C. 2014. Attentional Windowing in David Foster Wallace's 'The Soul is Not a Smithy'. In: C. Harrison, L. Nuttall, P. Stockwell & W. Yuan, eds. *Cognitive Grammar in Literature*. Amsterdam: John Benjamins, pp. 53–67.
- Harrison, C. 2017. *Cognitive Grammar in Contemporary Fiction*. Amsterdam: John Benjamins.
- Harrison, C., Nuttall, L., Stockwell, P. & Yuan, W., eds 2014. *Cognitive Grammar in Literature*. Amsterdam: John Benjamins.
- Hart, C. 2008. Critical Discourse Analysis and Metaphor: Toward a Theoretical Framework. *Critical Discourse Studies*, 5(2):91–106.
- Hart, C. 2014. *Discourse, Grammar and Ideology: Functional and Cognitive Perspectives*. London: Bloomsbury.
- Hart, C., ed 2019. *Cognitive Linguistic Approaches to Text and Discourse: From Poetics to Politics*. Edinburgh: Edinburgh University Press.
- Hart, C. 2021. 28 Palestinians Die: A Cognitive Grammar Analysis of Mystification Inpress Coverage of Stage Violence on the Gaza Border. In: M. Giovanelli, C. Harrison & L. Nuttall, eds. *New Directions in Cognitive Grammar and Style*. London: Bloomsbury, pp. 93–115.
- Hodge, R. & Kress, G. 1993. *Language as Ideology*. 2nd ed. Cambridge: Cambridge University Press.
- Keene, D. 2015. *Lethal and Legal? The Ethics of Drone Strikes*. Carlisle, PA: United States Army War College Press.
- Koller, V. 2004. Businesswomen and war Metaphors: 'Possessive, Jealous and Pugnacious'? *Journal of Sociolinguistics*, 8(1):3–22.
- Lakoff, G. & Johnson, M. 1980. *Metaphors we Live by*. Chicago: University of Chicago Press.
- Lakoff, G. & Johnson, M. 1999. *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.
- Langacker, R. 2008. *Cognitive Grammar: A Basic Introduction*. Oxford: Oxford University Press.
- Lee, P. 2018a. *Reaper Force: Inside Britain's Drone Wars*. London: John Blake.
- Martin, M. & Sasser, C. 2010. *Predator: The Remote-Control air war Over Iraq and Afghanistan: A Pilot's Story*. Minneapolis, MN: Zenith Press.
- McCurley, T. & Maurer, K. 2016. *Hunter Killer: Inside the Lethal World of Drone Warfare*. London: Allen & Unwin.
- McSorley, K., Dawnet, L. & Huzar, T.J. 2019. Predatory war, Drones, and Torture: Remapping the Body in Pain. *Body & Society*, 25(3):73–99.
- Musolff, A. 2012. The Study of Metaphor as Part of Critical Discourse Analysis. *Critical Discourse Studies*, 9(3):301–310.
- Nahajec, L. 2021. *Negation, Expectation and Ideology in Written Texts*. Amsterdam: John Benjamins.

- Parks, L. & Kaplan, C. 2017. *Life in the age of Drone Warfare*. New York: Duke University Press.
- Pilkington, E. (2015) Life as a drone operator: 'Ever step on ants and never give it another thought?', *The Guardian*, 19 Nov, Available from: <https://www.theguardian.com/world/2015/nov/18/life-as-a-drone-pilot-creech-air-force-base-nevada> [Accessed 4th February 2021].
- Protevi, J. 2013. Affect, Agency, and Responsibility: The act of Killing in the age of Cyborgs. In: K. McSorley, ed. *War and the Body*. London: Routledge, pp. 128–137.
- Rabhani, M. (2022) *America's last drone strike in Afghanistan and the necropolitical language of drone warfare*. LSE, 4 March, Available from: <https://blogs.lse.ac.uk/mec/2022/03/04/americas-last-drone-strike-in-afghanistan-and-the-necropolitical-language-of-drone-warfare/> [Accessed May 3rd 2022].
- Ramazani, V. 2018. Killer Drones, Legal Ethics, and the Inconvenient Referent. *Lateral*, 7(2): doi:10.25158/L7.2.2.
- Rayment, S. (2020) RAF drone pilot kills terrorists 3,000 miles away from frontline 'like stepping on ants', *The Mirror*, 30 May, Available from: <https://www.mirror.co.uk/news/uk-news/raf-drone-pilot-kills-terrorists-22113244> [Accessed 6th February 2021].
- Royakkers, L. & Van Est, R. 2010. The Cubicle Warrior: The Marionette of Digitalized Warfare. *Ethics and Information Technology*, 12(3):289–296.
- Scarry, E. 1985. *The Body in Pain: The Making and Unmaking of the World*. Oxford: Oxford University Press.
- Schneider, R. 2012. Blending and the Study of Narrative: An Introduction. In: R. Schneider & M. Hartner, eds. *Blending and the Study of Narrative: Approaches and Applications*. Berlin: De Gruyter, pp. 1–30.
- Semino, E. 2021. "Not Soldiers but Fire-Fighters" – Metaphors and Covid-19. *Health Communication*, 36(1):50–58.
- Simon, S. (2017) Life as a 'drone warrior', NPR, 8th July, Available from: <https://www.npr.org/2017/07/08/536125111/life-as-a-drone-warrior?t=1622119190415> [Accessed 25th March 2021].
- Singer, P.W. 2009., *Wired for war: The Robotics Revolution and 21st Century Conflict*. London: Penguin.
- Smethurst, T. & Craps, S. 2019. Towards an Understanding of Drone Fiction. *Journal of War & Culture Studies*, 12(1):85–102.
- Stockwell, P. 2020. *Cognitive Poetics: An Introduction*. 2nd ed. London: Routledge.
- Strawser, B. 2013. *Killing by Remote Control: The Ethics of an Unmanned Military*. Oxford: Oxford University Press.
- Talmy, L. 2000. *Towards a Cognitive Semantics, vol. 1: Concept Structuring Systems*. Cambridge, MA: MIT Press.
- Vågnes, Ø. 2017. Drone Vision: Towards a Critique of the Rhetoric of Precision. *Krisis*, 36(1):8–17.
- Van Dijk, T. 1993. *Elite Discourse and Racism*. London: Sage Publications.
- Velicovich, B. & Stewart, C. 2018. *Drone Warrior: An Elite Soldier's Inside Account of the Hunt for America's Most Dangerous Enemies*. New York: Dey Street Books.
- Voice, M. 2022. Distance, Proximity, and Authenticity in the Point of View of US Military Drone Operator Autobiographies. *Discourse Studies*. [Advance online access]. doi:10.1177/14614456221112274
- Wales, K. 2014. The Stylistic Tool-kit: Methods and sub-Disciplines. In: P. Stockwell & S. Whiteley, eds. *The Cambridge Handbook of Stylistics*. Cambridge: Cambridge University Press, pp. 32–45.
- Wilcox, L. 2017. Drones, Swarms and Becoming-Insect: Feminist Utopias and Posthuman Politics. *Feminist Review*, 116:25–45.
- Wilcox, L. 2017. Embodying Algorithmic war: Gender, Race, and the Posthuman in Drone Warfare. *Security Dialogue*, 48(1):11–28.
- Wittmann, A. 2017. *Talking Conflict: The Loaded Language of Genocide, Political Violence, Terrorism, and Warfare*. Santa Barbara, CA: ABC-CLIO.