The interactional accomplishment of 'shootables': Visualisation and decision making before an Apache helicopter attack

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> To the extent that the history of war provides knowledge of […] every attack, every cover, every episode, every special engagement of forces etc. […] the term battle atomises itself and loses its continuity […] (Simmel 1916: 23, own translation).

Abstract

Interest in analysing (social) interaction in military and warfare settings is growing. However, few studies deal with interaction in such settings directly. Investigating a combat situation that took place in 2007 during the Iraq war, in this article I explore practices of surveillance and (war)fighting as they occur. In a sequential analysis of audio and video data from two Apache combat helicopters, I follow the crews as they jointly reach and act upon locally 'conclusive' observations based on the work they do in handling visual data through and with the helicopter's reconnaissance and weapons equipment; a situation quite unlike ordinary face-to-face conversation (cf. Goodwin 1981). Through that analysis, I will seek to show how they establish a joint visuality not (only) through aligned video technology but through their interaction with and around the technological infrastructure. This involves them engaging with or 'syncing' into the rhythms of the conduct they observe on the ground. Via their talk and camera work particular relevancies are marked, allowing them to move beyond an ambiguous diversity of possible interpretations of that observed conduct. In a situation characterised by the high pressure of unfolding combat, crew members reach a status of 'interperceptivity', allowing them to jointly establish visual clues as a basis for further action. The crews' highly specialised and concurrent interactional conduct, with lethal consequences, points to the importance of strong (sociological) investigations of the *in situ* activities of military personnel in making sense of combat operations, rather than a reliance on general claims about surveillance.

INTRODUCTION: INTERACTION IN WARFARE AND VISUAL PRACTICES OF SURVEILLANCE

Armed conflict and the military are long-standing topics within sociology. However, sociological studies mostly focus on macro links between society, the military and war (Segal and Clever 2013). This is despite Simmel's early work (1916) in which he discussed the tension between retrospective, idealised versions of events like famous battles and the interactional constituents which make up those events. For Simmel, understanding the battle meant understanding the interactions it consists of not just its putative 'macro' contexts. Picking up on Simmel's neglected insight, then, we might say that the more we learn about the way in which war is conducted, the more we can move beyond synoptic accounts of battle, constructed in retrospect with the benefit of hindsight. Following Simmel's lead here means concentrating on interaction in order to avoid the disembedded constructions we too often find in the sociological literature.

Though there has been growing interest in interaction in this context in recent years, there have only been a few studies into social interaction in the military or warfare (Jenkings et al. 2011). That said, alongside micro-sociological studies into the development of military sub-cultures (Hockey 1986) or the interactions which produce 'military time' (Hockey 2017), studies which usually deploy (auto-)ethnographic methods (Hockey 2016), there is an emerging field of videographic studies of military and warfare interaction (Elsey et al. 2016). A number of these studies focus on prominent individual incidents which sparked public attention and lead to the release of videos and other data: namely, for the UK, a friendly fire incident killing a British solider (e.g. McHoul 2007; Nevile 2009; Mair et al. 2012); and, for Germany, the 2009 Kunduz airstrike, which left more than 100 Afghan civilians dead (Scheffer 2018; Kolanoski 2018). Though numerous new sources of video data have appeared in recent years, which could prompt research in this direction (Hockey 2016; Jenkings 2018: 49; Mair et al. 2018), there remains a lack of micro-sociological or interaction analytical studies into the mundane occurrences of war (Mair et al. 2016: 429). While the possible benefits of ethnomethodologically oriented studies of war have been set out (Elsey et al. 2016), that potential has not been fully realised as studies remain few and far between.

Much interactional conduct in the military and, especially, in warfare take place under conditions of pressure, often discussed under the terminology of 'situational awareness' (e.g. Salmon et al. 2009). Pressure is evident in combat situations where military personnel have to make significant decisions, at times in a split-second, while being exposed to existential threats to themselves or fellow troops. As aspects of such pressure there are usually physical factors (such as sleep deprivation and/or engagement in physically demanding tasks for lengthy periods of time) and psychological factors (e.g. being permanently attentive, being exposed to disturbing sights) of stress mentioned. But pressure, as I understand it, also surfaces in another factor: hampered communication (e.g., by noisy background or problematic communication technology) while tasks inevitable cooperative need to be fulfilled. This often includes multiple foci or tasks of joint

accomplishment (as in the case of the helicopter crews). In other words, appropriate levels of 'situational awareness' must not only be maintained in far from perfect circumstances for individuals but must be accomplished in interactions under circumstances of residing pressure. In following Simmel and attending to interactions in military settings, it is clear, therefore, that it is important to understand how that pressure is manifested in and managed through interaction.

Those interested in studying interaction under pressure in the military and in warfare will struggle to find prior work to build on, however. For that reason, in this paper, I want to come at the phenomenon from a different angle and suggest we can gain insights into such interaction by drawing on parallel bodies of studies. One particularly relevant parallel body of studies deals with sporting activity, a field in which interaction analysis has become increasingly established in recent years (for an overview cf. Meyer and v. Wedelstaedt 2017a). Among other things, studies of sport have shown how even seemingly individual pursuits (boxing for instance) are highly distributed and collaborative endeavours and reveal techniques of multimodal collaboration that are deployed to reach joint visibilities of coaches and athletes under conditions of high pressure (Meyer and v. Wedelstaedt 2013). In such contexts, supposed obstacles (time pressure, environmental noises, etc.) are actually an important interactional resource for the participants in the very situation, allowing them to orient to the pace of activities, organise their engagement in them and acquire circumstantial advantage (Meyer and v. Wedelstaedt 2018). Seeking to understand the collaborative conduct of military personnel in similar ways, as jointly oriented, paced, timed, embodied, collaborative activity geared to circumstantial openings and opportunities, would seem a promising approach to take in gaining insights into military conduct and warfare. In drawing out those lessons, attending to 'intercorporeality' (Meyer et al. 2017a) is of particular importance as it helps deepen understandings of interactional conduct in complex work environments involving multiple, overlapping communicative regimens and challenges. A concern for 'intercorporeality', alerts us to, for instance, as in the case I examine below, the situational affordances helicopter crews make use of when jointly and parallelly fulfilling their required tasks. At the same time, a focus on 'intercorporeality' also helps us see how collaborative embodied action is rendered challenging by the situation in the cockpit: where pilots and gunners are physically separated (they sit behind one another) and so lack important resources to engage in modes of jointly produced conduct, most prominently touch (Meyer and v. Wedelstaedt 2020).

One of the complex tasks helicopter crews must manage is 'surveillance work'. Building on an interest in the perceived shift from industrialised war to post-industrial 'global surveillance war' (Shaw 2009: 105), surveillance or security studies have devoted a great deal of attention to supposedly evolving and improving modes of visual surveillance resulting in allegedly new 'regimes of visibility' (e.g. Ball et al. 2012; Ericson and Haggerty 2006; Hempel et al. 2011). Many of these studies investigate discourses and regimes of justification across public, political, administrative, or cultural domains. They explore practices of gathering and storing visual information as they are altered by technology

in light of the growing use of 'autonomous' visual and combat technologies (Sharkey and Suchman 2013; Suchman et al. 2017). However, while these studies deliver some important, though often limited, insights into the technological and administrative backgrounds of the actual conduct of war, the very conduct itself remains 'in a shadow world' (Krasmann and Weber 2015: 8). Using available insights into actual practices of surveillance, I am interested in shedding light on the practices that produce 'targetability' or 'shootability' interactionally out of that shadow world. Most studies centring on the actual practices show an interest in the persons carrying out the surveillance rather than the immediate performance of surveillance itself (Smith 2012; Asaro 2013). They are less concerned with examining social conduct as it unfolds and preserving it in its details for the analysis (Bergmann 1985) – my concern in what follows. Though there is a growing recognition of video based studies (Knoblauch et al. 2012) and fruitful integration of video material via transcripts (Ayaß 2015), existing surveillance studies pay limited attention to the possibilities of video-based interactional analysis in making sense of warfare interaction. The emergence, dynamics, and contingencies of the communicative practices of surveillance remain a 'black box', one which I seek to open below.

The empirical case I will focus on in order to open up military practice to a more focused form of interactional analysis features a patrolling and combat mission involving two Apache helicopter crews as part of broader ongoing surveillance operations.[1] Understanding the conduct of the personnel involved first of all means addressing the 'basic' or foundational conditions of any social exchange (e.g., 'who sees/hears what at which point in time?') and I will trace the dynamic elements involved and frame the setting to set up an analysis of how surveillance was being conducted in this complex work environment.[2] Within the existing surveillance literature, the practical accomplishment of surveillance is treated as a matter of individualised image processing (or disregarded at all). However, I will show that seeing something is not necessarily equivalent to interactionally processing an image of any sort for the crews. It is rather a question of how visual information can be integrated in complex interactional conduct through talking, for the purpose of building further engagement (as in, e.g., a decision to fire or not). On this perspective, seeing is beyond an individual's perceptive capabilities or the pixels on screens or displays, as 'the ability to see [...] is lodged not in the individual mind' (Goodwin 1994: 633) but in collaborative courses of embodied action. As will be shown in the analysis, the crews come to see what is on the ground through interactional conduct establishing a joint observational practice. Instead of focusing on individuals processing pictures, perception here is grounded in the work of interacting participants and their collaborative interpretation of video data. This sociological approach to surveillance leads to a more empirically transparent understanding of those practices.

[1] Different types of military activities such as reconnaissance, patrolling, close air support, targeted killing operations or combat may involve different practices. The data available for examining the similarities and differences is limited (namely on secret surveillance and target killing missions), however.

[2] And often the description of the visibility and audibility alone delivers crucial clues into a case, as shown by Mair et al. (2018).

DATA SOURCE AND CONTEXT

The data examined here originates from a larger data corpus of a research project[3] into communication in warfare, with communication treated in terms of the actual and immediate practices of those involved. One of the project's data sources is publicly available recordings depicting situations of warfare. These videos are collected through regularly searching publicly available video-sharing websites, online boards, and other social media, where it is not uncommon for former soldiers or others to upload mission related video footage (cf. Kirton 2016). The following sequential analysis benefits from analysing other comparable cases and from extended examination of information on technical and tactical matters (including a variety of background literature, personal reports or online discussions of veterans, handbooks, manuals, technical specifications, etc.). This way an 'ethnographic knowledge' of a certain degree could be obtained; a form of appropriated unique adequacy (cf. Jenkings 2018).

The video that I will analyse was uploaded to a public video-sharing website in the fall of 2016. Apparently, it was uploaded for the first time then and was deleted shortly after, due to violating the website's guidelines on violent or explicit content. The video has surfaced in various forms since but never in the lengthy version originally uploaded (and stored by myself). Operations and events visible in the video and incorporated references (call signs, locations mentioned, etc.) were crosschecked with the so called 'Iraq War Documents Leak' (available at 'WikiLeaks') and corresponding descriptions could be found. Thus, for the purpose of this analysis and in the following, the video is regarded as authentic.

Following legal advice, which I obtained due to the lack of clarity around authorship and the rights holder, all of the following data is anonymised. All call signs, information on places, etc., have been altered in both the transcripts and the reproduced stills from the helicopter's Target Acquisition and Designation Sights (TADS) system (except for the general vicinity in Iraq). This is to avoid conclusions being drawn about the identities of any persons involved and to ensure their personal rights.

CONTEXT TO THE SCENE

The video data was recorded one afternoon in 2007. Earlier that day, so called 'Anti Iraq Forces' (AIFs) or 'Iraqi insurgents' attacked coalition forces (US and allied forces) and 'downed' a US helicopter. After this incident two Apache gunships were ordered to secure an area and search for the attackers. Both patrolling aircraft's TADS video data as well as all related radio network communications (see sketch below) were recorded. The audio and video data was transcribed by myself to 're-present' the video's content.

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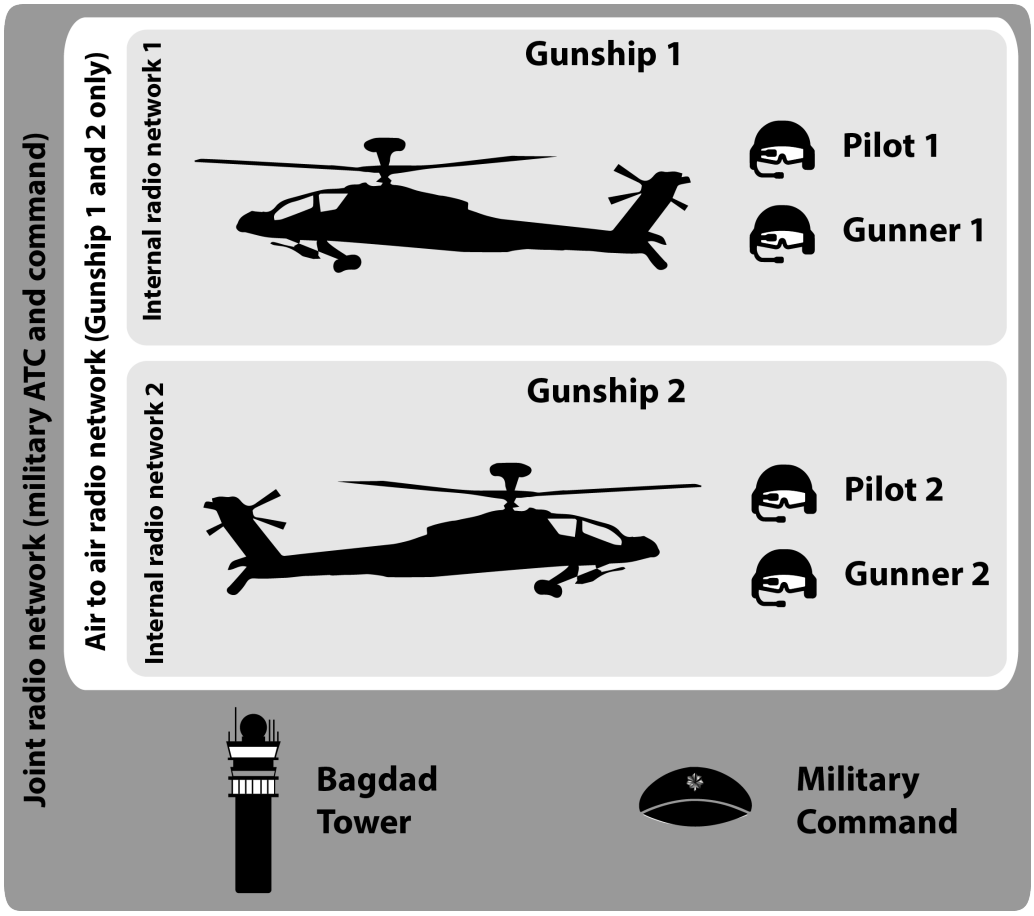
[3] 'Medialised Communication under Pressure – Cultures of Command, Epistemic Practices, and Distributed Decision-making in Technically Mediated Warfare Communication', supervised by Christian Meyer and conducted by Ulrich v. Wedelstaedt at the University of Konstanz running from 2019 to 2022. The project is funded by the German Research Foundation (DFG).

The helicopters involved in the mission were two Apache AH-64s (subsequently called gunship 1 and 2). After the defeat of Iraq's regular army in 2003, these aircraft were deployed for close air support, reconnaissance missions, and mostly 'counter insurgent operations' (cf. Bernstein and Laurier 2005: 71). For that purpose, they would operate in groups or individually. In counter insurgent operations a commonly used weapon is the 30mm gun, with an operational range of 500 to 800 meters. Nevertheless, reconnaissance can be done from significantly more distant positions. The low flying tactics adopted as part of these operations made the Apache vulnerable to lighter arms and several aircrafts were brought down, with flying personnel wounded or killed due to small arms fire in Iraq (Bishop and Laurier 2005: 36–37).

An Apache's crew consists of a pilot and a co-pilot or gunner. Pilots are officers and the highest-ranking personnel on board. They are not only responsible for all tasks connected to flying the aircraft but also in charge of directing the aircraft's external engagements. The co-pilot or gunner is usually a warrant officer (WO/CWO), an experienced non-commissioned officer (NCO) or a junior officer. Co-pilots occasionally have flight training themselves, but with less flight experience. They are responsible for operating all systems which are not directly linked to flying the aircraft, including weapons and visual systems.

As shown in the sketch, pilot und gunner are connected via a continuous radio network (so-called 'full-duplex': they talk and listen simultaneously, without having to push any switches for instance). In the mission at hand, both of them can communicate on two other radio networks: with other aircraft deployed to the mission (in our case, the other gunship; the white section in the sketch below) or all other outside call stations on the frequency (i.e., other aircraft, military air traffic control [ATC], and commanding stations; the dark grey section in the sketch below). Outbound communication works via 'half-duplex' or two-way radio: by pushing a switch, radio communication is possible and only one call station can be heard or talked to at one time. This technological set-up creates the need to use call-signs and procedure words (e.g., 'over', 'roger', etc.) so as not to confuse, interrupt or 'overstep' other call stations. In the transcript the usage of the outside communication radio network is indicated through white or dark grey sections accordingly, as indicated in the sketch.



Sketch of the radio networks inside and outside the helicopters

Alongside the radio equipment, the pilot and gunner use the Apache's various imaging technologies. The most prominent to be used during (potential) attack missions is the 'Target Acquisition and Designation Sights' or TADS system. This includes a camera mounted to the aircraft's front which is mostly operated by the gunner. The picture produced by this camera, is usually also fed to the pilot via a cockpit monitor as well as directly into the visual field: both pilot and gunner wear a helmet-mounted display reproducing information from the TADS system directly into the visual field.

Concerning what I will call 'shootability', there is no shooting in the following transcript. However, depending on the rules of engagement effective at the time and place, the 'shootablity' of targets is established long before the shooting starts: certain practices will almost inevitably result in shooting and killing. In the context of the occupation of Iraq, weapon sightings would lead to prompt engagements after clearance from a commanding station. Such weapon sightings function like a point of no return after which objects or persons on the ground become 'shootable'. The decision to shoot or not to shoot therefore lies in the crews' 'epistemic practices', a concept I shall elaborate on further in what follows and develop in rather different ways to the existing literature (cf.

Heritage 2012b), and the state of 'shootability' is one that holds between the identification of a target and the finished military intervention (e.g. when no ground movements can be detected anymore).

ANALYSIS: ACCOMPLISHING 'SHOOTABLES' IN INTERACTION[4]

The analysis focuses on the earliest mission phase available from the video: it starts with a vehicle being spotted by the gunships and ends with both helicopters communicating a 'PID' ('positive identification', spotting weapons) of the truck respectively of the group of people with it. As mentioned above, such 'PID' is most certainly followed by a shooting. In the case at hand most of the people in the truck's vicinity were killed through both gunships' 30mm gunfire (after our transcript ends).

The following analysis takes the transcript sequentially but highlights different features and instances of the interaction that can be found throughout the whole extract.

Narrating pictures

Helicopter crews deployed with close air support or reconnaissance missions often endure long periods of idle time. They usually spend this time watching activities on the ground. This includes specific search missions and general aerial surveillance. In regard to specific observations there is a noticeable recurring pattern: gunners will narrate what the camera depicts. If they fail to provide such narrations (perhaps watching silently), pilots will often ask the gunners to deliver a description of what they see on the screen.

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01  1G  <(just dropped) one guy off (-)>
02  1P  uh=okay (--) what are they doing just jumpin=off moving, (-)
03      [<<☺>eh>    ]
04  1G  [and        ] the:y a::re
05  ?   (…) (carry) vehicle (…)
06  1G  =>>stand by<<
07  1G  =>(ne)=they carry weapons<
08  1P  are they,
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Transcript 1: Gunship 1

Here, after some technical remarks (concerning air traffic control, prior to transcript), the gunner of gunship 1 starts the description of what he sees via the TADS on the ground (01). The pilot responds with a question (02) and a smiley interjection (03). The latter is interrupted by the gunner continuing his descriptions, with prolonged vowels (04). Subsequently an external call station transmits a hardly audible message (05) and the gunner interjects a quick message to delay them (06). Speaking again on intercom he interrupts

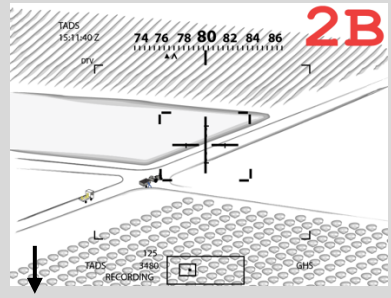
[4] For transcript signs see appendix.

himself and states a positive identification of weapons (07). The pilot enquires about that shortly after (08).

Pilot and gunner enter a dialogue focused on the matters seen on screen. However, the question asked by the pilot is not answered by the gunner. This includes the pilot's attempt to introduce a laughable through deploying smiley voicing (Ford and Fox 2010), which remains unaddressed. Instead, further descriptions are given, indicating the transition between casual watching and serious observations. Accordingly, the gunner delivers what could be called an 'epistemic monologue', adapting to the rhythm of the events on the ground (the point of rhythmic adaption is further discussed below) as he says what he sees. Noticeable is the gunner's monotonous voice while he is delivering his observations – until he rapidly silences the external radio call and reports the sighting of weapons.

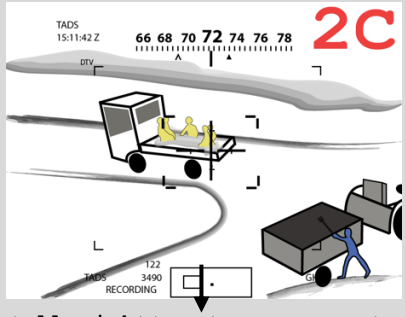
The next transcript shows the same situation of ground observation in the second gunship, where the scene is highly comparable.

01 2P gunner target



02 2G (4,0) (as this) (1,5) (I got it)

03 2P roger (4,0)



04 2G (all right) got you guys (---)

05 2P baghdad tower easy three four two u:age [UH] sixtys (-) amy
06 plus one (-) inbound for delta (1,0)
07 Δ >(…) (you have a bad area) (i understa:nd) (…) times on four
08 (…) (three times approve) this time< (1,5)
09 2G <they just dropped (the) guy [off,>]
10 (2P) [roger]
11 2G (4,0)(<just dropped) another guy o::ff,> (---)

12		<eh=don't know what that i:s,>
13	?	(1,0) roger (1,5)
14	2G	that may be (their)=oh yea=>THAT=S A WEAPON< (.)
15		right there did=(you) see that,

Transcript 2: Gunship 2

In the second gunship, the pilot asks the gunner to be on the lookout for a possible target (01) using a standardised phrase and requests he take control of the TADS system. For some seconds then the gunner is busy stabilising the TADS system. The screen shows a motion-blurred screen in which a street and several bushes can just be made out (02, still 2A). After about five seconds of blurred picture (and some incomplete utterances by the gunner) the gunner has stabilised the TADS, zooms out to an overview with a white passenger mounted truck[5] centred (02, still 2B), which he verbally acknowledges ('i got it', 02). However, only after zooming in on the truck (04, still 2C), he utters another confirmation ('got you guys', 04). After the pilot (05-06) and an external call station (07-08) coordinate issues of air traffic control, the gunner continues describing the passenger being dropped off from the back of the flatbed truck (09), using highly similar wording to the gunner of gunship 1. The pilot then responds to the earlier message from the external call station (10). The gunner reports that another passenger is being dropped off from the truck's back (11) followed by an ambiguous description (12). After an unknown call station is audible for a moment and a break occurs (13), the gunner interrupts himself and quickly shouts out the sighting of a weapon (14), eventually turning to the pilot to ask him about his observations (15).

Again, just as in gunship 1, the gunner delivers his observations in a rather monotonous tone. This is done list-like[6] – ending on 'off' (09), 'off' (11), and 'is' (12) – recognizable from the rising intonation or high pitch final sound. Lacking a coherent next list point, the gunner fills the third position with a 'blank space'. It is evident that the observation of the actual conduct on the ground is not of highest concern at this particular moment. The gunner instead distances himself from the task with his monotonous reporting. As he fills the third list point with a 'blank space', it becomes apparent that the gunner is primarily concerned with maintaining a rhythm for the observation rather than delivering a detailed description.

What is most striking about the modes of observations is that they differ only slightly in both gunships: the gunners both deliver rather distanced reports of their observations – later to be interrupted by the sighting of weapons. For storytelling, Sacks (1995: 222) noted that 'story prefaces' (earlier and less exciting elements of a story) often lay the

[5] The truck can be seen driving down a gravel road between what appears to be farm and plantation land. The persons in the back have been marked yellow for enhanced visibility in the reproduced stills. The truck quickly drives towards a junction, where a tractor and its trailer stand stationary. A person (marked blue) is loading the trailer using a pitchfork or something similar. The white truck turns left at the junction and drives on.

[6] The listing in this case would not necessarily be limited to a three-part structure but exhibit sensitivity to the unfolding events observed, as e.g. described for rhyming (Jefferson 1990: 68).

ground for later thrilling or surprising parts. In a comparable way, the gunners' observations of 'nothing much to report' seem connected to following news of 'persons with weapons'. During their earlier observations the gunners are permanently marking their distance to the events on the ground. At times the gunners seem to be bored when delivering their observations. Sacks also observed the casual telling of story prefaces: for him they aided the storyteller in achieving 'witness status' or 'legitimate audience status' (Sacks 1986: 137). They clear their story telling of emotional involvement and avoid attributions of evil intentions, 'disguising [their] own interests' (Sacks 1986: 131). Though obviously not telling a story, the gunners' prefacing helps to highlight (possible) later sights of tactical movement, weapons or similar items (as delivered later, see below). Through the verbal distancing, their observations (earlier or later) are also disconnected from the person delivering them – a way of verbalising observations which can be found throughout numerous reconnaissance, close air support and patrol missions involving aircraft.

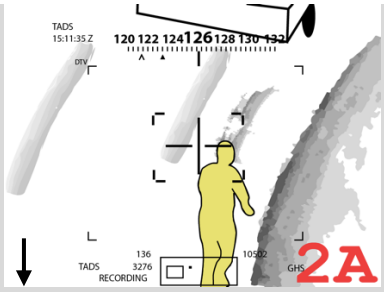
This technique is thus one step in transforming trivial pictures into manageable and usable images of observations on ground activities. This process is not finished with the stabilisation of the video feed by the gunner in gunship 2 – but begins only then. With his utterance 'got you guys' (04), the gunner confirms being locked on to a potential target, meaning not only that he stabilised the camera view, but indicating that from here on he is able to deliver a vocalisation of the video. The subsequent continuous narrations are reminiscent of Sacks's 'commentator machine' (Sacks 1963: 5). But just as in Sacks's example, there is a fundamental difference between the doings of the machine (in our case the scene on the ground) and the commentaries on it (firstly the camera's view and secondly the gunners' narrations) which do add new layers of interpretation. Respectively, the gunners' vocalisations are not 'neutral' descriptions but fit the interaction in the helicopter: producing tactically valuable images and eventually identifying potentially 'shootable' targets. This becomes evident, for example, in the (self-interrupted, see below on relevance marking) identification of a weapon as 'their weapon' (15). *Their* – as opposed to *a* – contextualises the sighting as it points to the possession of and indicates control over the weapon by the persons sighted (it might also refer to *the* weapon used earlier on the day of the mission to down the other aircraft). Not only do the persons on the ground become a legitimate target via this linkage but very likely also a valuable one. Thus the gunners' description not only indicates the sighting but additional tactical information and anticipated conclusions in regard to further military engagement.

As we can see from the above, the 'nextness' (Garfinkel 1967: 12) in these instances of helicopter surveillance missions is extremely contingent: there might be a mere continuation of the list in a slow and rather bored, distanced fashion – or news may be broken via it that may soon lead to an attack.

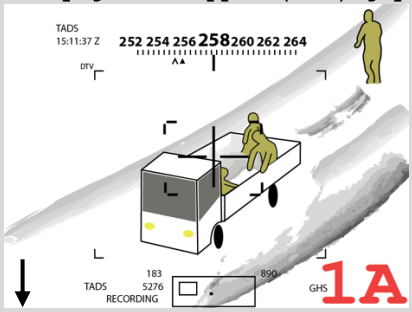
Adapting rhythms

As both gunners deliver descriptions related to the conduct as seen through the cameras, they enter the above described form of 'epistemic monologue'. They seem to have similar techniques for entering this mode of orientation, as they adapt to a common rhythmicity, the rhythm of events on the ground.

In the following both of the above cockpit communications are aligned in one transcript. This is done for analytical purposes to compare the conduct in both individual aircraft. The crews are unable to hear their counterparts in the other aircraft as they did not activate air-to-air radio network. Preliminary elements unrelated to the talk in the cockpits have been left out to enhance clarity (but are included in the transcripts above).



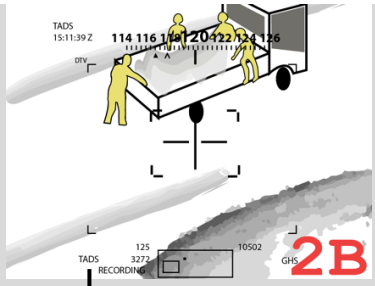
01 2G <they just dropped (the) guy off,> (-)



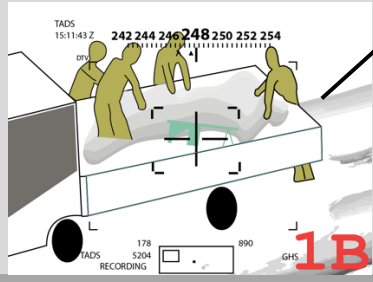
02 1G <(just dropped) one guy off>

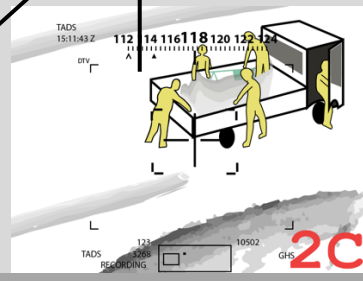
03 1P uh=okay (--) what are they doing just jumpin=off moving, (-)

04 [<<☺>eh>]

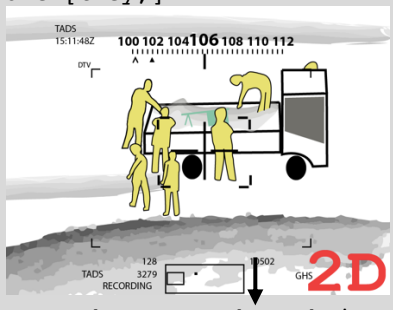


05 1G [<and] [the:y] [a::re>]
06 2G [<(just dropped)] [another guy] [o::ff,>] (---)
07 [<eh=don't know what that i:s, (1,0)>]





08 ? [(…) (carry) vehicle]
09 1G =>>stand by<<
10 1G =>(ne)=they carry weapons<
11 1P are [they,]



12 2G [that] may be (their)=oh yea=>THAT=S A WEAPON< (.)
13 right there did=(you) see that,

Transcript 3: Gunship 1, 2 combined

The combined transcript shows the second gunship's gunner describing how a passenger has dismounted the vehicle in question (01): the person jumped off from the back of the truck after it had come to a near stop before continuing its drive right. As visible from the second gunship's TADS screen (01, still 2A), the gunner gives his description only after the truck has taken off again (some two seconds later). Almost simultaneously, the first gunship's gunner delivers a nearly identical description (02) after the vehicle had carried on a little longer (02, still 1A). While the pilot of gunship 2 gives his question and laughable (03-04), the truck eventually comes to a full stop, two more of the four remaining passengers on the back exit, and all of the passengers start to handle objects stored

in the back of the truck (06, still 2B). The first gunner begins to describe, but stops his sentence, after delivering the first half in the form of three increasingly lengthened words (05). Parallel to that, the second gunner describes the next passenger's exit, noticeably lengthening the word 'off' (06) and continues his list with the 'blank space' (07). The parallel lengthened words ('are', gunner 1; 'off' gunner 2) coincide with the persons on the ground handling blankets and a machine gun. The first gunner (05, still 1B) has a pretty good sight of the object handled on the truck's back, while the second gunner's view (06, still 2C) is blocked by a person standing on the back of the truck and another person (exiting the truck) comes into his sight. After a mostly unintelligible call from an external station (08), that the first gunner rapidly tells to stand by (09), he follows with verbalising a weapon's sighting (10). The pilot of the first gunship places a question on that (11) and at the same time the second gunship's gunner starts to report the weapon sighting as well (12–13).

Multiple issues need to be addressed here. It is evident that both gunners talk about the events on the ground in a highly comparable way. Their narration synchronises into a rhythm along the lines of the activities they observe on the ground and is thus adapted to the timeline of events unfolding on the ground. In doing so they reach what some have termed a higher 'epistemic status' (Heritage 2012a) though this status is not based on abstract and unspecific knowledge but on the observations they are orienting their own actions to. In their complex working environment, they are assigned the position which has primary visual access to the scene and are to transform them into commensurable descriptions for further courses of action. This engagement interrupts as the proceedings on the ground become temporarily unclear to both gunners. In parallel, they use lengthened wording, signalling their attention to the ground activities as well as their busyness with observing events and formulating adequate descriptions (comparably: Goodwin 1980).

Though engaging with and therefore 'syncing' into the rhythm of events on the ground, the narrations given should not be confused with the depiction of some sort of objective reality by the gunners. As recognizable from the above transcript, the second gunship's gunner speaks of 'another guy' being dropped off the truck (06), when just moments before two more persons jumped off the back (05/06, stills 1B and 2C). So, rather than reporting the dismount of two, he remains in his list-style-rhythm and gives information better fitting his list than corresponding with ground activity. This discrepancy sheds light on the basic pattern of the descriptions given by the gunners: they do not focus on delivering the most accurate depiction they can, e.g. one that could not be challenged by the pilot's own observations. Instead, gunners engage in a rhythmic pattern of description in relation to the scenery while not necessarily depicting it. This pattern of narration secures and signals their capacity to engage in their 'epistemic monologues'. In doing so, they indeed deliver a description full of ascriptions and attributions. For example, both gunners talk about 'they' (as in an institutionalised entity or organised cooperative body) dropping off passengers, implying a coordinated movement of individuals as part of a tactically motivated action against them and their fellow soldiers. An

alternative version would be to ascribe action and motivation to the individuals by speaking of persons jumping off the vehicles (as the pilot does, 03).

While the gunners may at times enter their 'epistemic monologues', then, this is not a solitary endeavour as the pilots are part of this practice too. The pilot in gunship 1, for instance, delivers an utterance (03-04) that shows some characteristics of requests for information, as they have been observed in negotiating epistemic statuses in everyday conversation (e.g. using tag questions, Heritage 2012a: 14). Still, case and data seem to exceed this form of speaker-hearer-organisation: all four persons involved (both pilots and gunners) are, at least potentially, simultaneously observing the same unfolding events. It seems hardly possible to assert some (or one) of them an epistemic status over the others or to ascribe certain events as falling in their specific territories of knowledge. However, their access to visual tools used and the possibilities open to them to transform visual streams into commensurable goods is unevenly distributed among them.

Consequently, the phenomenon at hand seems to exceed rather static situations of a 'knowledge imbalance' (Heritage 2012b: 32) between two speakers that either have or do not have some abstract knowledge. It appears more complex as we find both crews are involved in an institutional context of hierarchical and technical statuses while working together to keep track of a dynamically unfolding situation. The dynamic of the aircraft crew talk follows from their technologically mediated interaction with one another and their equipment, especially their video imaging devices. Thus, it is never clear to members of a crew what any of the others may 'have seen'. This prompts the techniques of verbalising described here, thus making events transparent. The gunner engages with the rhythm of activities on the ground and thereby gains a more direct acquaintance with them than the pilot, making the verbal account plausible and appropriate to the situation. What has elsewhere being described as 'epistemic status' is thus not the consequence of a knowledge imbalance but the result of a distributed, technologized, and cooperatively managed epistemic practice.

The gunners' heightened epistemic status within this does not lead to a knowledge imbalance of any kind either. Though it could be argued that the pilot is acknowledging a potential asymmetry with his (tag) question, he instead promotes the establishment of a joint epistemic practice involving pilot and gunner. It is notable how the pilot of gunship 1, by asking, offers a specified reading of the activities (from 'dropping off' to 'jumping off moving'). This – especially in military context – puts the more dynamic and potentially tactical assertion of the events up for negotiation. This also serves a re-reading of the activity as to be glossed in military terms. The pilot's request is not designed to redress an imbalance or knowledge asymmetry, in other words, nor is not due to the dynamic evolvement or instability of the information. Rather, it promotes a joint epistemic practice, a practice in which the pilot – while being concerned with flying the aircraft – can also contribute suggestions for alternative situational observations (e.g. by asking for detailing or glossing). The request is thus a request to jointly engage in and consolidate a mutually worked up and supported way of doing surveillance.

In the context of these epistemic practices, the question is not so much what the crews need to know for an attack to take place. The question is rather which epistemic practices crews need to engage in. Such practices of observations are the basis out of which further engagement evolves, as relevance is marked.

Marking relevance

The slow, casual, and rather mundane verbalised observations that serve to secure a status of neutral witness, are in stark contrast to the immediacy of the gunners' news telling. When they spot a weapon or have a similarly important sighting to tell of, their voicing changes significantly, as visible from the following two extracts from the above transcript.

```
05  ?*  (…) (carry) vehicle
06  1G* =>>stand by<<
07  1G  =>(ne)=they carry weapons<
```

Transcript 4: Gunship 1

As an unknown call station radios something unintelligible (to us, 05), the first gunship's gunner quickly tells them to stand by (07). Right after he speaks about having sighted a weapon on intercom, with fast speech: interrupting himself and re-starting a sentence (08).

```
07  2G  that may be (their)=oh yea=>THAT=S A WEAPON< (.)
18      right there did=(you) see that,
```

Transcript 5: Gunship 2

In the second gunship the gunner also interrupts himself, inserting an affirmative interjection, and continuing in a louder and faster voice than before (07). He then specifies the sighting's locality and asks the pilot for his observations (08).

It is noticeable that both gunners interrupt themselves in a comparable manner. Both of them start a sentence (though uncertain which wording in the case of the first gunner) and then restart immediately. By restarting, both make their (perceptive) processing of the situation transparent. Stating surprise in relation to the events unfolding again substantiates their epistemic status of neutral (but attentive) witnesses to the scene: they make themselves a sort of mouthpiece, translating the visual information into verbal accounts rather than interpreting it (as before when casually observing and hesitating to describe the covered activities). Their move into faster and/or more loudly voiced commentary also marks a point of transition in the cockpit and radio communication: from this point onwards communication changes from slow and almost bored language use to a loud, fast, and excited one in the preparation and conduct of the subsequent attack. This constitutes a breach of standardised textbook radio communication or so called

'aeronautical phraseology' (United States Federal Aviation Administration 2012) as well as military radio phraseology (e.g. the basic ABC rules on *a*ccuracy, *b*revity, and *c*larity: United States Marine Corps 2015), which was recognisable in the earlier transcript (e.g. transcript 2, line 1, when the gunner is called to a task with a standardised phrase). With the change in prosody the gunners introduce a changed mode of conduct from idle time to an impending attack.[7]

With their changed voicing they also anticipate the 'shootability' of the targets. The changed voicing does not (only) introduce news in itself. But the use of interjection here ('oh=yea', 07) points in the direction of a preferred outcome. Such a preferred outcome should not be confused with the attribution of an intention to accomplish a purpose. Instead, there are aspects in the turn design that exhibit a preference for a certain way of progressing the communication (Sacks 1987) with respect to the action taken upon its receipt. In this case, identifying weapons (which, as mentioned, equals the identification of 'shootables') seems to be preferred over not doing it. This would be plausible, given that both gunships were indeed deployed to search for enemy combatants – and have now apparently found them. In a situation of this kind, their potential objective of attack is also time sensitive: the sighting of an obviously unaware target minimises the risk of a counterattack from the ground (as happened with the downed aircraft earlier that day). Additionally, the persons on the ground had already started to disperse (by getting off from the truck), reducing the potential effectiveness of an imminent attack as people on the ground scatter once engagements set in (such running and difficult to shoot or kill persons are often referred to by crews as 'squirters').

After the radio communication prosodically runs in the form of casual talk, the crews enter a mode of 'alarmed understanding' (Bergmann 1992) as tensions rise and significant developments are reported. They constantly display their internal states of being occupied with perceptive processes and thereby make themselves in situ witnesses to the scene or deliver accounts on the urgency of sightings. In this situation of high pressure – as potentially fellow soldiers or one's own aircraft could be in the line of fire – the personnel often rely on mundane techniques for marking the relevance of sightings: though they sometimes employ special wording, they commonly mark immediacy through prosody, using speed or loudness of talk, high pitched voice, emphasis, everyday interjections ('yea', etc.). The field of tension between high specialization and mundane interactional routines in the practice of warfare communications becomes evident through all of this.

DISCUSSION: FROM PICTURES TO IMAGES

As my analysis has shown, over the course of a few seconds a trivial observation turns into a military intervention with an eventually lethal outcome.[8] In order to reach such

[7] Similarly, Auer et al. (1999: 203) point to rhythmical disintegration in the delivery of 'hot news'.

[8] As mentioned, in the course of the mission, most of the people in the truck's proximity were killed by both gunships' 30mm guns. The object in the truck's back, apparently a full automatic machine gun, was

an outcome, an object which has been sighted, one of several vehicles in a farm grove, needed to be transformed into 'a shootable'. As part of that, the early mundane descriptions should not be seen as isolated from later outcomes as they are interwoven and connected. The surprise and agitation brought about by weapons being sighted builds upon what came before. This does not mean that early descriptions are given in order to be able to later shoot and kill. Nonetheless, the accomplishment of such 'shootables' most certainly is an interactional accomplishment and a contingent outcome. It remains unclear whether shooting is ultimately a preferred outcome (in the sense elaborated above) or not. However, especially in instances of fellow troops or oneself being threatened and/or hostile forces being searched for (both given in our case), the preference for identifying 'shootables' is evident (above, the second gunner stating 'oh yea', transcript 5, line 7). Either way, in the context of a study such as this one, producing 'shootables' should be disentangled from any alleged desire to shoot and kill people. It is rather to say that the oscillation between boredom and agitation is the crews' communicative solution for the complex and time sensitive task that lies ahead. Such conduct takes place in a situation of high pressure, even existential threat. Moreover, as elaborated above, time is a crucial factor when shooting at multiple moving targets at a distance of up to several hundred meters.

Gunners reach an epistemic status through rhythm adaptation related to the conduct on the ground. Unlike online live commentary of sport events, however, the gunners do not deploy a 'dramatic prosody' to build up suspense or a climax (Kern 2010) – rather the opposite. They adapt to the rhythm of mundane activities on the ground. And, only split seconds later, they report observations leading to the shooting and killing of persons. But, as shown in the analysis, there is no information imbalance, since the information is produced as part of a joint epistemic practice. Even the pictures streaming through the systems need to be transformed into commensurable images in a joint epistemic practice of gunners and pilots. This practice is consequential. Regarding decision making, the crews' epistemic work results directly in the production of 'shootables'. So, in our case, the decision-making process sourrounding the production of 'shootables' is reduced to the epistemic practice of identifying weapons.

In methodological terms, sequential analysis here enables us to investigate every moment of the crews' conduct in its own right, to lay every instance of their activity under the microscope of the pause button (Bergmann 1985: 318). This means that the gunners' 'boredom' is not something that is only there to be later upgraded. As shown, the nextness here is crucially ambiguous: between bored continuation and being shot at. Sequential analysis helps us to adequately reconstruct the events – independently of what happens next.

This consistent use of sequential analysis shows how important it is not to explain interactional conduct via its retrospective processing, as with approaches that follow the participant's subjectivity (Smith 2012; Asaro 2013) or when trying to reconstruct

repeatedly deployed by persons on the ground to unsuccessfully shoot the helicopters in the course of the engagement.

immediate in situ logics through later legal (or other) inquiries (Mair et al. 2018). When the practices are instead reconstructed according to their own logic, the professional vision (Goodwin 1994) of those involved comes into sight. We see how the crews (1) transform observed phenomena through coding into their profession's discourse, (2) highlight specific points of interest in front of a more complex background, and (3) articulate material representations (Goodwin 1994: 606). First lines of these more complex processes are already recognisable in the early stage of intervention above. Most importantly it becomes apparent that pictures need to be made into usable images: they need to be transformed into a commensurable good, valid and compatible in and for the situation. Without this, the video feeds remain mere pixels without relevance. Only by handling them in interaction do they become a 'social reality', a communicative element potentially sparking communicative sequels.

However, as pointed out, these communicative activities are never just neutral means for conveying information but are always biased themselves (Mort and Smith 2009: 228). They are not a pure (in our case: vocal) description of something that exists outside of the pictures but rather produce new layers of interpretation. In our example this can, for instance, be seen by deploying the phrase 'their weapon', making the weapon sighted a specific weapon and supposedly connecting it to the one used earlier that day to down the other aircraft (though *an* unspecific weapon would make them a 'shootable' as well). It becomes apparent that the transformation from trivial pictures to tactical valuable images is not only a task for retrospective analysis of events in an audit (Mair et al. 2018) but a necessity for vernacular video analysis (Tuma 2012) as the in situ conduct in a cockpit is grounded in a continuous analysis conducted by the participants as well.

CONCLUSION

There have been numerous cases of 'false identification', probably linked to 'false descriptions' in the recent conflicts involving 'western troops' and often involving modes of technologically mediated communication (for the discussion of some prominent cases see Gregory 2011: 202–203). Such false descriptions are often ascribed to individuals or their underlying intentions. From our perspective, centring on interaction, this seems highly problematic. Even labelling them as 'false' seems a difficult endeavour. The images – mediated through video, narrated by the gunners, requested by the pilots, delivered in situations of high pressure – are contingent but highly adapted to the joint in situ production of visibility in a potential combat situation. We can see how gunners reach a 'witness like status' (Sacks 1986: 137) when they are setting the route towards an eventually lethal termination. And, as pointed out, there may be a preference towards the production of a 'shootable', especially as threat levels rise and fellow soldiers are endangered. However, this does not equal a desire to shoot or kill. As I have shown, what sequential analysis does is help in understanding how an attack emerges from a situation of high pressure. As the analysis demonstrated, there is an in situ logic to deciding to shoot and kill. Here, the production of visibilities remains a 'situationally bound activity', as

visibilities are neither merely available at the scene nor can individuals simply deliver them independently from others or the situation they are in. Such visibilities do not originate from the technology used (alone) but the gunner's and pilot's epistemic work with it. By reconstructing the practical methods used to produce such visibilities – that much too often lead to 'false' outcomes in the sense of international law – we can take a look into what, for the most part, has been a black box of battlefield decision making.

In terms of what we gain access to when we open that black box, a close interaction-analytical inspection of our case shows the 'power' (Scheffer 2018: 122) of the personnel involved goes far beyond influencing the timely structure of an unfolding attack (delaying or progressing through hesitation or agitation). That is because their reach extends to the production of the images that would be the basis for any further order or an attack itself. If such a micro-view questions the organisation's 'formal and official agenda' (Scheffer 2018: 123), its first 'victim' in the case of the military would be the dualism of *commander* and *commanded*. While they are, of course, again part of larger, cooperative epistemic practices as well (e.g. as subordinates being told that there is a weapon to watch out for), when we look at things in this way the subordinates' great 'powers', as they e.g. perform the epistemic practices which produce the images that orders are based on, come into sight.

In the military context specialised communication, among other things, means hierarchised communication. The communication between pilot and gunner is in this sense asymmetrical or biased (Scheffer 1998: 291) and shows aspects of an 'enforced communication' as e.g. the interrogation of witnesses in a court of law (Schütze 1978: 43). The pilot can talk to the gunner differently – e.g. give orders. If the gunner addressed the pilot in the same way, it would, at least, be inappropriate (or could in extreme cases lead to disciplinary action being taken). However, in our case we see the pilot formulating his request for observability and attention to a specific target being formed in a technical term: that of 'gunner target', referring to him taking over the TADS controls. This, however, is something the gunner will often do as well. He can, for example, request or instruct the pilot to move the aircraft to a specific spot, to avoid visual blocking, etc. The gunner can deploy the same methods to formulate requests based on 'technical necessities'. In other words, the joint conduct of the two reflects a distribution of jointly fulfilled tasks and does not necessarily equal a distribution of responsibilities – or hierarchy.

The division of labour is a consequence of the practice of jointly fulfilling multiple tasks at hand at the same time – flying the aircraft, upholding radio communication, operating camera systems, and many more. In this complex working environment gunners have primary access to the visual information and are to vocalise these into images so further engagements can be initiated. However, as shown, the gunners do not act solitarily here but are embedded into tight interactional context. And these technical or tactical necessities can be deployed for shaping communicative conduct: they function as a resource of the participants, rather than an obstacle.

In this, the crews' work is not to be confused with levelling information imbalances where knowledge is in one person and not in another (which remains questionable from

a sociological perspective anyway), since the information is produced in situ only and in a collaborative manner. In this situation the crews enter a mode of *interperceptivity*, as observations from the cockpit crew are only possible jointly, mediated through technological devices such as the jointly controlled aircraft, cameras, monitors and the like. With this term I try to connect to recent theoretical works regarding 'intercorporeality' (Meyer et al. 2017a) as well as their empirical implementation (Meyer and v. Wedelstaedt 2017b). The term describes the situational melding of bodies into a 'multi-body entity' that coexists beyond shared perception and is able to act in complex situations, e.g. in high-pressure situations in sports (cf. several of the studies combined in Meyer and v. Wedelstaedt 2017a). There are indications in our above case that point to a massive embodiment but need to be developed further in the light of more empirical work, especially into the usage of technology (for example the usage of helmet-mounted displays) in the cockpit situation. However, the prosodic involvement alone speaks to the level of embodiment of these practices, and seems to almost substitute the immediate physical contact which enables 'intercorporeal' engagements. This shows how embodiment and embodied practices 'should not be understood as an insignificant or epiphenomenal dimension' (McSorley 2014: 121) but as the very core of the social phenomenon of war. In this perspective we see the joint epistemic practice of the crews transforming pictures to interactionally relevant images commensurable to the situation. Fulfilling such work in a manner that is in the need of fragile coordination and collaboration under the described conditions of high pressure seems a risky and uncertain task. Still, 'intercorporeality' or similar phenomena are at the core of many aspects of everyday accomplishments (see the different fields of occurrence in Meyer et al. 2017b). For communication in the military or warfare, there are several 'special conditions' in place: high specialisation (i.e., in the form of language, hierarchy, and branching), the sophisticated technology being used, strict organisational procedures and, in our case, the physical separation of the closely collaborating personnel. Still, on an interactional level there seem to be routines of communication at work which are – maybe surprisingly, maybe not – highly mundane ones (see also Jenkings 2018: 41–45). Despite such 'special conditions', a bigger part of the social dynamics of interaction is accessible by taking a closer look at the communicative conduct at work here. And this dynamic seems to be reconstructable with methods such as sequential analysis. By undertaking such analyses, not only can we examine the communicative practices themselves but the significant practices associated with them.

TRANSCRIPTION SIGNS

1G; 2P	Gunship 1, Gunner; Gunship 2, Pilot; others accordingly
Δ	External call station (military air traffic control)
(1G); ?	Uncertain; unknown speaker

Light grey background = Cockpit internal radio network (Gunship 1 or 2)

White background = Air to air radio network (Gunship 1 and 2)

Dark grey background = Joint radio network (all stations)

↘	Exact position of screenshot in reference to transcript
2B	Still B of video taken by Gunship 2 (others accordingly)
[…]	Beginning and ending of overlapping talk
(.)	Micro pause
(-)	0.25 second pause
(--)	0.5 second pause
(---)	0.75 second pause
(1,5)	Pause length in seconds
(…)	Missing
(word)	Uncertain transcription, assumed wording
word	Underlined part emphasised
WORD	Loud voice
<word>	Slow speech
>word<	Fast speech
>>word<<	Very fast speech
<<☺>word>	Beginning and end of smiley voicing
:	Prolongation of prior sound
word= =word	Immediate latching (one or more speakers)
,	Rising intonation
?	Strongly rising intonation

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