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Hockey, John C (2017) The experience of Zulu (military) Time: an examination of the temporal practices and perceptions of UK infantry. Sociological Research Online, 22 (3). pp. 78-94. ISSN 1360-7804

The final, definitive version of this paper has been published in Sociological Research Online, Volume 22/Issue 3, September 2017 by SAGE Publications Ltd, All rights reserved. © John Hockey

Official URL: <https://doi.org/10.1177/1360780417724074>

DOI: <http://dx.doi.org/10.1177/1360780417724074>

EPrint URI: <http://eprints.glos.ac.uk/id/eprint/4796>

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The experience of Zulu (military) Time: an examination of the temporal practices and perceptions of UK infantry.

John Hockey,

University of Gloucestershire, UK.

Biography: John Hockey is an ethnographer who has published research across the sociologies of education, sport and work. His current research is in the application of sociological phenomenology to sport and work. He is the author of *Squaddies: Portrait of a Subculture* (Exeter University Press, 1986) a pioneering ethnography of UK infantry. Correspondence to: John Hockey, ADU, University of Gloucestershire, Francis Close Hall, Swindon Road, Cheltenham GL50 4AZ. jhockey@glos.ac.uk.

Word Count: 7,507 (excluding references)

Abstract: Organizational time remains an under examined research area. This is particularly so in terms of analysis which combines workers temporal embodiment, temporal inter-embodiment and collective temporal perceptions. These three social processes are portrayed using the case of the military organization and focus upon the temporal world of UK infantry via ethnographic data obtained from participant observation. Initially the narrative examines the need for Zulu (military) time at the level of organizational structure. This is followed by a portrayal of how, within that structure, temporal embodiment and inter-embodiment are learnt and habituated, via practices such as parade ground and weapon training drills. Next those same temporal processes are focused upon in the context of operational (combat) patrolling and their manifestation within the practices of formations and tactics are examined. The narrative then moves on to examine collective temporal perceptions troops construct, which are focused upon issues of danger, safety and identity. The account concludes with a call for organizational time both civilian and military to be given much more attention by sociological researchers particularly at the level of embodied practices.

Keywords: ethnography, infantry, military, organizations, time, sociology, workers.

Introduction

The sociology of time has a considerable pedigree generally (see Adam 1994; Bergmann 1992; Flaherty 2011; Hassard 1990) however despite periodic alerts (Fine 1990; Llewellyn & Hindemarsch 2010) about the need to apply that particular sociological lens to organizations, presently as Hernes (2014) has stated the temporal remains still distinctly under examined within organizational studies. This is surprising as Atkinson (2015) has recently made the claim that temporal arrangements fundamentally influence the social make up of organizations. Perhaps as Adam (2000) noted some time ago the situation still remains that within lots of research on organisational life, time tends to be viewed as a neutral medium rather than an active constituent. This is not to say that there are not sociologically acute studies of organizational time for there are some excellent ones (e.g. Fine 1990; Glaser & Strauss 1968; Roy 1959; Zerubavel 1979). However, there appears to be a partiality to the kind of organizations studied and the aspects of temporality dwelt upon, the latter often focusing upon time as a commodity. The former applies particularly to the military organization for there has been little examination of the latter drawing upon the resources of organizational or occupational sociology (Jenkins et al. 2011) let alone the sociology of time. This is curious because the military is a very large and influential organization. So this paper is a response to that lacuna. Various attempts have been made to categorise time into different types or modalities or levels of analysis (e.g. Bergmann 1992; Cipriani 2013), a temporal complexity concisely summed up by Schutz and Luckman (1973: 47): 'The structure of life worldly time is built up where the subjective time of the stream of consciousness (of inner duration) intersects with the rhythm of the body as "biological time" in general, and with the seasons as world time in general, or as calendar or "social time" '. As Adam (1994) also notes such levels are not isolated from each other within organizations and it is their inter-relationship that needs to be sociologically examined.

However, there seem to be few studies which grapple with such temporal complexity within organizations for most studies usually focus on single themes, predominantly work-life balance as a recent review of the literature indicates (Van den Scott 2014). In addition within that literature how workers experience organizational time is also relatively absent (Van den Scott 2014). Therefore research which combines workers perceptual knowledge of organizational temporality, its impact on their direct embodiment, inter-embodiment, and how time is inexorably linked with the unfolding of work practices, is scant and does not always attend to all of those features (e.g. Hindmarsh & Pilnick 2007; Laurier 2008; Whalen, Whalen & Henderson 2002). In particular, in the case of work practices unfolding, there is a marked absence of analysis which focuses upon the moment-by-moment completion of occupational tasks as timely practical achievements (Llewellyn & Hindmarsh 2010). What follows then is an attempt to investigate how the complexities of the aforementioned temporal processes impact upon members within a particular *timescape* (Adam 1998), the composite temporal forms which the military organization manifests.

Firstly, the ethnographic research on which the paper is based is explained. Secondly, various theoretical and conceptual resources which are used to make the data analytic are depicted. Thirdly, the relationship between the military organizational structure and Zulu time is portrayed. Fourthly, ethnographic data is presented in some depth, showing how within that structure temporal embodiment and inter-embodiment is learnt and practiced. Fifthly, collective perceptions of the temporal emanating from the latter processes are identified. Sixthly, the paper concludes with some comments on how mundane military activities are saturated by Zulu time, and yet little is known in research terms, about military or civilian organizational time at the level of embodied temporality.

The Ethnographic Research

The depiction of the temporal processes of infantry in the following narrative is based on ethnographic research and details of this now follow. Some time ago the writer (Hockey 1986) published an ethnography of the subculture of UK infantrymen (there were no women in the

infantry then) based on three months fieldwork. Initially this involved being with recruits daily at a UK Army Basic Training Depot. This was followed by the writer living with a particular operational infantry company 24/7, in the contexts of barracks in the UK, field exercises in Canada/UK and operations in South Armagh, Northern Ireland. The latter when the conflict with the Provisional Irish Republican Army (PIRA) was still ongoing. The ethnography was constructed via participant observation, as this method was perceived to be the best way of accumulating thick descriptive data obtained by observation and interaction (Burgess 1990), in routine military contexts. In particular the writer was concerned to chart the complexities of the infantry subculture as they developed and changed around him on an hourly basis (see Hockey 2016 for an extended account of how the fieldwork was actually accomplished). The data was recorded manually via fieldnotes and then categorised thematically. (Hammersley & Atkinson 1983). Once the data was categorised the theoretical and conceptual resources from symbolic interactionism (Blumer 1969) were used to make the data analytic via a sensitising framework (Denzin 1989). What follows is a narrative based on fieldnotes written in the above period. During the fieldwork the author was focused analytically upon discovering the main social processes evident within the infantry subculture, with the aim of constructing a Chicago School type ethnography. As a result different kinds of data gathered were not perceived as a resource which could later be developed sociologically. In particular the author was not aware at that juncture of the sociology of time (interestingly not even Mead's theorization of time), which could have provoked a recognition that the data could have been exploited in a temporal direction and it therefore became effectively dormant. As Rosaldo (1993) has observed interpretations are inevitably provisional made by researchers who are located in certain contexts, who possess certain kinds of knowledge but not others. So the original analytic focus whilst allowing the author to construct a particular ethnographic narrative also simultaneously closed off other kinds of narratives. Subsequently it needed the relatively recent awareness of the author to the sociology of time to stimulate the realization that data he possessed could be 'revived' using this

new analytic resource (Akerstrom et al. 2004). Thus, the proceeding narrative is focused on the temporality of the infantry subculture which was not done originally .

As Van den Scott (2014) has noted since Donald Roy's work there have been very few ethnographies portraying workers experience of time in depth and this account adds to those. Infantry have two axiomatic occupational imperatives (a) stay alive (b) kill the enemy and given these they have a relationship with time which is intensely focused in the moment on the military tasks at hand . Troops are then balanced on ' Mead's knife edge' of temporal immediacy (Hitlin & Elder 2007:186) when completing these fundamentally pragmatic operational activities.

Situating the Data Theoretically and Conceptually

Much of the ethnographic data presented in the following narrative focuses upon the temporal dimension of infantry doing their routine tasks. It is then possible to situate such timely occupational activity within the body of literature which has become known as practice-based theory (see Nicolini 2012; Schatzki 2001; Shove et al. 2012), which maintains that social life is made up of webs of interlinked embodied practices which produce shared practice understandings (Schatzki 2001). So such practises whilst individual are then also socially participative and grounded in particular communal contexts. Traditionally within organizational studies time has been viewed as a commodity often connected to organizational output and efficiency. There is however a need as Shove (2009) points out to move that focus of concern from time as a resource to time as a central component of systems of complex social practices. There are various dimension of time integral to the accomplishment of practices for as Shove (2009) argues time is *made* by ongoing practices, via the temporal sequencing of actions individually and collectively and the timing of such sequences , both of which are necessary for practical accomplishments to be done effectively (Shove 2009). Interestingly much of what constitutes sequences of practice in the infantry are drills learnt by the inculcation of embodied habits (Merleau-Ponty 1962). These drills or in civilian terms routines can be conceptualised as devices for structuring the movement of time (Ehn & Lofgren

2009). In the following narrative whilst there is ethnographic data illustrating the temporal complexity of infantry practices, there is also data which illustrates troops perceptions of the temporal which are the outcome of *participation* in such practices (Merleau-Ponty 1962). Also as Abram (1996) has observed participation and perception always involve the inter-linking of the body and mind. In the case at hand these collective embodied perceptions of time focus upon its relationship to safety, danger and identity, features which are salient within the infantry world.

To make analytic sense of the ethnographic data a number of conceptual devices are utilised and the main of these are now outlined. In effect they constitute some of what Adams (2008: 7) has conceptualised as the 'irreducible elements' of timescapes generally. In addition more specifically, to the case at hand, they are what Gary Fine, building on the work of Lauer (1981), has called the 'building blocks of the temporal organization of work' (Fine 1990: 96). Much of military life and particularly within the infantry is constructed by repeated *sequences* of different types of collective organisational practice. This sequencing constitutes the timely progression of inter-linked actions (Lewis & Weigert 1981). Such sequences have a particular *tempo*, which can be defined as their rate or speed (Fine, 1990). A tempo which can change according to the organizational context of the actions being completed. Also such sequences have a particular *duration* or length of time (Fine, 1990), which is similarly changeable according to context. The organizational repetition of sequences establishes a particular *rhythm*. The latter constituting a repeated configuration of energy in particular forms experienced in the body by changes in direction, speed, duration and intensity (Goodridge 1999). Rhythm then organizes or shapes the flow of collective action, whilst simultaneously being part of that action. Via these habitual interactional practices develops a sense of *group timing* which regulates the occurrence of actions so to accomplish agreed objectives Goodridge (1999) The result of these inter-linked temporal building blocks is that troops in their mundane activities display a high degree of what Schutz (1951[1974]: 176) has termed '*temporal synchronization*'. A condition involving the mutual experiencing of a sense of collective inner time as actions are accomplished together as 'We'. Having situated the research theoretically and

portrayed some useful conceptual tools the narrative now moves to examining some of the temporal features of the military organization.

Organizational Structure and Zulu Time

As an organization the UK military and more specifically in the case at hand its infantry operates with a 24 hour clock known as 'Zulu Time'. This understanding of time is essentially linear and was introduced along with the development of industrial capitalism. Whilst clock time provides the overall temporal framework, within it there is a second kind of time which also structures troops lives. This is what Clark (1985) has called 'event time'. Whereas clock based time is quantifiable and linear, in contrast event time is essentially qualitative and cyclical. From this perspective time is within social events and organizations move to the cycle of their particular recurrent event times. In the case of the military there are generally three event-based cycles which form the routine pattern of their particular work lives in the differing contexts of barracks, field exercises and actual operations. All of them being partially similar and yet partially different in the particular complex assemblage of events that occur within them. Events in the context of this account being defined as recurrent organizational practices, sometimes greater and sometimes smaller, in both number and complexity.

Within all these combined clock based/ event-based cycles great priority is given to time synchronization (Schutz 1951[74]) at a structural level. This is because like all complex organizations the military has a need to coordinate various 'assets', so that they work in concert with each other to maximise operational effectiveness. These assets on any particular operation or simulation may well include: infantry, artillery, engineers, medics, signals, logistics, intelligence, ground transport, air support (helicopter or 'fast'- fixed wing air) and ordnance disposal. This coordination is imperative for mission success, as failure to coordinate activities may well result in death of troops, destruction or capture of equipment and mission failure (see Jenkins & Woodward 2014:3-4, for an example of near disaster due to a lack of temporal coordination during the Falklands war). All these assets are

combined in an operational plan which has a complex and detailed schedule of timings for all of them. These range from the start of an operation (H hour), to when artillery is to be fired in support of attacking or withdrawing troops, to the timing of communication transmission schedules, to the temporal window of availability of air support (always a limited resource) etc. Operational plans thus outline the envisaged sequence of events and their timings, this of course is an organizational idealisation hence the well- worn military utterance 'no plan ever survives contact with the enemy'. Be that as it may coordination and timing of assets remains a prime organisational imperative for the more synchronization that occurs the more successful battlefield outcomes are likely to be.

These intertwined practice-temporal schedules are passed down the chain of command, until they reach the smallest sub-unit (usually a platoon) where they are communicated verbally at an 'O (Orders) Group' at which junior commanders outline the envisaged sequence of events and their timings to troops. This is 'how temporality is both produced in situated practices and reproduced through the influence of institutionalized norms' (Orlikowski & Yates 2002: 685). This concern to coordinate time and practice is then exemplified by the ritual of troops synchronising their watches together. This is done by stating the time at which the synchronization is to occur, the person in charge leading the group into synchronization:

'Right get your Rolex's out! (sardonic 'I wish' utterances follow). Ready ?.. On my mark in two minutes it will be 2100 hundred (hours)... sixty seconds...thirty.. twenty.. ten... Mark!'
(Sergeant to his patrol prior to a mission, South Armagh).

The most fundamental level of socialization into the military *timescape* (Adam 1998) is when that temporality becomes embodied.

Learning and Practicing Temporal Embodiment

During the initial socialization of Basic Training recruits are repeatedly told by instructors that they are no longer an individual but part of a team, and such instruction stresses that survival on

operations is overwhelmingly dependent on collective and concerted action. However, the foundational level of achieving such temporal synchronization (Schutz 1951[74]) amongst troops, is built initially not on operations but via the process of learning parade ground drill. The latter is essentially to do with precise individual and collective movement, carried out at a particular rate, so that not only do individuals have to manipulate their bodies in a very specific way, but this manipulation also has to be effected in a synchronized fashion with many others at a particular tempo (Fine 1990). The result when drill is done effectively is a particular kind of in-time physical togetherness. These precise and often very complex movements are dependent upon an individual and collective sense of timing (Goodridge 1999) which is 'indispensable to interpersonal coordination' (Flaherty 2011:88) the initial learning of which is portrayed below:

The recruits have been doing introductory drill supervised by fearsome drill pigs (NCO instructors). They have been learning basics such as marching in time, right turn, left turn etc. Their objective is to learn collective timing so that movements are together and not individual. They are shown movements and as they do them they have to shout out collectively the timing of them. So the simplest of commands will be 'Squad, Right Turn!' The collective shout as the two part movement is completed is: 'One, two- three, one! '. So at 1 the right foot swivels to the right, there is then an interval of 2/3 and then on 1 again the left foot is picked up and banged down alongside the right. After much practice they become accomplished so that both first 1 and second 1 are no longer needed in movement. Eventually they individually and collectively develop a sense of correct timing so that finally they learn to do it with no shouting. (Basic Training Depot, North).

Recruits learn to evaluate the timing of their response to commands by becoming accomplished at evaluating the collective sounds they make which constitutes a particular kind of acoustic knowing (Feld 1996). When foot drill is synchronized there is a collective 'crunch' from boots hitting the

ground, similarly with arms drill there is a concerted 'crack' as hands smack the stock of weapons. When the timing is disjointed the sound is 'ragged' or 'stuttering', bringing down ire from Drill Pigs:

Ragged, ragged, ragged! Any more of that and I will get the fairies with the white shoulder straps (regimental police) to put some of you in the enchanted cottage (unit jail)! (Drill Pig to recruits, Basic Training Depot, North)

As troops learn how to be together in time on the drill square, they are also learning other temporal skills which are vital for successful operational activity. This involves developing a timely relationship between their bodies and the deployment of their weapons.

Time and Immediate Action

Thus to survive troops need to perfect weapon handling skills of a high order. These haptic skills are learnt by the repeated practice of particular movement *sequences* (Lewis & Weigert 1981) with weapons, and are known as Immediate Action Drills (IAs). These consist of loading and unloading weapons, firing them, assembling, stripping (dismantling) them and also remedying stoppages (malfunctions). So for example the stoppage drill on a SLR (Self-loading Rifle- the main personal weapon at the time of the research) involves three action sequences, if one does not clear the stoppage the other two are carried out in turn. Recruits not only have to learn the appropriate sequences for a range of particular weapons but they also have to do so under temporal pressure. Survival on the battlefield when initiating contact with enemy or responding to enemy action, is dependent on a combination of speed of thought and hand-eye coordination (on the relationship between these sensory skills see Leder 1990: 15-18), resulting in accurate and fast IA's. During Basic Training IAs are initially learnt in slow-motion and then at an increasing *tempo* (Fine, 1990), with instructors timing recruits to see if they can perform both the demanded sequence and tempo. In effect developing haptic facility constructs the correct sequence of movements and endless repetition of the latter the accomplishment of the desired tempo:

The very simplest part of IA's, even before one touches a weapon and its parts is learning how to fill magazines with ammo. If your mags run out in a contact, as Corporal G put it 'you are fucked'. To load SLR (self-loading rifle) mags the sequence is: groups of rounds (ammunition) come secured in clips, so you take a clip and thumb each round off the bottom of the clip into the open lip of the mag. The mag is held in one hand, the other hand holds the clip and thumbs the top round from the clip into the mag. The round has to be depressed firmly and aligned precisely into the lip so it clicks into place on top of previously inserted rounds. To do this with NCO instructors timing you: 'too slow you are dead!' is initially no easy feat. (Weapon Training Class, Basic Training Depot North).

The development of an acute sense of touch by troops helps eradicate the temporal feature of *hesitation* in the manipulation of weapons, the removal of micro-seconds of inertia or doubt (Hetherington 2003), which on operations may well be the difference between survival or disaster. However, like all social processes there is on occasion a contingency to them, so in the instance below absolute speed with a particular weapon is not always the most effective strategy:

The lads have been throwing grenades at junk vehicles. Boom! Lots of shit showering down on us crouching in a low walled throwing bay. When throwing one is exposed to potential enemy fire, so one throws quickly and drops into cover. But one has to make sure one has seen the grenade hit the target, by exposing oneself for another moment, because one might be assaulting that position in a few seconds. I am the last man to throw – as I hit the ground the lads are all doubled up laughing at me. For 10 minutes I get the piss taken out of me as I am the fastest there, but of course I could not identify where I had thrown it. Nervous as I did not want to drop the thing on my toes, hence the speed. One needs to be fast but not too fast! (Badlands Training Area, Alberta, Canada)

Troops also develop a sense of rhythm when firing their weapons. So for example they are taught mainly to fire in small bursts (with certain weapons sometimes termed a 'double tap'), so as to

conserve ammunition, and prevent the overheating of weapons and thus stoppages. They thus learn both a rhythm (Goodridge 1999) of firing in which they fire and pause, fire and pause, and also develop an awareness of their weapon's functioning in terms of its rhythm. This is particularly so with weapons that have a high cyclic rate of fire such as a belt-fed 'Gimpy' (General Purpose Machine Gun). There is then once more an acute listening for a rhythm of fire, but also a haptic component to feeling that rhythm because when fired the weapon itself pulsates and experienced troops know via both these sensory indicators if weapons are firing well or otherwise. Troops have another even more, arguably, visceral relationship with the temporal when firing at the enemy. For part of their initial socialization is to learn to control their breathing during such encounters, the aim being to manage their emotional (fear) and physiological (adrenaline) responses. They do this by monitoring their patterns of inhalation and exhalation, and attempt to *slow* their breathing down so as to achieve more accurate fire (for an American example see Lande 2007):

B__(Private) has been talking about a recent contact – he describes PIRA M60 (machine gun) fire bouncing off a wall around him. I asked him about feelings and he replied 'shitting myself'. I then asked how he responded, and he went for cover and looked to return fire. As he said: 'I was panting like a fucking race horse! I knew I had to get a grip so as to be able to put rounds down (fire)...You get taught to try and slow your breathing so as to be able to hit anything!' (South Armagh)

Above a temporal control is wrested over the individuals internal autonomic processes (see Lyon 1997 on this kind of relationship) in the context of engaging the enemy. Troops are then socialised into a particular temporal embodiment and inter-embodiment. The latter becoming vital when collective infantry work, in the form of patrol formations and tactical drills, occurs on perilous operational ground.

Patrolling in Time

Prior to the start of operational patrols there is a period of 'getting ready':

The Multiple (patrol team) is preparing to move into the countryside for a couple of overnights. It's a practised routine and everyone is at it. Firstly, weapons and mags (magazines) are cleaned and checked. Then bergens (rucksacks) are filled with sleeping bags, waterproof ponchos and rations. Then belt-kits (pouches on a belt) are laid out and filled with mags, ammo, medical kit, water bottles, flares, radio kit, compasses, maps and little treats (mainly sweeties). Everything is secured, fastened down, occasionally to a murmuring 'Check, check, check'. They blacken their face highlights. Haul their kit on and jump up and down listening for anything that makes any noise. Scanning the lads the patrol leader a Sergeant asks 'everyone sorted out?' Lots of grunts and nods. He looks at his watch and says 'chopper time'. They go into the loading bay, load their weapons and out to the chopper (helicopter) pad. (Crossmaglen Base, South Armagh)

For patrols the time of getting ready is vital as in the event of contact with PIRA troops were well aware that there would be *zero* time to adjust, check or modify their considerable range of equipment. Kit which was not there or malfunctioned in such circumstances increased their exposure to peril. Once again their occupational time was made by a series of vital habitual sequenced practices (Lewis & Weigert 1981) which constructed getting ready.

Patrols operating in hostile territory do so via practises which are patrol formations and drills. There is then again a great concern with synchronisation (Schutz 1951[1974]), so as to achieve a 'physical co-presence, emphasised by common movements' (Lee & Ingold 2006:69). Ways of moving over ground which minimises potential damage from the enemy and maximizes the patrols' offensive capacity. Formations are controlled by patrol commanders (mainly NCOs) via verbal orders or hand signals. So for example the patrol will move into: indian file, line abreast, arrowhead, or other formations as different kinds of ground unfold. All these different ways of synchronised traversing ground are continually practiced in a particular form of military choreography.

The collective movement of patrol has two principal interrelated components: rhythm and timing. (Goodridge 1999). Rhythm constructs and forms the flow of action, and at the same time constitutes part of that action. Patrols then have particular collective flows of action, dependent upon the nature of the ground, if it is day or night and the presence (or not) of the enemy. So the *tempo* (Fine 1990) of a patrol will change according to the physical difficulties of traversing different types of terrain, the amount of daylight and how dangerous the terrain is (in terms of what can be seen, what cannot and what intelligence is known about the enemy). Thus, for example, if visibility in jungle or woods is minimal greater caution will manifest itself in the tempo being slower, or if troops are covering expanses of open ground with little cover available, then the tempo is usually quicker.

What follows is a Private describing his Brick's (four man patrol) way of synchronising movement and tempo whilst on urban patrol:

It'll have to be a clued-up twat if he's going to get us out there. We've got it worked out really good...Three go firm (stop) in hard (good) cover, and the other moves fast. So he's got cover from three sides. Especially when there's a good shoot (long and clear approach to target) on, we cover it especially well. (Private, South Armagh)

An axiomatic part of developing patrol rhythm involves the emergence of a sense of collective timing (Goodridge 1999), whose foundations as previously indicated, are built on the barrack parade square. Timing is then vital for patrol movement as erroneous timing can increase jeopardy. Skilled practice involves ensuring enough time (and thus space) between patrol members, so as to make the patrol formation harder to hit by enemy fire. At the same time making sure that the patrol still maintains tactical cohesion, for example, it does not split apart under prevailing conditions (e.g. difficult terrain, darkness, bad weather, enemy contact):

Today I made a real mistake and I have been repeatedly thinking (and cathartic writing!) about it. It's straightened me up fast! I got the spacing wrong between me and the next lad. So by

not being aware enough ('switched off') I placed him and myself in more immediate jeopardy. It's a classic two for the price of one shoot for any PIRA player. The lad gave me a real bollocking out there and back here (Base) quite justifiably. Serious shit. (Author, Crossmaglen, South Armagh)

Another factor which influences the patrol rhythm is the patrol commanders decision to periodically stop movement and 'look and listen', evaluating the surrounding terrain for enemy presence. Stopping for periods of time is however not unproblematic, as there is a contingency of potential enemy threat attached to such static *duration* (see Flaherty 1999). This is particularly so if the patrol is stopping in open territory, or in circumstances where its operation involves visibility, for under both circumstances the chances of its presence coming to the attention of the enemy increase:

With VCP's (vehicle check points) down here you put them in either by chopper (helicopter) or sometimes by foot, so you hit a road or a junction, set up and stop all the traffic. You do that for 15 to 20 minutes max. Longer than that down here PIRA will get to know about it. So you do them quickly and push off quickly, so PIRA cannot target you. (Corporal, South Armagh)

The above fieldnote constitutes an example of timing 'which inherently reflects choice and predilection' (Flaherty 2011: 84) and its relationship to duration. Whilst the rhythm of patrolling may feature episodes of both movement and stillness in both conditions troops are waiting. As Ehn and Lofgren (2010: 21) note: 'the very act of waiting draws attention to the passing of time'. During patrol time troops were perpetually waiting for contact with enemy to happen. Interestingly, as Bissell (2007: 282) remarks 'to wait is from the French meaning *to watch* and the German *to guard*, suggesting a sense of anticipatory preparedness-a lying-in-wait for...' danger. The quicker one can detect the latter in the form of the enemy, the greater one's survival chances are liable to be. This state of anticipation means they are habitually evaluating where and when danger might occur as they pass through landscape. This focus involves them looking for and assessing what they

categorise as 'combat indicators', traces of enemy presence: cooking smells, smoking, urination defecation, boot tracks, dropped equipment, civilians departing the immediate area etc.

Whilst patrolling has a temporal dimension it also has a spatial one which involves troops dealing with the inter-relationship between those two dimensions.

Patrolling in Space-Time

As Massey (1992) has shown space and time are fundamentally intertwined and the more combat indicators troops become alert to in a small period of patrol space-time, the more they become aware that contact might be imminent. There is then a recognition of an accelerating *tempo* of perilous possibilities emerging. In Probyn's (2001: 199) terms this 'is how things become apprehensible...In other words, particular forms of life make certain objects appear'. Whilst troops consciousness on patrol is focused on locating the enemy, it is also preoccupied with space-time in another way. Throughout patrol time there is a constant concern to identify features of terrain which will give them cover should enemy fire be encountered, thus: dips or folds in the ground, trees, walls, doorways, ditches, vehicles etc. However, the utility of cover is predicated on the amount of space that has to be travelled through to reach it, the bigger the space the more time they will be exposed to direct enemy fire, the more hazard they are in:

Ideally they want cover from a big stone wall with small gaps to fire through. What they get of course is what's around at the moment of enemy contact and even that is evaluated. L_ remarked: 'John the nearest is the dearest you just have to get your arse down behind something or into something fast! So you are always sort of looking and saying to yourself I will go there if it kicks off on this stretch (of the patrol route). Or I won't go there as it will take too long, they (PIRA) will take me out (kill) if I try and make it to there'. (Privates, Crossmaglen)

When contact with the enemy occurs collective tactical drills (see King 2013) are initiated depending on the 'ground truth' of what is happening. These drills are comprised of suppressive fire and movement. Patrols split into numerous fire-teams of two with one member giving covering fire from a static position, whilst the other moves forward swiftly, these positions then alternate. So there is a sequence (Lewis & Weigert 1981) of fire and movement, in which troops leap frog each other creating rapid momentum (see Adler 1981). The latter is vital because as recruits are taught during their initiation to infantry tactics:

Unless enemy fire is absolutely massive and you can't even get your head up, you have to keep the momentum of the attack going. If you don't that means casualties and then maybe more casualties as you try and recover the first lot. You cannot let the momentum of the attack break down. You have to drive it forward! (Corporal to recruits, Northern Training Area)

During such movement it is imperative for troops that there is covering fire, for if not the enemy has free reign to fire, and thus stop the assault by creating overwhelming casualties. The synchronisation of the attack drill is orchestrated by a sequence of 'performative utterances' (Turner 1975). Those who are giving covering fire scream 'move', the mover then shouts 'moving' and sprints forward and drops down, to then in turn give covering fire. This coordinated action sequence is then done repeatedly, and thus the momentum of the attack developed. As well as the attention of the enemy, there are also other problematic instances which may well inhibit that momentum. These are when weapons malfunction or when magazines of ammunition need to be changed, and thus covering fire cannot be immediately sustained. In these circumstances the performative utterances of 'stoppage' or 'magazine' are screamed, which will alter the sequence of the momentum temporarily, with those who are about to move delaying their movement for seconds, until covering fire is again initiated. Having examined the development of temporal acumen across a range of infantry practices, the narrative now turns to some examples of time focused perceptual activity which developed as a result of those practices.

Time, Danger, Safety and Identity

In addition to the infantry time-scape (Adam 1998) evidencing particular kinds of temporal embodiment and inter-embodiment, it also socialises troops via habitual practices (and those of the enemy), into holding collective perceptions (Merleau-Ponty 1962) of the relationship between time, danger, safety and identity. Thus troops are socialised into viewing time not as a neutral entity but one which may offer harm or safety in contingent amounts. So there is the standard practice on operational soldiering of 'stand to', which means at both dawn and dusk, particularly if in defensive positions, all troops will cease other tasks and watch their arcs of fire for enemy activity. Dusk is a time when the enemy can close in on one relatively undetected, and confront troops who are fatigued from a day's operational soldiering. Dawn constitutes a time when troops may still be sleepy, and not as alert as they should be to encountering the enemy. In turn night constitutes the time when the greatest uncertainty emerges (for danger at night generally see Melbin 1987), and arguably the greatest need for alertness on the part of those who are on 'stag' (sentry). This perceptual link between the temporal and danger is exemplified below:

In (to Base) on time and out on time (on patrol), an hour's what we're supposed to do on urban. He keeps us out twenty minutes longer than we're supposed to be. You don't need fucking 'O' levels to work out that's a third more risk. (Private on an Officer, South Armagh).

Troops are also taught to extract knowledge from the timing of enemy fire. The tempo of the firing of different enemy weapons provides intelligence on what capacity the enemy has to damage one, information which is valuable in the formulation of an armed response. The occupational rule of thumb being, the slower the rate of fire the heavier the weapon system being used against one. The resulting perception being the more danger one is in, again this is a case of acoustic knowing (Feld 1996). In the case of some weapon systems employed by the enemy acquiring sensory knowledge of being fired at also provides vital time to safeguard oneself and one's peers:

Senior NCOs beer-up tales from an operational tour in Aden. A veteran Warrant Officer tells me: 'If the enemy is near and fires mortars you might see smoke, or you might hear the clump of the round being fired at you. If you hear that you know all you have is just a few seconds to get into some hard (good) cover'. (Badlands Training Area, Alberta, Canada)

Another perceptual feature of the relationship between risk, safety and the temporal was the view held by troops, that prolonged experience of operational time was a good indicator of the possession of expertise in patrol practices needed to operate effectively in hazardous situations. For example being tactically proficient. This perception was articulated between troops via the phrase 'knowing the score'. Newcomers to the unit who were operational novices, were routinely ordered to take advice from their more operationally experienced peers.

Paradoxically also evident were collective perceptions which made the link between the length of time in the operational environment and luck. Surviving on operations was perceived to be largely due to expertise in soldierly skills both individual and collective. Luck however was the uncontrollable variable thrown into the operational pot and no matter how skilled if one's luck did not hold out, danger would strike. Thus the more time one was in the operational environment the greater the chance that one's luck would eventually expire with perhaps fatal consequences. Luck on operations was then perceived to be finite not infinite in terms of its amount but also its *duration* (see Flaherty 1999). If one's luck ran out or continued the deciding point was perceived often to come down to particular temporal intervals, particular life deciding moments:

There is a view amongst the lads that split seconds make the difference between life and injury and death: 'You move to the left and a round strikes where you had been half a second ago. That really makes you fucking think! What made me decide to move my position just that moment? It might be because I or someone like me (NCO) gives an order to move, but a lot of the time it's down to pure luck mate'. (Conversation with Sergeant, Crossmaglen)

A further collective perception intimately temporal resulted from prolonged psychological and physical attrition. The unit was deployed in South Armagh for three and a half months on operations conducted twenty-four hours a day. Consequently sleep was always in short supply and even in Base was constantly interrupted by patrols, moving in and out of intensely cramped living quarters. As Kelly and Field (1996: 248-9) indicate identity which is the substantive dimension of the self, is a 'social process which alters through *time*, as the *bodily contingencies change*'. The result was that very young private soldiers who were the overwhelming majority of the unit (18-20 years old), many on their first operational tour, came to see themselves as undergoing an ageing process. Firstly, they would pronounce that they felt older than they were in years because of the constant physical fatigue endured. Secondly, given as Crossley (1995: 47) stresses the mind is inseparable from the body, as they remain 'reversible aspects of a single fabric', these troops also articulated feeling older psychologically (see Irwin 2012 for a Canadian example) due to confronting the harsh realities of operational soldiering:

'It's hard to realise that J___'s dead, you expect him to walk in any minute. I was a bit of a kid before I started this tour (of duty). It's like a smack in the face and you sort of grow up quickly. You realise this is the fucking sharp-end and unless you switch on (stay alert) you will be going home to Manchester in a body-bag.' (Private, Crossmaglen).

Conclusion

Some time ago Gary Fine (1990: 96) called for sociological studies of time, that 'link an orientation that stresses the requirements of organizations with an approach that takes into account the lived experience of workers'. This account has been an attempt to do so, firstly by portraying the organizational need for Zulu Time. Secondly, by depicting aspects of the temporal embodiment and inter-embodiment of troops. Thirdly, by examining collective temporal perceptions held by them. Zulu time then constitutes a fundamental part of the organizational culture of the military and is constructed via a 'temporal order of material practices that are reproduced' (Ehn & Lofgren 2009:

110). Consequently as Shove (2009:19) notes the very 'recognizable infrastructure of objective time' is 'made by distinctive kinds of practice'. This collective timely activity is habitually repeated and consequently helps build the military organizations social order (see Lynch 2001 on this point). These practices create in infantry very specific kinds of temporal embodiment, inter-embodiment and particular temporal perceptions (Merleau-Ponty 1962). The result is that the most mundane of activities are heavily influenced by the demands of that temporal order. For example, troops at the bottom of the military hierarchy understand that both their tasking (collective practices), and its temporal scheduling can be changed at *zero* notice by those in higher authority. This is particularly so on operations where enemy action has the potential to disrupt those processes. Future operational time or its simulation was then perceived by troops as uncertain, and in response they evolved the practice of meeting their basic needs, at every small temporal window that became available. This practice was encapsulated by their maxim 'good soldiers always fill their boots when they can'. Thus when in the field with troops one notices hot food and drink are consumed at every opportunity and rapidly, as the possibility is always present for temporal windows for sustenance to suddenly cease to exist for considerable periods (the same applies to sleep).

So Zulu time operates at all organizational levels: individual, interactional and structural, permeating both the perceptual and the corporeal, all these features influencing each other (Adam 1994). This account of Zulu time is not comprehensive as there are inevitably omissions, for example how troops attempt to 'control or manipulate their own experience of time' (Flaherty 2011: 10-11), particularly in the highly disciplined environment of barracks. That said it is a start at applying the sociology of time, to the hitherto unscrutinised temporality of military life. What for example are the salient temporal processes on a submarine, as it lies stationary for long periods at the bottom of an ocean, or in the cockpit of a fighter aircraft, hurtling towards a target at vast speed? Whatever they are they are likely to be intertwined with specific occupational practices, vital for organizational functioning, plus of course survival. If we couple that lack of knowledge with the current limitations evident in the literature on the temporality of civilian organizations, in particular little research on the

relationship between the temporal and the unfolding of habitual worker practices, we arrive at a juncture where there is still much to be done sociologically.

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