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Assessing Ethical Reasoning Among Junior British Army Officers using the Army Intermediate Concept Measure (AICM)

Abstract

Army Officers face increased moral pressure in modern warfare where character and ethical judgement are vital. The article reports results of a study of 242 junior British Army officers using the Army Intermediate Concept Measure, comprising a series of professionally oriented moral dilemmas developed for the UK context. Results are suggestive of appropriate application of Army values to the dilemmas and of ethical reasoning aligning with Army excellence. The sample does slightly less well, however, for justification than action reasoning and there are differences following initial training for infantry and artillery officers versus other branches of service. Dilemmas involving anti-torture methods and not covering up soldiers' failings generated best results compared to those requiring balance between compassion and mission, and negotiating personal relationships with military needs. Gender differences favouring women were less than those observed for other professional groups using similar measures. This research further develops a much-needed measure of ethical reasoning among junior Army officers, with potential for use among other ranks. This approach is advocated for other professional groups.

Keywords: military, army, character, moral education, virtue

Traditionally, national and international military forces have relied upon ethical standards to negotiate the troublesome nature of warfare. This can involve Just War Theory, International Humanitarian Law and codes of ethics (Jennings & Hannah, 2011), as well as ensuring that military actions contribute to societal good (Wolfendale, 2009). Individually, this often

encompasses cultivation of appropriate military character around key virtues or values (Robinson, 2007a).

The context for developing good military character is both institutional and professional in nature. For example, Huntington (1957) emphasised unique professional military expertise, but also described a distinctive relationship to the state. Others have defined the military as an institution wherein professional roles are discernible (Caforio, 1988; Downes, 1988). Although institutional military habits are aimed at good practices and outcomes (cf. Johnson, 1974), they have potential to impede professional ethical practice. For example, military tendencies toward loyalty and obedience (institutional) may at times hinder just the sort of professional integrity (Wolfendale, 2009) needed for achieving a moral good. For instance, in the case of the death of Iraqi hotel worker Baha Musa, an excess of loyalty led some members of the British Queens Lancashire Regiment to cover up colleagues' shameful acts.

More positively, according to Nuciari (2006) the military has many professional characteristics, including a level of autonomy, a theoretical and practical body of knowledge, a specific ethic, control over an area of expertise and a shared sense of identity. British Army officers are routinely engaged in professional practices. But their engagement with institutional practices makes Army professional practice precarious (Walker, 2018), and this intensifies the need to develop in Army officers high levels of ethical judgement, in addition to moral sensitivity (Cook, 2013; van Baarle, Verweij, Molewijk, & Widdershoven, 2018). If many mechanisms of best military practice are found in hard won institutional habits and culture, officers will need to absorb and conform to them, but they must also be ready to question and resist local practices when they are at odds with an ethical good. In the British Army, an aspirational moral approach dominates motivated by conceptions of good character. This means that it is insufficient to be a good person only insofar as this relates to professional necessity or

role. Instead, personnel are expected to strive for excellence for their general characters as well as for character as it relates to specific military roles. While this aspirational approach is preferable to a functional approach that emphasises role-based behaviour alone, it cannot entirely replace it, especially when Army service is for many a brief transitory experience.

The capacity to make a range of judgements in challenging military contexts is a key component of aspirational Army character and leadership, and leaders need to be adept applying Army values (many are more accurately defined as virtues) to military contexts in ways that reflect Army excellence, supported by ethical reasoning. Army officers are upholders of ethical and professional standards, and the British Army officer corps is a heterogeneous group of approximately 13,200 officers in nine different ranks (MOD, 2014). As a relatively youthful profession, the Army needs regularly to reproduce itself over time by training and developing its officer entrants and this is why the focus of the current research is junior British Army officers who are potential senior leaders. At the time of the research, the total population of officers in ranks captain and below was 6650 (MOD, 2014), comprising nearly half of all British Army officers.

For over two decades, the British Army has been involved in intense operations and fighting. Army values are necessary to ensure military activities are ethical and competent. The British Army Leadership Code describes six Army values (courage, discipline, respect for others, integrity, loyalty and selfless commitment) as ‘specific beliefs that people have about what is important and unimportant, good and bad, right and wrong’ (Army, 2015, p. 6). These are intended to inspire good character as the basis for virtuous intention and action – the hallmark of virtue ethics philosophy. As part of a wider mixed method study of character among junior Army officers (summarily reported in Arthur, Walker & Thoma, 2018), the research described in this article aims to determine to what extent junior officers show ethical reasoning in line with

standards of excellence described in the British Army Leadership Code, especially regarding Army values of courage, respect for others, integrity, and loyalty. Two hundred and forty two officers and officer cadets took part in the research from multiple branches of service. Also central to the study, was the use of a measure of ethical judgement in the Intermediate Concept approach, first developed by Rest, Narvaez, Thoma, & Bebeau (1999). The Army Intermediate Concept Measure (AICM) uses moral dilemmas to assess responses to professionally challenging situations. It is an approach that is especially pertinent to professional groups since it is based on the idea that although a group of professionals will be unable to agree on specific courses of ethical action, they will nevertheless be capable of determining actions (and justifications for those actions) that are appropriate and those that are inappropriate. In this case, the research is concerned with how participants apply Army values (virtues) to various professional situations (the moral dilemmas), where those Army values are at stake. Although we recognise that often virtues are quite different from values, the British Army nevertheless emphasises values in their official documents and in their approach to character development. In the case of the four specific Army values covered in this research, the present authors believe they are interchangeable with virtues. Before describing the theoretical framework, methods and AICM, there follows a brief review of literature on military character and ethical reasoning.

Military Character and Ethical Judgement

Required personal qualities for military personnel often provide the focus in the literature. Among these qualities are resilience (Jarrett, 2008; Seligman, 2011; Sherman, 2005); courage (Kateb, 2004; Zavaliy & Aristidou, 2014); comradeship and the will to fight, in addition to qualities of loyalty and comradeship (Biggar, 2013; French, 2005; Shields, 1991; Shils & Janowitz, 1975; Verweij, 2007a). However, loyalty and comradeship are often judged contradictory for denying difference (Arendt, 1968; Verweij, 2007b), privileging obedience (French, 2005; Olson, 2014;

Wolfendale, 2009) or reinforcing patriarchy (Derrida, 1994). Moreover, loyalty has been described as evil (O'Brien, 2003) and - together with obedience and respect - a quasi-virtue (Olson, 2014). Also identified for scrutiny are personal qualities of honour and integrity (French, 2005; Olsthoorn, 2005; Osiel, 2002; Robinson, 2007b), along with respect which in military contexts is often concerned with honouring the enemy (Shay, 1995) and avoiding discrimination and bullying. According to Fisher (2011), integrity, honesty and truthfulness are the foundations for trust, and relationships have been found between trust and subordinates 'going the extra mile' (Deluga, 1995). Teamwork is also an important theme in the literature (Boermans, Kamphuis, Delahajj, van den Berg, & Euwema, 2014; Han & Lee, 2013), and some researchers are interested in multiple military strengths (Gayton & Kehoe, 2015; Mathews, Eid, Kelly, Bailey, & Peterson, 2006). There is also some pessimism in the literature that military conditions can be conducive for the development of character. For instance, Williams (2010) used the Defining Issue Test to argue only limited superficial change occurred for soldiers during initial training, and Michelson (2013) found U.S. Army doctrine lacking, pointing to 'dangerous trends' of 'toxic leadership' (2013, p. 34). Similarly, in UK, the Continuous Attitude Survey (Data.Gov.UK, 2014) showed only 25% of those surveyed agreed that senior officers understood and represented their interests.

Ethical judgement has also been studied more directly in military populations. In Canada, the Defence Ethics Survey is administered over multiple years (cf. Catano, Kelloway, & Adams-Roy, 2000) to the Department of National Defence (Farley, 2010). Underpinned by the neo-Kohlbergian four component model (Rest et. al., 1999), this assesses ethical decision-making (individual values, organisational climate, individual ethical ideals and situational moral intensity), and five key findings are notable. First, expectations of moral climate were satisfied in 2010 more than in 2003. Second, officers were more likely than junior non-commissioned officers to approach ethical decisions from a rule-based perspective. Third, senior officers were more likely

to judge situations unethical than junior non-commissioned officers. Fourth, ethical decision-making was related to ‘social consensus’ and ‘probability of effect’ - the more harm was likely, the more situations were judged unethical. This also implies that judgements probably corresponded to local consensus. Overall, situational factors impacted decisions and training, and education improved ethical decision making, a conclusion reinforced by Warner et al. (2011) who studied attitudes and behaviours. In a different study using moral judgement tests, Verweij and colleagues (Verweij, Hofhuis, & Soeters, 2007) found high levels of moral awareness among Dutch forces and positive correlations with gender, religion and previous experience of moral dilemmas. Other researchers (Baarle, Bosch, Widdershoven, Verweij, & Molewijk, 2015) used moral dilemma tests and found military group pressure to conform hindered identification of the dilemmas and that working through dilemmas could improve competence identifying moral situations (sensitivity). Others still found sleep deprivation reduced those with high standards of moral reasoning to the level of rule-based reasoning (Baarle et al., 2015), and military risk was found predictive of moral disengagement (Duzan & Clervoy, 2014). At a US service academy, moral intensity and ethical decision-making were investigated among 812 student officers using the Canadian methods discussed at the beginning of this paragraph (Lincoln & Holmes, 2011). Again, moral intensity and social consensus significantly associated with moral awareness (sensitivity), judgement and intention (motivation). Proximity mattered for moral awareness (physically, socially, culturally or psychologically), as did ‘magnitude of consequences’ and ‘probability of effect’ for moral judgements. Moral intensity, awareness and intention also influenced moral judgement. Overall, ethical decision making was influenced by ‘interpersonal relationships in the dimensions of moral intensity’ (Lincoln & Holmes, 2011: 67).

In sum, many factors have potential to threaten ethical judgement for Army officers, including institutional practices, the nature of modern warfare, specific situational effects

(proximity, magnitude of effect, intensity), not to mention the likelihood of sleep deprivation. However, findings also suggest that ethical training can improve moral sensitivity and judgement. The present research investigates to what extent junior officers show ethical reasoning in line with the standards of excellence described in the British Army Leadership Code, especially regarding Army values of courage, respect for others, integrity, and loyalty. The research assesses the application of Army values to specific professional moral dilemmas and aims further to refine a measure of ethical reasoning among junior British Army officers. The research focusses on the officers' ability to identify acceptable action choices in the dilemmas, as well as their capacity to ascertain reasons for acting. Officers were tested regarding temptation to use inappropriate aggressive methods, upholding truth versus covering up for their soldiers, diverting from a mission to make a rescue, and upholding the Army's fraternisation policy. AICM is intended for assessing groups (not individuals) of junior officers.

Methods

The theoretical framework for this study involves bridging neo-Kohlbergian (a psychological approach to moral development) and neo-Aristotelian (a traditional philosophical theory of moral and character development) approaches. In an attempt to shore up well-known weaknesses in original Kohlbergian theory, Neo-Kohlbergian theories about the moral person are underpinned by a more expansive four-component model where moral maturity involves moral sensitivity, moral judgment, moral motivation, and moral behaviour. In the present research, this can be related to neo-Aristotelian philosophy as a consequence of focussing on the level of virtue that is so central to Aristotelian conceptions of character (Kristjánsson, 2015, chap 3).

Developed by Rest et al. (1999), the Intermediate Concept approach (ICM) is intended to assess virtue-like concepts. It advocates using moral dilemmas to encourage responses from participants who in this instance are junior Army officers. Responses to the dilemmas are

expected to reveal information about ‘Intermediate Concepts’ which are assumed to lie between so called ‘bedrock’ schemas of moral reasoning (self-interests; maintaining norms; and post-conventional schemas) and specific contextual norms (such as professional codes). Intermediate Concepts are considered specific to daily life (Thoma, Derryberry, & Crowson, 2013) and have been of central interest in other studies using Intermediate Concept Measures such as with adolescents (Walker, Thoma, Jones, & Kristjánsson, 2017) and other professional groups (Bebeau & Thoma, 1999). In this research, they are related to Army values.

The notion of ICM dilemma tests is that patterns of ratings and rankings in response to the dilemmas reveal information about the extent to which participants’ application of virtue concepts match expert views. This is achieved by asking respondents to make moral judgments about a story in which a virtue (Army value or intermediate concept) is at stake.

Participants. The study pinpointed three levels of junior Army officer: officer cadets at Royal Military Academy Sandhurst (RMAS), early lieutenants and captains (1 – 5 years’ service), experienced captains, and a few junior majors (6 – 10 years’ experience). Data were collected at three courses in 2016 (RMAS, Junior Officer Tactical Awareness (JOTC) and Captain’s Warfare Course (CWC)). A small number of participants were recruited from a UK Army garrison. A total sample of 242 was achieved which was sufficient to offer good chance of detecting true differences between groups with an assumption of a moderate effect (i.e., a power analysis indicates a required sample size of, say, 220 to detect the expected effect at a .85% probability level within the anticipated analysis strategy). We used a stratified random sampling approach within the three experience levels. Given that women consistently outperform males in moral dilemma measures such as the ICM, we oversampled women to assess gender differences.

Procedures. Officers completed AICM under supervision. They rated action choices *and* reasons on a scale from 1 ('I strongly believe that this is a GOOD choice/reason') to 5 ('I strongly believe that this is a BAD choice/reason'). They then selected and ranked best/most important (first, second and third) and worst/least important (first, second and third) options for actions *and* reasons. Demographic questions were asked before officers completed the measure.

Measures. An Army ICM measure was first developed in the US for junior Army officers at West Point called ALERT (Army Leadership Ethical Reasoning Test) (Turner, 2008). The development of ALERT involved a panel of senior experts in ethical judgment in US military contexts. This extensive vetting process created the target dilemmas and associated items. An account of the methodological process for expert-panels in the intermediate concept tradition is available in (Thoma et al., 2013). ALERT was reduced from seven to four dilemmas and adjusted for the UK Army context. The resultant four-dilemma measure for the UK context (AICM) is available on request from the Center for the Study of Ethical Development (<https://ethicaldevelopment.ua.edu/>).

Each of the remaining four dilemmas are described in this section. Overall, they target British Army values (may be described as virtues or intermediate concepts), especially integrity, courage, loyalty and respect for others. Dilemma 1 (*Metcalf*) involves an injured local *Somalian and requires a decision about responding to this injured man who is surrounded by a volatile crowd*. More specifically, Captain Metcalf is in an armed vehicle with three soldiers in Somalia, all are Royal Military Police (RMP) and are supported by another armed vehicle with two more soldiers. The RMPs are enroute to a checkpoint on a non-time sensitive resupply task. Before reaching the checkpoint, they discover an injured male Somali. He is badly wounded and surrounded by a large unpredictable crowd of locals. The *Somalian* is known for previously helping the RMP's and will die if left. What should Metcalf do? Dilemma 2 (*Smith*) targets

torture/ aggressive methods and requires a decision about how to respond to the capture of two soldiers. More specifically, Major Smith is to lead 'A' Company in an ambush essential for the battle group. Enemy soldiers have captured two of Smith's soldiers. However, Smith's soldiers also captured one of the enemy. There is fear the captured British soldiers will be ill-treated and Smith's sergeant major is urging the use of aggressive methods to get information from the prisoner about the captured British men to aid urgent rescue. What should Smith do? *Dilemma 3 (Milgram) involves a curfew and a river in Iraq. It concerns soldiers' use of non-authorized tactics and requires a response to inquiries from the Army chain of command about this.* More specifically, Lieutenant Colonel Milgram is in Iraq and his unit is close-knit, under pressure and has recently lost a much-liked junior officer (Richards) to an explosion. Although aggressive tactics had been authorised by Milgram and his superiors, two of Milgram's soldiers used *unauthorised* aggressive tactics on two Iraqi's resulting in their death on the day of Richards' funeral. What should Milgram do when the chain of command enquire about this? *Dilemma 4 (Jacobs) involves fraternization and requires a response to a fellow male officer and friend who is fraternizing with a female soldier contrary to Army rules.* More specifically, two junior officers (Drake and Jacobs) who have been very close since being at RMAS together are in the same unit when they meet two women in a bar. Once Jacobs discovers the women are non-commissioned officers in their own unit, he informs the women that they cannot have a relationship with the women. Drake, however, continues to meet one of the women, has sexual relations with her and assumes Jacobs will keep quiet about this. What should Jacobs do? For ease of reference, all four dilemmas are labelled later in the article by protagonist name and main emphasis (e.g. Milgram-torture), but they were labelled neutrally in the actual measure (e.g. Scenario 3 of 4 - Lt Col Milgram).

The process of adjusting ALERT for the British Army involved five substantial phases: Phase 1 comprised consultation with British Army experts in ethics, psychology and law. Phase 2, in July 2015, involved an expert panel in a British Army garrison, comprising 11 lieutenants and captains with varying lengths of experience who checked and adjusted the dilemmas for the British context. They changed terminology and removed / added a small number of items. Phase 3, in September 2015 involved an expert panel in another British Army garrison with 12 lieutenants and captains with varying lengths of experience. This panel assessed the dilemmas as amended by phases 1 and 2, after also completing the whole survey individually. In phase 4, all three expert panels were compared (two UK panels, plus the US expert panel). The aim was to finalise the four dilemmas so that they were credible, realistic and believable for British Army officers. The senior U.S. panel (comprising 14 senior military experts in military ethics (e.g. Colonel, Director of the Simon Center for Professional Military Ethic and Officership, United States Military Academy West Point)) and the existence of ALERT, were complemented by the more junior UK panel whose role, given the developmental history of the measure, was to adjust the dilemmas and possible responses to the British context, and to test how far professional consensus at the junior officer level matched the original US panel judgement. As a result of these phases, a master key was developed based on agreement across all of the three panels. Overall, there was a high degree of raw agreement (79%) *between* all three panels in deciding if an option choice is adequate, inadequate or neutral. A structured process was applied to deal with remaining discrepancies. If two panels agreed a choice was adequate or inadequate but the remaining panel labelled it as neutral (7%), the dominant selection was adopted. If both UK panels agreed with each other but disagreed with the US panel, then the UK judgement was adopted (3%). This means that 89% of decisions underpinning the master key were made easily. To tackle the remaining discrepancies (11%), additional information was needed. This included

recourse to individual responses to the dilemmas from the second UK panel and from members of the original US expert panel - decisions were made based on majority individual choices. Out of these remaining discrepancies (11%), only 3% proved troublesome, and in such cases the response was labelled as 'neutral' so as not to influence scores.

Scoring the AICM. AICM results were subjected to basic automated analysis to produce results relating to expert panel judgements. Each possible response to a moral dilemma (choices and justifications) had been previously labelled and then scored as 'acceptable', 'neutral' or 'unacceptable' by the expert panel process. This code underpins all calculated scores. In addition to an overall score, this scoring process yields sub-scores for "unacceptable or bad choices" (the degree to which the participant identifies action choices and justifications the experts see as unacceptable) and "acceptable or good choices" (the degree to which the participant identifies action choices and justifications the experts also see as acceptable). Additionally, the measure provides separate scores for action choices and justifications. Thus, in addition to the overall AICM score the measure generates two sets of sub scores: acceptability (acceptable and unacceptable choices) and choice type (action choices and justifications). Together with the composite total AICM score, these are referred to as primary AICM indices. These primary indices are represented as percentages, so for example a score of .60 indicates that 60% of the participant choices match the expert derived key.

Importantly, there is no 'right' or 'wrong' single answer to the dilemmas because for each dilemma, there is more than one 'acceptable', 'unacceptable', or 'neutral' option. Always selecting 'acceptable' options as good and 'unacceptable' options as bad will produce a score compatible with the expert panel (100%); selecting appropriate choices in this way for half of the required choices will produce a score of about 50%; and selecting 'neutral' options will not raise or lower the score. Poor scores (even negative) occur when the individual consistently selects

‘acceptable’ items as ‘bad’ and ‘unacceptable’ items as ‘good’. Typically, participants select most choices in the ‘appropriate’ direction, so a few misidentifications can be absorbed and the summary score remains positive.

Ethical approval was granted by the Ministry of Defence Research Ethics Committee (MOD: 702/MODREC/15). Informed consent was obtained and confidentiality and anonymity guaranteed.

Results

Demographics. According to self-report, almost 97% of the sample was white; 58% selected a religion, 91% claimed degree level education or above, and the officers represented 15 branches of service with 77% aged below 30. The distribution on gender and branch of service across rank and experience is shown in Table 1. Officers have been divided into two groups: those who are assigned to artillery or infantry regiments (i.e. by cap badge, not including attached personnel) and those who are not. This is because of traditional differences in the reputation/ethos of these branches of service (c.f. French, 2008) and may differentially influence who is selected into these ranks as well as how Army values are interpreted in practice (Table 1 here).

Primary ICM indices. Mean percentages for the primary ICM indices are presented in Table 2. These findings show that, on average, officers (and officer cadets) scored well over 50% ($M=.65$), suggesting that as a group, they were close to expert panel judgements in their responses to the four dilemmas. This includes judgements about what should be done in each scenario and justifications or reasons for acting. Results were evenly distributed across percentiles (25th= .57; 50th= .68; 75th= .76). Further inspection of the means and associated standard errors indicates that officers found it easier to select best action ($M=.66$) and worst action ($M=.73$) than best justification ($M=.62$) and worst justification ($M=.60$) choices. In other

words, participants could identify more easily, what should be done rather than explaining why and were particularly adept at identifying what not to do in the specific scenarios presented to them. These within-subject differences on the four subscales of the AICM were tested using a repeated measures ANOVA. Results indicated a significant main subscale effect using the Greenhouse-Geisser correction for absence of sphericity ($F(2.63, 620.17) = 24.44; p < .001; \eta_p^2 = .094$). All subsequent repeated measure ANOVAs were subject to the same procedures to test and correct for the absence of sphericity. Inspection of the individual contrast between means confirmed that action choices had higher means than justification choices. (Table 2 here).

Gender Differences. Table 2 also provides information on AICM findings by gender. Overall, female participants moderately outperformed males ($M = .69$ versus $M = .64$) ($F(1, 235) = 4.85, p < .05, \eta_p^2 = .020$). If anything, these gender differences are smaller than for other populations taking moral dilemma or ICMs where females tend more conclusively to outperform males (Walker, 2006; Thoma, Derryberry and Crowson, 2013). This main gender effect extended to the four AICM subscales. These subscale findings highlighted modest differences between male and female officers. For instance, for detecting action choices (best and worst), female AICM scores were 7 percentage points higher than male scores ($M = .71$ and $.78$ versus $M = .64$ and $M = .71$), whereas for justification scores (best and worst) there was an insignificant gender difference ($M = .64$ and $M = .63$ versus males $M = .62$ and $M = .60$). This suggests female officers were slightly better than males in identifying appropriate (action) choices, but that both genders were equally matched identifying appropriate justifications (for action).

Performance by Dilemma. Officers were asked to consider the four situations. Overall scores, shown in Table 3, were highest for *Smith-torture* ($M = .74$), dropping slightly for *Milgram-curfew* ($M = .70$), and further for *Jacobs-fraternization* ($M = .61$), with lowest scores

achieved for *Metcalf-Somalian* (M=53), as indicated by a significant repeated measures ANOVA with dilemma as the within-subjects factor $F(3,705)=30.030$; $p<001$, $\eta_p^2 =.11$. This main effect was conditioned by a gender by dilemma interaction effect $F(3,705)=2.857$; $p<05$, $\eta_p^2 = .012$. Scores per dilemma and gender are shown in Table 4. (Table 3 and 4 here). Female respondents scored high consistently for *Smith-torture*, *Milgram-curfew* and *Jacobs-fraternization*, dropping lower for *Metcalf-Somalian*, whereas male officers scored higher for *Smith-torture* and *Milgram-curfew*, dropping lower for *Metcalf-Somalian* and *Jacobs-fraternization*. Overall, it is similarity rather than difference by gender that is most striking for these results, except for *Jacobs-fraternization*.

AICM Differences by Rank, Experience, Career Course and Branch of Service - Held Army Rank differences. Overall, majors (M=.67) and cadets (M=.68) scored higher than lieutenants (M=.65) and captains (M=.63); however, these descriptive differences were not statistically significant.

Held Rank and Branch of Service Groups. Separating the officers into infantry and artillery and all other branches of service, and comparing total AICM scores for these groupings associated with a significant interaction effect ($F(2,205)=3.088$ $p<.05$, $\eta_p^2 =.036$) using ANOVA. As illustrated in Table 4, this interaction effect showed that infantry and artillery officers outperformed non infantry/artillery officers, except at the officer cadet level where this pattern was reversed (captains and majors were combined in one group to achieve adequate sample size). Other than these differences, total AICM scores followed similar *patterns* by rank for infantry/artillery officers versus other branches of service.

Three Rank Groupings by Branch of Service. The interaction effect was further explored by dividing the sample into three rather than four rank groups: cadets (n=76); lieutenants and junior captains (n=93); and, senior captains and majors (n=73). Based on

ANOVA, a significant interaction effect ($F(2,205)=4.022$ $p<.05$, $\eta_p^2 =.038$) persisted for this revised grouping showing a dip in total AICM scores for infantry/artillery officers (see *Figure 1*): as cadets, these officers scored well but the group of junior officers in these cap-badges had much lower average scores, which was only partially better than the group of senior captains and majors. In comparison, non-infantry/artillery officers as cadets scored well below their infantry/artillery counterparts, although more senior groups scored higher on the measure). (*Figure 1*).

AICM Differences by Dilemma and Branch of Service. The following analysis explores each dilemma by branch of service groups. For *Metcalf*, participants responded to an injured Somali surrounded by a large and unpredictable crowd during a resupply task. This was the lowest scoring dilemma ($M=.54$). Non-infantry/artillery officers outperformed remaining officers except at cadet level. Their scores were fairly even across rank groups, with highest results for lieutenants and junior captains (3 rank groups starting with cadets: $M=.55$, $M=.57$, $M=.54$, see *Figure 2*) in contrast to infantry/artillery officers who dipped noticeably at the middle rank group, partially recovering with experience ($M=.56$, $M=.46$, $M=.50$, see *Figure 2*). For *Smith*, participants responded to time-critical pressure from a sergeant major to get information about missing soldiers. This was the highest scoring dilemma ($M=.75$). Again, non-infantry/artillery officers outperformed other officers except at cadet levels where infantry/artillery scores were much higher ($M=.82$ versus $M=.71$). Infantry/artillery officers again dipped at middle ranks ($M=.70$), recovering a little with seniority ($M=.75$), whereas non-infantry/artillery officers improved at each rank level ($M=.73$, $M=.80$, see *Figure 3*). For *Milgram*, officers were asked to respond to a possible criminal investigation about the use of non-authorized tactics by soldiers. High average results were achieved for this dilemma ($M=.70$). Infantry/artillery officers outperformed other officers across all ranks, but their scores reduced slightly with seniority

(M=.77, M= .72, M=.69, see *Figure 4*). Though lower, non-infantry/artillery officer scores were fairly consistent across rank groups (M=.69, M= .69, M=.67, see *Figure 4*). For Jacobs, responses to a friend and fellow male officer who is having a relationship with a female soldier were needed. Scores were third lowest (M=.62) for this dilemma which separated officers by branch of service. As is the general pattern, infantry/artillery cadets scored higher than non-infantry/artillery cadets (M=.71 versus M=.61), but dropped for lieutenants and junior captains (M=.54), hardly recovering with the more experienced group (M=.54). In contrast, non-infantry/artillery officer scores were similar for the first two rank groups (M=.61 & M=.62) but increased for senior captains and majors (M=.69). (See *Figure 5*).

Demographic Categories and ICM Performance. From many factors asked of officers completing the survey, intentions to stay or leave the Army produced an interaction effect in combination with their stage of career. Specifically, this interaction shows that junior officers attending a career relevant course (JOTAC) who had also signalled an intention to leave the Army performed less well than others, whereas captains and majors attending a more senior course (CWC) who were also leaving the Army were associated with high scores. Based on ANOVA, this interaction between career time and desire to leave approached statistical significance ($F(1,153)=3.48; p<.06, \eta_p^2 =.022$).

Another factor of interest is the relationship between officers' assessment of themselves and AICM scores. Officers were asked to rate themselves generally as an officer or officer cadet compared to their peers. For example, participants who rated themselves as 'mostly better' (M=.68) than their peers scored higher than those who said they were 'better' (M=.61) or 'about the same' (M=.64). A very small number of officers claiming to be 'below the standards' of their peers were excluded from ANOVA analysis ($F(1,227) =3.411; p<.05, \eta_p^2 =.029$). The main effect was not conditioned by gender. Statistical differences were not found for other categories,

such as education, religion, number of operational tours, type of commission, age, religion or ethnicity.

Discussion

AICM scores are suggestive of appropriate application of Army values to the dilemmas and of ethical reasoning that aligns with expert panel judgements. The scores also reflect decisive ethical reasoning under difficult circumstances, supported by a grasp of why such action is needed (justification choices). In terms of moral development, the ability to identify reasons for action often lags behind a capacity for knowing what to do. The officers' justification scores were only slightly lower than action scores – again, suggestive of well-developed moral agency. The finding that highest results were for identifying *poor actions* is perhaps not surprising given the severe consequences of making poor choices in military contexts, but might reflect a risk-averse culture. Although female officers moderately outperformed males for action choices, gender differences were smaller than is generally the case for moral dilemmas of this kind. However, minor differences suggest female officers were slightly more willing to protect their soldiers against investigation (*Milgram*) and male officers were more prone to distraction from loyalty to a friend over doing the right thing (*Jacobs*).

Overall, officers most successfully rejected inappropriate aggressive methods under pressure and chose to uphold truth to the detriment of their soldiers, but were *less* successful diverting from a mission to make a rescue (*Metcalf*), or upholding the Army's fraternisation policy (*Jacobs*). Poor responses to the *Metcalf* dilemma signal a trend towards prioritising mission and avoiding risk, and poor responses to the *Jacobs* dilemma suggest over-emphasis on loyalty to friends. Possibly officers did not agree with the fraternisation policy. Despite good overall results, 35% of responses were inappropriate. These responses divide into action and justification choices, and reflect individuals who occasionally made selections at odds with the

expert panel, as well those few that performed poorly overall. Low scoring *action* choices reflect choices that were indecisive, unnecessarily risky and concerned with getting the job done at all costs. They also reflect failing to ‘go the extra mile’ for another human being, ‘turning a blind eye’ to means in favour of ends, using inappropriate force, being occasionally foolish, concealing the truth, putting soldiers before truth, and failing to act. Similarly, low scoring *justification* choices reflect choices that showed an over-emphasis on rules and/or on authority, apathy, risk aversion or acceptance of poor means for desired ends. These choices also derived from collective cover-up, an emphasis on being found-out, an excess of loyalty to soldiers, an over-emphasis on career, self-preservation, following others, putting soldiers before the truth, giving selective accounts of what has happened, prioritising other factors such as achieving the mission over risk to life and not showing appropriate respect to the enemy.

That officer cadets and senior captains and majors scored higher than lieutenants and junior captains, once branch of service was included in the analysis, was unexpected. A measure such as AICM might be expected to generate mostly lower scores among junior personnel, which then improve with experience. By the age of attendance at Royal Military Academy Sandhurst, potential Army officers’ *most* formative years for character development are largely over and Army selection is, of course, designed to pick best candidates for development. AICM dilemmas are unique to the Army, but the application of virtue has global as well as a role-related expression such that virtues assessed in the measure have already to an extent been developed in the pre-military lives of the cadets. Verweij et al. (2007) also found few differences on Lind’s moral judgement test between military and civilian responses to military dilemmas, except when it came to more experienced military personnel who did better. Despite limited military experience, high scoring cadets seemed to see the virtues (Army values or intermediate concepts) at stake. As cadets, they were being educated in ethical and military practices and were perhaps

primed for (hypothetical) identification of military excellence. A combination of military naivety, emerging institutionalisation and good character may have afforded them an advantage. Junior professionals have outperformed experienced colleagues, but done less well on ethical tests than very experienced colleagues in other professions (cf. Arthur et al., 2014; Kristjánsson, Varghese, Arthur, & Moller, 2017).

Perhaps with accumulated experience, senior captains and majors respond to AICM as fully rounded professionals – they bring together military experience and Army values at an advanced level. Unlike cadets, they consider all military factors expertly ahead of responding in line with Army values, whereas some lieutenants and captains were distracted by military factors (too mission focussed), that diverted from competent ethical military choices. Senior captains and majors were possibly acting from a professional orientation that equates to Aristotelian practical wisdom or *phronesis*, whereby theory and practice have become thoroughly entwined and integrated. For cadets, theory dominates, while for lieutenants and junior captains, practice dominates.

Although infantry/artillery officers were lowering overall scores (especially lieutenants and junior captains), as cadets officers in these cap badges scored high. That non-infantry/artillery officers scored high across experience and rank, but were evenly matched to remaining officers at the cadet level suggests that infantry/artillery experiences - and not other cap badge experiences - in the years after Sandhurst, were associated with a tendency towards military instrumentalism. Responses to *Smith-torture* produced best results, perhaps because anti-torture sentiment, through training, is well absorbed into Army practice. Infantry/artillery lieutenants and junior captains showed less aversion to obtaining information aggressively than did other rank/experience groups. This compares to a junior-to-senior pattern of improvement for non-infantry/artillery officers. Infantry/artillery lieutenants and junior captains responding to

Milgram-curfew did not recover low scores with seniority, suggesting experience is associated with a stronger sense of loyalty to soldiers. Perhaps experience has taught these officers that sharing information with higher command/ investigating authorities can conflict with other leadership and value considerations? Infantry/artillery officers responding to Jacobs-fraternisation dipped dramatically in the middle ranking group and did not recover with seniority, however Infantry/artillery officer cadets were more amenable to stand up for the fraternisation policy than were more experienced officers in this branch of service. As with all dilemmas, it is possible officer cadets were more vulnerable to desirability bias in that they were prone to giving answers they do not personally believe since they are accustomed to learning and being tested on expected standards. That fewer female soldiers work alongside infantry/artillery officers may be a factor of influence too, and more of the female officers belonged to corps or regiments that were not infantry or artillery. To check if differences so far discussed were acting as a proxy for gender, the sample were divided by gender, but the interaction effect remained even when female officers were removed. In summary, responses to each dilemma showed clear, nuanced differences by branch of service and stage of career such that, although infantry/artillery officers scored very well as cadets, at later career stages they seemed especially drawn to options emphasising the mission and getting things done over other considerations. Reconciling ethical judgement with practical military skill in the early years as commissioned officers seems a necessarily uneven process as officers integrate all features of their role. Results suggest experiential differences following Sandhurst for infantry/artillery officers compared to other branches of service. Explaining these differences is necessarily speculative, but it seems that inexperienced junior officers in the infantry and artillery were being distracted by an ethos or culture towards decisive firm action that lessens with experience in ways not apparent among other branches or service.

Conclusion

In the context of modern warfare and institutional and professional practice, the need for high levels of ethical judgement among Army officers is an ever more important asset that needs to be developed and assessed. There are promising signs in the literature that development of ethical reasoning as a core component of Army character is possible through education and training. This research assessed the application of Army values to military moral dilemmas for junior British Army officers. Success on the measure required participants to display high levels of both military and ethical judgement. Results suggest that further support focussed on helping junior officers integrate military and ethical judgements as they transition from Sandhurst to career may be warranted, especially for infantry and artillery officers, however it seems likely that this will always be a challenging and lengthy process. In addition to highlighting other specific areas for further improvement such as justification reasoning, balancing of compassion and mission, negotiating personal relationships with military needs, the research also provides further refinement of a much-needed measure of ethical reasoning among junior Army officers for the British context. AICM had good support prior to and during this study, but some further testing is necessary before AICM may be considered fully validated. In particular, findings need now to be corroborated by a larger representative sample as many more subtle differences could not be addressed here. AICM has potential for use with other rank groups, especially non-commissioned officers, and these possibilities should be investigated.

Limitations

The research is focused on one aspect of character – ethical reasoning – among one level of the chain of command – junior officers. It is likely that interactions with upper levels of the chain of command are influential for ethical reasoning among the officers. Further work should

investigate experiences and interactions between junior and more senior officers in the context of ethical dilemmas. The current research does not claim to take into account the full complexity of military life and leadership tensions within it, but the officers in responding to the dilemmas bring their understanding of this complexity to their responses to the measure.

An integral part of the research design involves the use and testing of a new measure and so results at this stage should be viewed as suggestive and as a useful starting point for assessing ethical reasoning among junior officers in the context of the British Army.

Declaration of interests

There are no conflicts of interests to declare.

References:

- Arendt, H. (1968). *Menschen in finsternen Zeiten*. Munchen/Zurich: Piper.
- Army. (2015). Army Leadership Code: An Introductory Guide, [Online]. Retrieved from www.army.mod.uk/media/2698/ac72021_the_army_leadership_code_an_introductory_guide.pdf
- Arthur, J., Kristjánsson, K., Thomas, H., Holdsworth, M., Confalonieri, L. B., & Qui, T. (2014). *Virtuous character for the practice of law* Retrieved from the University of Birmingham: <https://www.jubileecentre.ac.uk/1553/projects/gratitude-britain/virtuous-character-law>
- Arthur, J., Walker, D. I., & Thoma, J. (2018). *Soldiers of Character* Retrieved from the University of Birmingham: <https://www.jubileecentre.ac.uk/1582/projects/current-projects/soldiers-of-character>
- Baarle, E. v., Bosch, J., Widdershoven, G., Verweij, D., & Molewijk, B. (2015). Moral dilemmas in a military context. A case study of a train the trainer course on military ethics. *Journal of Moral Education*, 44(4), 457-478. doi:10.1080/03057240.2015.1087389
- Bebeau, M., & Thoma, S. J. (1999). "Intermediate" concepts and the connection to moral education. *Educational Psychology Review*, 11, 343-360.
- Biggar, N. (2013). *In Defence of War*. Oxford: Oxford, University Press.

- Boermans, S. M., Kamphuis, W., Delahajj, R., van den Berg, C., & Euwema, M. C. (2014). Team Spirit Makes the Difference: The Interactive Effects of Team Work Engagement and Organizational Constraints during a Military Operation on Psychological Outcomes Afterwards. *Stress and Health, 30*(5), 386-396. doi:10.1002/smi.2621
- Caforio, G. (1988). The military profession: theories of change *Armed Forces and Society, 15*(1), 55-69.
- Catano, V., Kelloway, K., & Adams-Roy, J. (2000). *Baseline Assessment - Measuring Ethical Values in the Department of National Defence: Results of the 1999 Research*. Retrieved from
- Cook, M. L. (2013). *Issues in military ethics, to support and defend the constitution*. Albany, New York: Suny Press.
- Data.Gov.UK. (2014). Continuous Attitude Survey *Armed Forces Continuous Attitude Survey Main Results* Retrieved from http://data.gov.uk/dataset/armed_forces_continuous_attitude_survey_main_results
- Deluga, R. J. (1995). The Relations Between Trust in the Supervisor and Subordinate Organizational Citizenship Behaviour. *Military Psychology, 7*(1), 1-16.
- Derrida, J. (1994). *Politique et l'amitie*. Paris: Editions Galilee.
- Downes, C. (1988). Great Britain. In C. C. Moskos & F. R. Wood (Eds.), *The Military More Than Just a Job?* London: Pergamon-Brassey's.
- Duzan, A. C., & Clervoy, P. (2014). About Moral Disengagement During Military Operations: A constructive Approach. *Annales Medico-Psychologiques, 172*(6), 450-456.
- Farley, K. (2010). *Defence Ethics Survey Report* Retrieved from Canada:
- Fisher, D. (2011). *Morality and War: Can War be Just in the Twenty-first Century?* Oxford: Oxford University Press.
- French, D. (2008). *Military Identities: The Regimental System, the British Army, & the British People c.1870-2000*. Oxford: Oxford University Press.
- French, S. E. (2005). *The Code of the Warrior - Exploring Warrior Values Past and Present*. New York: Rowman & Littlefield Publishers.
- Gayton, C., & Kehoe, J. (2015). A Prospective Study of Character Strengths as Predictors of Selection into the Australian Army Special Force. *Military Medicine, 180*(2), 151-157.
- Han, K. H., & Lee, S. B. (2013). The Temperament and Character of Korean Male Conscripts with Military Maladjustment - A preliminary Study. *Psychiatry Investigation, 10*(2), 131-136.

- Huntington, S. (1957). *The Soldier and the State: The Theory and Practice of Civil-Military Relations*. Cambridge: Harvard University Press.
- Jarrett, T. (2008). Warrior Resilience Training in Operation Iraqi Freedom: Combining Rational Emotive Behavior Therapy, Resiliency and Positive Psychology. *U.S. Army Medical Department Journal*, 32-38.
- Jennings, P. L., & Hannah, S. T. (2011). The Moralities of Obligation and Aspiration: Towards a Concept of Exemplary Military Ethics and Leadership. *Military Psychology*, 23(5), 550-571. doi:10.1080/08995605.2011.600158
- Johnson, K. (1974). Ethical Issues of Military Leadership. *Parameters*, 4(2), 35 - 39.
- Kateb, G. (2004). Courage as a Virtue *Social Research*, 71(1), 39-72.
- Kristjánsson, K. (2015). *Aristotelian character education*. New York: Bantam.
- Kristjánsson, K., Varghese, J., Arthur, J., & Moller, F. (2017). *Virtuous Practice in Nursing*. Retrieved from Birmingham:
- Lincoln, S. H., & Holmes, E. K. (2011). Ethical Decision Making: A Process Influenced by Moral Intensity. *Journal of Healthcare, Science and the Humanities*, 1(1).
- Mathews, M. D., Eid, J., Kelly, D., Bailey, K. S. J., & Peterson, C. (2006). Character Strengths and Virtues of developing military leaders: An International Comparison. *Military Psychology*, 18.
- Michelson, B. M. (2013). Character Development of U.S. Army Leaders - The Laissez-Faire Approach. *Military Review*, September-October 2013.
- MOD. (2014). Ministry of Defence UK Armed Forces Personnel Report (Online). Retrieved from www.gov.uk/government/statistics/uk-armed-forces-annual-personnel-report-2014
- Nuciari, M. (2006). Models and explanations for military organisation: An updated reconsideration. In G. Caforio (Ed.), *Handbook of the Sociology of the military*. New York: Springer.
- O'Brien, T. (2003). *If I die in a Combat Zone*. London: Flamingo.
- Olson, L. W. (2014). *Towards a More Ethical Military: The Contribution of Aristotelian Virtue Theory to Military Ethics*. (PhD), University of Texas at Austin
- Olsthoorn, P. (2005). Honour as a Motive for Making Sacrifices. *Journal of Military Ethics*, 3(3), 183-197.
- Osiel, M. J. (2002). *Obeying Orders: Atrocity, Military Discipline and the Law of War*. New Brunswick, New Jersey: Transaction.

- Rest, J., Narvaez, D., Thoma, S. J., & Bebeau, M. J. (1999). A Neo-Kohlbergian Approach to Morality Research. *Journal of Moral Education*, 29, 381-396.
- Robinson, P. (2007a). Ethics Training and Development in the Military *Parameters*, Spring, 23-25.
- Robinson, P. (2007b). Magnanimity and Integrity as Military Virtues. *Journal of Military Ethics*, 6(4), 259-269.
- Seligman, M. (2011). *Flourish - A new understanding of happiness and well-being - and how to achieve them*. London: Nicholas Brealey Publishing.
- Shay, J. (1995). *Achilles in Vietnam: Combat Trauma and the Undoing of Character*. New York: Scribner
- Sherman, N. (2005). *Stoic Warriors - The Ancient Philosophy Behind the Military Mind*. New York: Oxford University Press.
- Shields, P. (1991). Socio-economics: A Paradigm for Military Policy *Faculty Publications-Political Science Paper 11*.
- Shils, E., & Janowitz, M. (1975). Cohesion and Disintegration in the Wehrmacht in World War II. In M. Janowitz (Ed.), *Military Conflict*. London: Sage.
- Thoma, S. J. (2006). Research using the Defining Issues Test. In M. Killen & J. G. Smetana (Eds.), *Handbook of Moral Psychology* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Thoma, S. J., Derryberry, P., & Crowson, H. M. (2013). Describing and testing an intermediate concept measure of adolescent moral thinking. *European Journal of Developmental Psychology*, 10, 239-252.
- Turner, M. (2008) The Development and Testing of An Army Leader Intermediate Ethical Concepts Measure (Doctoral Dissertation), Available at:
[https://scholar.google.co.uk/scholar?q=Turner,+M.+\(2008\)+%E2%80%93The+Development+and+Testing+of+An+Army+Leader+Intermediate+Ethical+Concepts+Measure+phd+dissertation&hl=en&as_sdt=0&as_vis=1&oi=scholar](https://scholar.google.co.uk/scholar?q=Turner,+M.+(2008)+%E2%80%93The+Development+and+Testing+of+An+Army+Leader+Intermediate+Ethical+Concepts+Measure+phd+dissertation&hl=en&as_sdt=0&as_vis=1&oi=scholar) [Accessed 9 July 2018].
- van Baarle, E., Verweij, D., Molewijk, B., & Widdershoven, G. (2018). The relevance of Foucauldian art-of-living for ethics education in a military context: Theory and practice. *Journal of Moral Education*, 47(1), 126-143. doi:10.1080/03057240.2017.1389703
- Verweij, D. (2007a). Comrades or Friends? On Friendship in the Armed Forces. *Journal of Military Ethics*, 6(4), 280-291.
- Verweij, D. (2007b). Comrades or Friends? On Friendship in the Armed Forces *Journal of Military Ethics*, 6(4), 280-291.

- Verweij, D., Hofhuis, K., & Soeters, J. (2007). Moral Judgement within the Armed Forces. *Journal of Military Ethics*, 6(1), 19-40. doi:10.1080/15027570701228545
- Walker, D. I. (2018). Character in the British Army: A Precarious professional practice. In D. Carr (Ed.), *Cultivating moral character and virtue in professional practice*. London: Routledge.
- Walker, D. I., Thoma, S. J., Jones, C., & Kristjánsson, K. (2017). Adolescent moral judgement: A study of UK secondary school pupils. *British Education Research Journal*. doi:DOI: 10.1002/berj.3274.
- Walker, L. J. (2006) Gender and Morality in Killen, M and Smetana, J.. G. (eds) Handbook of Moral Psychology, pp 93-118.
- Warner, C., Allenzeller, G., Mobbs, A., Parker, R. P., Warner, C. M., Grieger, T., & Hoge, C. W. (2011). Effectiveness of battlefield-ethics training during combat deployment: a programme assessment. *Lancet*, 378, 915-924.
- Williams, K. R. (2010). An Assessment of Moral and Character Education in Initial Entry Training (IET). *Journal of Military Ethics*, 9(1), 41-56. doi:10.1080/15027570903523107
- Wolfendale, J. (2009). Professional Integrity and Disobedience in the Military. *Journal of Military Ethics*, 8(2), 127-140.
- Zavaliy, A. G., & Aristidou, M. (2014). Courage: A Modern Look at an Ancient Virtue. *Journal of Military Ethics*, 13(2), 174 - 189.

Tables

Table 1

Gender and Branch of Service by Rank/Experience

		Cadet	Lieutenant & Junior Captain	Senior Captain & Major	Total
Gender by rank and experience	Male	57(75%)	71(76%)	62(84%)	190(78%)
	Female	19(25%)	22(23%)	11(15%)	52(21%)
	Total	76	93	73	242
Branch of service Rank/experience	Infantry/artillery	23(45%)	32(35%)	32(44%)	87(41%)
	Non- infantry/artillery	28(55%)	59(65%)	41(56%)	128(60%)
	Total	51	91	73	215

Note: percentage within rank is shown in brackets.

Table 2

AICM Scores for Main Sample by Gender

Variable	Categories	Sample size	Total ICM	Subscales Action choices		Justification choices	
				Best	Worst	Best	Worst
		238	0.65(0.14)	0.66(0.22)	0.73(0.17)	0.62(0.23)	0.60(0.17)
Gender	Male	187	0.64(0.14)	0.64(0.22)	0.71(0.18)	0.62(0.23)	0.60(0.17)
	Female	51	0.69(0.11)	0.71(0.21)	0.78(0.17)	0.64(0.23)	0.63(0.17)

Note: Standard deviations are shown in parenthesis.

Table 3

AICM Scores by Dilemma

Variable	Metcalf	Smith	Milgram	Jacobs
Total AICM	0.53	0.75	0.70	0.62
Gender - male	0.53	0.74	0.71	0.60
Gender - female	0.58	0.79	0.69	0.72

Table 4

Total AICM by Branch of Service and Held Rank

AICM	Cadet	Lieutenant	Captain and Major
Infantry/artillery	0.72	0.60	0.62
Non-Infantry/artillery	0.64	0.67	0.66

Figures

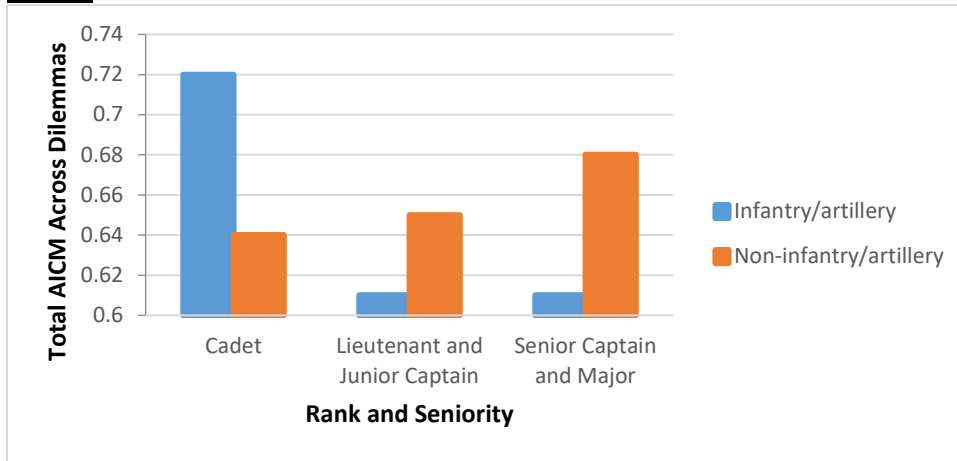


Figure 1. Performance by Rank and Seniority and Branch of Service

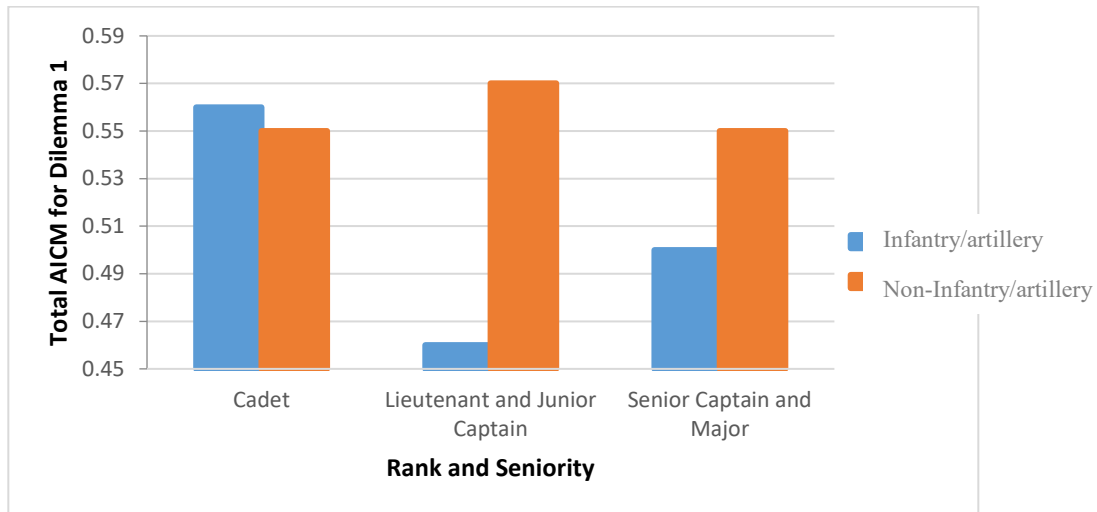


Figure 2. Dilemma 1 – Metcalf - by Rank and Seniority and Branch of Service

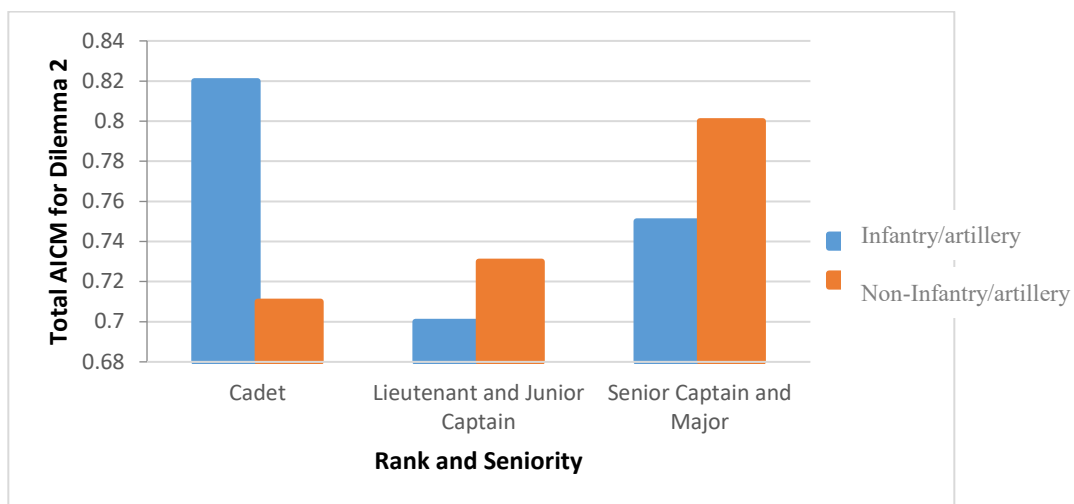


Figure 3. Dilemma 2 – Smith - by Rank and Seniority and Branch of Service

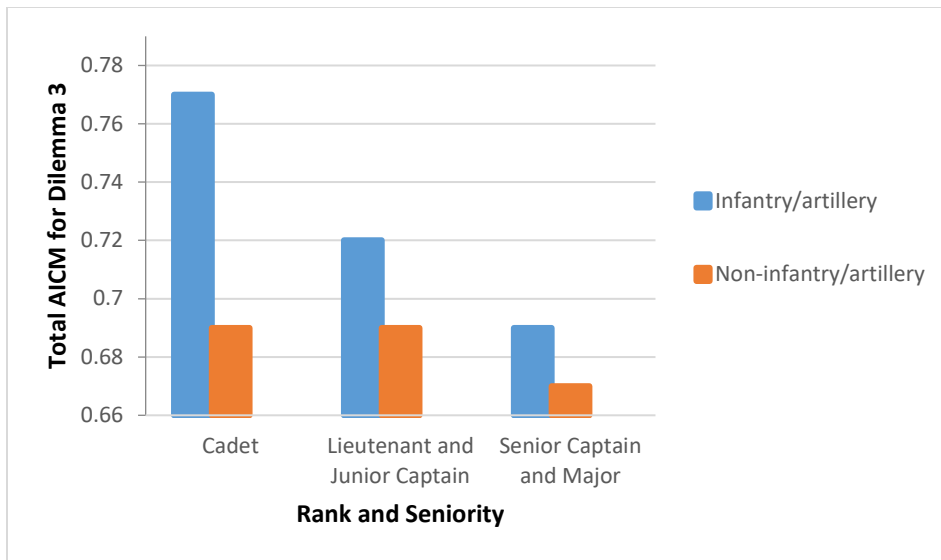


Figure 4. Dilemma 3 – Milgram - by Rank and Seniority and Branch of Service

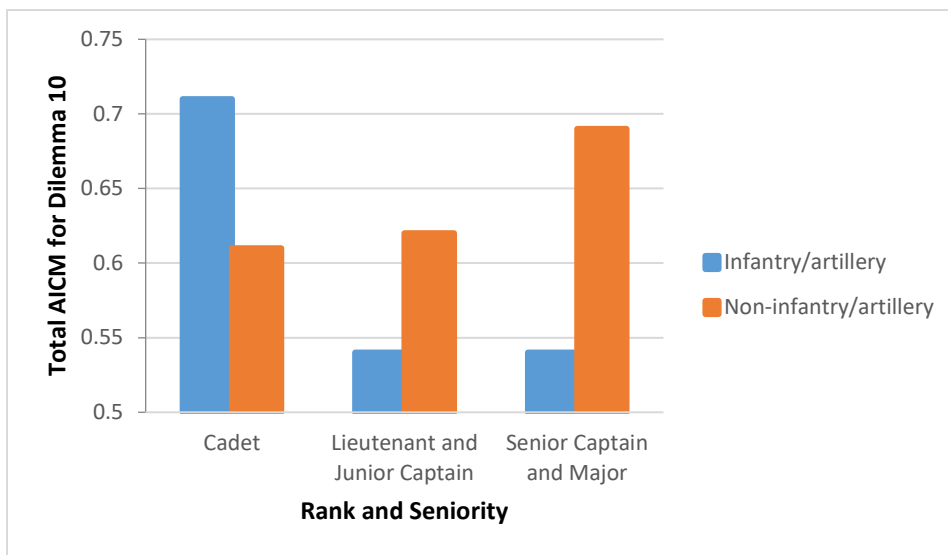


Figure 5. Dilemma 4 – Jacobs - by Rank and Seniority and Branch of Service