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Convergence in Military Procurement Practice: Responses to Asymmetry

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Summary

A certain degree of mystification surrounds all military decisions, as if their very existence stands for violence and irrationality incomprehensible to a fully civilized mind, and only justifiable with the harsh realities of the world. And yet, the armed forces in a liberal democracy are under civilian control, as is their spending. Their constitution and equipment reflect the role in which they are envisioned as well as goals they are intended to achieve. Concordantly, this article casts military spending policy as a rational and long-term process. Through large portions of the 20th century, explaining military procurement would have been focused on explanations of competitive military build-ups. Quite contrary to this, the contemporary policy challenges and solutions are more often compatible than competitive, due to the fact that the major players do not intend to make war on each other. Instead, the environment in which war-making is conceivably to take place is shared; an asymmetrical, low-intensity battlefield where once stood the threat of an all out war with an equal opponent. The intuitive approach to arming policy takes market structure and perceived security levels of countries into account. This article suggests that an improved perspective can sometimes be gained using a policy convergence framework. In particular, the author examines acquisitions of lighter armored vehicles with a fighting role by NATO member countries in recent years. The similarities in procurement projects such as Stryker (USA) and FRES (Great Britain) are viewed utilizing concepts of convergence mechanisms such as lesson drawing and policy emulation as compared to individual problem solving. A simplified model of military procurement is suggested in order to better distinguish these mechanisms. The author argues that in a high uncertainty context of military procurement coupled with urgency of the decision process, policy emulation can be preferable to technically more rational but higher cost policy-making processes.

Keywords: military procurement, convergence, lesson drawing, policy emulation, FRES, Stryker

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Introduction

To conceptualize military acquisitions as policy might be counter-intuitive for several reasons.

Firstly, the instruments of war can be equated with means for the use of force. The principle of force use being opposite to the usual, the lawful and the rational. By a logical sleight of hand, any military procurement is inherently irrational, and therefore not a policy. Still, this paper assumes that military procurement can be a set of long-term rational answers to a set of well-defined policy questions.

What stands in the way of an applicable approach to military acquisitions is the very history of its conceptualization. The field was popular and practically needed during the Cold War, and studies of the era, including Richardson's vastly influential deterministic mathematical equations and Ostrom's model of relative-linkage (see Moll and Luebbert, 1980), necessarily reflected the Cold War reality of arms races.

It seems that, apart from market structure, most contemporary studies tend to carry an expressed or tacit understanding of military procurement as a response to perceived threats from differences in weapons stocks of respective countries rivals, with some studies allowing some leeway in form of acknowledging the whole world as a potential rival (see Golde and Tishler, 2004). While the latter might very well be the proper way to explain US military programs, most other countries, particularly the smaller ones, do not develop their armed forces in all possible directions at once. Only two European NATO member countries (Great Britain and France) possess or are currently developing theoretical technological predispositions for complicated overseas solo-operations (blue water navy), with Italy and Spain having certain elements of these capabilities (green water navy). As far as European NATO members are concerned, the vastly improved post-Cold War threat environment[1] led to reductions in weapons stocks (through exports, scrapping or in the very least declines in replenishment), particularly in heavy equipment. What these countries can reasonably expect in terms of war are not conventional enemies of comparable size, along the lines of security threats prevalent in the first 90 years of the 20th century. Rather, the probable mission profiles are those against lightly armed concealed opponents on an asymmetrical battlefield, along the lines of wars in Afghanistan and Iraq in the past decade.

What most European NATO members can anticipate is a cooperative overseas deployment. The role they might wish to fill might sometimes be a specific capability niche involving heavy equipment (such as tanks, air-ground capability or artillery), but generally, all armed forces, large and small, will be fielding infantry

[1] The tipping point for Albania and Croatia being the late 1990-ies.

contingents on a low intensity profile mission (if anything at all).[2] The common problem is therefore infantry protection[3] and fighting capability.

Two types of vehicles are possible contemporary answers to this problem. The first is the very wide family of MRAP (Mine Resistant Ambush Protected) vehicles. These are basically Jeep descendants, intended to transport soldiers from point A to point B, while protecting them from small arms fire (rifles and machine guns) and IED (Improvised Explosive Devices) threats. They come in numerous forms and are readily available. The second possible response is the type of vehicle intended to provide armed support for infantry and carry out fighting missions. As a Cold War solution, this role was delegated to heavier tracked vehicles (Infantry Fighting Vehicles and tanks), while the past decade was marked by a noticeable shift to lighter, wheeled 8x8 armored vehicles[4]. This paper will describe this trend and attempt to draw conclusions from it.

Data on 8x8 vehicle imports is used alongside the history of major domestic projects. Having examined this data, I suggest a simplified model of military acquisitions, which can be used to illustrate the difference between the processes of policy emulation and more intensive and rational, if expensive processes.

General Conditions

Even if one should succumb to the basic instinct of describing these procurements as reactions to US policy, an imitative reaction of a NATO member country in response to a change in US armament cannot be reasonably conceptualized within a security dilemma framework, i.e. as responding to a threat. Generally speaking, the better the strongest country in the alliance is armed, the safer its allies, but in the Iraq/Afghanistan deployment situation, this does not necessarily hold true. One contingent does not compete for success with another, and it only free rides on another's success in a general strategic sense. If there are no fronts, and hardly any defined and located enemies, the dangers faced (ambushes and IED attacks) are omnipresent. Therefore, the problem of military equipment is identical and endlessly repetitive.

[2] For a modestly sized country such as the Republic of Croatia, this is a very general problem, as a decision created internally can hardly produce such a battlefield (in sharp contrast with decisions created in USA). A small NATO member can, of course, decide whether or not to commit its armed forces to such a battlefield, but names of operations and localities become mutually interchangeable. For the foreseeable future, the units intended for operational use will be a relatively small infantry contingent destined to function in an asymmetrical battle context.

[3] For a study of the growing importance of the protection of individual soldiers in military acquisitions, see Schörnig and Lembcke (2006).

[4] 8x8 vehicles will sometimes be used as shorthand for these vehicles except if otherwise noted. 8x8 implies the eight-wheel drive of these vehicles.

Herein lies the necessity of an enhanced approach to military acquisitions. Next to market structure and security levels, a third element should be taken into account when discussing the allocation of defense spending, as the first two can only explain the trend in very ambiguous terms. Mechanisms of policy convergence are useful in explaining the problem as it covers procurement not based on competition or rivalry, but rather on various solutions to a common policy problem.

Economies and overall military spending of respective states provide a backdrop when discussing options in defense spending. The more lavish the defense budget the lesser the need to make hard choices. An infinite financing in military matters would produce an infinite number of technical solutions to be joined with policy problems as they are formulated. In practice, budgets are not infinite. However, large economies can afford to pursue various objectives in procurement at the same time, manifesting here as procurements of both wheeled and tracked systems. It seems that more financially constricted states would face an exclusive dilemma between heavier and better protected tracked vehicles vs. lighter and possibly more cost-effective wheeled vehicles. Finally, the poorest countries, or the countries with least military financing, make no large acquisitions whatsoever. However, outside of these constricting factors, what are the driving forces behind specific projects? Are they always effective? Are they individual or generic? Rational or irrational? This paper will suggest clues as to the answer to such questions.

Limits of a Non-Competitive Model of Military Procurement

While Europe in general seems to have turned toward a different mechanism of procurement policy formulation, there is still room for localized Cold War-esque behavior. In particular, certain aspects of Greek and Turkish military acquisitions indicate that the basic idea of this article cannot be blindly generalized. Their procurements still mirror the more easily understandable way of conceptualizing this field: an arms race, or rather an arms competition – a "disaggregated competition [...] between pairs of weapons systems for executing mutually incompatible policy goals" (McCubbins, 1983: 1). Their orders are a function of those of their counterpart, reflecting them in both size and type, often with unusual tenaciousness. For instance, after lavish tank procurement programs of the early nineties (918 for Greece, 1123 for Turkey, this minor difference soon made up for by two new Greek orders amounting to 200 tanks in the 1997/98 period), both countries had huge, yet somewhat obsolete tank fleets by Western European standards. The first technological step forward was made by Turkey in 2002, ordering a modernization of 170 M-60 tanks to M3 Sabra standard (the first tank in the Greco-Turkish context armed with a 120 mm cannon, as well as protected by explosive-reactive armor, better fire control etc.). To this Greece replied with an order of *their* first 120 mm

cannon tanks (Leopard 2A6) in 2003, an order also 170 in size.[5] Similar tendencies, albeit usually less pronounced, exist in Greek and Turkish Navy and Air-Force inventories.

Locked in competition rather than co-operation, it seems that Greek and Turkish military acquisitions sometimes correspond not to a common policy question, but rather to the perceived size and advancement of their rival. The focus of procurement is, untypically for Europe, on the quantity of heavy equipment. It is interesting to note that while the rest of European NATO was mostly focusing on the downsizing of armed forces, Greece and Turkey were concerned with the opposite (these two processes going hand in hand as most of described acquisitions were either ex-US or ex-FRG tanks, made redundant either by downsizing or purging of obsolete equipment).

Stryker vs. FRES

Starting in late 1999, the US Army (and Chief of Staff Eric Shinseki in particular) published a series of publications (The Army Transformation: A Historic Opportunity, Joint Vision 2020, Operations, etc.; see Vick *et al.*, 2002) defining the new strategic goals combining improved global mobility with increased firepower. They were officially stated with the Concept for Objective Force white paper. It postulated the necessity of deployment of a brigade combat team in 96 hours after liftoff, a division in 120 hours, and five divisions in 30 days anywhere in the world. This was impossible with contemporary equipment (with light, infantry focused, easily transportable units lacking in firepower, and heavy armored units lacking in speed of transport) (*ibid.*). The general problem was to bridge this gap, to produce units both light enough for rapid deployment into full battle and heavy enough to fulfill its role. This goal clearly denotes the geopolitical position of USA as one of a global problem solver and/or hegemon. While it was acknowledged that technology was not yet in existence to provide such a solution, a precursor to such a solution was made available very quickly (ordered in 2000 and deployed within 24 months) and dubbed firstly Interim Armored Vehicle and then Stryker. Conversely, the Interim Brigade Combat Team was renamed Stryker Brigade Combat Team in August 2002 (*ibid.*). The decision to name the main maneuver force unit after a piece of equipment suggests the importance of this vehicle for the US Army in general.

[5] Further orders in 2003-2005 added 183 Leopard 2 and 232 Leopard 1A5 (the latter corresponding to the older generation of tanks) for Greece, and 298 Leopard 2A4 for Turkey, ultimately resulting in the ambitious Turkish "Altay" program in 2008, intended to domestically produce 504 top of the line tanks (all data SIPRI).

Table 1. UK and US Procurement Programs

Stage	USA	UK
1) **Formulation of strategic tasks**	A number of initiatives including The Army Transformation: A Historic Opportunity (2000)	The 1998 Strategic Defence Review (SDR) White Paper
2) **Identification of necessary capabilities and capability gaps**	Problems – Interim Armored Vehicle (Stryker) with further technology pending	Problems – bogged down for a decade...
3) **Acquisitions of lacking resources**	First orders in 2000	...and consequently uncompleted

In a similar process, the Ministry of Defense of Great Britain first identified a need for greater mobility in the 1998 Strategic Defense Review white paper. This was followed by a call for a vehicle program to fulfill a freshly formulated expeditionary role. This program was established as FRES (Future Rapid Effect System), and after early concept work in 2001-2003, a two year Initial Assessment Phase was announced. FRES was intended to determine the optimal vehicle in three vehicle "families" (Utility, Heavy and Reconnaissance), comprising 16 battle roles (HoCDC, 2010).

Still, the program was plagued by continuous delays, and failure to provide an answer (and therefore suitable equipment for already fielded units) became a sore point between the British legislative and executive branches. In a 2007 report, the House of Commons Defense Committee dubbed the FRES program a "sorry story of indecision, constantly changing requirements and delay" (HoCDC, 2007). By a 2009 report, the rhetoric escalated to a "fiasco" (HoCDC, 2009), while the Minister for Defense Equipment and Support joined the fray in October 2009 only to refer to the FRES UV program as a perfect disaster. In consequence, FRES underwent a complete restructuring. While there are still acquisition programs under the FRES title, they are now separate projects with more relaxed requirements (HoCDC, 2010).

The main difference between the US and UK programs was the British assumption of immediate solvability of the problem, which caused immense delays as well as good money being thrown after bad. While the US Army settled for the available solution, the UK brass apparently went so far as not to finance urgent (and easily available) MRAP programs (non-fighting vehicles intended to counter the IED and ambush threat), perhaps due to the fact they were seen as encroaching on the FRES program. These were initially funded through Urgent Operational Requirements (UOR) utilizing extra Treasury financing. The FRES program seems to be a good

argument for a better effectiveness of alternatives to individual problem solving. Adoption of the "off the shelf" solution, i.e. the 8x8 Stryker or Piranha III as a best policy practice, was rejected, as it never met the existing requirements in protection, capacity, mobility and development potential (HoCDC, 2007). It seems that a process of lesson drawing would necessarily entail a change in perception of which specifications are possible. As it were, the very difficult combination of specifications was insisted upon, and in its light all available "off the shelf" solutions were found wanting. Thusly, the British MoD departed on a course of individual problem solving, which under the circumstances proved to be expensive both in terms of time and financing, with a decade and 146 million pounds wasted (HoCDC, 2010), and with no visible results.

Large European Countries

There is nothing technologically new to an 8x8 armored vehicle. Such vehicles had been in use for decades before Stryker was chosen as a backbone of maneuverable units in the US Army. What is new is the wide variety of roles assigned to such vehicles. An important concept is modularity, the idea that the same basic vehicle can be fitted with different sets of equipment resulting in light weight alternatives to more conventional and heavier vehicles (mainly tracked vehicles). The Stryker "family" of vehicles, for instance, comprises ten variants[6]. They are intended to be an element of power projection in their own right, rather than non-threatening peace keeping vehicles, or members of massive Soviet-type mechanized drive. To be fair, a general contextual technological shift sometimes dubbed RMA[7] might have provided fertile ground for the faith in maximum utility of minimum resources (i.e. armor and fire power), making this new concept viable.

UK and USA have been compared here in greater detail since their problems as well as requirements seemed alike. Yet, a number of European NATO projects predated them or developed simultaneously.

The earliest of currently active programs was the Italian Centauro, with production starting in 1991. It was, however for a long time envisioned as a tank destroyer, with production ending in 2006 (including export vehicles) (AoWEU, 2009). This

[6] Infantry Carrier Vehicle, Anti-tank Guided Missile, Mobile Gun System, Fire Support Vehicle, Mortar Carrier, Command Vehicle, Engineer Squad Vehicle, Medical Evacuation Vehicle, Reconnaissance Vehicle, NBC Reconnaissance Vehicle.

[7] Revolution in Military Affairs – proponents of this term "claim that technological advances in computerization and communications, aided by innovations in weaponry, have now altered the nature and practice of warfare by sharply reducing Clausewitzian friction born of uncertainty. Information gathering, processing, and distribution promise nearly perfect knowledge of the battlefield while other technologies deny the same degree of knowledge to the enemy" (Lynn, 1996: 3).

version is similar to Stryker MGS version (105 mm gun intended for heavy fire support) and several Centauro vehicles were leased by USA in order to train Stryker MGS crews ahead of schedule (SIPRI). In recent years, five new variants of Centauro more along the lines of described general 8x8 roles and tendencies were developed and ordered.

The Boxer program shows both high hopes and dangers of transnational problem solving in the context of military industry – inasmuch as an equipment type is the answer to a common problem. In the late 1990-ies, France, UK and Germany entered a joint Research and Development project designed to answer the common demand for an 8x8 armored vehicle. Had it been successful, we could have pointed to convergence as a result of transnational problem solving, i.e. "joint development of common problem perceptions and solutions to similar domestic problems and their subsequent adoption at the domestic level" (Holzinger and Knill, 2005: 784). As it were, both United Kingdom and France opted out of the project. UK, having drowned 57 million pounds in the project (HoCDC, 2007), went on to a long and arduous road of individual problem solving as described above. France opted out due to incompatibilities in problem formulation and a desire to support exclusively domestic industries. The result was an 8x8 French offshoot known as VCBI program operational since 2008 (AoWEU, 2009). This would have left Germany alone, but Netherlands joined the project, which eventually received orders in 2006. This project takes a somewhat different approach as the Boxer is of comparable weight with the new German tracked Infantry Fighting Vehicle "Puma", much heavier than most other 8x8 vehicles (not having to comply with the 20 tonne weight limit that plagued Stryker and other programs in order to be transportable with the ubiquitous transport aircraft C-130). The Boxer would therefore more aptly be seen as an alternative to rather than a substitute of tracked vehicles.

Following is a list of NATO member domestic 8x8 armored vehicles programs with orders made to date.

Table 2. Domestic Programs

Country	Domestic 8x8 program	Orders
Germany	Boxer	272
Netherlands	Boxer	200
France	VCBI	630
Italy	Centauro	*400 (tank destroyer version 1991-1996)* 241 (in four variants, these are now known as VBM Freccia)

A Trend Is Born

Apart from states willing to and in the position to finance their own R&D, there is a number of states willing to purchase an *off-the-shelf* solution. It is interesting to note that this group within NATO comprises both very large (USA and Canada) and smaller economies, but not UK, Germany, France or Italy. An answer to this riddle is probably the position of the defense industry within each country, with the US military industry large and occupied enough not to be a primary concern,[8] and the smaller military industries content with projects awarded via offset programs usually accompanying these acquisitions. The exceptions are states preferring to have domestic industry develop priority programs in hopes of strengthening domestic industry and, in due course, trade balance through export.

Following is a list of recent imports of 8x8 armored vehicles (orders either placed or delivered in 2000-2010 as reported by SIPRI) by NATO members (see Table 3 on the next page). The vast majority of orders was placed on three types of vehicles, neither of which originated in a NATO country: Piranha III (Switzerland), Pandur II (Austria) and XC-360 AMV (Finland). An exception is the Italian Centauro vehicle exported to Spain, but this was delivered almost exclusively in the tank destroyer variant (armed with a 105 mm cannon) and does not follow the capability specifications of modularity and versatility these orders generally assumed.

Apart from these, Turkey recently acquired a license for the production of Singaporean Terrex 8x8 vehicles, but has been left out of the table due to unavailable data. This makes 12 NATO members with new 8x8 acquisition programs with imported R&D, the vast majority of which were created after the US employing of Stryker, and further 4 with domestic R&D. The remaining 12 members (out of 28) are Albania, Bulgaria, Estonia, Greece, Hungary, Iceland, Latvia, Lithuania, Luxembourg, Norway, Slovakia and the United Kingdom.

This data is, of course in sharp contrast with the 1990-ies. Apart from Canadian orders, which followed an established trend, and two orders made in the late 90-ies and delivered late enough to be listed in the above table (Danish and Spanish), all 8x8 armored vehicle orders were of the Soviet BTR series (major orders amounting altogether to 547 vehicles ordered by Turkey and 555 by Hungary, with Romania continuing the Cold War licensed production). These vehicles are somewhat incomparable with the processes described in this paper. The role in which they were envisioned is greatly different, they were not intended to rapidly deploy globally and hold their own in a pitched battle. Rather they were an integral part of a huge mechanized force. Consequently, BTR-60, BTR-70 and BTR-80 are far lighter and

[8] And in fact secure enough to eventually incorporate MOWAG, the company conducting the R&D for PiranhaIII/Styker, which was purchased by General Dynamics in March 2003.

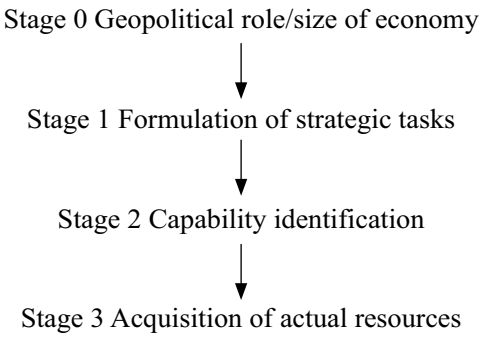
Table 3. Import Programs

	Number ordered	Vehicle type	Order placed
Belgium	242	Piranha-3	2006
Canada	240 120 120 171	Piranha-3 (all)	1997 1998 1999 1999
Croatia	84 42	XC-360 AMV (all)	2007 2008
Czech Republic	107	Pandur-2	2009
Denmark	22 22 69	Piranha-3 (all)	1997 2003 2004
Poland	690	XC-360 AMV	2003
Portugal	228 32	Pandur-2 (all)	2005 2005
Romania	31	Piranha-3	2007
Slovenia	135	XC-360 AMV	2006
Spain	22 18 62 21 4	Centauro Piranha-3 Centauro Piranha-3 VBM Freccia	1999 2001 2002 2007 2008
USA	2131 704 615 352 103 91	Stryker (all)	2000 2005 2008 2009 2010 2010

less protected vehicles. Therefore, their purchases cannot be considered precursors to the process described here. However, their existence in large numbers in an inventory may lead acquisition planners to question the cost-effectiveness of a similar vehicle. This might help explain why Romania made such a modest purchase and why Hungary was not a part of the trend at all.

Interpretation

Following is a simplified general ideal-type model of a military acquisition program.



Stage 0 is the stage in which the size of economy and overall military spending provide a hypothetical resource base defining the combined ambitiousness of all acquisitions. This stage also provides the process with a motivational force, i.e. the role in which a particular state envisions itself. These two factors form an indivisible starting point (Russia might wish to have more than one carrier, but is constricted by available financing; China is not, but prefers to delay acquiring such capability). Stage 1 is the stage in which general strategic tasks of armed forces are defined in accordance with stage 0 (in the case of USA and UK, these were rapid global deployment). Stage 2 is the stage identifying capabilities necessary to fulfill tasks of stage 1. This is the stage in which 8x8 armored vehicles are identified as a needed investment. Stage 3 entails acquisition of equipment, if such resources are available.

While it is clear that a trend can be discerned, actual and comprehensive descriptions of mechanisms in play would require studying the procurement processes of all countries. In a paper of this size, black-boxing these processes is thus necessary. This requires certain unverified assumptions which may lead to substantially different lines of thought. For instance, the unverified assumption of rationality of state actors would produce the following argument: NATO members rationally expect situations in which they will be expected to deploy infantry elements on an asymmetrical battlefield, or already face or did face such situations in Afghanistan and Iraq. In an effort to best equip these troops, the best possible vehicles are purchased. It does not matter if this means heavier equipment is neglected, as NATO membership, as well as the overall European threat environment, suggest that no territorial war is imminent or foreseeable. This assumption would therefore result in a diagnosis of either individual problem solving (with each state defining prob-

lems in like manner and, being rational, arriving at like solutions) or lesson drawing (with each state avidly observing all previous experience and incorporating it into its own decisions). I find this rationale rather suspect, as an ideal Bayesian learning process is problematic in times of peace due to the fact that there is no situation available in which a true test of military equipment is possible. It is difficult to reach a singular realistic conclusion as to its adequacy, much less aggregate and analyze such conclusions. On the other hand, in times of military operations any participant is pressed for time, as best feasible equipment must reach the troops in the least possible time.

I am willing to make a different unverified, yet logical assumption, in that strategic tasks are generally connected with the size of economy and the global role. Only three NATO states possess nuclear armaments: USA, UK, and France. These happen also to be the only three states with global power projection capabilities (in case of UK, the large aircraft carriers needed are under construction). Therefore, only the three states possess theoretical predispositions for an individual overseas operation. All other states will, even theoretically, more than likely be caught in a quagmire of collective political decision making pending a cooperative operation. Therefore, it follows that rapid deployment should be a far lower priority for smaller countries. Considering the origin of contemporary 8x8 armored vehicle programs as solutions to the problem of rapid global deployment of substantial combat capable forces, it would seem that a transplantation of stages 2 and 3 is made by smaller countries, with rationalizations taking place of stage 1. This suggests emulation, in that it is not a "search for effective solutions to given problems", but "a simple copying of policies adopted elsewhere" (Holzinger and Knill, 2005: 784). However, even if this process provided a number of countries with capabilities they did not actually need at the expense of capabilities they might actually require should the global security situation deteriorate, it also means that troops deployed abroad are well equipped. Indeed, keeping in mind the expected situations, pointing at an over-kill in equipment could even be seen as distasteful considering the alternative of under-protection suffered by the troops equipped by the non-emulating British Ministry of Defense. In this respect, emulation would be a wholly rational response considering the urgency to protect soldiers in a battle-zone combined with the much lower costs of information compared to alternative processes (see Holzinger and Knill, 2005).

The described reduction to the link of stage 0 and what the strategic tasks of stage 1 *should be* also helps to avoid two substantial problems. Firstly, the blurred line between two possible types of circumventing the observed high cost of information, namely between emulation and bounded learning. The latter is a non-Bayesian learning process utilizing analytical shortcuts to reduce massive and costly information of dubious quality to merely the relevant data (see Meseguer, 2006).

Without an arduous research into links between military doctrine and the decision making processes behind each order, the difference between an idiosyncratic strategic task and mentioned rationalizations in stage 1 becomes a matter of opinion. In turn, the difference between mindless emulation and a solution well adapted to local needs also becomes a matter of opinion. Secondly, even with the required level of research, it would be impossible to establish the level of realism of stage 1, bearing in mind the constructivist argument that both "legitimate ends and appropriate means are shared social constructs" (Dobbin, Simmons and Garrett, 2007: 451). It follows that, even should stages 1, 2 and 3 be well connected, the entire package might represent a broad social construction within NATO, not necessarily reflecting the security needs of a specific state. One might also invoke the type of emulation described by Fabrizio Gilardi as "taken for grantedness" (Gilardi, 2003) in that a set of equipment solutions coupled with a set of goals may become "the normal or obvious thing to do in given contexts" (*ibid*.: 7), without real attention given to alternatives.

Ignoring proclaimed goals in favor of an assessment of a country's economic position and global role, while probably not applicable outside of this specific context, allows for this analytically useful simplification to the described dichotomy.

Failed or Optimal Strategies?

This paper discusses a trend in 8x8 acquisitions, yet this in itself is connected with another distinct level: the specific role expected to be filled by these vehicles. The same solutions do not necessarily reflect the same problem definition. The most dramatic policy in this respect is to forego the use of tracked vehicles altogether. In 2001, Canada, the earliest NATO 8x8 emphasis proponent, decided to stop replenishing its tank fleet. The existing vehicles would have been used until they ran down, with 8x8 Piranha derivative vehicles taking their place entirely. Yet, the evaluation of this policy in the field in Afghanistan proved that heavier vehicles were irreplaceable (McLeary, Nativi and Eshel, 2011), and in 2007, Canada placed orders for 102 Leopard 2 tanks (SIPRI). It is interesting to note that it was not territorial defense considerations that prompted this decision; it was the same low intensity battlefield that the wheeled armored vehicles were thought so suited for. This decision is also noteworthy considering other armies intent on replacing tracked with wheeled vehicles or not filling the described fighting vehicle role at all.

It is not uncommon for a piece of equipment with military use not to perform with expected effectiveness. Moffat and Gardener conducted a series of participatory workshops combined with a Game Theory framework intended to identify the reasons for failure of military acquisitions projects to deliver what was agreed between state (in their case, the British Ministry of Defense) and industry actors. They recognized a

pattern of "conspiracy of optimism" in which "optimistic strategy is the game theoretically rational response in a given acquisition context" (Moffat and Gardener, 2006: 2). The benefit to both MoD and industry was maximized when assessments were the furthest from realistic in high uncertainty conditions, and a "conspiracy of optimism" became an evolutionarily rational response (Moffat and Gardener, 2006). In the context of this paper, this makes perfect sense as far as deployed troops are concerned with orders placed and equipment actually acquired. Considering Canada, the actual field experiences with various types of equipment caused a reversal of the previous optimistic decision to replace tanks with lighter vehicles.

What this suggests in the context of policy convergence is that a type of rational and even expected behavior in Pentagon – military industry relations, can conceivably trigger an avalanche of procurements not suited to real security challenges of states placing the orders. On the other hand, if the "conspiracy of optimism" had prevailed in the British FRES program, as it might have in most other countries, the British troops might have been far better equipped to fulfill their mission.

Conclusion

There is ample evidence to suggest a new trend in military acquisitions of armored 8x8 vehicles. The process of procurement can be extremely complex, as individual problem solving usually entails high information costs, both in terms of time and finances. This process can however be made less expensive by emulating policies. I have suggested a simplified model of military acquisitions in four stages: size of economy/military spending coupled with geopolitical role (0), definition of general strategic tasks (1), capability identification (2) and equipment acquisition (3). Emulation in a military context might entail a transplanting of stage 2 as a national policy, with a rationalization taking place of stage 1. This may or may not be a sound strategy, as its performance depends not only on the actual acquisition (stage 3), but also on the specific role in which the equipment is expected to perform. In the case discussed in this paper, this sometimes involves expectations of 8x8 vehicles to serve as tank replacements. These expectations can be either explicit and immediate (Belgium, Canada), or tacit and long term (with heavier equipment being a far lower priority – as in the case of the Croatian Degman M-95 tank development). The *conspiracy of optimism* concept provides us with clues as to how such high hopes are possible. Such an assumption is immediately problematic only if a piece of equipment is found lacking in a specific role when tested in a specific situation (as it was in the case of Canada). This suggests that a transplantation of stage 2 can be a welcome mechanism (assuming that the global security situation will not deteriorate) and, lives being at stake, it is certainly preferable to a blocking of stage 2 due to a process of individual problem solving gone awry.

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