TACTICAL PERFORMANCE EVALUATION

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Abstract
This paper analyses the current situation of performance evaluation, taking the issue of data collection, selection and use as its starting point. It proposes a conceptual framework based on the Theory of War, which clarifies the nature and subordination of tactical performance. It argues that tactical performance has an intrinsically dual character, expressed in terms of tactical proficiency and tactical effectiveness and outlines the joint analysis of tactical proficiency and tactical effectiveness and offers some remarks on the implications of military tactical performance evaluation for the near future.

Introduction: Subject of evaluation. Conceptual framework

Performance Evaluation is oriented and constrained by organizational and procedural goals and processes. It contributes to the identification of issues and problems by focusing analysis so as to gauge the effects of programs and changes in unit organization. It serves the dual purpose of directing the process of self improvement of the force, on the one hand, and of providing a realistic estimate of the force’s ability to perform in action, on the other. However, performance evaluation may be understood differently – occasionally, very differently – from different perspectives. It is reasonably clear that the perspectives of training, of test and evaluation (T&E) and of decision makers concerned with either force design options or readiness assessment for force employment are not inherently concurrent or, even, compatible. There is wide scope for substantial disagreement among data collection technology, training and estimates T&E on what is relevant data or what are valid models for performance evaluation. A house divided against itself cannot stand. There must be a clear, common understanding of what performance evaluation is that goes beyond particular perspectives and that, in fact, allows them to communicate their particular interests and emphasis in an explicit and unambiguous manner.

Such a common understanding is best produced by a conceptual framework that is derived from theoretical structures. Such a conceptual framework has two immediate advantages. On the one hand, it greatly saves time and effort otherwise spent on establishing workable – not necessarily consistent – compromises on what is meant from differing perspectives or on various organizational settings. A conceptual framework based on theoretical structures cuts across institutional boundaries and, by its very nature and affiliation, is inherently open to scientific criticism. On the other hand, it clarifies what is to be the subject of evaluation: performance itself; and, in consequence, by that step if by no other, it holds the promise of a superior approach to performance evaluation, and thus, of a more realistic evaluation altogether.

Data selection, organization and use

What do you do with all the data? The possibilities of data collection seem to have taken a life of their own, most notably on the wake of the establishment of “battle laboratories”. Technology has increased the detail, breadth and volume of data collected.
However, this increased capability was not accompanied by a comparable improvement in the methods of analysis. As a result, there is a glut of data to which utility is open to question.

**What data are required for tactical performance evaluation?** A conceptual framework is essential to answer which data are necessary and sufficient for tactical performance evaluation. That is to say that tactical performance evaluation must begin by establishing the conceptual framework with which it will deal, and further with the definition of the models in which it will fit the data it requires according to that conceptual framework. This will not always be included in previous collection efforts, or be available in existing collection technology and technique. To that extent, each new analysis and its associated conceptual framework will require a review of the data collected, and thus direct the enlargement of the general collection of data in order to include it.

There are both quantitative and qualitative aspects to the requirements of a conceptual framework in terms of data collection. Much of the discussion tends to gravitate around the quantitative aspects of the issue, in terms, e.g., of the aggregation and disaggregation of data relevant to analysis. However, there are also qualitative aspects that need to be addressed.

**Collecting data.** What is at stake here is the difference of conceptual frameworks that stand behind the two differing positions this example brings forth. From one point of view, all data collected relating to the movement and combat of both sides were secondary, if not irrelevant, because the criteria for evaluation predicated principally on the fulfillment of the mission. From the other point of view, a variety of data needed to be collected because failure at the mission was a secondary result compared to the measurement of results in a number of other activities, e.g., the damage to enemy forces. So it can be seen that a given conceptual structure serves to define which data are to be collected (or selected), and for what purpose.

Conceptual frameworks, in turn, cannot exist or stand by themselves. They must stand for a coherent structure that is reasoned and consistent in itself and that is grounded on solid theoretical foundations. A conceptual framework has to enable us to characterize what is normal in terms of the tactical action, and tactical performance, it seeks to evaluate. Any such formulation requires that one begins by a clear expression of the *theoretical foundations* of one’s understanding, which alone seems capable of meeting the requirement of describing normality. Only that description can allow us to characterize, anticipate and describe the expected requirements, methods, limitations and expected results of tactical performance in general; and thus enable us to recognize what is specific and unique to any actual tactical performance in particular.

**Tactical Performance Evaluation**

From the point of view of the Theory of War [1], politics, tactics and strategy are omnipresent in *each* and *every* act of war. They are present in each use of force that aims to compel our enemy to our will and cannot in fact be separated, except, usually, for the most elementary tactical decisions. To fire a single shot or automatic usually has only tactical meaning – in the strict understanding of the use of force in combat. But it might have to take into account strategic or political considerations that will overrule the strict logic of tactical decision-making. If one is short of ammunition, strategic considerations (the capability of going on fighting after this engagement, that is to go on using combats to the purpose of politics) might have to be taken into account. If auto-fire might injure bystanders, or escalate the engagement beyond what is politically desirable, then the rules of engagement (the expression of politics into tactical decision making, keeping the use of force, and thus the methods employed in war, subordinate to the political goal) might forbid any but single-shot fire.
This division of politics, tactics and strategy is simply an analytical framework, that seeks to distinguish clearly the aspects of the whole war that pertain to the goals to be achieved (the purposes of “our will”, that is to say, *politics*), the use of force in combat (the interactions of force-on-force, that is to say, *tactics*) and the way such uses of force are in turn used to obtain the desired goals (the use of engagements for the purposes of politics, that is to say, *strategy*). As a result, *tactical performance evaluation* as understood in this paper, will consider the aspects of the use of force in combat, of the unit’s performance in its integrity, regardless of the size and nature of the units involved, regardless of the denominations attributed by organizations of differing unit sizes and missions, and regardless of the doctrinal classifications of the activity of units by type, branch or specialization that include, in whole or in part, the use of force in combat.

It is necessary to begin by clarifying **what is meant by performance**. The idea of performance carries a duality which is often understated. On the one hand, it addresses considerations that relate to the results achieved, that is to say, a measure of the extent to which it carried out its mission and the end-situation of friendly and enemy forces. On the other hand, it also addresses the way through which the means available for carrying out the mission, that is to say, a measure of the technical expertise with which actions were planned, are decided upon and carried out in the effort to achieve the mission.

The lack of sensibility to this dual character is performance which often leads to a quandary. Undoubtedly a unit which expertly used its means and succeeded in its mission would be rated better than one that failed in both counts. How is it possible to evaluate the relative performance of units which fall between these two extremes? What is the performance one would ascribe to a unit that has been inept in the use of its means but has achieved its mission? Or to a unit that was expert in the use of its means but failed to achieve its mission? Or any other combination in-between?

A simple and seemingly intuitive way to understand performance would be to take it exclusively as a direct relation of the results obtained in view of the unit’s expertise. But this would be a mistake, for it would perform to assert mission efficiency, relating a measure of results achieved to a measure of expertise. This would ignore critical aspects of tactical performance, at the very least, the consideration of the enemy and its actions and their impact on the mission. What would be the use of a tactical performance evaluation that ignored the nature and quality of the enemy’s actions, and reduced itself to a seemingly – mistakenly – universal measurement of a results-by-expertise index? Two units with the same results and expertise, one which faced a superior enemy, another that faced a paltry enemy, would be judged the same by such a construct. The resulting evaluation would *mislead* about their relative performance. As a result, performance cannot be a simple relation between the results achieved, and the way through which the means available for carrying out the mission were planned, decided upon and carried out in the effort to achieve the mission.

Performance must be understood as the result of a joint analysis that takes into account both aspects of this duality according to its conceptual framework, sustaining the analysis that is intended, recognizing that the duality exists and must be addressed.

**Concept of “Tactical Effectiveness”**

There are additional problems that result from this duality. What constitutes expert use of means in terms of planning, decision and execution? How does it affect the fulfillment of the mission? What, indeed, does carrying out a mission mean? Does it allow for partial fulfillment or is it a simple pass/fail test, victory or defeat? To what extent the final
situation of friendly and enemy forces are to be taken into account in evaluating performance when they are, and they are not, explicitly named in the mission?

It thus becomes clear that the recognition of performance as a joint analysis of its dual nature calls for supporting definitions of what is to be understood by the aspect that relates to the way through which the means available for carrying out the mission, that is to say, a measure of the technical expertise with which actions were planned, decided upon and carried out in the effort to achieve the mission, on the one hand; and to the results achieved, that is to say, a measure of the extent to which it carried out its mission and the end-situation of friendly and enemy forces, on the other. In this framework, these are addressed by the concepts of **tactical proficiency** and **tactical effectiveness** which are explained below.

**Proficiency and Tactical Proficiency**

The Tactical Proficiency of a unit is defined as its **proficiency in the use of resources** in terms of the **quality** of planning, decision and execution of actions in combat. This definition requires clarification in its usage of the terms **resources** and **quality** in the context of tactics. Although there are many different ways to classify the means and alternatives available to units (by arm, branch, equipment, troop type and/or mission capability, etc.), the conceptual framework proposed here expresses the resources available to a given unit in terms of its Doctrine, Training, Leadership, Organization, Materials and Personnel (Soldier) - DTLOMS requirements. Although there are many different ways to assess the quality of planning, decision-making and execution (e.g., by doctrinal conformance, by economy of effort, by subjective holistic appreciation by umpires, etc.) the conceptual framework proposed here expresses the quality of planning, decision and execution in terms of its comparative standing in relation to a given understanding of the state-of-the-art.

This definition implies two major consequences that should be highlighted. On the one hand, Tactical Proficiency expresses a system boundary of analysis that relates exclusively to the dynamics of a unit’s capabilities in the use of its (DTLOMS) resources. All other tactical considerations are thus boundary conditions from the point of view of proficiency, such as, e.g., mission objectives, weather /terrain, and the possibilities of the enemy. Thus, for a thought experiment, a unit’s tactical proficiency in terms of, say, using direct fire is an intrinsic attribute, an expression of the quality of its use of its (DTLOMS) resources. Rain, woods and different types of enemy troops will be boundary conditions and provide input data as to how those resources will be used in accordance to a given level of (parametric) tactical proficiency. The definition of tactical proficiency thus serves to identify differing types of proficiency in terms of the various boundary conditions one might wish to identify. On the other hand, the definition of Tactical Proficiency as the quality of planning, decision and execution is not an expression of doctrinal conformance. The content of doctrine should not be mistaken for a description of proficiency, but rather taken as it is meant to be, an attempt to codify and disseminate how a given level of proficiency should be achieved. Doctrine is one of the requirements of each and every resource available to the unit. The definition of tactical proficiency proposed implies an evaluation of quality by the state-of-the-art, which ensures that doctrinal content will be qualified by continual contrast with novel-but-proficient approaches and thus open to improvement.

**The conceptual framework of Tactical Performance Evaluation**

The proposed **conceptual framework of Tactical Performance Evaluation** allows the use of this data to ponder the different conditions of exposure in terms of the **quality** of
the planning, decision and execution of this particular action. What is under consideration is whether the act of becoming vulnerable was deliberate, part of the action of projecting combat power projection (which would be noted as a positive measure of tactical proficiency as it touches vulnerability management) or, on the contrary, if the very same act did not result from such a clear assessment of the need to become more vulnerable in order to effect combat power projection (which would be noted as a negative measure of tactical proficiency as it touches vulnerability management).

It is the perspective gained by using the conceptual framework of what tactical proficiency is that allows one to know what data to use, and to select models that relate the data meaningfully. Only this perception can produce a substantial evaluation of the quality of the planning, decision and execution, without which tactical performance evaluation would be misguided. Measures of superior tactical proficiency are then valid proxies of superior quality in planning, decision and execution. Tactical proficiency, as conceptualized, clarifies its dynamics and allows one to measure the elements that make crack units crack.

**Tactical Effectiveness – a Substitute for Victory**

Tactical Effectiveness results from the consideration of a unit’s final situation. It expresses an evaluation of the unit’s achievement in terms of its fulfillment of its mission, taking into account the actions of the enemy, the environment/scenario and the Tactical Proficiency of the unit under analysis. That is to say that the extent that a unit was able to carry out its mission is not the sole element that has to be taken into account. Its fulfillment of its mission needs to be qualified by the nature of that mission, the actions of the enemy, the environmental and scenario conditions of its action and the contribution of its tactical proficiency. The obtained results will be true measure of its tactical effectiveness.

**Tactical Effectiveness has two components:** primary tactical effectiveness, related to the fulfillment of mission, and secondary tactical effectiveness, related to the sense of proportional cost.

**Primary Tactical Effectiveness** corresponds to a measure of the fulfillment of its mission. The fulfillment of a unit’s mission admits both qualitative and quantitative considerations. Qualitative considerations relate to the way any tactical situation in war serves the purposes of strategic and ultimately political aims. This linkage to finality is what gives the mission primacy over all considerations. It also lends purpose to tactical action and explains its occurrence in given time and place against a given enemy under certain conditions. Strategic direction, making use of combat to achieve the aims of politics, will decide whether, where, when and how a given tactical action will take place, expressing the results to be gained in it. Political aims, already subsumed in strategic direction, will further determine, explicitly or implicitly, specific rules of engagement under which tactical actions are expected to take place (e.g., the defense of an anonymous piece of ground as opposed to a landmark of emotional – political – value), and further direct particular behavior according to circumstances (e.g., in the amount of collateral damage and/or the treatment of civilians). Quantitative considerations of Primary Tactical Effectiveness will be expressed in terms of specific results in order to subordinate to qualitative directions, and often as a proxy of qualitative strategic or political goals (e.g., “keep your unit effective” would translate in “retreat before you take over 20% casualties”).

**Secondary Tactical Effectiveness** corresponds to an assessment of relevant tactical elements not expressly covered by a unit’s mission. In general terms, Secondary Tactical Effectiveness corresponds to qualitative and quantitative considerations that relate to the sense of proportional cost in the achievement of any mission. Once again, qualitative considerations mirror strategic or political aspects, and quantitative considerations are
proxies to qualitative ones. Strategic considerations about the sense of proportional cost stem from expectations as to the correlation of forces *vi a vis* the enemy in a given strategic setting (e.g., a theater of operations, or a war) and the advantages that may accrue from obtaining specific results in terms of changes in that correlation of forces either *directly* (e.g., inflicting greater losses than one suffers in general, but inflicting sufficiently greater losses to offset or enhance one’s position against the remaining forces of the enemy) or *indirectly* (e.g., the multiplier effects of a given position, the bottleneck of a given position or a given amount of time, the availability – or denial – of certain facilities). Political considerations about the sense of proportional cost are more explicitly related to the political assessment as to the worth of the losses suffered or inflicted in furthering political aims.

An important consequence of this definition is the clarification of the limits of the association of tactical effectiveness to victory. A unit’s mission, the actions of its enemy, the environment/scenario or its own tactical proficiency may produce the results desired as expressed in its mission without providing for a “Victory”. A ready example is a “defend to the last” order: the unit is expected to be destroyed, and so it cannot conceivably “win”. However, if by doing this it succeeds in providing what was intended of this stand, be it time or distraction of the enemy or denial of access or whatever, it will have been tactically effective. As a result, the usual understanding that tactical effectiveness is the same thing as overcoming the enemy and/or gaining or holding ground, i.e., “Victory” is not enough. Tactical Effectiveness is a broader understanding, that must replace “Victory” for the purposes of Tactical Performance Evaluation.

This definition establishes a primacy of the mission that needs to be qualified in order to avoid unfortunate misunderstandings in terms of exercises. The expression of a mission in war carries with it a number of implicit strategic and political elements that contextualize its meaning. Exercises need to include sufficient information about these elements or risk misinforming the unit as to the actual context of its task and, as a result, failing to establish condition for a valid evaluation of its effectiveness.

The core of tactical performance evaluation is the ability to measure tactical capability. That demands a clear understanding of the theoretical structure that supports coherent concepts for politics, tactics and strategy. Without such conceptual frameworks it is impossible to distinguish among properly tactical concerns and considerations and other concerns and considerations.

Performance Evaluation and Tactical Proficiency, have to do with the qualitative assessment of the way through which a unit plans, decides and acts. That is to say that under this definition, proficiency will *not* be modified, only *qualified*, by the mission, the enemy, or the scenario/environment. In fact, one will be able to identify the tactical proficiency of a unit *in those circumstances*, and it might prove useful to know a unit’s tactical in any one of the different types of missions it may be called to perform; against specific enemy troop types; or its tactical proficiency in different kinds of weather, terrain or other scenario conditions. Far from arguing for a universal, all-embracing measurement of tactical proficiency, this approach allows for a more rounded and more precisely measured building of the tactical proficiency picture of a unit.

**References**


