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Assessing Military Power

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What constitutes military power is really the combination of technology and human skill at arms; forgetting the human element leads to military power that is potential rather than actual in nature. More importantly, focusing purely on hardware may lead strategic planners to the wrong conclusions about the threats facing their states.

What exactly is military power? What constitutes it? How can it be measured? Instinctively most of us reach for an answer that combines both the possession of military hardware and the ability of human operators to effectively utilise this hardware. The following analogy may be instructive.

There are two Maseratis of the same model; one driven by a Formula One driver, capable of driving the car at speeds in excess of 200 kmh, the other by a driver of considerably less skill. It is immediately intuitive that the two Maseratis are not equals on the road. The skill of the driver is surely important, indeed critical in determining the actual performance of the hardware. In other words, military power surely ought to include both the technical specifications of the hardware and the skill of its human operators.

If there is any doubt about the need to include the skill of the operator in the assessment of the performance capability of military hardware, the 1991 Gulf War ought to have helped us remove any vestiges of such doubt. Before the first shots were fired, there was any number of naysayers – this author (then a naïve post-graduate student) included. It would not be easy, they warned: Iraq was then the fourth largest armed forces in the world with an impressive array of late 1980s Soviet weapons systems. And while these naysayers did not insist that the Coalition would have to adhere to the classic military requirement of a three-to-one advantage to assume the offensive against a dug-in Iraqi defence, they nevertheless insisted that the Coalition needed to significantly increase its military hardware and manpower in the Gulf before military operations to dislodge Iraqi forces from Kuwait could begin.

How wrong we were! Hindsight reminded us of the fundamental importance of the skill of human

operators in determining actual military power. Iraq may have had very impressive military hardware then, but the poor skill and training of its military operators meant that its actual military power was significantly less than the potential military power its hardware contained.

Potential Military Power Explained

Let me be clear at this point – in a hypothetical dogfight between the World War One ace (indeed possibly the greatest fighter ace of all time), Baron von Richthoffen in his iconic red Fokker triplane on the one hand, and a novice pilot in an F-16, intuitively most of us will come to the conclusion that von Richthoffen, all of his skills notwithstanding, will not stand a chance against such a hypothetical enemy.

Basically, the technical specifications and capabilities of military hardware does matter. The hypothetical dogfight between a Fokker triplane and an F-16 is a serious mismatch of technical capabilities. The former flew at barely over 100 kmh; the F-16 has a top speed of over Mach 2, it dogfights at speeds just below Mach One, and, it relies on sophisticated computers to perform key functions – keep the platform flying, keep track enemy platform locations, assist the pilot in engaging and destroying these enemy platforms with almost guaranteed single-shot-kills by means of precision-guided air-to-air missiles. The Fokker triplane was an inherently unstable aircraft (as are modern combat aircraft), which explains its famed agility. But it had no computers to help the pilot keep it flying, the pilot had to exercise all his skills in keeping the platform aloft; nor did the pilot have any means of tracking enemy platform positions beyond his own eyes; and finally, the ability of the pilot to kill the enemy was dependent entirely on his aim, his timing, his instincts.

One of the reasons why modern weapons systems research and design is such a time-consuming, laborious, and failure-riddled process is precisely the recognition that any weapons system needs to have technical specifications and capabilities that are cutting-edge, better than their predecessors and better than what the enemy has. Technology is fundamentally important in this respect. But the technical specifications and capabilities of weapons systems are only one part of the equation in explaining military power; it provides only *potential* military power. Unless and until there is a human operator, the military power of any weapon system is purely potential at this point.

Translating Potential to Actual Military Power

The idea that the human operator is as important as the weapon system in understanding the true nature of military power is not exactly an earth-shattering realisation. Clausewitz had famously remarked that the moral is to the material as is three to one. Clausewitz's 'material' refers to military hardware; the 'moral' refers to the qualitative factors – the skill of the operator, his dedication and martial spirit, the esprit de corps that binds an otherwise rag-tag collection of individuals into a military organisation whose overall power far exceeds the sum of its component parts. These are the imponderables – the non-quantitative elements of military power – that to Clausewitz were even more important than the material elements.

The Maserati analogy bears out this argument. The true potential of a Maserati can be realised at the hands of a Formula One driver; whereas in the hands of a less skilled driver, the Maserati cannot realise its true potential. Similarly, as the case of Iraq in the 1991 war showed, the best weapons in the hands of an untrained or unmotivated operator is strategically useless. It is the importance of the skill of the human operator that leads the US military, for instance, to place such great emphasis on the training of its human operators, whether deployed in land, naval or air platforms.

Assessing Military Power

Military power, in other words, is the sum of the technological capabilities of the weapons system and

the skill of the human operator. And yet, in the analysis and assessment of military power, both academics and strategic planners are more often than not guilty of focusing solely on the hardware. In somewhat derogatory terms, this practice of focusing on military hardware is often referred to as bean-counting. Even though strategists know that military power is truly a combination of hardware and human operator (sometimes referred to as 'wetware'), this tendency to focus exclusively on the hardware at the expense of the wetware is prevalent.

Why does this bias continue to exercise such hold over strategic analysis? The simple answer is that beans can be counted and measured; skill and dedication and esprit de corps cannot. It is easy to therefore construct simple balances, based purely on how many weapons systems and platforms that different states possess; how well trained, how motivated, how skilful these states' military personnel are, however, tends to be acknowledged in vague terms that cannot be accurately translated into the mathematical formulae that we can use in the case of weapons systems and platforms.

Why should strategic analysts – both in policy and academic circles – remember the necessary combination of hardware and wetware in assessing military power? Focusing on hardware alone leads to poor strategic analysis, and in the worst case, to the wrong policy recommendations that can lead to disastrous consequences that most states can ill afford.

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