Force, Pressure, and **Weight** are expressions used somewhat pell-mell by musicians, particularly when referring to bow force/pressure/weight. While the two first have quite distinct meanings in physics, weight is a looser term with a number of definitions, or rather, usages.

Force (commonly used symbol: *F*) is defined in mechanics as any agency that tends to maintain or alter the motion of a body or to distort it. In physics, *force* has a direction as well as a magnitude, comparable to *velocity*, which has both direction and magnitude, but unlike *speed*, which has magnitude only. *Force* has the dimension kilograms × meters/ seconds squared, i.e., [kg × m/s^2], which conveniently has been given the term "newton" with symbol N.

Pressure (commonly used symbol: *Pa,* Pascal) is, in the physical sciences, the perpendicular force per unit area (i.e., [N/m^2]), or the stress at a point within a confined fluid. In physics, the term "bow pressure" does not make much sense as it would involve the string-surface area on which the bow force is acting, giving higher values if the same force was moved to a thinner string with less contact area. So, the usage of "bow pressure" by string players is actually more consistent with the physical term *force*.

Weight has several usages, one of which reads: gravitational force of attraction on an object, caused by the presence of a massive second object, such as the Earth or Moon (from Encyclopædia Britannica). This implies that *gravitation* is part of the expression, a value that to some extent will vary at different places on Earth, and much more other places in space. As was said, weight has the dimension of *force*, [N] or [kg × m/s^2], although in common usage only the mass [kg] is referred to, taking the *acceleration of gravity* [m/s^2] (ca 9.807 m/s^2 at the surface of earth) for granted. Sometimes the expression *gram force* or *kilogram force* is utilized to specify that the *acceleration of gravity* is included in the term. One *kilogram force* then equals 9.807 N (newton).