Matching Characteristics

It seems logical that when given a choice between two opposing mechanical systems, if one seemed a perfect match to the structure in question, with identical physical characteristics, and the other, a perfect mismatch, where nothing seems to fit, it would be a no brainer as to which would be picked. I will list the characteristic mechanical properties of biologic structures, lever based structures, and tensegrity icosahedral structures and leave the choice to you. Of course, if it looks like a duck, walks like a duck, quacks like a duck, it must be——.







| Mechanical Characteristic | Biological Systems | Lever Systems | Tensegrity lcosahedron |
|------------------------------|-----------------------|---------------|------------------------|
| S/S Curve | Non-Linear | Linear | Non-Linear |
| Stress Distribution | Global | Local | Global |
| Structural Distribution | Continuum | Discontinuous | Continuum |
| Gravity | Independent | Dependent | Independent |
| Directional Stability | Omni | Uni | Omni |
| Energy Costs | Low | High | Low |
| Joints | Flexible | Rigid | Flexible |