

**Elongation invariance** Another property defined by Selten [1] considers extensions to the sample space. Specifically a given score may be considered to operate on both  $\Delta_n$  and  $\Delta_{n+1}$ . Then a distribution  $p \in \Delta_n$  can be mapped by an ‘elongation function’ to a distribution  $\theta(p) \in \Delta_{n+1}$  by adding zero as the  $n$ th component. So  $\theta(p) = (p_1, \dots, p_n, 0)$ . Then a score is ‘**elongation invariant**’ if  $S_i(\theta(p)) = S_i(p)$ .

# Bibliography

- [1] R. Selten. Axiomatic characterization of the quadratic scoring rule.  
Experimental Economics, 1:43–62, 1998.