CLAIMS:

1. A prosthesis coupling configured to rotatably and releasably engage with a race of a socket coupling, the prosthesis coupling comprising:

    a. a first sleeve including a first annular ball race section;

    b. a second sleeve having a second annular ball race section;

    c. bearings provided within a race formed by the first annular ball race section and the second annular ball race section; and

    d. a bearing cage;

    wherein the bearings are retained within a region defined by an axial separation of the first and second annular ball race sections and the bearing cage;

    wherein the first and second sleeves may be relatively moved such that:

        i. in a first configuration, in which the first annular ball race section and the second annular ball race section are brought together, the bearings are constrained to an outer annular zone, preventing removal of the prosthesis coupling when engaged with a socket coupling; and

        ii. in a second configuration, in which the first annular ball race section and the second annular ball race section are moved apart, the bearings may move to an inner annular zone, allowing removal of the prosthesis coupling from a prosthesis socket.

2. A prosthesis coupling as claimed in claim 1 wherein the first and second sleeves are relatively rotatable and the first sleeve has ramp sections configured such that upon relative rotation of the first and second sleeves the spacing between the first annular ball race section and the second annular ball race section may be varied.

3. A prosthesis coupling as claimed in claim 1 or claim 2 wherein a locking mechanism prevents relative movement between the first and second sleeves unless actuated.

4. A prosthesis coupling as claimed in claim 3 wherein the locking mechanism engages with locking features provided on the sleeves in its locking position to prevent relative rotation with respect to the other sleeve.

5. A prosthesis coupling as claimed in claim 4 wherein the locking mechanism moves axially between the locking position and an unlocked position.

6. A prosthesis coupling as claimed in claim 4 wherein the locking mechanism moves transversely to a longitudinal axis of the coupling between the locking position and an unlocked position.

7. A prosthesis coupling as claimed in claim 4 wherein the locking mechanism rotates relative to the socket coupling between locked and unlocked positions.

8. A prosthesis coupling as claimed in claim 4 wherein the locking mechanism is in the form of a locking ring having a plurality of axial projections which engage with a plurality of locking features provided on the sleeves.

9. A prosthesis coupling as claimed in claim 8 wherein the locking ring is moved axially between locked and unlocked positions by the movement of opposing first and second ramps and a linkage between the locking ring and the second ramp.

10. A prosthesis coupling as claimed in claim 9 wherein a button is linked to the first ramp and configured so that movement of the button effects relative movement between the first and second ramps.

11. A prosthesis coupling as claimed in claim 10 wherein a plurality of buttons are connected to respective ramps.

12. A prosthesis coupling as claimed in claim 3 wherein the locking mechanism engages features of both the first and second sleeves to prevent relative rotation between the sleeves.

13. A prosthesis coupling as claimed in claim 12 wherein the locking mechanism is a pin movable relative to the sleeves between a first position in which the pin engages features of the first and second sleeves to prevent rotation and a second position in which relative rotation of the sleeves is allowed.

14. A prosthesis coupling as claimed in claim 13 wherein the features are apertures in the sleeves.

15. A prosthesis coupling as claimed in claim 1 wherein an actuating mechanism moves the first and second sleeves relatively in the axial direction between the first and second configurations.

16. A prosthesis coupling as claimed in claim 15 where the actuating mechanism is in the form of a lever and cam arrangement.

17. A prosthesis coupling as claimed in any one of the preceding claims wherein the bearings are ball bearings.

18. A prosthesis coupling as claimed in any one of the preceding claims wherein the first and second sleeves are biased towards the second configuration.

19. A prosthesis coupling as claimed in claim 18 wherein a spring biases the first and second sleeves towards the second configuration.

20. A prosthesis coupling as claimed in claim 19 wherein a torsion spring biases the first and second sleeves towards the second configuration.

21. A prosthesis coupling as claimed in claim 20 wherein a helical torsion spring biases the first and second sleeves towards the second configuration.

22. A prosthesis coupling as claimed in claim 21 wherein the helical torsion spring is provided within the first sleeve and includes a leg passing through a slot in the first sleeve to engage with the second sleeve.