the fibres of the vastus externus near the patella. In *Phoca hispida* it *arises* from the outer surface of the ilium ventral to the ridge between the ventral anterior spine and the middle of the anterior rim of the acetabulum. It does not arise from the ventral border, for the representative of the iliacus comes from the ventral posterior spine. It is *inserted* into the upper edge of the patella and is also joined above its insertion by a few fibres of the external vastus. In *Phoca barbata* it *arises* from the fossa of the posterior third of the outer surface of the ilium; and from the capsule of the hip-joint, but not from the anterior border of the ventral surface. It is *inserted* into the upper edge of the patella, and is also united to the fibres of the vastus externus near the insertion.

In *Macrorhinus leoninus* it *arises* from the external surface of the ilium, to the ventral side of the ridge running from the outer side of the ventral anterior spine to the middle of the acetabulum. Where the ridge is covered by the capsule it takes origin from it, and arises also from the outer half of the ventral surface of the ilium dorsal to the origin of the iliacus. Above the patella it forms a broad flat tendon, which is joined on its dorsal side above the patella by fibres of the external rectus, and is *inserted* into the upper edge of the patella.

In *Arctocephalus gazella* it *arises* from the external surface of the ilium; and from the capsule covering the front of the acetabulum. If a straight line be drawn from the ventral anterior spine to the middle of the anterior rim of the acetabulum, a triangular surface is mapped out, which is bounded ventrally by the ventral posterior spine, posteriorly by the rim of the acetabulum, on the inner side by the outer edge of the brim of the pelvis; and dorsally by the line from the ventral posterior spine to the acetabulum. Within this space is the origin of the muscle. It is *inserted* into the upper edge of the patella, and is joined on its outer side near the insertion by fibres from the vastus externus. Lucae has it as united to the cruralis, but I found it blended with the vastus externus. It is similar in *Otaria* and *Trichechus*.

As it is the reflected tendon in human anatomy that acts mostly upon the thigh, and this is the origin in the Seals corresponding to it, it is probably only a flexor of the thigh. It is relatively a much larger muscle than in human anatomy and will compensate for the vastus internus. In the Phocinæ it is supplied by the anterior crural nerve.

The *Vastus externus* in the Phocinæ and *Macrorhinus leoninus* is best seen in the last named animal, and extends along the outer border of the femur to the epiphysial line of the external condyle; *i.e.*, to the supracondyloid ridge, and is similar in all. It is placed upon the crureus and covers a considerable part of it; it *arises* from the capsule surrounding the neck of the femur, from the shaft between the inner termination of the great trochanter on the neck, from the whole length of the anterior edge of the great trochanter, slightly from the shaft below this, and from the external border of the femur in its upper half. It is blended with the crureus and is *inserted* into the upper and outer half of the patella, and into the capsule of the knee-joint, on a level with the middle of the outer edge of the patella. No fibres descend further down the capsule.

In *Arctocephalus gazella* it is a rectangular muscle, lying to the outer side of the rectus femoris, and partially overlapping the crureus. It *arises* from the front surface of the femur below the great trochanter; from the front of the neck of the same; from the capsule of the hip-joint, and from the external border of the shaft, almost reaching the external condyle. It is *inserted* into the outer upper half of the patella, and blends with the rectus femoris. Lucae describes a combined crureus and vastus externus. In *Otaria* it is attached to the whole anterior surface of the femur, as also in *Trichechus*.