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The status of the human newborn

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Table 1: Some of the neonatal reflexes that are elicited in the same way and with similar responses in chimpanzees and humans.

Reflex	Description
Ankle clonus	Steady pressure applied by the thumbs to the distal part of the soles of the feet of the supine infant can produce tremors of the foot and dorsiflexion of the toes.
Babinski	A firm stroke with the thumb alongside the side of the foot starting with the toes toward the heel of the supine infant results in dorsal flexion of the big toe and spreading of the others.
Gallant	With the infant held in prone position, a slow stroke along the spine about 3cm from the midline to the buttocks gives rise to bending of the stimulated side. The outcome is incurvation of the trunk with concavity on the stimulated side.
Glabella	Supporting the head of the infant, a firm quick tap on the forehead between the eyes leads to a strong closure of both eyes.
Palmar grasp	Index fingers pressed firmly into the palm of the hands of the supine infant is followed by flexion of all fingers around the examiner's (Fig. 1a)
Plantar grasp	A finger pressed firmly into the ball of the foot is followed by flexion of all the toes. Chimpanzee newborns' slightly longer toes can grasp the examiner's finger (Fig. 1b).
Moro (startle)	Infant's head is supported midline with the arms in front or beside the trunk. Usually elicited by carefully, but quickly, releasing support of the infant's head, so the baby drops backward a few cm, with a sudden, but not too forceful, movement before support to the head is returned. In both chimpanzee and human newborns, the arms and legs extend outward as the head drops (Fig. 2). Immediately thereafter, the infant pulls the head forward, with chin toward the chest, while bringing the arms and legs inward together with a grasping movement of the fingers (and toes in chimpanzees).
Placing	The infant is held upright with the examiner's hands under the arms and around the chest, and the thumbs providing support to the head. The dorsal part of the foot is moved to touch a protruding edge, such as a table top. The infant's response is to lift the leading foot with a simultaneous flexion of the knees and hips and the foot being placed on the table. It may or may not be accompanied by weight bearing.
Stand	Infant is held as for placing, with the soles of the feet touching the surface of a table. The newborn will extend the legs, briefly supporting weight (Fig. 3a).
Stepping	Infant is held as for placing, with soles of the feet touching the surface of a table. It may be necessary to lean the infant slightly forward to elicit the response, which consists of alternating stepping movements in both legs (Fig 3b). Human and many newborn

	chimpanzees place the foot flat with each step, but some chimpanzees grasp with each step (Fig. 3c).
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