



A SCIENCE & RELIGION COMMENTARY

GENESIS 30:31-43

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Jacob said, "You shall not give me anything; if you will do this for me, I will again feed your flock and keep it: **32** let me pass through all your flock today, removing from it every speckled and spotted sheep and every black lamb, and the spotted and speckled among the goats; and such shall be my wages. **33** So my honesty will answer for me later, when you come to look into my wages with you. Every one that is not speckled and spotted among the goats and black among the lambs, if found with me, shall be counted stolen." **34** Laban said, "Good! Let it be as you have said." **35** But that day Laban removed the male goats that were striped and spotted, and all the female goats that were speckled and spotted, every one that had white on it, and every lamb that was black, and put them in charge of his sons; **36** and he set a distance of three days' journey between himself and Jacob, while Jacob was pasturing the rest of Laban's flock. **37** Then Jacob took fresh rods of poplar and almond and plane, and peeled white streaks in them, exposing the white of the rods. **38** He set the rods that he had peeled in front of the flocks in the troughs, that is, the watering places, where the flocks came to drink. And since they bred when they came to drink, **39** the flocks bred in front of the rods, and so the flocks produced young that were striped, speckled, and spotted. **40** Jacob separated the lambs, and set the faces of the flocks toward the striped and the completely black animals in the flock of Laban; and he put his own droves apart, and did not put them with Laban's flock. **41** Whenever the stronger of the flock were breeding, Jacob laid the rods in the troughs before the eyes of the flock, that they might breed among the rods, **42** but for the feebler of the flock he did not lay them there; so the feebler were Laban's, and the stronger Jacob's. **43** Thus the man grew exceedingly rich, and had large flocks, and male and female slaves, and camels and donkeys...

The concluding episode in Jacob's time spent working for his father-in-law Laban raises a question in genetics. Jacob suggests to his father-in-law that he (Jacob) receive all spotted and speckled sheep and goats among Laban's herds as payment for his past labors. (Sheep are usually white in the Middle East, while goats are typically black). The exact terms are not entirely clear, or whether Jacob agrees to the removal of all atypically marked animals or whether Laban does this on the sly to stack the deck against Jacob. In any event, Jacob begins an odd breeding regimen that results in the healthiest offspring being speckled and spotted, and thus Jacob's for the taking.

Jacob's method is curious: taking branches of three types of trees, peeling the bark, and then setting the branches in front of (or in?) the water. Whether this technique influences the breeding or not, the result is that Jacob ends up with a vigorous flock of sheep and goats. His wealth is established.

So is this story defensible on the basis of modern genetic theory? Without knowing the particular breed of sheep and goats involved and the genetic dynamics, it is impossible to say for sure given the particulars of recessive and dominant alleles (versions of a gene) in different breeds. In the discussion by commentators and geneticists on the passage, a few points are consistently mentioned:

- Mendelian genetics would not preclude spotted or speckled offspring from all-white sheep or all-black goats if variable coloration was a recessive gene. The story should not be deemed miraculous in that sense;
- the traditional reading is that Jacob believed the striped branches would induce offspring of a different coat pattern. This is usually referred to as sympathetic magic;

- Whether the scriptural text participates in a belief in sympathetic magic or implies a cause-and-effect relationship between the branches and the offspring is not entirely clear;

Recently, the suggestion has arisen that the branches were placed in the water and this induced an epigenetic change in coat patterns. The specific mechanism of this is not suggested, merely that it is a possibility. It seems a bit much to argue this when the clear intent of the text is that God had chosen to bless Jacob despite the obstacles that others, such as Laban put in his path.

Preaching Suggestions

There are few things that induce insomnia like talking about the specifics of genetics. If preaching on this passage from the Jacob cycle, it is best to indicate that some of the particulars of the story are unclear, including what the function of the branches was in the story. It is safe to indicate that there is nothing in the story that violates what we know about genetics.