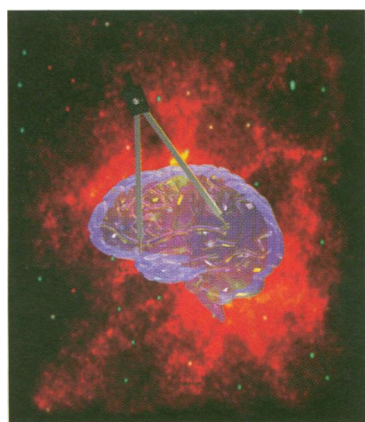


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A male long-tailed manakin. In this species alpha and beta males cooperate in dual-mate courtship displays, but only the alpha partner mates during the partnership, which may last for several years. Long-term field data and genetic analysis of relatedness were used to ex-

clude the two leading explanations for such cooperation—kin selection and reciprocity. Instead, the cooperation is a form of mutualism, with direct but long-delayed benefits to the nonmating beta males. See page 1030. [Photo: Richard LaVal]



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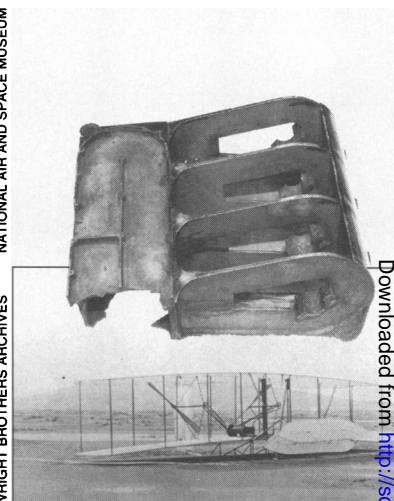
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Science

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Science **266** (5187), 949-1095.

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