

RESEARCH

Female Birds of a Feather Compete Together



Clockwise from top: The bristle-crowned starling (*Onychognathus salvadorii*) is a non-cooperative breeder that lives in arid regions of East Africa. Males and females both have ornamented crests, or bristled crowns, but males have larger crowns than females. Males also have darker and more iridescent plumage than females. The lesser blue-eared glossy starling (*Lamprotornis chloropterus*) is a cooperative breeder that lives throughout West and Southern Africa, as well as parts of East Africa. Males and females both have iridescent plumage. The superb starling (*Lamprotornis superbus*) is a complex cooperative breeder that lives in large family groups throughout the savannas of East Africa. Social groups can contain as many as 30 individuals, and the helper relationships among group members are extremely complex. Males and females are both highly ornamented.

By Clare Ob

With its flamboyantly decorated plumage, the peacock is a classic example of how males among many bird species are more eye-catching than their female partners. But new research, led by Columbia biologist Dustin Rubenstein, shows that, in some cases, females living in family groups are just as showy as males. The findings, which appear in the Dec. 10 issue of the journal *Nature*, shed new light on Darwin's theory of sexual selection.

Darwin noted that sexual dimorphism (differences in male and female traits) generally leads to elaborate-looking males and dull-looking females because opportunities to reproduce are shared more equally among females than among males. Because only a few males typically monopolize most of the reproduction, they need fancy duds to look their best for females. This new research shows that the converse is also true: In species that live in families, females may be as highly ornamented as males.

In some species, however, females compete as intensely as males for reproductive opportunities. This takes place among species that live in family groups, known as cooperative breeders, in which not all individuals have the chance to reproduce. Scientists believe that in many cooperatively breeding species, not only does reproduction vary inequitably among males, but also among females. Because of this unequal reproduction among both sexes, females must also compete for reproductive opportunities.

"If competition for reproductive oppor-

tunities is intense in both sexes in species that live in family groups, it stands to reason that the traits that are typically only elaborate in males might also be elaborate in females in cooperatively breeding species," said Rubenstein, an assistant professor in Columbia's Department of Ecology, Evolution and Environmental Biology.

To test this hypothesis, Rubenstein and Irby Lovette, from the Cornell Laboratory of Ornithology, looked at all 45 species of African starlings and found that cooperatively breeding starlings had reduced sexual dimorphism in both plumage and body size compared with non-cooperative species.

That is, males and females in cooperatively breeding species both had ornamented plumage and wing sizes that were similar to those in non-cooperatively breeding species.

Their finding suggests that living in families has important evolutionary consequences, particularly for females. When females have to compete for reproductive opportunities, resources or higher social status in the group, they can be expected to develop exaggerated traits such as increased body size or ornamented feathers, much like the males in most other species.

"This goes beyond starlings," said Rubenstein. "Any species that lives with relatives might be expected to show similar patterns. This type of complex social behavior is not only common in birds, but also in many mammals—including humans—and insects."

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World AIDS Day Storytelling Performance

By Nick Obourn

The year is 1974, and two 12-year-old boys sit side by side at their day school in Johannesburg. Their teacher asks them to share a story, so Paul Browde turns to Murray Nossel and asks, "What's your story?" "I don't have one," Nossel responds. "I don't know what to say."

So began a 36-year friendship that wended its way from South Africa to New York, where both men now teach in Columbia's narrative medicine master's program. It is also the first anecdote in *Two Men Talking*, a performance piece they wrote about their shared journey as friends, which they performed at Miller Theatre on Dec. 1 to mark World AIDS Day.

Both men, who are gay—Browde is also HIV-positive—launched the piece in 1996 to tell the story of their lives against the backdrop of the AIDS crisis in New York City. They also wanted to explore the power of storytelling in relation to healing, identity, diversity, illness and sexuality.

"What happens when we commit to sharing the space and finding a commonality for our two stories?" asked Browde. "That creates a connection and understanding that may not have been there before." This same philosophy underpins *Co-Constructing Narratives*, a course the men co-teach about the power of talking and listening.

Their own story has not gone unnoticed either. Archbishop Desmond Tutu of South Africa, a Nobel Peace Prize winner, has said of Nossel and Browde's work: "Storytelling is a powerful medium for communication, es-

pecially in situations where the message is too painful, too embarrassing, too secret to speak it. Storytelling can then become a journey to the truth. I commend [Nossel and Browde's] commitment and courage."

Although Nossel and Browde met as boys, their acquaintance turned into friendship de-

in New York City in the early '90s. Nossel was enrolled at Columbia for playwriting, and his first piece was being performed at The Knitting Factory. Browde happened to be the play director's partner.

After the performance, Browde apologized to Nossel for insulting him so many

residency at Albert Einstein Medical Center; Nossel, pursuing a Ph.D. at Columbia's School of Social Work, was applying storytelling techniques to help people dying from AIDS find meaning in their lives.

In their performance at Miller Theatre, the two friends recounted personal struggles, some of which illuminate the stigma of being gay in societies marked by fear and homophobia. For example, after he revealed to the crowd his HIV-positive status, Browde paused and reflected on how his relationship to the audience changed with that disclosure.

Beyond the stage, Nossel and Browde have taken *Two Men Talking* and *Narativ*, the company they founded, to communities in need of open dialogue around sensitive issues. Last summer, Nossel went to Kenya to help transport workers with AIDS tell their stories, and both men recently traveled to Croatia to help patients with intellectual disabilities.

Whether on stage or in class, Browde and Nossel emphasize how telling and listening to one another can introduce new ways to see ourselves and others. "Story," Nossel says, "is synonymous with one's sense of self and one's being on the planet and one's political right to be."



Paul Browde and Murray Nossel perform *Two Men Talking* at Miller Theatre.

By chance, they ran into each other again

years earlier. The power of that gesture launched an immediate closeness, and a friendship quickly took hold. "We were telling each other huge numbers of stories about our histories and finding the points of intersection and difference," said Browde.

Storytelling emerged as a catalyst for healing in their professional careers, too. Browde was using drama therapy in his

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