



# Michèle Tertilt

Department of Economics

## Notable Ph.D. Pathbreakers

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Each year, the Graduate School recognizes the U's top Ph.D. graduates by presenting Best Dissertation Awards in each of four areas: arts and humanities (including history and philosophy), biological and medical sciences, physical sciences and engineering, and social and behavioral sciences and education. Nominated by grad programs and judged by faculty, the awards (which carry \$1,000 honoraria) go to students whose research shows striking originality and importance and who seem likely to make significant contributions to their discipline. Economics Ph.D. Michèle Tertilt was one of two recent winners.

## Michèle Tertilt

### *Polygyny and the global economy*

by Kate Tyler

Michèle Tertilt liked math. She also aspired to improve the world. And so it was only natural, she says, that she became a macroeconomist keen to understand how aggregate economic outcomes break down into family-level realities across the globe. To complete her Ph.D. at the University of Minnesota, she thought nothing of scouring through anthropological journals for a meaningful dissertation topic. The result, “Essays on Social Institutions,” was a pathbreaking analysis of the economic impact of polygynous marriage in developing countries.



Photo by Dong Oh

By all accounts, Tertilt's project seemed more like the canny analysis of a World Bank economist than the debut disquisition of a 20-something graduate student. Named one of the best four dissertations at the University of Minnesota in 2004, Tertilt's written Ph.D. work helped her clinch a coveted faculty position at Stanford University. Yet her core thesis—that in polygyny-based countries, capital goes into buying wives and selling daughters at the expense of overall economic growth—began as little more than a hunch, as Tertilt noodled over an intriguing empirical puzzle.

“I started thinking about the extreme poverty of sub-Saharan Africa,” recalls Tertilt. “It's a region of subsistence farming that has not grown at all in the last 40 years—even other undeveloped areas are catching up. The question was, ‘Why?’” The extremities of the desert climate did not alone seem sufficient to explain the disparity, Tertilt says. Turning to anthropology for insights, “I got to thinking about the fact that some of the poorest countries have a marriage system where men marry multiple wives. I wondered what that might have to do with economics.”

Quite a lot, as it turns out. Although initially worried that “experts would dismiss this as a totally crazy notion,” Tertilt went on to make a compelling case that countries with polygynous marriage systems can't help but be poorer than those with monogamy-based systems. That's because of the divergent economic impacts of the brideprice (the payment that men in polygynous countries make to brides' fathers) and the dowry (the payment that parents in monogamous countries bestow on daughters at marriage).

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## **The economics of polygyny**

Tertilt's work rests on sophisticated "theoretical modeling," in the vernacular of her field. But she translates it so deftly into everyday language that it's easy to see why she's won praise for her teaching as well as for her research. In polygynous countries, she explains, men buy wives as an investment, expecting that each purchase will reap a major return—multiple daughters to be sold in 20 years or so. By the time their daughters hit the market, the male heads of household are getting older, not working much. The money—or more typically, animals—they get as a brideprice are a form of old-age support. Whether cash, cattle to sell, or camels to milk, the proceeds are used to meet current consumption needs, Tertilt emphasizes—not used to improve farms or otherwise invest in physical capital.

**"In polygynous marriage systems, competition for women drives up the price—and investment in women-as-assets crowds out investment in physical capital,"** Tertilt says. That's a problem because from an aggregate perspective, investment in physical capital is important for a country's overall economic growth. **"Investment in women does not add anything to the productive capacity of the country."**

**Countries without good tractors, Tertilt observes, "can't produce much or support good wages. They'll stay mired in poverty while other countries not dependent on the brideprice system pass them by economically—which is what's occurring."**

**Now firmly on the tenure track in Palo Alto, Tertilt is pursuing several projects to expand understanding of the family-level decisions and practices that shape big-picture economics.**

**One of her studies aims to isolate the variables involved in the rising number of consumer bankruptcies in Canada and the United States. Another, with U of M economics professor Larry Jones (Tertilt's Ph.D. adviser), looks at fluctuations in U.S. fertility rates since the Civil War, documenting how income and occupation have affected family decision-making about childbearing and family size.**

**"Theoretical economists are similar to laboratory physicists,"** says Tertilt. **"The idea is to come up with a theoretical or mathematical model that works fairly well to describe the state of the world—and which then can be used as a tool by policymakers, planners, and researchers."**

**Tertilt allows that her Ph.D. work "earned me a few brownie points for novelty,"** but she's as eager to talk about **"the wonderful mentoring I had at Minnesota"** as any triumphs of her own. The cooperative ethos of Minnesota's econ program, Tertilt emphasizes, is exceptional in the cutthroat (and male-dominated) field of economics. **"Faculty at Minnesota really believe in students and say so,"** she says.

**"That kind of positive feedback can make a huge difference,"** Tertilt adds. Research suggests that's especially true for women in the sciences and economics, she notes. (At Stanford, where she is one of 3 women on a faculty of 40, Tertilt is often told by students that she is their first woman economics professor. Women make up little better than a fourth of all newly minted Ph.D.'s and just 10 percent of all tenured econ faculty nationally.)

## **The Minnesota difference**

**Tertilt came to Minnesota knowing only that its economics program was top-rated. Germany's famously threadbare universities had not prepared her for the "extraordinarily supportive environment" she found on the Twin Cities campus. "The encouraging faculty, the outstanding libraries and computer resources, the interdisciplinary programs, the financial support—there's just this amazing abundance of resources here,"** she says.

**Tertilt notes that at strategic junctures, her maturation as a scholar was nudged**

**along in important ways by the U's Graduate School. Even before the "Best Dissertation" award, the school gave Tertilt a doctoral fellowship in support of her research. It came with a bonus: the chance to participate in an interdisciplinary exchange program in which students from different disciplines presented their work at research seminars—an experience Tertilt found "interesting and inspiring."**

**Perhaps the most important benefit of that program, Tertilt says, "is that I had to think about my work from different angles and figure out new ways of explaining why what I do matters."**

**Adds Tertilt: "I've become more pragmatic than when I started out. I do still think I can make useful contributions to the world as a scholar. But I've also come to see that I can have a big impact as a teacher. I hope to mentor students as well as I was mentored at Minnesota."**

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