



BERLIN, TENNESSEE
FRANCISCO ÚBEDA DE TORRES

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“Where is Grunewald?” I asked a German friend of mine who lived in Berlin for two years a few days before departing to Berlin.

“Never been there,” she replied.

“19 Wallotstraße, Grunewald, bitte,” I told the taxi driver at the airport.

Halfway through my taxi ride, I asked the driver, “Is Grunewald close to Mitte?”

“Not at all,” he responded.

I started regretting not checking where Grunewald was located before accepting the fellowship when the driver stopped in front of the main building of the Wissenschaftskolleg.

“That’s not bad for being in the middle of nowhere,” I thought.

It took me a few days to understand that being in the middle of nowhere was the cornerstone to the uniqueness of the experience at the Wissenschaftskolleg.

The cafés, the restaurants, the theatres ... were only a train ride away in the S-Bahn, but far enough to guarantee that the main source of entertainment were the other Fellows. Movie projections, poetry reading, conversation over coffees, conferences, parties

were all available within the confines of the Kolleg, and Berlin was reserved for the weekends.

Within the Kolleg, daily life was similar to that experienced at Oxford and Cambridge colleges – a mixture of academics versed in all sorts of disciplines sharing their time over lunch, dinner and any working environment. But in contrast to the aforementioned institutions, the atmosphere among academics was extremely friendly. It even seemed that they care for each other. The staff contributed to that atmosphere by attending with infinite patience to the most unusual requests from all Fellows.

I took advantage of the working atmosphere and the exceptional service provided by the librarians to advance my research on intragenomic conflict. In particular I worked on modelling the evolution of genomic imprinting as a result of social interactions between individuals in structured populations.

What are imprinted genes doing in the adult brain? Genomic imprinting is when a gene's expression depends upon the parent of origin. This effect seems to be driven by evolutionary conflicts between genes inherited via sperm versus egg. The prevailing theory for the evolution of genomic imprinting, the kinship theory, emphasizes conflicts over the allocation of maternal resources, and focuses upon genes expressed in the placenta and infant brain. However, there is growing evidence that imprinted genes are also expressed in the adult brain, after cessation of parental care.

Recent research suggests that imprinted genes underpin neurological disorders of the social brain, such as psychosis and autism. In my research I advance the kinship theory, developing an evolutionary model of genomic imprinting for social behaviour. I consider the role of demography and the mating system, emphasizing the importance of sex differences in dispersal and variance in reproductive success.

My work predicts that, in hominids and birds, altruism will be promoted by paternally-inherited genes and egoism will be promoted by maternally-inherited genes. In non-hominid mammals we predict more diversity, with some mammals showing the previous pattern and others showing the reverse. I discussed the implications for the evolution of psychotic and autistic spectrum disorders in human populations with different social structures.

While completing this research, I established the basis for extending this research.

The Kolleg bestowed upon me a unique opportunity to discuss my views on evolutionary theory with Fellows working in related areas, including Robert Trivers, Raghavendra Gadagkar, Srinivas Narayanan and Jim Mallet. Most interestingly, the experience

exposed me to the other Fellows' research that ranged from what percentage of a Pringle's potato chip is made out of potatoes to the intimate life of French traders in 19th-century Senegal. As a young researcher it was a special opportunity to get work done in an extremely supportive and creative environment.

During the farewell party organized by the Fellows, I could not avoid being intoxicated by that warm feeling, reminiscent of my adolescent experience during summer camps. Accompanied by the chords of another summer anthem "YMCA", the Wissenschaftskolleg turned off the light for the 2008–09 Fellows.