



Wissenschaftskolleg zu Berlin

INSTITUTE FOR ADVANCED STUDY

ARBEITSVORHABEN DER FELLOWS
FELLOWS' PROJECTS 2014/2015

Herausgeber:
Wissenschaftskolleg zu Berlin
Wallotstraße 19
14193 Berlin
Tel.: +49 30/89 00 1-0
Fax: +49 30/89 00 1-300
wiko@wiko-berlin.de
wiko-berlin.de

Redaktion: Angelika Leuchter
Redaktionsschluss: 2. Juli 2014



Dieses Werk ist lizenziert unter einer Creative Commons Namensnennung -
Nicht-kommerziell - Keine Bearbeitung 3.0 Deutschland Lizenz

INHALT

VORWORT/PREFACE	4
PEDRO BEKINSCHTEIN	6
RICHARD BOURKE	8
MICHEL CHION	10
ANTON CROMBACH	12
DEIRDRE CURTIN	14
LORRAINE DASTON	16
FLORENCE DÉBARRE	18
ALEXEI EVSTRATOV	20
STEVEN A. FRANK	22
RAGHAVENDRA GADAGKAR	24
LUCA GIULIANI	26
STEPHEN GREENBLATT	28
DIETER GRIMM	30
ONUR GÜNTÜRKÜN	32
TSERING GYALPO	34
BARBARA HAHN	36
DAVID M. HALPERIN	38
GUNTRAM HAZOD	40
JAN-HENDRIK HOFMEYR	42
JOHANNES JÄGER	44
ANDREA KERN	46
BRANDON KILBOURNE	48
MICHAEL KRÜGER	50
ADEN KUMLER	52
SHIGEHISA KURIYAMA	54
FRANÇOISE LAVOCAT	56
VERONICA LAZAR	58
WOLF LEPENIES	60
SIBYLLE LEWITSCHAROFF	62
INGUNN LUNDE	64
PHILIP MANOW	66

ROBERT MARTIN	68
WILLIAM MARX	70
CHRISTOPHER MCCRUDDEN	72
DIANA MISHKOVA	74
CHRISTOPH MÖLLERS	76
SIANNE NGAI	78
THOMAS PFEIFFER	80
JAN PLAMPER	82
SIMONE REBER	84
MEREDITH REICHES	86
SEBASTIAN RÖDL	88
SUSAN ROSE-ACKERMAN	90
MARTIN SACK	92
ANDRÁS SCHIFF	94
PAUL SCHMID-HEMPEL	96
WEIRONG SHEN	98
SHERMIN DE SILVA	100
ORKUN S. SOYER	102
SARAH STROUMSA	104
HANS THOMALLA	106
LINE VEJ UGELVIG	108
JONATHAN WHITE	110
LEA YPI	112
YONGLE ZHANG	114
EINFÜHRUNG IN DIE SCHWERPUNKTGRUPPEN/	
INTRODUCTION TO THE FOCUS GROUPS	116
NAME FELLOWSHIPS 2014/15	120
COLLEGE FOR LIFE SCIENCES	121

Wenn nicht anders angegeben, erstrecken sich die Fellowships vom 16. September 2014 bis zum 15. Juli 2015.

If not otherwise indicated, the Fellowships extend from September 16, 2014 to July 15, 2015.

VORWORT

In dieser Broschüre werden die Fellows des Wissenschaftskollegs im akademischen Jahr 2014/15 vorgestellt. Im Zentrum steht die Beschreibung der Arbeitsvorhaben, denen sie sich während ihres Aufenthaltes am Wissenschaftskolleg widmen wollen. Dazu kommen bibliografische Empfehlungen mit den Titeln einiger Aufsätze oder Bücher, die sie Interessenten zur Lektüre empfehlen, sowie kurze biografische Angaben.

Die meisten Fellows kommen für ein volles akademisches Jahr und verfolgen ein individuelles Forschungsvorhaben. In jedem Jahr gibt es aber auch eine Reihe von Wissenschaftlern, die in Schwerpunktgruppen eingebunden sind. Die Zugehörigkeit zu einer Schwerpunktgruppe sowie gegebenenfalls eine kürzere Aufenthaltsdauer sind jeweils vermerkt.

In der Zeit zwischen dem Redaktionsschluss dieser Broschüre und dem Beginn des akademischen Jahres am 16. September 2014 können sich noch leichte Änderungen ergeben. Aktualisierte Informationen zu den Fellows und ihren Arbeitsvorhaben sowie zu Veranstaltungen mit Fellows und zum Wissenschaftskolleg insgesamt stehen auf der Internetseite des Wissenschaftskollegs – wiko-berlin.de – zur Verfügung.

Berlin, im Juli 2014

PREFACE

This brochure presents the Fellows of the academic year 2014/15. Each Fellow provides a short description of the work he or she plans to pursue during the stay at the Wissenschaftskolleg. Also listed are brief biographical notes as well as recommended reading.

The majority of the Fellows come for an entire academic year. The Wissenschaftskolleg invites most of its Fellows on the basis of their individual research plans. Some Fellows, however, are integrated in Focus Groups. Membership in a Focus Group and a shorter planned stay are noted for each Fellow, where applicable.

Between the submission deadline to this brochure and the beginning of the academic year on September 16, 2014, some minor changes may arise. Up-to-date information on the Fellows, their work plans, and the Wissenschaftskolleg in general is available on the Wissenschaftskolleg's website wiko-berlin.de.

Berlin, July 2014

PEDRO BEKINSCHTEIN

from September to December 2014

Fellow of the College for Life Sciences (see p. 121)

Ph.D., Neurobiology

University of Buenos Aires

Born in 1975 in Buenos Aires

Studied Biology at the University of Buenos Aires

1. THE NEUROBIOLOGY OF MEMORY FORGETTING

2. *THE BRAIN FOR EVERYONE* (BOOK PROJECT)

Ad 1. During the past 12 years, I've been interested in understanding the biological processes underlying memory. My Ph.D. involved the study of memory persistence and during my post-doc I studied how the brain forms unique and less confusable memories. However, in the last two years, I've become fascinated by the fact that the molecular and cellular mechanisms underlying memory forgetting are unknown. Over a century of research has presumed that forgetting reflects passive mechanisms such as decay and interference between memories. In the last two decades, however, a growing human literature on a process called retrieval-induced forgetting (RIF) has pointed to inhibitory control processes that resolve competition between memories as a cause of adaptive forgetting. The idea is that memory forgetting might occur by mechanisms that are similar to the ones we use when stopping a prepotent action, such as when stopping imitation and then changing the course of action. To be able to do this, we need to first inhibit the prepotent response to be able to then switch to a less frequent action. So the current memory theory implies that the very act of remembering can cause forgetting through repeated inhibition of the less frequently retrieved memories. In this way, forgetting occurs not for the item that is being remembered, but for other items that are also associated with the same

clues. We have been able to develop what we believe is the first animal model for RIF. I plan to be able to write my first paper on this subject while in Berlin.

Ad 2. In addition, I have a contract to write a book about the brain for a general audience. Thus my time at the College will be ideal for fulfilling this exciting task.

Recommended Reading

Bekinschtein, Pedro, Maria Renner, Maria Carolina Gonzalez, and Noelia V. Weisstaub (2013). "Role of medial prefrontal cortex serotonin 2A receptors in the control of retrieval of recognition memory in rats." *The Journal of Neuroscience* 33, 40: 15716–15725.

Pedro Bekinschtein, Brianne A. Kent, Charlotte A. Oomen, Gregory D. Clemenson, Fred H. Gage, Lisa M. Saksida, and Timothy J. Bussey (2013). "BDNF in the dentate gyrus is required for consolidation of 'pattern-separated' memories." *Cell Reports* 5, 3: 759–768.

Pedro Bekinschtein, Lionel Müller Igaz, Martín Cammarota, Lia R. M. Bevilaqua, Iván Izquierdo, and Jorge H. Medina (2007). "Persistence of long-term memory storage requires a late protein synthesis- and BDNF-dependent phase in the hippocampus." *Neuron* 53, 2: 261–277.

RICHARD BOURKE

Ph.D., Professor in the History of Political Thought
Queen Mary University of London

Born in 1965 in London

Studied English, Philosophy and Classics at University College Dublin,
the University of London, and the University of Cambridge

DEMOCRACY: ANCIENT AND MODERN

Ancient democracy was founded on a conception of equality of rule. The idea sought to depict a complex arrangement of institutions and offices that implied an equal aptitude for the business of government. Modern democracies are premised on a more dramatic division of labour facilitated by the practice of representation. In the process, equality of rule has been replaced by the commitment to equal political rights. Since the eighteenth century, these rights have been associated with a range of provisions, including popular sovereignty, the franchise and entitlement to office. Western historiography since the Second World War has commonly identified the acquisition of equal rights as a means of distinguishing the “modern” from the “early modern” period. I hope to show how this compartmentalization involves distortion and simplification. The project as a whole is concerned with the variety of ways of understanding equality in ancient and modern democracies. Recovering these divergent conceptions of equal citizenship can improve our grasp of the passage from ancient to modern politics, and hence of the principal characteristics of modern democratic thought.

Recommended Reading

Bourke, Richard. “Languages of Conflict and the Northern Ireland Troubles.”
Journal of Modern History 83, 3 (September 2011): 544–78.

- . “Theory and Practice: The Revolution in Political Judgement.” In *Political Judgement*, edited by Richard Bourke and Raymond Geuss. Cambridge: Cambridge University Press, 2009.
- . “Enlightenment, Revolution and Democracy.” *Constellations* 15, 1 (March 2008): 10–32.

MICHEL CHION

Dr., Maître de conférence émérite à l'Université Paris 3 Sorbonne Nouvelle ;
écrivain, compositeur de musique concrète et chercheur, Paris

Né en 1947 à Creil

Études d'écriture musicale aux Conservatoires de Versailles et de Paris. Études
de lettres classiques et modernes à l'Université de Nanterre, et Lettres modernes
à l'Université Paris 8 Vincennes-Saint-Denis

CHRONOLOGIE DU CINEMA VERBAL ET SONORE DE 1895 A NOS JOURS : POUR UNE NOUVELLE PERIO- DISATION DU CINEMA « AUDIO-LOGO-VISUEL »

Ce travail historique veut renouveler la périodisation de l'histoire du cinéma, jusque-là découpée en période muette et période sonore, et dont bien des décennies (y compris les plus récentes) sont négligées. Il cherche à dégager l'histoire du cinéma des a priori créés par une approche exclusivement techniciste ou auteuriste, même si la technique et ses changements, ainsi que le rôle de certains auteurs, demeurent importants. La notion de « film verbal » rappelle l'importance du texte, écrit ou entendu, au cinéma.

Il s'agit donc de reprendre l'histoire du film de fiction depuis ses origines sous sa forme audio-logo-visuelle, en incorporant le mot dans le film comme élément pivot entre « muet » et « parlant », et rétablissant la continuité entre les deux. Les intertitres du muet et autres écrits dans l'image subsistent en effet dans le parlant. Le cinéma sonore est un palimpseste : il conserve la structure du cinéma qui l'a précédé, comme le corps humain conserve des organes, des propriétés, des espèces dont l'homme est issu.

Ce travail comportera une chronologie de 5000 films du monde entier, 120 analyses de séquences précises, et 5 chapitres de problématiques historiques. Les films, chacun partiellement décrit, seront choisis pour la façon dont ils illustrent le rapport audio-logo-visuel. Ils seront non seulement confrontés à d'autres films, mais aussi à divers événements techniques, esthétiques, sociologiques etc.,

qui leur sont contemporains. Chronologie et analyses seront illustrées par des photogrammes et des montages audio-visuels proposant des rapprochements entre films.

Il ne s'agit donc pas d'une anthologie des « meilleurs films », ni des « plus belles séquences du cinéma », mais d'un choix représentatif de situations audio-visualisées, caractéristiques des recherches et des hantises de leurs époques respectives. Pour les décennies récentes, on mettra en valeur le rôle capital du nouveau rapport entre public et film, ce dernier étant devenu disponible de la même manière qu'un livre à partir de 1980 (cassette).

Lecture recommandée :

Chion, Michel. *L'écrit au cinéma*. Paris : Colin, 2013.

— *L'audio-vision : son et image au cinéma*. Paris : Armand Colin, 1990, rév. 2010.

Anglais: *Audio-vision: Sound on Screen*, 1998; allemand : *Audio-Vision: Ton und Bild im Kino*, 2012.

— *Film, a Sound Art*. New York : Columbia University Press, 2009.

— *Un art sonore, le cinéma*. Paris : Cahiers du Cinéma, 2003.

ANTON CROMBACH

from November 2014 to April 2015

Fellow of the College for Life Sciences (see p. 121)

Dr., Biology

Centre for Genomic Regulation, Barcelona

Born in 1980 in Veldhoven, Netherlands

Studied Computer Science at the Technische Universiteit Eindhoven

THE EVOLUTION OF GENOME STRUCTURE AND ITS REGULATION

Focus Group *Gene Regulation and Organismal Diversity* (see p. 116)

At the Wiko, my aim is to lay the foundation for my future research as an independent investigator. The main theme in my research has always been the dynamics of evolution, especially with respect to the genome, and the regulation of genes. Previously, I used conceptual models of *in silico* evolution to study the evolution of genome structure and gene regulatory networks under changing environmental conditions. Lately I have focused on a developmental gene regulatory network and its expression patterns in fly embryos. These were data-driven studies, where gene networks inferred from experimental data were used to study the evolution of body plan patterning. During my stay in Berlin, I will focus on exciting new findings about how the genome folds in the cell nucleus. The idea is to look from an evolutionary point of view at this “new” folded genome and its interactions with the nuclear and cellular environment. I will explore several lines of inquiry, ranging from developing conceptual models to bioinformatic data analysis.

First of all, in the *in silico* evolution community there is a rich history of conceptual models to study evolutionary processes under various conditions. I aim to develop novel models that incorporate genome folding. These models should

allow for the data-driven investigation of concepts such as robustness, evolvability, and modularity.

Second, only recently have we started to answer on a large scale the question of which proteins shape and regulate the DNA-protein complex called chromatin. At the moment, these proteins appear related only by their nuclear location; their (co-)evolution is an open question. My idea is to develop a pilot project in which I use bioinformatic data analysis to study the evolution of chromatin-associated proteins.

Finally, I would like to focus on the role of selfish genetic elements. There is a long evolutionary history between genomes and these parasitic (or mutualistic) self-copying elements. For instance, selfish elements are known to shape gene regulatory networks by spreading enhancer elements through the genome. The evolutionary dynamics and the implications for genome folding and gene regulation present an interesting basis for discussion and collaboration with other Fellows.

Recommended Reading

Jaeger, J. and A. Crombach. “Life’s attractors: understanding developmental systems through reverse engineering and *in silico* evolution.” In *Evolutionary Systems Biology*, edited by Orkun S. Soyer, 93–119. New York: Springer, 2012.

Crombach, A. and P. Hogeweg (2008). “Evolution of evolvability in gene regulatory networks.” *PLoS Comp. Biol.* 4, 7, e1000112.

Crombach A., M. García-Solache and J. Jaeger (2014). “Evolution of early development in dipterans: reverse-engineering the gap gene network in the moth midge *Clogmia albipunctata* (Psychodidae).” *Biosystems* (in press).

DEIRDRE CURTIN

Ph.D., LL.D (h.c.), Professor of European Law
University of Amsterdam

Born in 1960 in Dublin

Studied Law at University College Dublin and Trinity College Dublin and at
the Honorable Society of Kings Inn, Dublin

EMPTY DEMOCRACY: THE AMBIGUITY OF SECRECY IN THE EUROPEAN UNION

Control over secrecy and openness gives power: it influences what others know and thus what they choose to do. The deeper the secret, the fewer the people who know the secret. This creates inner circles of secret-keepers within the executive power and gives certain individuals the superior position of knowing and sharing crucial information (secrets). But secrets may also be shallow (or become shallow) and thus knowable by outsiders such as oversight institutions like parliaments and courts (and the media) that may be in a privileged position to pursue information.

This book project builds on existing and on-going work to position the subject of secrecy and the European Union in the context of the on-going quest for more democracy and more legitimacy of its rules, laws and policies. It goes further in three specific ways. First, it proposes to address executive secrecy in a novel manner, which will hopefully contribute to a greater understanding of how executive secrecy in Europe in practice removes or otherwise selects actors/levels/policies from the practical reach of countervailing powers at various governance levels. Second, it will examine a link that is made between the phenomenon of executive secrecy and the phenomenon of compound executive power intertwined across various governance levels, in particular the supra-national and the national levels. A fine-grained analysis of law and practice across a selected range of actors and policy areas, it will make it possible to understand deeper mechanisms at play. This interdisciplinary approach will

provide a basis to think about institutional design at a less specific and more fundamental level. Finally, this project aims to make concrete proposals for institutional design at all governance levels that will enhance certain understandings of democracy, in particular representative and participatory democracy. Openness can be contrasted with “blacked out” or confidential decision-making spaces that persist in the interests of good or efficient decision-making in the context of a representative understanding of democracy. To what extent can secrecy become open and visible?

The research project has both a descriptive and a normative ambition. The methodology that will be employed is both legal (mapping positive law, including organic and inter-institutional rule-making) and empirical (studying practices as well as semi-structured interviews with key players in order to enhance understanding). The secrecy phenomenon and the various actors and their intricate interrelationships need to be mapped hand in glove with more empirical research. The latter is of course tricky when the subject matter is “secret”. Nonetheless, step by step, by means of interviews and focused document research, light will be shed on the role various actors play, their attitudes and their practices. Normative political theory will be used as the basis for answering the normative questions.

Recommended Reading

Curtin, Deirdre. “Overseeing Secrets in the EU: A Democratic Perspective.” *Journal of Common Market Studies* 52, 3 (2014): 684–700.

—. “The Challenge of Executive Dominance in Europe.” *Modern Law Review* 77, 1 (2014): 1–32.

—. *Executive Power in the European Union: Law, Practices and the Living Constitution*. Oxford: Oxford University Press, 2009.

LORRAINE DASTON

Permanent Fellow of the Wissenschaftskolleg

Ph.D., Director, Max Planck Institute for the History of Science, Berlin

Professor, Committee on Social Thought, University of Chicago

Born in 1951 in Michigan

Studied History, Philosophy of Science, and History of Science

at Cambridge and at Harvard

RULES: THE PREHISTORY OF AN INDISPENSABLE AND IMPOSSIBLE GENRE

Rules – in the form of everything from traffic regulations and government directives to etiquette manuals and parliamentary procedures – structure almost every human interaction. Increasing use of computers has intensified a trend that began in the eighteenth century of ever more, ever more stringent rules for ever more domains of public and private life, as we intuitively adapt our behavior and perhaps also our thinking to the algorithms of search engines, stock market trading, social media, and myriad other online activities. We moderns cannot live without rules. But we also cannot live with them, at least not comfortably. We chafe at their complexity, their inflexibility, their inefficiency, their sheer prolixity. On a more abstract level, many of the fault lines that run through the landscape of modern thought oppose rules to some other elusive desideratum, such as interpretation, judgment, creativity, discretion, or simple common sense.

These are characteristically modern oppositions. Premodern rules, for the over two millennia spanning Greco-Roman Antiquity through the European Enlightenment, built experience and discretion into rules; words for “rule” and “pattern” (or “paradigm”) were used as synonyms in several major European languages. Drawing upon diverse genres – astronomical tables, traffic regulations, law codes, game manuals, handbooks of parliamentary procedures, cookbooks – I would like to reconstruct the history of the premodern rule as both a

concept and a practice in order to better understand our own modern ambivalence about rules.

Recommended Reading

Erikson, Paul, Judy L. Klein, Lorraine Daston, Rebecca Lemov, Thomas Sturm, and Michael D. Gordin. *How Reason Almost Lost Its Mind: The Strange Career of Cold War Rationality*. Chicago: University of Chicago Press, 2014.

FLORENCE DÉBARRE

from September 2014 to March 2015

Fellow of the College for Life Sciences (see p. 121)

Dr., Evolutionary Biology

University of Exeter

Born in 1984 in Paris

Studied Biology, Ecology and Evolution at the École normale supérieure, Paris, the Université Paris 6 Pierre et Marie Curie, and the Université de Montpellier

THE ECOLOGY AND EVOLUTION OF GENE NETWORKS

Explaining the origin and maintenance of the diversity of living forms is one of the central aims of evolutionary biology, and a number of key concepts have been defined or justified by mathematical analysis. Building a model requires a balance between simplicity and realism; different assumptions will be regarded as more or less crucial or limiting in different sub-disciplines. For instance, evolutionary ecologists may emphasise the role of interactions between individuals to explain biodiversity, sometimes to the detriment of a precise description of the genetic underpinnings of the traits under selection. Conversely, system biologists or evolutionary geneticists may study the evolution of regulatory circuits, or more generally, the interactions between biological components within an individual, while at the same time defining individual fitness as a fixed quantity independent of the composition of the population the individual lives in.

During my stay at Wiko, I would like to develop theoretical models that bridge the gap between these approaches. The overall aim of my project is the exploration, from a theoretical standpoint, of how environmental heterogeneity and ecological interactions between individuals in a population influence the evolution of gene networks, and vice versa. For instance, does spatial heterogeneity in selective conditions influence the way gene networks evolve? Can social interactions lead to some form of division of labour among individuals and how

will this affect the properties of gene networks? How does the presence of competitors influence the evolution of pathways involved in resource acquisition and utilization? How does the structure of gene networks constrain or on the contrary facilitate adaptation to different resources, and how do they affect the potential for ecological speciation?

Recommended Reading

Débarre, Florence, S. L. Nuismer and M. Doebeli (2014). “Multidimensional (co)evolutionary stability.” *The American Naturalist*, accepted for publication.

Débarre, Florence, C. Hauert and M. Doebeli (2014). “Social evolution in structured populations.” *Nature Communications* 5, 3409.

doi: 10.1038/ncomms4409

Débarre, Florence and Thomas Lenormand (2011). “Distance-limited dispersal promotes coexistence at habitat boundaries: reconsidering the competitive exclusion principle.” *Ecology Letters* 14, 3: 260–266.

ALEXEI EVSTRATOV
EURIAS Fellow (see p. 120)
Dr., French and Comparative Literature
University of Oxford

Born in 1983 in Moscow
Studied Russian Literature at the Russian State University for the Humanities,
Moscow, and French Literature at the French University College at Moscow
State University

FICTIONS OF ORDER: SOCIAL REPRESENTATIONS IN THE EUROPEAN THEATRE FROM THE NAPOLEONIC WARS TO THE RUSSIAN REVOLUTION

The theoretical problem of referentiality (and self-referentiality) has been approached by different disciplines over the last few decades. In literary studies, however, the dichotomy “text vs. context” is addressed in a way that does not seem satisfactory. Within the Marxian paradigm, on the one hand, discourses are mere derivatives of the social basis. Postmodernist criticism, on the other hand, in its radical relativism, reversed this scheme to proclaim that (social) reality was virtual, i.e. generated by discourses and representations. In the vein of studies in post-Marxian social history, my project will focus on competing and conflicting narratives for representing society and the agency behind them. My approach is informed by the sociology of interaction and namely by the revision of Pierre Bourdieu’s critical theory in the works of French pragmatic sociologists (such as Luc Boltanski). This sociology provides a language of analytical description suitable for exploring links between the social categories used by individuals and the language of self-description diffused in the society by the dominating social groups. In other words, my project will study the complex relationships between subjectivity and what Bourdieu calls “symbolic violence” in the domain of drama and performance.

I will provide a comparative analysis of dramatic production in France and in Russia, occasionally broadening the comparative perspective to include German-speaking and English-speaking countries. My corpus will include works from the classical canon, as well as lesser-known literary texts, and a variety of non-fictional sources (from both the public and private domains). I will consider them in order to overcome the binary opposition “text-context”, but not to abolish the dialectical tension produced by this couple, which seems productive.

I will study, for instance, symbolic economies of the *emplois* in drama and theatre and their interactions with other discourses about society. My special focus will be on the reception of dramatic works by the readership and theatre audiences. I will therefore pay close attention to the public polemics and individual identity conflicts generated by the representations of social hierarchies.

Recommended Reading

Evstratov, Alexei. “Drama Translation in Eighteenth-Century Russia: Masters and Servants on the Court Stage in the 1760s.” In *The Art of Accommodation: Literary Translation in Russia*, edited by Leon Burnett and Emily Lygo, 31–54. Oxford, etc.: Peter Lang, 2013.

—. “La réception du théâtre de Regnard à la cour de Catherine II.” In *Jean-François Regnard (1655–1709)*, edited by Charles Mazouer and Dominique Quéro, 303–326. Paris: Armand Colin, 2012.

—. “*Ad Urbanitatem informare*: la langue et l’éducation dans les comédies de Catherine II (exemple de *O temps!*).” *Histoire. Épistémologie. Langage* 32, 1 (2010): 13–29.

STEVEN A. FRANK
Ph.D., Professor of Biology
University of California, Irvine

Born in 1957 in Rochester, New York
Studied Biology, Zoology, and Statistics at the University of Michigan,
Ann Arbor, and at the University of Florida, Gainesville

THE EVOLUTIONARY DESIGN OF BIOLOGICAL CONTROL SYSTEMS

Focus Group *Gene Regulation and Organismal Diversity* (see p. 116)

I am organizing the Gene Regulation and Organismal Diversity Focus Group. My particular interest in this group concerns how natural selection shapes the biochemical control systems that regulate organismal form, physiology, and behavior. Natural selection designs regulatory control like an engineer, with close attention to the costs and benefits of each component and how the components work together. However, natural selection and the resulting evolutionary history do not exactly follow the textbooks of human engineering and design. Nature has its own logic.

One problem is the tendency for natural selection to cause the deterioration in the performance of particular components within a system. The idea is that, as biological systems evolve mechanisms to make them more stable and less sensitive to environmental fluctuations, these protective mechanisms reduce the exposure of the internal components of the system to direct challenge by the environment. With less direct challenge to the internal components, there will be an inevitable tendency for these internal components to decay evolutionarily, because a weakening of environmental pressure typically leads to evolutionary decay. This process leads to a coupling of evolutionary improvement at the system level and evolutionary decay of internal components – a coupling between system robustness and internal maladaptation.

Another problem concerns variations in the regulatory control of bacterial metabolism. Evolution, having designed a system to transform sugar into energy once in early biological history, has mostly retained that system, but with variations. It is the variations in the regulatory control of metabolism that lead to fascinating questions. For example, a fundamental tradeoff occurs between how fast a cell can extract resources from the environment (rate) and how efficiently it can turn those resources into energy (yield). This rate-versus-yield tradeoff sets a fundamental design constraint on metabolism, the most basic process shared by all of life.

Recommended Reading

Frank, S. A. (2007). *Dynamics of Cancer: Incidence, Inheritance, and Evolution*. Princeton: Princeton University Press.

Frank, S. A. (2002). *Immunology and Evolution of Infectious Disease*. Princeton: Princeton University Press.

Frank, S. A. (1998). *Foundations of Social Evolution*. Princeton: Princeton University Press.

RAGHAVENDRA GADAGKAR

Permanent Fellow of the Wissenschaftskolleg

Ph.D., Professor of Ecology, Centre for Ecological Sciences and Chairman,

Centre for Contemporary Studies, Indian Institute of Science, Bangalore

President, Indian National Science Academy (INSA)

Born in 1953 in Kanpur, India

Studied Zoology and Molecular Biology in Bangalore

THE EVOLUTION OF ALTRUISM IN INSECT SOCIETIES: DO WE NEED A PARADIGM SHIFT?

Many insect species, particularly those of ants, bees, wasps and termites, live in societies resembling and, in some respects, surpassing human societies. The most striking feature of these societies, especially for an evolutionary biologist, is that usually one or only a small number reproduce while the rest work altruistically for the welfare of their colony. The mechanism of evolution of such altruistic behaviour has been an enduring paradox, ever since Darwin first noticed it. A dominant paradigm for formulating and testing theories for the evolution of altruism has been the idea that, under certain conditions, altruism can be favoured by natural selection if it is directed to close genetic relatives – variously labeled as kin selection, inclusive fitness theory and Hamilton’s rule. All my research using the primitively eusocial wasp *Ropalidia marginata* which occurs in Southern India, has been and continues to be firmly embedded in this paradigm. I believe that this paradigm has served us well in demystifying the altruism of our wasps (1, 2).

In recent years however, E. O. Wilson, perhaps the most prominent exponent of this paradigm (3), has teamed up with a group of mathematicians and has claimed that this paradigm has outlived its utility and perhaps was wrong from the beginning. These “rebels” have proposed simple, “old-fashioned” natural selection, often called individual selection, as a better, more universal paradigm (4). In addition, E. O. Wilson himself has often turned to group selection, at the

other extreme, as a powerful explanatory framework (5). The mainstream kin selection community has reacted very negatively, denouncing this heresy and swearing by the validity of the kin selection paradigm (6). I find this response problematic and have written an article calling for all possible support and encouragement to the “heretics” to try to prove the mainstream wrong, if at all possible (7). But the strong opposition continues and I have now written a second article describing and interpreting the response of the mainstream scientists (8). This year I propose to take the next logical step in my journey and that is to re-examine all our data on the wasps with an open mind to see how problematic kin selection really is and to what extent we can and need to turn to individual and/or group selection to better explain the behaviour of our wasps (9). This will complete a trilogy of sorts, if I may be so immodest as to use that word.

1. Gadagkar, R. (1997). *Survival strategies: cooperation and conflict in animal societies*. Cambridge, Mass.: Harvard University Press.
2. Gadagkar, R. (2001). *The social biology of Ropalidia marginata: toward understanding the evolution of eusociality*. Cambridge, Mass.: Harvard University Press.
3. Wilson, E. O. (1971). *The Insect Societies*. Cambridge, Mass.: Belknap/Harvard University Press,.
4. Nowak, M. A., C. E. Tarnita, and E. O. Wilson (2010). “The evolution of eusociality.” *Nature* 466: 1057–1062.
5. Wilson, E. O. (2012). *The Social Conquest of Earth*. New York: W. W. Norton.
6. Abbot, P. et al. (2011). “Inclusive fitness theory and eusociality.” *Nature* 471, 7339: E1–E4.
7. Gadagkar, R. (2010). “Sociobiology in turmoil again.” *Current Science* 99, 8: 1036–1041.
8. Gadagkar, R., [submitted]. “Can naïve biologists test controversial mathematical theory?”
9. Gadagkar, R. [in preparation]. “Evolution of social behaviour in the primitively eusocial wasp *Ropalidia marginata*: do we need to look beyond kin selection?”

LUCA GIULIANI

Rektor des Wissenschaftskollegs

Dr. phil., Professor für Klassische Archäologie

Humboldt-Universität zu Berlin

Geboren 1950 in Florenz

Studium der Klassischen Archäologie, Ethnologie und

Italienischen Literaturwissenschaft an der Universität Basel

und an der Ludwig-Maximilians-Universität München

SOKRATES ALS SATYR

Im Jahr 399 v. Chr. wurde der athenische Philosoph Sokrates wegen Missachtung der Götter (*asébeia*) vor Gericht gestellt und zum Tode verurteilt. Zwei oder drei Generationen später muss die Polis diese Hinrichtung bereut haben: Sokrates wurde rehabilitiert und erhielt eine öffentliche Statue. Aber es gab noch ein anderes Bildnis von ihm, das der Rehabilitierung vorausging: Es handelte sich vermutlich um eine Statue, die von seinen Schülern als Weihgeschenk in ein Heiligtum gestiftet wurde. Beide Bildnisse sind im Original verloren, aber von beiden besitzen wir Kopien aus der römischen Kaiserzeit; und beide zeigen den Philosophen mit den Gesichtszügen eines Satyrn.

In enger Beziehung dazu stehen zwei Dialoge, die denselben Titel tragen: *Sympósion* (Gastmahl). Der eine stammt von Platon, der andere von Xenophon. In beiden Dialogen wird (überraschenderweise) die Physiognomie des Sokrates thematisiert, und wieder geht es um dessen Ähnlichkeit mit einem Satyrn.

Das früheste Bildnis kann kaum älter als 387 sein, als Platon nach längerer Abwesenheit wieder nach Athen zurückkehrte. Die Zeitstellung der beiden Dialoge ist unklar und umstritten, aber mit an Sicherheit grenzender Wahrscheinlichkeit geht keiner von beiden der Errichtung der Bildnisstatue voraus. Es hat also den Anschein, als sei dieses satyrhafte Bild des Sokrates erst geraume Zeit nach dessen Tod entstanden, als vermutlich keiner sich mehr genau daran erinnern konnte, wie der reale Sokrates zu Lebzeiten genau ausgesehen hatte.

Aber unter welchen Umständen und mit welcher Absicht wurde Sokrates einem Satyr angeglichen? Welche Semantik wurde mit dieser Physiognomie verbunden und wie ist sie von den Zeitgenossen verstanden worden? In formaler Hinsicht sind die beiden Symposia etwas Neues, sie folgen keinem damals etablierten literarischen Genre. Warum dieser Bruch mit den literarischen Konventionen? Und gibt es irgendeine Beziehung zwischen diesem Bruch und dem Umstand, dass Sokrates mit dem Gesicht eines Satyrs dargestellt wird? Diese Fragen untersuche ich in einem gemeinsamen Projekt mit Maria Luisa Catoni (Fellow 2009/10).

Lektüreempfehlung

Giuliani, Luca. „Das älteste Sokrates-Bildnis: ein physiognomisches Porträt wider die Physiognomiker.“ *Freiburger Universitätsblätter* 35, 1996: 9–28; Nachdruck in: *Bildnisse. Die europäische Tradition der Porträtkunst*, herausgegeben von Wilhelm Schlink, 11–55. Freiburg/Breisgau: Rombach, 1997.

—. „Il ritratto.“ In *Una storia greca II: Definizione*, herausgegeben von Salvatore Settis, 983–1011. Torino: G. Einaudi, 1997.

STEPHEN GREENBLATT

Permanent Fellow of the Wissenschaftskolleg
Ph.D., The Cogan University Professor of the Humanities
Harvard University

Born in 1943 in Cambridge, Massachusetts
Studied English Literature at Yale University
and at Cambridge University

THE RISE AND FALL OF ADAM AND EVE

I am writing a book about the rise and fall of Adam and Eve, perhaps the greatest story ever told, or at least the story with the most far-reaching consequences. The account of the first man and the first woman – central to all three of the world’s monotheistic religions and the object of innumerable representations by painters, sculptors, and poets – was for thousands of years the dominant origin story of the human race. And, though we know it from Genesis, Adam and Eve’s fate cannot be understood only as a piece of religious ideology. Much older than Christianity and Islam and older even than any recognizable form of Judaism, it helped innumerable generations to explain to themselves who they were, where they came from, and why they were forced to work, bear children in pain, and suffer death.

That its credibility has collapsed in the modern age makes it possible – as it would not have been in the past – to understand it as an act of inspired storytelling, whose apogee came in the High Renaissance, and possible too to consider what it means to shift uncertainly, as we have done, toward a different story. To probe our relation to our own origins – our ways of imagining the *Australopithecus afarensis* “Lucy”, our understanding of our genetic inheritance, our intimation of the secret links that tie us to our primate ancestors – is to grapple with what it means to live now, on the other side of the great myth that once told us who we were.

Recommended Reading

Greenblatt, Stephen. *The Swerve: How the World Became Modern*. New York: W. W. Norton, 2011.

Greenblatt, Stephen, with Ines G. Županov, Reinhart Meyer-Kalkus, Heike Paul, Pál Nyíri, and Friederike Pannewick. *Cultural Mobility: A Manifesto*. Cambridge, Mass.: Cambridge University Press, 2009.

—. *Shakespeare: Freiheit, Schönheit und die Grenzen des Hasses*. Frankfurt/Main: Suhrkamp, 2007.

—. *Will in the World: How Shakespeare Became Shakespeare*. New York: W. W. Norton, 2004.

DIETER GRIMM

Permanent Fellow des Wissenschaftskollegs

Rektor des Wissenschaftskollegs (2001–2007)

Dr. Dr. h.c. mult., LL.M. (Harvard), Professor (em.) des Öffentlichen Rechts

Humboldt-Universität zu Berlin,

Bundesverfassungsrichter a. D.

Geboren 1937 in Kassel

Studium der Rechtswissenschaft und Politikwissenschaft in Frankfurt/Main,

Freiburg/Breisgau, Berlin, Paris und Harvard

VERFASSUNG UND VERFASSUNGSGERICHTSBARKEIT

Mehrere hundert Jahre lang war öffentliche Gewalt identisch mit Staatsgewalt. Dementsprechend entstand die Verfassung, die die öffentliche Gewalt organisiert, legitimiert und limitiert, als Staatsverfassung. Die Identität von öffentlicher Gewalt und Staatsgewalt ist mittlerweile entfallen. Öffentliche Gewalt wird auch jenseits des Staates von supranationalen Organisationen ausgeübt. Die Staatsverfassung erfasst daher die auf dem Territorium des Staates wirkende öffentliche Gewalt nur noch teilweise. Äußerlich seit der säkularen Wende von 1989/90 auf ihrem Höhepunkt angekommen, ist die Verfassung innerlich einer Erosion ausgesetzt. Zentrale Begriffe und Funktionen der Verfassung müssen daher neu definiert werden. Zugleich stellt sich die Frage nach der Legitimierung und Limitierung derjenigen öffentlichen Gewalt, die von supranationalen Organisationen ausgeübt wird. Ist sie ebenfalls nach Art der Verfassung regulierbar oder müssen in Bezug auf sie neue Formen rechtlicher Begründung und Begrenzung entwickelt werden? Darüber besteht alles andere als Klarheit. Auch insoweit gibt es also Klärungsbedarf, ebenso wie hinsichtlich des Verhältnisses von traditioneller Staatsverfassung und neuartigen Regulierungen der nicht staatlichen öffentlichen Gewalt.

Zugleich mit der weltweiten Verbreitung der Verfassung hat sich in der zweiten Hälfte des 20. Jahrhunderts auch die Verfassungsgerichtsbarkeit als Mittel zur Gewährleistung der Verfassung gegenüber der Politik weltweit

durchgesetzt. Verfassungsgerichtsbarkeit ist heute ein integraler Bestandteil des Konstitutionalismus. Beide müssen zusammen gesehen werden. Über Erfolgsbedingungen der Verfassungsgerichtsbarkeit ist allerdings noch wenig bekannt. Auch ihre Bewertung differiert stark. Während sie in den USA vornehmlich unter dem Gesichtspunkt der Bedrohung von Demokratie diskutiert wird, gilt sie in den jüngeren Demokratien als Garant von Demokratie. Zudem ist mit der Internationalisierung öffentlicher Gewalt auch ein Anteil der Verfassungsgerichtsbarkeit auf internationale Gerichte übergegangen. Im Unterschied zu nationalen Gerichten operieren sie jedoch unter anderen Bedingungen und in einem anderen Kontext. Ihre Einbindung in einen kontinuierlichen Diskussionszusammenhang und ihre Rückkopplung an die Gemeinschaft, für die sie Recht sprechen, ist wesentlich geringer als bei staatlichen Gerichten. Welche Folgen hat das für die Ausübung der richterlichen Funktion auf supranationaler Ebene?

Die Antworten auf diese Fragen verlangen eine vergleichende Verfassungslehre, die aber erst in ihren Anfängen steht. Darum geht es mir bei den Forschungen am Wissenschaftskolleg.

Lektüreprüfung

Grimm, Dieter. „The Achievement of Constitutionalism and its Prospect in a Changed World.“ In *The Twilight of Constitutionalism?* Herausgegeben von Petra Dobner and Martin Loughlin, 3–22. Oxford: Oxford University Press, 2010.

—. *Souveränität*. Berlin: Berlin University Press, 2009.

—. *Die Zukunft der Verfassung*. Frankfurt/Main: Suhrkamp, 3. Aufl., 2002.

—. *Die Verfassung und die Politik*. München: C. H. Beck, 2001.

—. „Braucht Europa eine Verfassung?“ *Juristenzeitung* (1995): 581–591.

ONUR GÜNTÜRKÜN

Dr. phil., Professor of Biopsychology
Ruhr-Universität Bochum

Born in 1958 in Izmir, Turkey

Studied Psychology at the Ruhr-Universität Bochum

THE PARALLEL EVOLUTION OF COGNITION

In short, my question is the following: Is it possible that the capacity for complex cognition arose several times during evolution such that groups of non-mammalian animals might have developed as-yet unknown brain mechanisms that generate intelligent behavior?

Until very recently, scientists thought that the emergence of the mammalian neocortex was a *conditio sine qua non* for complex cognition. We meanwhile know that, to some extent, this view is wrong. Studies of the last two decades revealed that corvids, in particular, are cognitively on a par with apes. In addition, birds have brains whose size in proportion to their bodies resembles that of mammals; thus, the detailed architecture of the neocortex does not seem to generate a computational advantage that surpasses the capacity of the non-cortical avian forebrain. Taken together, birds and mammals convergently developed two differently organized forebrains that generate similar cognitive abilities.

My plan is to seek answers to the following question: Can we understand the evolution of complex cognitive abilities by comparing the evolutionary brain changes between a) mammals and birds in general and b) between primate and non-primate mammals, on the one hand, and corvid and non-corvid birds, on the other?

Research: First, I will carry out a comparative literature study on the evolution of the absolute and relative size of the bird and mammalian forebrain. Integrating data from allometric studies that span four decades of research, I plan to test whether the enlargement of associative forebrain structures could be a common evolutionary strategy for the emergence of intelligence. Second, I will

review the literature for cognitive tests that are suitable to tap cognitive core functions in different species. I plan to concentrate on four areas: a) stimulus-response vs. stimulus-outcome learning; b) withholding of actions vs. fast exploitation; c) flexible response switches vs. stability of responses; d) focusing attention vs. monitoring the environment.

By doing all this, I hope that my stay at the Wissenschaftskolleg zu Berlin will contribute to developing a new theory of the evolution of brains and complex cognitive abilities.

Recommended Reading

Güntürkün, Onur. "The convergent evolution of neural substrates for cognition." *Psychol. Res.* 76 (2012): 212–219.

Prior, H., A. Schwarz and O. Güntürkün. "Mirror-induced behaviour in the magpie (*Pica pica*): Evidence for self-recognition." *PLoS Biol.* 6 (2008): e202.

Güntürkün, Onur, E. D. Jarvis, et al. "Avian brains and a new understanding of vertebrate brain evolution." *Nat. Rev. Neurosci.* 6 (2005): 151–159.

TSERING GYALPO

Professor of Religion

Director, Institute of Religious Studies of the Tibet Academy of Social Sciences,
Lhasa

Born in 1961 in Langchu district, Gar County, Ngari Prefecture, Tibet

Studied Tibetan History at the Chinese Academy of Social Sciences, Beijing

CULTURAL HISTORY OF WESTERN TIBET

Focus Group *Tibetan Genealogies* (see p. 118)

During my stay at the Wissenschaftskolleg, I intend to work on the following:

1. Ethno-historical survey on the Buddhist cave temples of Guge (Western Tibet) and their mural paintings;
2. Several articles on the history of Western Tibet, 10th and 11th centuries (Zhang-zhung kingdom, Guge kingdom, Ladach Kingdom and Zang-kar kingdom);
3. Studies of folk customs (marriage song lyric, hunting culture, nomadic new year ceremony) and religion in Western Tibet.

Recommended Reading

Gyalpo, Tsering. *Mnga'ris chos 'byung gangs ljongs mdzes rgyan zhes bya ba bzhugs so* [English: The religious history of Mngaris]. Lhasa: Bod ljongs mi dmangs dpe skrun khang [Tibetan People's Publishing House], 2006.

Gyalpo, Tsering and Christian Jahoda, eds. *Khorchag*. [Kuojiia Monastery: An Overview of Its History and Culture]. Lhasa: Bod ljongs bod yig dpe rnying dpe skrun khang [Old Tibetan Books Publishing House], 2012 (Studies and Materials on Historical Western Tibet, vol. I).

Gyalpo, Tsering, Guntram Hazod and Per K. Sørensen. *Civilization at the Foot of Mount Sham-po: The Royal House of lHa Bug-pa-can and the History of g.Ya'-bzang*. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2000.

BARBARA HAHN

Dr. phil., Distinguished Professor of German Literature and Culture
Vanderbilt University Nashville, Tennessee

Geboren 1952 in Esslingen

Studium der Germanistik, Philosophie und Geographie an der Technischen
Universität Berlin, der Freien Universität Berlin und der Philipps-Universität
Marburg

1. IM TRAUM: STREIFZÜGE DURCH DAS 20. JAHR- HUNDERT

2. „DASS ES VIELE SPRACHEN GIBT“: HANNAH ARENDT ZWISCHEN DEUTSCHLAND UND AMERIKA

Zu 1. Das vergangene Jahrhundert hat uns ein seltsames Erbe hinterlassen: Zahllose Traumnotate, knappe, oft recht karge Aufzeichnungen, zu finden in Briefen und Tagebüchern, in Autobiografien und Romanen. In diesen Geschichten verbirgt sich etwas, das unbedingt weitergegeben werden musste. Sie stehen nicht in der Tradition, die Sigmund Freud am Anfang des vergangenen Jahrhunderts stiftete. In seiner *Traumdeutung* fragen Träume nach einem anderen Text: Sie wollen aufgeschlüsselt sein. Traumnotate ohne Deutung führen in andere Welten; in ihnen zeigen sich Konturen einer verborgenen Geschichte, an der viele, viele mitgeschrieben haben. Im unausgesprochenen Einverständnis, dass im Modus des „Traums“ etwas Unabdingbares mitteilbar wird. Die Träumer sind wacher im Traum. In der Traumwelt finden sie Szenen und Bilder, die auf das verweisen, was sich jeder Darstellung entzieht. Für viele bot das vergangene Jahrhundert nichts weiter als ein Leben im Albtraum; es zwang sie in Wirklichkeiten, von denen sich vorher niemand hätte träumen lassen. In fünf Zugängen versucht das Buch, diesen seltsamen Texten Raum zu geben. Das Träumen, so zeigt sich, hat an der Geschichte teil, wie Walter Benjamin im Pariser Exil schrieb.

Zu 2. Den Deutschen fehle ein „Sinn für Politik“, den Amerikanern „ein leichter Dunst auch nur von Philosophie“, so Hannah Arendt in einem Brief an Karl Jaspers. Um dem zu begegnen, schrieb Arendt für Öffentlichkeiten, die unterschiedlicher nicht hätten sein können: Fast alle Bücher und Aufsätze, die sie nach dem Krieg verfasste, sind in beiden Sprachen überliefert, wobei die Fassungen durchaus keine Übersetzungen sind. Werden sie im Hin und Her der Sprachen gelesen, zeigt sich, wie entschieden Arendt daran arbeitete, den Deutschen politisches, den Amerikanern philosophisches Denken zu eröffnen. Das eine erwies sich so unabdingbar wie das andere.

Lektüreprüfung

Hahn, Barbara, Hg. *Rahel. Ein Buch des Andenkens für ihre Freunde*. 6 Bde. Göttingen: Wallstein-Verlag, 2011, 2. Aufl.: 2011.

—. *Hannah Arendt: Leidenschaften, Menschen und Bücher*. Berlin: Berlin-Verlag, 2005. Taschenbuchausgabe: Berliner Taschenbuch-Verlag, 2007.

—. *Die Jüdin Pallas Athene: Auch eine Theorie der Moderne*. Berlin: Berlin-Verlag, 2002. Taschenbuchausgabe: Berliner Taschenbuch-Verlag, 2005. Englische Ausgabe: *The Jewess Pallas Athena: This Too a Theory of Modernity*. Princeton, N.J.: Princeton University Press, 2005.

DAVID M. HALPERIN

Ph.D., W. H. Auden Distinguished University Professor of the History and Theory of Sexuality and Professor of English
University of Michigan, Ann Arbor

Born in 1952 in Chicago

Studied Classics at Oberlin College and Stanford University

WHAT IS SEX FOR?

Does sex have any erotic purpose? Does it advance the lover's goal? Is sex what the lover really wants? The greatest philosophers of classical antiquity, Plato and Aristotle, said no. I examine their arguments and I connect them with a tradition of pre-modern erotic theory that did not see desire as sexual in nature or as rooted in sexuality. My aim is to contest the modern interpretations of love, including but not limited to psychoanalytic interpretations, that understand love in reductively sexual terms and that view all erotic desire as an expression of sexuality. For this purpose, I consider some contemporary writing, especially gay male writing, which I read as a singular effort to work through the confusions and the anguish that the modern sexualization of erotic desire has bequeathed to us.

Recommended Reading

Halperin, David M. *How to Be Gay*. Cambridge, Mass.: Belknap/Harvard University Press, 2012.

—. *How to Do the History of Homosexuality*. Chicago: University of Chicago Press, 2002.

—. *Saint Foucault: Towards a Gay Hagiography*. New York: Oxford University Press, 1995.

GUNTRAM HAZOD

Dr. phil. habil., Sozialanthropologie

Institut für Sozialanthropologie, Österreichische Akademie der Wissenschaften,
Wien

Geboren 1956 in Wels (Oberösterreich)

Studium der Sozialanthropologie, Tibetologie und Buddhismuskunde an der
Universität Wien

PARADIESE IN DER LANDSCHAFT: DIE HÜGELGRÄBER IM FRÜHEN ZENTRALTIBET

Schwerpunkt *Tibetische Genealogien* (s. S. 118)

Ich beabsichtige ein Buch zu schreiben, das wichtige Teile meiner jahrelangen Grundlagenforschung zu den frühmittelalterlichen tibetischen Hügelgräbern zusammenfasst (4.–10. Jh. u.Z.). Die der Forschung vielfach noch unbekanntem Tumulusfelder in den alten zentraltibetischen Territorien sind spektakuläre Monumente der vorbuddhistischen Geschichte des Landes. Text, Ethnografie und eine Analyse, die Bestattungsanthropologie und Anthropologie der Landschaft kombiniert, bilden die methodischen Zugänge zur Untersuchung dieser Bestattungsform, zu der es nur wenig grabungsarchäologische Daten gibt. Die Gräber sind in die Landschaft eingeschriebene Repräsentationen des in alten Quellen als „Land der Freude“ (*gayül*) beschriebenen Paradieses und Bestimmungsortes des Verstorbenen, wohin dieser auf rituelle Weise (und im Fall gesellschaftlicher Elite von reichen Gaben begleitet) geführt wurde. Mit der Etablierung des Buddhismus im Hochland (ab dem 10. Jahrhundert) verschwand diese mit älteren euroasiatischen Steppenkulturen verwandte Grabtradition, blieb aber indirekt weiter existent in Form einer teilweisen Integration der Anlagen in die spätere buddhistische Klassifikation der Landschaft. Diese Beobachtung vom Wandel in der Nutzungsgeschichte von Monumenten bildet den Anlass zu einer Diskussion von „Identität“, die ich in diesem

Zusammenhang aufgreifen möchte. Sie erörtert den Sachverhalt konkreter historischer Genealogien von Zeugnissen einer älteren Tradition in Relation zur Geschichte wechselnder Diskurse von Zugehörigkeiten in kultureller, religiöser, ethnischer oder auch nationaler Hinsicht.

Lektüreempfehlung

Hazod, Guntram (mit Per K. Sørensen und Tsering Gyalbo). *Rulers on the Celestial Plain: Ecclesiastic and Secular Hegemony in Medieval Tibet. A Study of Tshal Gung-thang*, 2 Bde. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2007.

—. „Imperial Central Tibet – An Annotated Cartographical Survey of its Territorial Divisions and Key Political Sites.“ In *The Old Tibetan Annals. An Annotated Translation of Tibet's First History*, herausgegeben von Brandon Dotson und Guntram Hazod, 161–232. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2009.

—. „Wandering Monuments: The Discovery of the Place of Origin of the Shöl Stele of Lhasa.“ *Orientalia* 41, 3 (April 2010): 31–36.

—. „The Plundering of the Tibetan Royal Tombs: An Analysis of the Event in the Context of the Uprisings in Central Tibet of the 9th/10th Century.“ In *Tibet After Empire: Culture, Society and Religion between 850–1000*, herausgegeben von Christoph Cüppers, Robert Mayer und Michael Walter, 85–115. Lumbini: Lumbini International Research Institute, 2014 (LIRI Seminar Proceeding Series vol. 4).

JAN-HENDRIK HOFMEYR

Ph.D., Distinguished Professor of Biocomplexity and Biochemistry
Stellenbosch University, South Africa

Born in 1953 in Durban, South Africa

Studied Biochemistry and Microbiology at Stellenbosch University

FRAGILE, YET PERSISTENT: SELF-FABRICATION AS THE KEY TO LIFE

The question of what distinguishes living organisms from non-living objects, or, more poetically, what separates the quick from the dead, is a deep biological problem that has been central to my research of the last decade. My approach has been influenced by the work of Robert Rosen, Howard Pattee, John von Neumann, Humberto Maturana, Francisco Varela and Marcello Barbieri. In my view, the fundamental distinguishing feature of life is the ability of organisms to continuously make themselves: in order to persist despite the fragility of its components, the cell must be able to autonomously fabricate all of them.

I plan to write a monograph in which I trace the history of the concept of self-fabrication and provide a critique of the various models that claim to capture its essence, especially the proposed simulations of Rosen's metabolism-repair systems. The main aim of the book is to propose a new formal model of the living cell that incorporates three features that are generally accepted as necessary for life: a functional organisation that ensures self-fabrication, a molecular form of self-representation that can be copied, and an organic coding system that decodes the self-representation into functional cell components.

Cells use a single, conceptually straightforward chemical process – polymerisation – to create large, linear molecules that fold themselves into functional, three-dimensional structures that can self-assemble into higher-order structures. The question is whether the choice of sequence construction by concatenation has logical consequences for self-fabrication. To answer this, I have created a formal language based on a structural hierarchy of letters, words, sentences and

paragraphs that are analogous to chemical elements, metabolites, macromolecules and macromolecular assemblies. With this linguistic model I can describe a formal system that has the ability to write its own production rules, making it, in Rosen's terms, closed to efficient causation and therefore self-fabricating. The internal logic of the model requires features that map onto phenomena such as protein folding and the unassisted self-assembly of macromolecular complexes, which I have argued are what makes life as we know it possible.

Recommended Reading

Hofmeyr, J.-H. S. (2007). "The biochemical factory that autonomously fabricates itself: A systems-biological view of the living cell." In *Systems Biology: Philosophical Foundations*, edited by F. C. Boogerd, F. J. Bruggeman, J.-H. S. Hofmeyr, and H. V. Westerhoff, 217–242. Amsterdam: Elsevier. (http://glue.jjj.sun.ac.za/~jhsh/FEBS-SysBio2007/SBPF_Hofmeyr_20-01-07.pdf)

Wolkenhauer, O. and J.-H. S. Hofmeyr (2007). "An abstract cell model that describes the self-organization of cell function in living systems." *J. Theor. Biol.* 246: 461–476.

Hofmeyr, J.-H. S. and A. Cornish-Bowden (2000). "Regulating the cellular economy of supply and demand." *FEBS Lett.* 476: 47–51.

JOHANNES JÄGER

Ph.D., Genetics

Centre for Genomic Regulation, Barcelona

Born in 1973 in Chur, Switzerland

Studied Biology at the University of Zurich, the University of Basel, the Schumacher College, Totnes, UK, and Stony Brook University, New York

THE EVOLUTION OF REGULATORY SYSTEMS

Focus Group *Gene Regulation and Organismal Diversity* (see p. 116)

All organisms differ from each other. But not in random ways. Some changes in the way we look, grow, or behave are more frequently observed than others. In fact, many imaginable biological shapes and processes never seem to occur at all. In many cases, we can explain this phenomenon by adaptation through natural selection: certain solutions simply work better than others in a given environment. But other instances are hard to explain. For example, why are there no six-limbed vertebrates with arms, legs, *and* wings? In other words, why are there no angels? It would be very advantageous to have an additional pair of limbs, wouldn't it? Indeed, insects show this sort of arrangement and seem to be very successful with it. The answers to these kinds of questions lie in the way our bodies are built, in the way we grow. But since the times of Darwin, we have made only modest progress in understanding how the complex processes of development from egg to adult shape and change the course of evolution. My research forms part of a discipline called evolutionary developmental biology that attempts to address these problems. We use a combination of experimental work – both genetic and molecular –, computer simulations, and mathematical analysis to study how genes influence the growth of different species of flies, and how the way these genes switch each other on or off during development changes the speed and direction of evolution in these insects. This sort of question lies at the very heart of modern biology. Understanding the non-random

effects of random genetic changes is not only necessary to gain deeper insights into the development and evolution of animals and plants, but also to understand the causes and potential treatments of complex genetic disease. During my year at the Wiko, I will work on developing the mathematical and conceptual tools we need for the analysis of our computer models, and, more generally, for understanding the interplay between development and evolution.

Recommended Reading

Jaeger, J., D. Irons, and N. Monk (2012). “The inheritance of process: a dynamical systems approach”. *J Exp Zool B Mol Dev Evol* 318, 8: 591–612.

Jaeger, J. and A. Crombach (2012). “Life’s attractors: understanding developmental systems through reverse engineering and *in silico* evolution.” In *Evolutionary Systems Biology*, edited by Orkun S. Soyer. New York: Springer Science+Business Media.

Jaeger, J., S. Surkova, M. Blagov, H. Janssens, D. Kosman, K. N. Kozlov, Manu, E. Myasnikova, C. E. Vanario-Alonso, M. Samsonova, D. H. Sharp, and J. Reinitz (2004). “Dynamic control of positional information in the early *Drosophila* embryo.” *Nature* 430, 6997: 368–371.

ANDREA KERN

Dr. phil., Professorin der Philosophie
Universität Leipzig

Geboren 1968 in Heilbronn

Studium der Philosophie, Germanistik und Theater- und Filmwissenschaften
an der Freien Universität Berlin, der Ruhr-Universität Bochum und der
Université Paris I Panthéon-Sorbonne

DIE ANTHROPOLOGISCHE DIFFERENZ

Die zeitgenössische Diskussion um die Frage, was den Menschen vom Tier unterscheidet, ist in zwei unbefriedigenden Alternativen gefangen: der Position des Assimilationismus, der nur einen graduellen Unterschied sieht, und der Position des Differentialismus, der eine grundsätzliche Differenz behaupten möchte, indem er versucht, eine allein den Menschen auszeichnende Fähigkeit zu identifizieren. Meinem Forschungsprojekt liegt die Hypothese zugrunde, dass wir dieses Dilemma auflösen können, wenn wir uns auf den Gedanken einlassen, dass das, was den Menschen vom bloßen Tier unterscheidet, nicht eine bestimmte Fähigkeit ist, die beim Menschen hinzukommt und ihn zu Dingen befähigt, die den anderen Tieren versagt sind. Der Unterschied zwischen Mensch und Tier besteht vielmehr in einer anderen Art und Weise der *Einheit* aller Fähigkeiten.

Mit dieser Annahme geht der Vorschlag einher, dass der Begriff der Vernunft, der in den klassischen philosophischen Bestimmungen des Menschen – als *animal rationale* – verwendet wird, um den Menschen auszuzeichnen, nicht so verstanden werden sollte, als benenne er eine hinzukommende Fähigkeit. Der Begriff der Vernunft, so würde aus unserer Hypothese folgen, bezeichnet in diesen Bestimmungen keine bestimmte Fähigkeit, die das Tier, welches der Mensch ist, hat: und zwar weder eine Fähigkeit, die ihn über das Tiersein erhebt, noch eine Fähigkeit, die bei ihm einen höheren Grad der Komplexität hat als bei anderen Tieren. Der Begriff der Vernunft bezeichnet vielmehr eine

genuine *Form des Tierseins*. Er beschreibt die *Art und Weise*, wie der Mensch als Tier lebt.

Lektüreempfehlung

Kern, Andrea. *Quellen des Wissens: Zum Begriff vernünftiger Erkenntnisfähigkeiten*. Frankfurt: Suhrkamp, 2006.

—. *Schöne Lust: Eine Theorie der ästhetischen Erfahrung nach Kant*. Frankfurt: Suhrkamp, 2000.

—. „Knowledge as Fallible Capacity.“ In *Conceptions of Knowledge*, herausgegeben von Stefan Tolksdorf, 215–244. Berlin: de Gruyter, 2011.

BRANDON KILBOURNE

from September 2014 to March 2015

Fellow of the College for Life Sciences (see p. 121)

Ph.D., Functional Anatomy and Evolutionary Biology

Friedrich-Schiller-Universität Jena

Born in 1983 in Houma, Louisiana

Studied Evolutionary Biology at the University of Chicago and

Biological Engineering at Louisiana State University

LOCOMOTING INTO NEW NICHES: EVOLUTION AND ADAPTATIONS IN THE MAMMALIAN LOCOMOTOR SYSTEM

The longevity of species lineages inherently depends upon adapting to changing environments and ecosystems, making adaptations a cornerstone for understanding biodiversity past and present. Yet how are adaptations achieved? My research aims to understand this by combining functional anatomy and applied systematics to study mammal locomotion – two fields not unrelated but at the same time seldom integrated in a comprehensive manner. Functional anatomy concentrates on how anatomical traits underpin biomechanical function, whereas applied systematics uncovers how biological traits have diversified individually and alongside each other, combining phylogenetic relationships among species with models of evolutionary processes. Mammalian locomotor anatomy presents an ideal system in which to study the evolution of functional traits, as locomotion is a vital aspect of mammalian biology. As a Fellow, I will investigate whether anatomical diversity in limb size and shape in terrestrial mammals is associated with functional specializations of limbs for climbing, digging, swimming, and running. I will use phylogenetic comparative methods – statistical methods incorporating phylogenetic data – to model whether differing functions constitute actual selective pressures acting on body size, limb mass, and limb length across eight major mammalian lineages. I also will start

examining anatomical diversity within the limb skeleton of the *Mustelidae* (e.g., badgers, weasels, otters, and their kin), an ecologically and functionally diverse group of mammals with a recent origin in geologic time. Working with colleagues at the Museum für Naturkunde Berlin, we will begin building a dataset on bone external geometry and cross-sectional properties to determine whether anatomical diversity in the mustelid limb skeleton is a consequence of conserved vs. shifting ecological niches. By examining suites of anatomical traits, I hope to elucidate how combinations of traits act to form adaptations.

Recommended Reading

Kilbourne, B. M. and L. C. Hoffman (2013). “Scale effects between body size and limb design in quadrupedal mammals.” *PLoS ONE* 8: e78392.

doi: 10.1371/journal.pone.0078392

Kilbourne, B. M. (2013). “On birds: scale effects in the neognath hindlimb and differences in the gross morphology of wings and hindlimbs.” *Biological Journal of the Linnean Society* 110: 14–31.

Kilbourne, B. M. and P. J. Makovicky (2012). “Postnatal long bone growth in terrestrial placental mammals: allometry, life history, and organismal traits.” *Journal of Morphology* 273: 1111–1126.

MICHAEL KRÜGER

von Februar bis April 2015

Dr. h.c., Schriftsteller, Verleger, Übersetzer

Präsident der Bayerischen Akademie der Schönen Künste, München

Geboren 1943 in Wittgendorf, Sachsen

Ausbildung zum Buchhändler in Berlin

TESTAMENT (ROMAN)

Ein Roman, der herausfinden will, was einem wirklich gehört.

Lektüreempfehlung

Krüger, Michael. *Umstellung der Zeit*. Gedichte. Berlin: Suhrkamp, 2013.

—. *Die Turiner Komödie: Bericht eines Nachlaßverwalters*. Roman. Frankfurt/Main: Suhrkamp, 2005.

—. *Die Cellospielerin*. Roman. Frankfurt/Main: Suhrkamp, 2000.

ADEN KUMLER

Ph.D., Associate Professor of Art History
University of Chicago

Born in 1974 in Cambridge, Massachusetts

Studied Humanities at the University of Chicago, Medieval Studies at the
University of Toronto, History of Art and Architecture at Harvard University,
and Mediaeval Studies at PIMS, University of Toronto

THE MULTIPLICATION OF THE SPECIES: MEDIEVAL ECONOMIES OF FORM, ACCIDENT, AND SUBSTANCE

In the European Middle Ages, the coin, the seal, and the Eucharistic host (communion wafer) were artfully produced in multiples by processes involving forms of mechanical mediation that carefully choreographed the absence and presence of the human hand. In the book I will write at the Wissenschaftskolleg, I take these three auratic objects, each produced by indexical means, as a point of departure from which to explore the power of artifice, processes of making, and the appearance of things in the Middle Ages and, by extension, in the practice of art history.

Medieval coins, seals, and hosts were both overtly and implicitly associated with each other by virtue of their facture and appearance; and the three object types were often juxtaposed suggestively, even provocatively, in the period's habits of thought, its material practices, and its works of art. Taken together – as they so often were in medieval theory and practice – these serial, round, low-relief, monochromatic objects offer a powerful opportunity to examine the relationship between the singular and the multiple, between substance and appearance, and between ways of making and the efficacy of things made in medieval culture.

Rather than proposing a totalizing account or theory of “medieval multiplicity”, I instead attend to the manifest historical variation in how these three medieval multiples were produced, encountered, and theorized from the sixth

through the fifteenth centuries. The title of my book deliberately evokes Roger Bacon's *De multiplicatione specierum*, a late medieval account of how human beings come to knowledge through their senses and internal faculties (apperception). For Bacon and many other medieval thinkers, apperception was a process involving the emission and reception of species – understood as informing forms – constantly multiplying across physical, physiological, cognitive, and metaphysical thresholds. Exploring how the facture, circulation, perception, and conception of coins, seals, and the Eucharist did crucial conceptual work over the course of the Middle Ages, my project aims to lay bare the powerful part that object multiples played in shaping Western medieval culture and, in so doing, to propose a critically revised and reinvigorated vision of the work of the human hand – of art and artifice – in our accounts of the period.

Recommended Reading

Kumler, Aden. *Translating Truth: Ambitious Images and Religious Knowledge in Late Medieval France and England*. New Haven, Conn.: Yale University Press, 2011.

—. “The Multiplication of the Species: Eucharistic Morphology in the Middle Ages.” *RES: Anthropology and Aesthetics* 59/60 (2011): 179–191.

—. “‘The Genealogy of Jean le Blanc’: Accounting for the Materiality of the Medieval Eucharist.” In *The Matter of Art: Materials, Technologies, Meanings, c. 1250–1650*, edited by Christy Anderson, Anne Dunlop, and Pamela Smith. Manchester University Press, in press.

SHIGEHISA KURIYAMA

Ph.D., Reischauer Institute Professor of Cultural History
Harvard University

Born in 1954 in Marugame, Japan

Studied East Asian Studies and History of Science at Harvard University

1. A PRINT BOOK ON *THE MYSTERY OF PRESENCE*

2. AN E-BOOK ON *REIMAGINING THE HISTORY OF THE BODY*

Ad 1. My print book on *The Mystery of Presence* will draw attention, on the one hand, to the critical, but under-recognized importance of intuitions of “presence” for the history of medicine, and on the other hand, to the entwinement, in European cultural history, of intuitions of presence with the imagination of the tautly stretched string.

Ad 2. My e-book on *Reimagining the History of the Body* will offer a fresh vision of the comparative history of medicine and articulate this vision in a new medium. For most of the twentieth century, narratives of East Asian and European conceptions of the body have chiefly emphasized differences; my project, by contrast, will spotlight neglected historical interconnections and unnoticed modern convergences. My project will center, furthermore, on the intensive use of digital media. The goal is the creation of a “book” that fully exploits the possibilities of multimedia exposition, blending text with spoken speech, moving images and graphic animation, music and other sounds into an intellectual adventure that incorporates elements of chance and game-like challenge. I thus seek not only to communicate a new interpretation of medical history, but also to expand the horizons of scholarly communication.

Recommended Reading

Kuriyama, Shigehisa. *The Expressiveness of the Body and the Divergence of Greek and Chinese Medicine*. New York: Zone Books, 1999.

—. “When Money Became Humour.” In *The Body in Balance; Humoral Medicines in Practice*, edited by Peregrine Horden and Elisabeth Hsu, 69–85. New York: Berghahn, 2013.

—. “The Forgotten Fear of Excrement.” *Journal of Medieval and Early Modern Studies* 38 (2008): 413–442.

FRANÇOISE LAVOCAT

Dr., Professor of Comparative Literature, and President, Société Française de Littérature Générale et Comparée (SFLGC)
Université Paris 3 Sorbonne Nouvelle

Born in 1961 in Lille, France

Studied Comparative Literature at the École Normale Supérieure and the Université Paris 7 Denis Diderot

CATASTROPHES, MEMORY, AND HISTORY IN MODERN EUROPE

My book project is devoted to the role of natural disasters in the formation of collective memory in Europe on the local, national, supranational levels. This enquiry, which focuses on the early modern period, will also extend into the 19th century.

As a number of contemporary sociologists, philosophers, and political scientists have pointed out and even criticized, the 21st century sees a renewal of a *catastrophisme* that models our relation to the present. With my examination of how and why we historicize natural disasters in the modern era, I hope to relocate the questions raised by the contemporary context.

The drive to record catastrophes as historic events in the collective memory becomes evident at the beginning of the 17th century. It manifests itself in the appearance of a number of important historical accounts and in the construction of commemorative monuments. This inscription in long-term collective history happens thanks to numerous editions and re-editions of former accounts, sometimes recycled in fiction.

To transform a natural disaster into a historic event susceptible of being celebrated is to confer a meaning upon it. I will show the ideological stakes of this process and how the universal and repetitive dimension of catastrophe enables us in the modern era to forge a collective awareness encompassing a space broader than the particular point of the catastrophe. Fiction contributes power-

fully to this encompassing process by investing the catastrophe with an ethical and empathetic dimension.

The study of the different means employed in the structuring of the catastrophe as an event, beginning in the 17th century, remains relatively unexplored. This project will open new avenues of research by connecting the appearance of an aesthetic approach with a new relationship to a multidimensional history (sacred, secular, natural, human, local, national, European, planetary).

Recommended Reading

Lavocat, Françoise. *Arcadies malheureuses, aux origines du roman moderne*. Paris: Champion, 1998.

—. *La Syrinx au bûcher. Pan et les satyres à la Renaissance et à l'âge baroque*. Geneva: Droz, 2005.

—. "Narratives of Catastrophe in the Early Modern Period: Awareness of Historicity and Emergence of Interpretative Viewpoints." *Poetics Today* 33, 3 (2013): 254–299.

VERONICA LAZAR

Dr., Philosophie

Université « Babes-Bolyai », Cluj

Née en 1984 à Beius, Roumanie

Études de Philosophie à l'Université « Babes-Bolyai », Cluj

ROUSSEAU RÉVOLUTIONNE L'HISTOIRE. RECHERCHE SUR LA CONTRIBUTION ROUSSEAUISTE À LA PHILOSOPHIE DE L'HISTOIRE

Si Rousseau révolutionne la pensée politique, sa principale innovation consiste dans l'articulation d'une généalogie historique de l'individu et de l'espèce humaine avec un renversement épistémologique des catégories analytiques propres aux théories politiques de son temps, une méthode indissociable de sa pensée sur l'historicité et sur la contingence de la société et la possibilité hypothétique d'une intervention politique correctrice.

Mieux encore, c'est la double articulation de l'axe de la *société* avec l'axe de *l'histoire* qui permet à sa pensée d'agir comme une critique interne des Lumières mêmes, en dressant une déconstruction de deux formes opposées, mais solidaires et complémentaires, de ce qu'on pourrait appeler *pensée abstraite* : une forme d'essentialisme – qu'on retrouve dans diverses références théoriques à l'état de nature, à la raison originaire, aux droits qui en dérivent etc. – et une forme de constructivisme social et politique, voire même de volontarisme.

Cette grande découverte rousseauiste de l'histoire en tant qu'explication fondamentale de la structure dynamique de la société (et non pas comme illustration d'un principe transcendant, ni comme généalogie légitimatrice d'un droit, car telles étaient les fonctions de l'écriture historique traditionnelle) est la base d'un nouveau matérialisme, cette-fois-ci un matérialisme social et historique distinct du matérialisme naturaliste de son époque, et qui anticipera les sciences sociales modernes.

Lecture recommandée :

Lazar, Veronica. « Origine et histoire dans le *Discours sur l'origine de l'inégalité*. » *Studia Universitatis Babeș-Bolyai* 3, 2012 (Seria philosophia).

WOLF LEPENIES

Permanent Fellow (em.) des Wissenschaftskollegs
Rektor des Wissenschaftskollegs (1986–2001)
Dr. Dr. h.c., Professor (em.) der Soziologie
Freie Universität Berlin

Geboren 1941 in Deuthen, Allenstein, heute Polen
Studium der Soziologie, Philosophie und Publizistik
in München, Münster und Berlin

DER EUROPÄISCHE HIMMELSRICHTUNGSSTREIT

Ich arbeite an einem buchlangen Essay, in dem der (neu belebte) europäische Ost-West-Konflikt mit dem (sich noch verschärfenden) Nord-Süd-Konflikt in Verbindung gebracht wird. Das Mittelmeer und die auf das Mittelmeer gerichtete Politik Frankreichs, die zeitweise mit der Absicht zur Gründung eines „Lateinischen Reiches“ verbunden war, spielen dabei eine zentrale Rolle.

Lektüreempfehlung

Lepenies, Wolf. *Qu'est-ce qu'un intellectuel européen? Les intellectuels et la politique de l'esprit dans l'histoire européenne*. Paris: Editions du Seuil, 2007.

SIBYLLE LEWITSCHAROFF

Schriftstellerin

Berlin

Geboren 1954 in Stuttgart

Studium der Soziologie und Religionswissenschaften an der
Freien Universität Berlin

DAS PFINGSTWUNDER (ROMAN)

Der Roman spielt in Rom im Jahre 2013. Danteforscher und Danteübersetzer aus verschiedenen Ländern sind an Pfingsten zu einem Kongress in Rom zusammengekommen. Über die entgeisterten Danteforscher bricht ein neues Pfingstwunder herein. Sie reden, sie schwatzen nun urplötzlich „in Zungen“.

Aber damit nicht genug. (Obwohl das schon ziemlich viel ist.) Hintereinander weg klettern sie auf die Fensterbretter des großen römischen Saals und fliegen himmelwärts – auf und davon. Ein Mann, ein deutscher Danteforscher, ist nicht mitgeflogen. Er ist der Zeuge, der von dem Wunder erzählt.

Ziel ist es, die komplexe Materie der Danteforschung und der Vielfalt an Übersetzungen der *Commedia* auf eine Weise im Roman unterzubringen, dass auch der Leser, der kein Dantekenner ist, sein Vergnügen daran hat, ohne allzu banal mit dem Stoff zu verfahren (und ohne dass die Danteforscher die Stirnen in Falten legen müssen).

Warum Rom? Warum nicht Florenz oder Ravenna als Ort der Tagung? Weil das irdische Rom mit all seinen Verfehlungen das Kehr Bild des Himmlischen Jerusalem ist, das sich gewissermaßen in großer Ferne darüber wölbt.

Lektüreempfehlung

Lewitscharoff, Sibylle. *Blumenberg*. Roman. Berlin: Suhrkamp, 2011.

—. *Apostoloff*. Roman. Frankfurt: Suhrkamp, 2009.

—. *Consummatus*. Roman. München: Deutsche Verlags-Anstalt, 2006.

INGUNN LUNDE
Dr., Professor of Russian
University of Bergen

Born in 1969 in Oslo
Studied Russian and Classical Philology at the Universities of Bergen, Bonn,
and Moscow

LANGUAGE ON DISPLAY: LINGUISTIC CULTURE IN CONTEMPORARY RUSSIA

During my stay at the Wissenschaftskolleg I will work on a project at the intersection of sociolinguistics and cultural studies, planned as a book-length study entitled *Language on Display: Linguistic Culture in Contemporary Russia*. In a period of linguistic liberalization, instability and change, post-Soviet Russia is characterized by *the language question* permeating all spheres of social, cultural and political life. The book follows the development of the language in post-perestroika Russian culture, the debates surrounding it and the wide range of responses and interpretations it receives within the diverse spheres of the linguistic community. The focus of this project is original in that it includes not only *explicit* linguistic reflections in the contexts of language debate, language legislation or linguistic codification, but also *implicit* responses in the realm of literary genres and other concrete linguistic practices, such as online language usage and linguistic humour. The book sets out to explore the multifaceted instances of such *performative metalanguage*.

Language's reflexive capacity has received considerable attention within various branches of linguistics, semiotics, anthropology and psychology over the past few decades, and recent reviews of metalanguage as a concept have taken the field to a new level, in particular as regards its social and ideological framing. However, while sociolinguists are aware of language's strong reflexive component in general, and appreciate the close connection between reflexive and poetic language in particular, *performative metalanguage* – statements about language

communicated through a concrete linguistic practice – has not yet been the object of systematic exploration. Meanwhile, I believe that such study is crucial both for our understanding of the linguistic and socio-cultural dynamics of any society and for advancing our grasp of the theoretical concept of metalanguage.

Recommended Reading

Lunde, Ingunn, ed. (with Michael S. Gorham and Martin Paulsen). *Digital Russia: The Language, Culture and Politics of New Media Communication*. London: Routledge, 2014.

—. “Language on Display: On the Performative Character of Computer-Mediated Metalanguage.” In *Digital Russia: The Language, Culture and Politics of New Media Communication*, loc. cit.

—. “‘A Stroll through the Keywords of My Memory’: Digitally Mediated Commemorations of the Soviet Linguistic Heritage.” In *Memory, Conflict and New Media: Web Wars in Post-Socialist States*, edited by Ellen Rutten, Vera Zvereva and Julie Fedor, 101–111. London: Routledge, 2013.

PHILIP MANOW

Dr. rer. pol., Professor für Politikwissenschaft
Universität Bremen

Geboren 1963 in Hamburg

Studium der Politikwissenschaft an der Philipps-Universität Marburg und der
Freien Universität Berlin

DINGE UND ORTE DER DEMOKRATIE

Was sagen uns die Praxis der Politik und die Mittel der Politik über die Politik? Die Wahlurne, das Parlamentsprotokoll, die Bannmeile, der Stimmzettel, die Großbildleinwand auf dem Parteitag, die Wahlkabine etc. – die Politik hat eine dingliche, praktische Seite. Diese strukturiert die Politik. Die politischen Dinge und Orte tragen ihre politische Bestimmung in sich, sind manifeste Handlungsanleitungen. Sie leiten das Handeln, sie enthalten „Voreinstellungen“, verregelmäßigen das politische Geschehen. Betrete ich ein Wahllokal, so geben Wahlkabine und Wahlurne wie Stimmzettel mir den Wahlvollzug vor, definieren, „was zu tun ist“, und ihre spezifische Anordnung konstituiert einen typischen politischen Ort. In einem Parlament bestimmen Rostrum, Zuschauertribünen, die Abgeordnetenränge und die Stenografenbank sowie das Parlamentsprotokoll, schließlich aber auch das Parlamentsradio und -fernsehen darüber, wer zu wem wie parlamentarisch spricht.

Die nähere Beschäftigung mit der demokratischen Praxis, mit den politischen Dingen und Orten, ist mit der Hoffnung auf eine andere Theorie der Demokratie verbunden. Dieses Unterfangen setzt sich bewusst ab vom weiterhin dominant ideengeschichtlichen Modus des Nachdenkens über die Demokratie. Dieses Vorgehen gründet sich auf der Einsicht, dass die politischen Denker, denen wir heute einen prominenten Platz in der Geschichte der Demokratietheorie zuweisen – etwa Rousseau, Montesquieu, Madison –, keine Demokraten waren und keine Demokraten sein wollten und dass sie das, was wir heute unter Demokratie verstehen, wohl nicht so bezeichnet hätten. Der Text-

korpus, den wir Demokratietheorie nennen, kann somit dazu dienen, einen Abstand zu markieren zu dem, was wir heute als Demokratie praktizieren. Deren „Theorie“ ist aber in vielerlei Hinsicht erst zu gewinnen – und zwar durch die Anschauung der Praxis.

Lektüreempfehlung

Manow, Philip. *In the King's Shadow: The Political Anatomy of Democratic Representation*. Cambridge: Polity Press, 2010.

—. „Kuppel, Rostra, Sitzordnung: das architektonische Bilderprogramm moderner Parlamente.“ In *Parlamentarische Kulturen vom Mittelalter bis in die Moderne: Reden, Räume, Bilder*, herausgegeben von Jörg Feuchter und Johannes Helmuth, 115–129. Düsseldorf: Droste-Verlag, 2013 (Beiträge zur Geschichte des Parlamentarismus und der politischen Parteien, Bd. 164).

—. „Politische Aufschreibesysteme.“ *Merkur* 765 (2013): 148–154.

ROBERT MARTIN

Ph.D., Emeritus Curator and Professor of Biological Anthropology
The Field Museum, Chicago

Born in 1942 in London

Studied Zoology at Worcester College, Oxford

THE EVOLUTION OF HUMAN REPRODUCTION

Drawing on my extensive experience in reconstructing the evolutionary relationships of primates and other mammals, I aim to consolidate my research focused on the phylogenetic history of human reproduction. I have already compiled numerous analyses of quantitative data, with over 300 completed illustrations and extensive notes from a preliminary review of the literature. To achieve an effective, comprehensive, and original synthesis, I now need to conduct an extensive review of additional literature and to write a scholarly text reviewing the results of my synthesis. I am also hoping to organize a small workshop while in Berlin to bring together a selected group of experts to discuss some major issues. The overall enterprise will integrate evidence from anthropology, archaeology, epidemiology, human medicine, primatology, reproductive physiology, and molecular biology. In the course of a long academic career, I have published numerous papers on diverse aspects of primate reproduction and I am now poised to capitalize on that accumulated investment. Following two preliminary papers on the evolution of human reproduction published in 2003 and 2007, I now plan to produce a major academic monograph and have received invitations from both Harvard University Press and the University of Chicago Press to do so. I also intend to prepare two or more journal papers on specific aspects of particular scientific interest. In addition to its intrinsic value, my exploration of the evolutionary history of human reproduction will have direct relevance to medical science, notably in the realm of human fertility.

Recommended Reading

- Martin, R. D. (1990). *Primate Origins and Evolution: A Phylogenetic Reconstruction*. London: Chapman and Hall.
- Martin, R. D. (2008). "Evolution of placentation in primates: Implications of mammalian phylogeny." *Evol. Biol.* 35: 125–145.
- Martin, R. D., M. Genoud, and C. K. Hemelrijk (2005). "Problems of allometric scaling analysis: Examples from mammalian reproductive biology." *J. Exp. Biol.* 208: 1731–1747.

WILLIAM MARX

Ph.D., Professor of Comparative Literature
Université Paris 10 Quest Nanterre la Défense

Born in 1966 in Villeneuve-lès-Avignon

Studied Classics and Comparative Literature at the École normale supérieure
and at the Université Paris 4 Paris-Sorbonne

HISTORICIZING LITERATURE

Writing the history of literature presupposes the prior establishment of a corpus whose greater or lesser extension is itself determined by an implicit valuation of the works it includes, with a perverse return effect: the corpus under consideration eventually strengthens the unformulated aesthetic criteria that were used to define it. Therefore, it is always an epistemological necessity to deconstruct the corpuses that are at our disposal.

I propose to do this with Greek tragedy. It is well known that only 32 complete plays have survived out of the hundreds or thousands written by all the dramatists. In a previous book, I have already shown that the school canon of the second century CE, which transmitted to us most of those plays, was the product of an aesthetic and ideological bias. I intend to develop and strengthen that argument by studying, in particular, all the tragic fragments we still have, with the hope that this investigation will give us a better understanding of the way our current corpus of tragedies was defined.

The problem of corpuses is aggravated by the fact that for centuries the very idea of literature never stopped evolving and transforming. Another part of my work at the Wissenschaftskolleg will be dedicated to delineating that evolution by focusing on the discourses against literature. Since Plato, what we now call literature was the subject of countless attacks by thinkers and philosophers, from pagan to Christian Antiquity, from the Middle Ages to the Renaissance, from modern to contemporary times: its value, its virtue, its usefulness were questioned; its harmfulness demonstrated. I intend to use those arguments to outline

a finer historicization of the concept of literature and of the ideological context within which literary activity takes place.

Recommended Reading

Marx, William. *Le Tombeau d'Œdipe: pour une tragédie sans tragique*. Paris: Éditions de Minuit, 2012.

—. *Vie du lettré*. Paris: Éditions de Minuit, 2009.

—. *L'Adieu à la littérature: histoire d'une dévalorisation XVIIIe–XXe siècle*. Paris: Éditions de Minuit, 2005.

CHRISTOPHER MCCRUDDEN

D.Phil., Professor of Human Rights and Equality Law
Queen's University, Belfast, and
William W. Cook Global Law Professor
University of Michigan Law School

Born in 1952 in Belfast

Studied Law at Queen's University, Yale University and Oxford University

AN INTEGRATED THEORY OF COMPARATIVE HUMAN RIGHTS LAW

I shall examine the legal meaning of human rights, their significance in theory and in practice and the approaches taken by legal institutions designed to protect and advance them. The approach adopted will be “law-led” but informed by other disciplinary perspectives. My research builds on my extensive previous work and will develop an integrated theory of human rights law. An “integrated” theory will consider the phenomenon of human rights law from several differing legal and non-legal perspectives. My aim is to bring together and bridge these differing perspectives in a way that enables a description of human rights law to emerge that explains not just the legal rules and principles, but also their context. As a result, the rules and principles become more meaningful to non-legal actors. This approach also contributes to the translation of the rules and principles into practical action by those in the legal system. My hypothesis is that the most accurate account of human rights is pluralistic in its origins and practice, with a core of normativity that is powerful but minimal, permitting and encouraging the pluralism of practice that we see manifested.

In that context, I shall test the emerging theory by way of several case studies, one of which will re-consider the troubled relationship between power-sharing models of ethnic accommodation and the law and practice of human rights obligations examined in *Courts and Consociations: Human Rights versus Power-Sharing*. I shall re-consider the implications of these power-sharing arrange-

ments for broader debates about human rights in comparative constitutional law, international law and legal theory. In addition, the implications of this practice for the development of peace agreements and transitional justice, and the role of courts in these contexts, will be considered. Another case study will examine the relationship between emerging understandings of human rights and resurgent religion, considering in particular the extent to which understandings of the foundations of human rights in each of these contexts converge and diverge.

Recommended Reading

McCrudden, Christopher, ed. *Understanding Human Dignity*. Oxford: Oxford University Press, 2013 (Proceedings of the British Academy).

— (with Brendan O’Leary). *Courts and Consociations: Human Rights versus Power-Sharing*. Oxford: Oxford University Press, 2013.

—. *Buying Social Justice: Equality, Government Procurement, and Legal Change*. Oxford: Oxford University Press, 2007.

DIANA MISHKOVA

from September to December 2014

Ph.D., Associate Professor of History,

Director, Centre for Advanced Study Sofia

Born in 1958 in Plovdiv, Bulgaria

Studied History at the University of Sofia

SOUTHEASTERN EUROPE AS A SUPRANATIONAL SPACE IN 19TH- AND 20TH-CENTURY ACADEMIC PROJECTS

Scholarly conceptualizations of historical (meso-)regions have had a much longer tradition than present-day transnationalists might have us believe. This tradition has been inherently polyphonic, made up of multiple “voices”, which can be made sense of only by historicizing its dynamics, main themes and conceptual gear. Regionalist projects drew heavily on political values and relied on political support, while at the same time seeking to spearhead and legitimize political decisions or reformulate (geo-)political visions. The links between knowledge and power have thus been reasserted, in an epistemological and pragmatic sense, but the story of how they came to frame the field of Balkan Studies – or academic Balkanism – has not been told yet.

My project will set off in this direction by probing into the paradigmatic scholarly conceptualizations of the region of the Balkans/South-Eastern Europe. It will thus seek to highlight a pre-existing but largely suppressed and unreflected tradition of local regionalist scholarship going back to the “age of nationality” and extending into the critical period after 1989. The political implications of this scholarship, in the sense of the politics of science and science-based politics, will be explored with the idea of underscoring notions of the Balkans that differed considerably from the one summarily and, in recent years, persistently conceptualized as mirroring Western (discourses of) Balkanism. Not only were those notions more subtle and differentiated than an “orientalizing perspective”

would make us expect; a remarkable feature of the academic projects under examination was their counterhegemonic thrust and the assertion that the Balkans are and should be treated as a subject.

Recommended Reading

Mishkova, Diana. *Приспособяване на свободата. Модерност-легитимност в Сърбия и Румъния през XIX век*. [Domestication of freedom. Modernity-legitimacy in Serbia and Romania in the nineteenth century]. Sofia: Paradigma, 2001.

—, ed. *We, the People: Politics of National Peculiarity in Southeastern Europe*. Budapest and New York: Central European University Press, 2009.

— (with Roumen Daskalov). *Entangled Histories of the Balkans – Volume Two: Transfers of Political Ideologies and Institutions*. Leiden: Brill, 2014.

CHRISTOPH MÖLLERS

Permanent Fellow des Wissenschaftskollegs

Professor für Öffentliches Recht und Rechtsphilosophie, Richter am Oberverwaltungsgericht Berlin-Brandenburg

Geboren 1969 in Bochum

Studium der Rechtswissenschaft und Komparatistik in Tübingen, München und Chicago

1. EXPLIZITE UND IMPLIZITE HERRSCHAFT

2. META-RIGHTS: HUMAN DIGNITY, PROPORTIONALITY AND THE LEGAL CLAIM TO THE FUNDAMENTAL

Ad 1. Ob und wie Herrschaft auf Akzeptanz oder Widerstand trifft, hängt auch davon ab, ob sie explizit oder implizit ausgeübt wird. Herrschaft kann sich in Formen zeigen oder hinter informale Praktiken verstecken. Während es keine allgemeine normative Präferenz für implizite oder explizite Herrschaft gibt, dürfte die – wenig behandelte – Unterscheidung zwischen beiden Typen von Herrschaft für ihre Beschreibung ergiebig sein.

Ad 2. Immanuel Kant's "einziges Menschenrecht" and Hannah Arendt's formula of the "right to have rights" are only the most important examples of the idea of a meta- or super-right, a right that serves as a basis for all other rights. In many modern national and international legal orders, this claim has been identified with the idea of human dignity. Other scholars see the basis of such a right in the proportionality principle. My project does not want to give yet another theory of what Human Dignity and proportionality could or should mean. Instead, it will analyse the claims of a meta-right and its potential dangers for the variety of freedoms.

Lektüreempfehlung

Möllers, Christoph. *Die Möglichkeit der Normen*. Berlin: Suhrkamp, 2014.

—. „Legalität, Legitimität und Legitimation des Bundesverfassungsgerichts.“ In *Das entgrenzte Gericht: eine kritische Bilanz nach sechzig Jahren Bundesverfassungsgericht*, herausgegeben von Matthias Jestaedt, Oliver Lepsius und Christoph Möllers, 281–419. Frankfurt/Main: Suhrkamp, 2011.

—. „Multi-Level Democracy.“ *ratio iuris* 24 (2011): 247–266.

SIANNE NGAI
Ph.D., Professor of English
Stanford University

Born in 1971 in Washington, DC
Studied English, Semiotics, History of Art, and Architecture at Brown University, Providence, and English and American Literature at Harvard University

THEORY OF THE GIMMICK

When we say that a work is gimmicky we mean we “see through it”: that there is an undesirable transparency about how an aspect of it was produced and why. The gimmicky artwork thus confronts us with an object that would seem to undermine its own aesthetic or enigmatic power merely by drawing attention to the process by which its effects have been devised. Extending my last book’s focus on the historical and philosophical significance of equivocal aesthetic categories such as that of the “interesting”, this project explores the ambiguous mix of attraction and repulsion elicited by the gimmick across a range of forms: poetry, video installation, and a relatively prestigious genre we might not immediately associate with the idea of the gimmick at all – the novel of ideas.

My argument here is that the novel of ideas is better understood as a novel about the problem of the reification of ideas – a problem that only an acknowledgment of the genre’s proneness to aesthetic badness enables us fully to see. The Enlightenment genre’s exploration of the very problem of the separation and autonomization of “ideas” from social practices goes a long way toward explaining other aspects of the genre that have long seemed strange to me: that a genre invested in the intersection of art with rational debate relies with such surprising frequency on a fantastic or magical supplement; and that most novels of ideas tend to be comedies.

Aesthetic theory since Kant continues to be largely an aesthetics of reception rather than production; that is, a theory grounded in the point of view of a spectator regarding a finished product as opposed to that of a maker involved in

the process of making. Philosophers who have raised objections to this contemplative bias in modern aesthetic theory have done so by deflecting attention from spectator to artist, but with the inadvertent effect of reinforcing the artist's romanticization as a Promethean individual. By contrast, the gimmick – the aesthetically ambiguous device or contrivance – allows us to continue rethinking the role of production by focusing on the collective practices that result in a set of historically available techniques. In the largest sense, my project is on the intersection of technique and enchantment in the art of capitalism from the industrial age to the present, focusing primarily on the United States.

Recommended Reading

Ngai, Sianne. *Our Aesthetic Categories: Zany, Cute, and Interesting*. Cambridge, Mass.: Harvard University Press, 2012.

—. *Ugly Feelings*. Cambridge, Mass.: Harvard University Press, 2005.

—. "Merely Interesting." *Critical Inquiry* 34 (Summer 2008): 777–817.

THOMAS PFEIFFER

from April to July 2015

Dr. sc. nat., Professor for Computational Biology/Biochemistry

Massey University, Auckland, New Zealand

Born in 1976 in Schwerin

Studied Biophysics at the Humboldt-Universität zu Berlin and Environmental

Sciences at the Swiss Federal Institute of Technology Zurich

EVOLUTION OF REGULATION

Focus Group *Gene Regulation and Organismal Diversity* (see p. 116)

The capability to respond to stimuli is one of the defining features of life. The gap between stimulus and response in living beings is filled by regulation. Regulatory interactions between biochemical compounds allow us to detect stimuli and trigger cellular changes that ultimately give rise to a response that is observable on the level of the organism. Appropriate responses are advantageous for living beings in that they allow them to detect and adjust to the threats and opportunities provided by a given environment. Regulation is therefore of substantial interest for evolutionary biologists.

The core of my research project is to understand the evolution of regulation in the context of microbial metabolism: What are the specific costs and benefits of metabolic regulation? How do evolutionary forces shape patterns of regulation? And, conversely, do regulatory interactions influence evolutionary processes? These questions are addressed by combining computer simulations of evolutionary scenarios for the emergence of regulation with laboratory experiments on microbes.

Recommended Reading

Soyer, O. S. and T. Pfeiffer (2010). “Evolution under fluctuating environments explains observed robustness in metabolic networks.” *PLoS Comp Biol* 6: e1000907.

Pfeiffer, T. and S. Schuster (2005). “Game-theoretical approaches to studying the evolution of biochemical systems.” *Trends Biochem Sci* 30: 20–25.

Pfeiffer, T., S. Schuster, and S. Bonhoeffer (2001). “Cooperation and competition in the evolution of ATP-producing pathways.” *Science* 292: 504–507.

JAN PLAMPER

Ph.D., Professor of History

Goldsmiths, University of London

Born in 1970 in Laichingen (Baden-Württemberg)

Studied History at Brandeis University and at the University of California, Berkeley

FEAR: SOLDIERS AND EMOTION IN RUSSIA DURING THE FIRST WORLD WAR

This project envisions the writing of an English-language monograph that centers on three questions. Taking the example of Russia, it first asks how soldiers were conditioned to cope with fear; second how they dealt with fear; and third how they were dealt with when they could not cope and broke down with fear-induced symptoms. For this purpose, it uses a range of sources – from officer handbooks for the training of recruits to military psychiatry and memoirs. While it looks back as far as 1812 and forward as far as the Chechen Wars, its focus is on the early twentieth century, especially the First World War. Significant parts are transnational and feature comparisons with France, Germany, and Great Britain. The project seeks to make a contribution to the relatively new interdisciplinary field of the history of emotions, to the cultural history of military and war, and to Russian history proper. It is also addressed to psychiatrists and experimental psychologists interested in a historical dimension of their own research on fear. Its impact extends beyond academia because of the contemporary relevance of trauma (PTSD) in wars like that in Afghanistan.

Recommended Reading

Plamper, Jan. *Geschichte und Gefühl: Grundlagen der Emotionsgeschichte*. München: Siedler, 2012.

—. *The Stalin Cult: A Study in the Alchemy of Power*. New Haven: Yale University Press, 2012.

Jan Plamper and Benjamin Lazier, eds. *Fear: Across the Disciplines*. Pittsburgh: University of Pittsburgh Press, 2012.

SIMONE REBER

from September to December 2014

Fellow of the College for Life Sciences (see p. 121)

Dr. rer. nat., Quantitative Biology

Max Planck Institute of Molecular Cell Biology and Genetics, Dresden

Born in 1977 in Mannheim

Studied Molecular Biology and Biochemistry at Ruprecht-Karls-Universität Heidelberg, at the University of Washington Seattle, and at the Swiss Federal Institute of Technology Zurich

INTRACELLULAR SCALING PRINCIPLES THROUGHOUT DEVELOPMENT, OR: WHY SIZE MATTERS

Does an elephant have bigger or more cells than a frog? Although this question sounds trivial, it relates to some of the most pressing yet unsolved questions in modern cell biology:

- What determines the size of a cell, the basic building block of all living things?
- How does the internal structure of a cell affect its function?
- What determines the size, shape, number, and position of intracellular organelles?
- Can a cell actively measure the size of its organelles and regulate them?

Organelle size control is crucial because we expect the size of organelles to be intimately connected to their function. A prominent example is the mitotic spindle which – to achieve its function of physically separating chromosomes into two opposite halves of the cell – needs to scale with cell size.

While we have achieved a near complete proteomic parts list of cellular structures and organelles, the mechanisms by which their defined shape and size is controlled remain poorly understood. My research aims to understand the

cellular mechanisms that ensure organelle scaling throughout development and differentiation. One reason why the above questions have been so hard to answer is that the size of an organelle is generally not simply set by a “ruler” but is an emergent property of molecular collectives. “Emergence” describes the way complex properties and patterns arise from numerous elements whose interactions can be described by relatively simple rules. Examples include the generation of an infinite variety of six-sided snowflakes from frozen water in snow. Similarly, “flocking”, the coordinated motion of animals observed in bird flocks, fish schools, or insects swarms, is considered an emergent behavior. Emergence, however, is not restricted to natural sciences but is central to theories in philosophy, psychology, and economics, making it an excellent topic to study at the Wissenschaftskolleg zu Berlin. During my time at the Wiko, I will write two review articles and – together with a Berlin-based artist – develop a science-and-society project, which will make complex scientific concepts such as scaling accessible to a non-technical public.

Recommended Reading

Reber, S. (2013). “On Spindle Length and Shape.” *Cell News* 4: 18–22.

Reber, S., J. Baumgart, P. O. Widlund, A. Pozniakovsky, J. Howard, A. A. Hyman, and F. Jülicher (2013). “XMAP215 activity sets spindle length by controlling the total mass of spindle microtubules.” *Nature Cell Biology* 15, 9: 1116–1122.

Chan, Y. H. and W. F. Marshall (2012). “How cells know the size of their organelles.” *Science* 337, 6099:1186–1189.

Reber, S. and A. A. Hyman (2011). “Samurai sword sets spindle size.” *Cell* 147, 6: 1224–1225.

MEREDITH REICHES

Ph.D., Anthropology

University of Massachusetts Boston

Born in 1983 in Cleveland, Ohio

Studied Comparative Literature in English, French, and Italian at Brown

University, and Anthropology and Human Evolutionary Biology at Harvard

University

1. THE EVOLUTIONARY BIOLOGY OF ADOLESCENCE

2. THE SHAPE OF A HUMAN LIFE: EVOLUTION, LITERATURE, AND NARRATIVE FUNCTION

The work that I propose to undertake as a Fellow at the Wissenschaftskolleg has two parts, the first situated in human evolutionary biology and the second located at the intersection of evolutionary biology and the humanities.

Ad. 1. The first project utilizes data that I collected in a subsistence agriculturalist population in The Gambia to ask how women's bodies allocate energy among growth, activity, immune response, metabolism, and reproductive function during puberty. The research addresses two central questions with implications for public health and evolutionary biology: first, how does protein-energy supplementation of pregnant women impact energy allocation in their daughters when those daughters reach adolescence? Second, how does female adolescent physiology respond to seasonal changes in energy availability, and what can these responses tell us about the selective pressures under which human growth and development patterns – and variation in those patterns – evolved? The output from this project will include four papers suitable for publication in peer-reviewed biology and anthropology journals.

Ad. 2. The second and complementary project builds on the proposed biological analysis and furthers interdisciplinary work begun at the Radcliffe Institute for

Advanced Study at Harvard University and at the Wissenschaftskolleg in 2012. In order to explore the shared interest of evolutionary biologists and humanists in the shapes of lives, particularly human lives with their individual- and species-level possibilities and constraints, I helped to organize two workshops focused on life history theory and Shakespeare's plays. I will expand this project during the Fellowship year by producing an original book that contains both content – insights into relationships between specific tenets of evolutionary biology and specific works of literature – and models for facilitating cross-disciplinary scholarship among researchers and creating undergraduate and graduate level curricula. This book project will draw on insights gleaned from the Gambia dataset and will be carried out in tandem with editorial work, begun prior to the Fellowship year, on an anthology of papers and responses generated by seminar participants.

Recommended Reading

Reiches, M. W., S. E. Moore, A. M. Prentice, and P. T. Ellison (2014). "Endocrine responses, weight change, and energy sparing mechanisms during Ramadan among Gambian adolescent women." *American Journal of Human Biology* 26, 3: 395–400.

Reiches, M. W., S. E. Moore, A. M. Prentice, A. Prentice, Y. Sawo, and P. T. Ellison (2013). "The adolescent transition under energetic stress: Body composition tradeoffs among adolescent women in The Gambia." *Evolution, Medicine, and Public Health* 1: 75–85.

Reiches, M. W., P. T. Ellison, S. F. Lipson, K. C. Sharrock, E. Gardiner, and L. G. Duncan (2009). "Pooled energy budget and human life history." *American Journal of Human Biology* 21, 4: 421–429.

SEBASTIAN RÖDL

Dr. phil., Professor of Philosophy
University of Leipzig

Born in 1967 in Mainz

Studied Philosophy, History, German Literature, and Musicology at the
Johann Wolfgang Goethe Universität Frankfurt am Main and at the Freie
Universität Berlin

LIFE, CONSCIOUSNESS, REASON

The project I am pursuing is located within a tendency in philosophy and adjacent disciplines that has gained prominence in recent years. It is a tendency to seek to comprehend consciousness, thought, and intelligence by conceiving them as characters of life: it reflects on life in general in order to find in it the germ and the original of precisely those features of human existence that philosophers through the ages have been tempted to place outside nature.

The contribution of the project to this tendency will reside in the exploration of a difficulty that besets it. An appreciation of this difficulty is rarely found in recent work belonging to our tendency, but articulated in two of its remoter ancestors, Aristotle and Hegel. The difficulty resides in the fact that while sensory consciousness and reason are rightly conceived as life, they cannot be comprehended through a general concept that abstracts from its specific character as animal life, or as human life, respectively. For there is no aspect of the life of an animal that is not informed by its animality, and no aspect of the life of a human being that is not informed by her reason. It does not follow that no insight can be gained by approaching consciousness, or reason, through the idea of life; it means that the insight to be gained is at the same time an insight into the nature of life, revealing it to be, essentially, first metabolism, then consciousness, then reason. The project aims to develop such insight by articulating the logical relations of the three terms that figure in its title.

Recommended Reading

Rödl, Sebastian. *Self-Consciousness*. Cambridge, Mass.: Harvard University Press, 2007.

—. “Reason and Nature, First and Second.” In *Freiheit: Stuttgarter Hegel-Kongress 2011*, edited by Gunnar Hindrichs. Frankfurt/Main: Klostermann, 2013.

SUSAN ROSE-ACKERMAN

Ph.D., Henry R. Luce Professor of Jurisprudence
Yale Law School

Born in 1942 in Mineola, New York
Studied Economics at Yale University

COMPARATIVE ADMINISTRATIVE LAW AND PUBLIC POLICYMAKING: USA, FRANCE, AND GERMANY

My project lies at the intersection of law, political science, and economics. Focusing on the US, France, Germany, and the EU, I will study policymaking inside the executive and the independent agencies. In Europe, recent demands for impact assessments and public participation are in some tension with traditional administrative law doctrines; in the US, they are more integrated into public law. However, both Europe and the US face often-conflicting demands for the greater use of social science expertise, on the one hand, and for more input from the public and from civil society groups, on the other. Arguing that executive branch policymaking must be democratically accountable, competent, and protective of individual rights, I will develop a role for public law that seeks to uphold these values without intrusive interventions into politics. The research builds on my past work in comparative administrative law.

Recommended Reading

Rose-Ackerman, Susan. *From Elections to Democracy: Building Accountable Government in Hungary and Poland*. Cambridge: Cambridge University Press, 2005.

— (with Stefanie Egidy and James Fowkes). *“Due Process of Lawmaking”:
United States, South Africa, Germany, and the European Union*. Cambridge:
Cambridge University Press, forthcoming 2014.

—. *Corruption and Government: Causes, Consequences and Reform*. Cambridge:
Cambridge University Press, 1999, 2nd edition in progress.

Rose-Ackerman, Susan and Thomas Perroud. “Policymaking and Public Law
in France: Public Participation, Agency Independence, and Impact Assess-
ment.” *Columbia Journal of European Law* 19 (2013): 225–312.

MARTIN SACK

Dr. med., Professor der Medizin, Facharzt für Psychosomatische Medizin
Klinik für Psychosomatische Medizin und Psychotherapie, Klinikum rechts der
Isar der Technischen Universität München

Geboren 1961 in Stuttgart

Studium der Humanmedizin an der Universität des Saarlandes und an der
Freien Universität Berlin

INDIVIDUALISIERTE PSYCHOTHERAPIE

Während die Psychotherapie in der Ausbildung immer noch stark an Therapie-
schulen orientiert ist, richten erfahrene Therapeuten die Behandlungsplanung
an den individuellen Bedürfnissen ihrer Patienten aus. Es fehlt allerdings eine
systematische Ausarbeitung einer auf die Förderung von individuellen Behand-
lungsbedürfnissen ausgerichteten Psychotherapie mit konkreten Handlungsan-
weisungen.

Das Projekt „Individualisierte Psychotherapie“ widmet sich der Erarbeitung
einer Systematik und Methodik zur Identifizierung individueller Behandlun-
gsbedürfnisse und deren Umsetzung in der psychotherapeutischen Behandlung.
Dabei wird der in der Psychotherapie unvermeidbare Umgang mit kausaler
Unschärfe bzw. multikausaler Bedingtheit psychischer Erkrankungen als
methodische Stärke interpretiert und eine gestufte diagnostische und therapeu-
tische Vorgehensweise als heuristisches Modell genutzt.

Hierfür werden, ausgehend von einem an Stressoren orientierten ätiologi-
schen Modell psychischer und psychosomatischer Erkrankungen, primäre
(stressauslösende) und sekundäre (als Folge der Stressbelastung entstandene)
Störungen unterschieden. Behandlungsbedürfnisse werden nach der jeweils
vorliegenden inneren Not bzw. nach individuellen Entwicklungsbedürfnissen
unter besonderer Berücksichtigung der Behandlung von Bindungs- und Bezie-
hungsstörungen sowie von Störungen der Selbstregulation systematisiert. Es
wird eine Methode zur Hierarchisierung von Therapiezielen und zum Umgang

mit therapieinduzierter Destabilisierung (Regression, therapeutische Krisen) ausgearbeitet. Die gegenwärtig verfügbaren Therapieverfahren und Therapiemethoden werden hinsichtlich der therapeutischen Zielsetzung und ihrer Wirkfaktoren klassifiziert und in ein integratives Therapiemodell integriert.

Die Reichweite des Ansatzes soll unter Bezug auf die publizierte Literatur, insbesondere aus der humanistischen und anthropologischen Psychotherapie, bestimmt werden. Ziel des Vorhabens ist es, eine bisher implizit von erfahrenen Psychotherapeuten ausgeübte Praxis zu reflektieren, als Methode auszuarbeiten und in Folge auch in der Ausbildung vermittelbar zu machen.

Lektüreempfehlung

Sack, Martin, Julia Schellong und Ulrich Sachsse. *Komplexe Traumafolgestörungen: Diagnostik und Behandlung von Folgen schwerer Gewalt*. Stuttgart: Schattauer, 2013.

Sack, Martin. *Schonende Traumatherapie: Ressourcenorientierte Behandlung von Traumafolgestörungen*. Stuttgart: Schattauer, 2010.

—. *Von der Neuropathologie zur Phänomenologie – Alfred Prinz Auersperg und die Geschichte der Heidelberger Schule der anthropologischen Medizin*. Würzburg: Königshausen und Neumann, 2005.

ANDRÁS SCHIFF

von Oktober bis November 2014

Pianist, Professor für Musik

Florenz

Geboren 1953 in Budapest

Studium der Musik an der Franz-Liszt-Musikakademie in Budapest

ÜBERLEGUNGEN ZUR KLAVIERMUSIK SEIT J. S. BACH

Ich plane, eine Reihe von Essays zu schreiben, in denen meine künstlerische Auseinandersetzung mit der Tradition großer europäischer Klaviermusik seit Johann Sebastian Bach reflektiert wird.

Lektüre- und Hörempfehlung

Schiff, András. *Beethovens Klaviersonaten und ihre Deutung: „für jeden Ton die Sprache finden . . .“* András Schiff im Gespräch mit Martin Meyer. Bonn: Verlag Beethoven-Haus, 2007.

Aufnahmen von Beethovens 32 Sonaten, Bachs Wohltemperiertem Klavier, Goldberg-Variationen und verschiedenen anderen Werken bei ECM Records.

PAUL SCHMID-HEMPEL

Permanent Fellow of the Wissenschaftskolleg
Dr. phil., Professor of Experimental Ecology
Swiss Federal Institute of Technology, Zurich

Born in 1948 in Zurich

Studied Biology, Physiology and Ecology at the University of Zurich

HOST-PARASITE CO-EVOLUTION, ITS MEDIATORS AND CONSEQUENCES

Virtually all organisms have their parasites. Parasites, by definition, impact negatively on their hosts and, vice versa, hosts defend themselves to the detriment of the parasite's success. This ecological interaction leads to ongoing antagonistic co-evolution between the two parties. The co-evolutionary process in turn has many striking consequences for the maintenance of genetic diversity in populations, for the emergence of host-defense and parasite-evasion mechanisms, or even for increasing divergence *among* populations, which may eventually lead to speciation. My project deals with the basic building blocks of this co-evolutionary scenario by considering whether a defense system based on the synergistic action of effectors can resist a rapidly changing parasite. Furthermore, it has been recently recognized that the microbiota – the bacterial gut flora of a host – also plays an important role in the defense against pathogens in a more specific way. This project thus focuses on the role of specificity in host-parasite interactions, on how the microbiota mediates these interactions, and on the characteristics of the background-host genotype. These questions are of great relevance not only to a basic understanding of host-parasite co-evolution but for the implied practical applications in medicine, agriculture or wildlife management.

Recommended Reading

Schmid-Hempel, P. (2008). “Immune evasion by parasites – a momentous molecular war.” *Trends in Ecology and Evolution* 23: 318–326.

Richner, H. and P. Schmid-Hempel (2006). “Grundlagen der Parasit-Wirt-Koevolution.” In *Allgemeine Parasitologie*, edited by T. Hiepe, R. Lucius, and B. Gottstein, 69–79. Stuttgart: Parey-Blackwell.

Schmid-Hempel, P. (2003). “Variation in immune defence as a question of evolutionary ecology.” *Proceedings of the Royal Society London B* 270: 357–366.

WEIRONG SHEN

Dr. phil., Professor for Tibetan and Buddhist Studies
School of Chinese Classics, Renmin University of China, Beijing

Born in 1962 in Jiangsu Province, China
Studied Central Asian Studies at the Rheinische Friedrich-Wilhelms-
Universität Bonn

HISTORY THROUGH TEXTUAL CRITICISM: TIBETAN
TANTRIC BUDDHISM IN THE TANGUT KINGDOM OF
XIA, THE MONGOL YUAN DYNASTY, AND THE
CHINESE MING DYNASTY

My plan is to complete a book project on the history of Tibetan tantric Buddhism outside Tibet based on textual criticism. I intend to reconstruct the colorful history of cultural and religious encounters in Central Eurasia along the Silk Route from the 11th to the 15th century. The main task of my book is to write the history of Tibetan tantric Buddhism in the Tangut kingdom of Xia and the Mongol Yuan and Chinese Ming dynasties.

I want my work to be accessible to scholars who are not specialists in Tibetan Buddhism, but are interested in Central Eurasian, Chinese, and Tibetan cultural dynamics. I believe that being in regular conversation with colleagues of the Wissenschaftskolleg would help me think through how to present the book I am planning to write to the audience in Western academia. In addition, I hope that I am able to play an active role in bringing together Chinese-language and English-language scholarly communities in the field of Chinese and Central Eurasian history.

Recommended Reading

Shen, Weirong. *Leben und historische Bedeutung des ersten Dalai Lama dGe 'dun grub pa dpal bzang po (1391–1474): Ein Beitrag zur Geschichte der dGe lugs pa-Schule und der Institution der Dalai Lamas*. Nettetal: Steyler-Verlag, 2002 (Monumenta Serica Monograph Series, 49).

一. 西藏历史和佛教的语文学研究 [Philological Studies of Tibetan History and Buddhism]. Shanghai: Shanghai guji chubanshe, 2010.

SHERMIN DE SILVA

from September 2014 to March 2015

Fellow of the College for Life Sciences (see p. 121)

Ph.D., Behavioral Ecology, Evolution, Conservation Biology

Colorado State University

Born in 1981 in Colombo, Sri Lanka

Studied Integrative Biology and Philosophy at the University of California,

Berkeley

MULTI-LEVEL SPATIOTEMPORAL DYNAMICS IN ANIMAL NETWORKS

Social interactions are fundamentally embedded in their spatial context. Study of animal social networks has yielded intriguing insights into the structure and function of animal societies, allowing us to characterize the diversity of social systems quantitatively and qualitatively and to pose novel questions about their evolutionary origin. However, so far our understanding has progressed relatively divorced from spatial considerations, treating networks as essentially scale-free objects. I would like to explore the interface between ecology and social structure, asking how contact networks in various animal species might be dynamically shaped by their environment. Using the spatio-temporal coordinates of individuals to construct contact networks, it is possible both to distinguish different types of relationships and to explore how an underlying substrate – i.e., resource structure – drives these relationships. Such spatially-derived networks can refine our understanding of how dynamic processes act on such networks, such as pathogen and information transfer. I would like to build collaborations uniting the study of animal sociality with novel network-modeling techniques that will likewise stimulate different ways of thinking about how networks operate and influence behavior.

I am also interested in how such contact networks, especially in social species, affect survival and reproduction, hence their relevance for conservation. In an

era in which global changes and human activities pose threats even to once-abundant species, it is vitally important to understand how individuals as well as ecosystems respond to modifications of basic contact networks. However, characterizing changes to networks and testing predictions in statistically and biologically meaningful ways remains challenging. I would like to investigate how spatial approaches could be used to overcome this. During this period, I will also be collaborating on a book on elephant behavior and conservation.

Recommended Reading

de Silva, S., A. Ranjeewa, and S. Kryazhimskiy (2011). "The dynamics of social networks among female Asian elephants." *BMC Ecology* 11, 17.

doi: 10.1186/1472-6785-11-17

de Silva, S. and G. Wittemyer (2012). "A comparison of social organization in Asian elephants and African savannah elephants." *International Journal of Primatology* 33, 5: 1125–1141.

doi: 10.1007/s10764-011-9564-1

de Silva, S., L. Webber, U. S. Weerathunga, T. V. Kumara, D. K. Weerakoon, and G. Wittemyer (2013). "Demographic variables for wild Asian elephants using longitudinal observations." *PLoS One* 8, 12.

doi: 10.1371/journal.pone.0082788

ORKUN S. SOYER

from February to April 2015

Ph.D., Professor of Evolutionary Systems and Synthetic Biology
University of Warwick

Born in 1975 in Istanbul

Studied Chemistry at Boğaziçi University and at the University of
Michigan, Ann Arbor

EVOLUTION OF MICROBIAL INTERACTIONS AND THE UNDERLYING CELLULAR NETWORKS

Focus Group *Gene Regulation and Organismal Diversity* (see p. 116)

How can we explain the evolution of cellular responses, which require an orchestrated interaction of a multitude of proteins, genes, and small molecules? How could these “cellular systems” have emerged over evolution, when their resulting responses seem impossible to achieve with fewer components? What are the “intermediary” molecular systems and how did they behave dynamically? What is, or could have been, the impact of biochemical realities (e.g. the spatial aspects of cells, the stochastic nature of biochemistry) on evolution at this molecular level? These questions about evolution on the level of cellular systems lie at the core of understanding evolution of any higher levels (e.g. species). Answering them, however, is far more difficult than answering evolutionary questions on the organismal level; we lack any fossil record on molecular systems and our ability to document existing diversity across organisms is hampered by technical difficulties of collecting detailed molecular level data (e.g. interaction maps, reaction kinetic rates). The impact of deciphering the “evolution of cellular systems” could go beyond evolutionary biology; it would allow a deeper understanding of cellular systems and increase our ability to manipulate these for engineering and medical purposes.

My work at Wiko will focus on specific sub-themes within this broader context of understanding the evolution of complex molecular systems as explained below. One area that I would like to highlight in this abstract relates to the evolution of metabolic networks and the microbial interactions they enable. Metabolism is one of the best-characterized aspects on the cellular level. The evolutionary factors shaping metabolic systems and their regulation, however, are not clear. Several factors can be at play at the same time, including environmental fluctuations in metabolite availability (i.e., fluctuating selection) and biochemical tradeoffs relating for example to redox balance, toxic intermediates, and substrate availability. At Wiko, I will aim to extend existing theoretical frameworks for modeling evolution to account for such factors. My focus will be on the analysis of those features of metabolic networks that enable or shape interactions on the species level, i.e., within microbial communities.

Recommended Reading

Kuwahara, H. and O. S. Soyer (2012). "Bistability in feedback circuits as a byproduct of evolution of evolvability." *Molecular Systems Biology* 8, 564.

Soyer, O. S. and T. Pfeiffer (2010). "Evolution under fluctuating environments explains observed robustness in metabolic networks." *PLoS Computational Biology* 6, 8: e1000907

SARAH STROUMSA

from September 2014 to January 2015

Ph.D., The Alice and Jack Ormut Professor (emer.) of Arabic Studies

The Hebrew University of Jerusalem

Born in 1950 in Haifa

Studied Arabic Language and Literature and Middle Eastern Studies at The

Hebrew University of Jerusalem

THINKERS OF “THIS PENINSULA”: NEW PERSPECTIVES IN THE PHILOSOPHY OF AL-ANDALUS

The development of philosophical thought in al-Andalus is often described in contradictory terms. On the one hand, scholars agree that the Iberian peninsula witnessed the acme of Islamic philosophy. On the other hand, the development of philosophy in this region is regarded as somewhat of an anomaly. The discrepancy between the apparently unfavorable conditions and the seemingly sudden burst of philosophy obviously requires explanation. Such an explanation, however, is not to be found in most studies on the topic, and the few scholars who address this problem tend to refine the presentation of the question, rather than offer a satisfactory explanation for it.

Jewish philosophy in al-Andalus, however, is depicted in a much simpler and homogenic way. The effervescence of Jewish philosophy is seen as part and parcel of the so-called “golden age” of Jewish culture in Islamic Spain.

The circumstances in which thought in general, and philosophy in particular, developed in both communities are usually studied as separate questions: some contemporary scholars have attempted to present a coherent synthesis that includes the Jewish (and Christian) philosophical output in their mapping of Andalusian philosophy. And yet, most of these studies present the connection either as background to, or as mere chapters in the discussion of their main focus of interest.

The purpose of the study proposed here is to offer an integrative approach to the history of Islamic philosophy in Spain. The study will focus on the intellectual developments in al-Andalus, in order to evaluate the local, Andalusian character of this philosophy and to see how it fits within the framework of the development of Islamic philosophy in the Orient.

Recommended Reading

Stroumsa, Sarah. *Maimonides in His World: Portrait of a Mediterranean Thinker*. Princeton: Princeton University Press, 2009; paperback edition, 2012.

—. *Freethinkers of Medieval Islam: Ibn al-Rāwandī, Abū Bakr al-Rāzī and Their Impact on Islamic Thought*. Leiden: Brill, 1999 (Islamic Philosophy, Theology and Science 35).

—. *The Beginnings of the Maimonidean Controversy in the East: Yosef Ibn Shim'on's Silencing Epistle Concerning the Resurrection of the Dead*. Jerusalem: Ben Zvi Institute, 1999 (in Hebrew).

HANS THOMALLA

Doctor of Musical Art (DMA), Associate Professor of Music Composition
Northwestern University, Evanston

Born in 1975 in Bonn

Studied Musicology at the Hochschule für Musik und Darstellende Kunst
Frankfurt, and Musical Art in Music Composition at Stanford University

KASPAR HAUSER – AN OPERA

Kaspar Hauser was a foundling who appeared in the city of Nuremberg in May 1828 without any identity, mumbling and moaning unintelligibly and mimicking the expressions of his surroundings. Key figures of the town as well as a curious public created a biography for him through a mixture of suggestive questioning and plain imagination: the story of a young man who was supposedly held prisoner for all his childhood. Hauser's lack of any kind of social and personal narrative fascinated his contemporaries: they were in constant need to fill the void through investigation, research, questioning, and experiments on him and with him until his death a few years after his first appearance. This eventually violent desire to fill the blank pages of his biography as well as the specific form of verbal and nonverbal expression reported about him make opera a perfect medium to tell Hauser's story. Both aspects point to its relevance today – a time of increasingly streamlined communication and of constant demand for defined identity. Hauser's resistance to rationalized expression and clear-cut identity make him an outsider today just as much as during his own life.

The opera is a commission by the Theater Freiburg, and its premiere is planned for the Season of 2015/16.

Recommended Listening

Thomalla, Hans. *Fremd*. CD, 2012. Complete recording of the Opera. Staatsoper Stuttgart; Annette Seiltgen, Chorus and Orchestra of the Stuttgart Opera, Johannes Kalitzke. Col Legno.

—. *Moments musicaux. wild.thing. Cello Counterpart. Stücke Charakter*. CD, 2008. Lucas Fels, Ensemble Recherche. Edition Zeitgenössische Musik (Wergo).

LINE VEJ UGELVIG

John Maynard Smith Prize Fellow (see p. 120)

Ph.D., Evolutionary Biology

Institute of Science and Technology Austria, Klosterneuburg

Born in 1979 in Herning, Denmark

Studied Biology at University of Copenhagen

PATHOGEN DETECTION IN ANT SOCIETIES

Pathogens causing infectious diseases have a major impact on all organisms. To fight infection, hosts have evolved powerful immune systems that detect and neutralise pathogens entering their bodies. Social organisms like ants, bees and termites have further evolved elaborate “collective disease defences” to fight pathogens entering their societies.

Collective disease defences depend on the joint action by group members to avoid, control or eliminate disease outbreaks. This is reached through the interplay of behavioural, physiological and organisational adaptations, some of which are prophylactic while others are activated on demand. For antiseptic behaviours to work efficiently, rapid detection of pathogens and diseased individuals is required, followed by appropriate action. My recent work has revealed that ant workers are extremely efficient at detecting pathogenic fungal spores and react collectively and unambiguously by the (self-)exclusion of pathogen-exposed workers and/or removal of contaminated brood. Interestingly, these behavioural responses occur immediately after exposure to fungal spores, that is, before an infection has established itself. The objective of my current work is to unravel the mechanisms behind this amazing recognition capacity and to gain an understanding of how it has evolved.

My stay at the Wissenschaftskolleg will provide valuable time away from practical lab work, allowing me to fully focus on writing a paper based on what I have done so far. Moreover, I look forward to discussing my work in a broader context, as I believe that the ability to detect non-self-elements is one of the

fundamental principles of complex life, and research increasingly shows that similar principles apply across the eukaryote multicellular and eusocial domains.

Recommended Reading

Ugelvig L. V. and S. Cremer (2012). “Effects of social immunity and uniclonality on host-parasite interactions in invasive insect societies.” *Functional Ecology* 26: 1300–1312. doi: 10.1111/1365-2435.12013

Ugelvig L. V., A. Andersen, J. J. Boomsma, and D. R. Nash (2012). “Dispersal and gene flow in the rare, parasitic Large Blue butterfly *Maculinea arion*.” *Molecular Ecology* 21, 13: 3224–3236. doi: 10.1111/j.1365-294X.2012.05592.x

Ugelvig L. V. and S. Cremer (2007). “Social prophylaxis: group interaction promotes collective immunity in ant colonies.” *Current Biology* 17: 1967–1971. doi: 10.1016/j.cub.2007.10.029

JONATHAN WHITE

EURIAS Fellow (see p. 120)

Ph.D., Associate Professor in European Politics

London School of Economics and Political Science

Born in 1978 in London

Studied Modern History at the University of Oxford, International Relations at the University of Cambridge and Social and Political Sciences at the European University Institute, Florence

DEMOCRACY'S RHYTHM: ON THE TEMPORAL PRECONDITIONS OF LEGITIMATE OPPOSITION

Periodicity is central to the well-functioning modern democracy. Electoral cycles express the capacity of citizens to cast judgement at regular intervals and revise their political priorities. Parliamentary timetables enable ordered debates and the recurrent interrogation of ministers. Often the pulse of these events extends over months or years, as though meaningful deliberation requires both regularity and an unhurried pace.

Yet while modern democracy has been closely tied to a certain temporality, the link has seldom been analysed in democratic theory. My project develops a systematic appreciation of the role of institutional time structures in making representative democracy possible. I look at how periodicity has functioned as a facilitator of organised and legitimate dissent, contributing thereby to modern democracy's characteristic dynamic of government/opposition.

Why study democracy's time structures now? Because arguably they are under threat: one sees tendencies towards a *destructuring* of the temporality of modern politics. This finds expression in the rise of irregular forms of decision-making in which executives are weakly constrained, leading to the marginalisation of the institutional rhythms of debate and scrutiny. Though arguably a global trend, nothing displays the tendencies towards executive discretion more clearly than contemporary responses to the Euro crisis. Discretionary politics

arguably tends towards a politics without rhythm: weakly bound by rules and norms, it typically features snap decisions, arbitrary ultimatums, indefinite mandates and policy regimes of unknown duration.

The forward-looking task is therefore to imagine ways of maintaining democracy's core temporal prerequisites while adapting to changed conditions. In my project I shall be looking at two lines of response: moves to strengthen the familiar time structures of parliamentary politics, and efforts to imagine forms of democracy less reliant on the rhythms that discretion subverts.

Recommended Reading

White, Jonathan. "Thinking Generations." *British Journal of Sociology* 64, 2 (2013): 216–247.

— (with Lea Ypi). "On Partisan Political Justification." *American Political Science Review* 105, 2 (2011): 381–396.

—. "Europe in the Political Imagination." *Journal of Common Market Studies* 48, 4 (2010): 1015–1038.

LEA YPI

Dr., Associate Professor in Political Theory
London School of Economics and Political Science

Born in 1979 in Tirana, Albania

Studied Political Theory at the European University Institute, Florence
and Philosophy and Literature at Università degli Studi di
Roma “La Sapienza”

THE MEANING OF PARTISANSHIP

What is a political party, and what counts as partisanship? Such questions have for some time been the domain of political science, where one tends to find a formalistic emphasis on organisational structure and the power-seeking behaviour of elites, paired with a notion of citizen partisanship as stable support for a party. The intended project seeks to develop a more normative conception of partisanship that sets it in the context of democratic theory. It takes a step back from the empirical study of parties to reflect on the ideas of partisanship that underlie them. While contemporary political philosophy has tended to say little about partisanship, with attention turned instead to first principles of justice or to modes of citizenship different from partisanship (cf. theories of deliberative democracy), there is a valuable older legacy to draw on. In modern political thought, a central topic was what, if anything, made partisanship consistent with civic and democratic ideals, or even a necessary condition for their realisation. The proposed project begins by identifying what has been lost in the shift from these earlier conceptions to the contemporary study of parties and by assessing what from these earlier accounts is worth retrieving for a renewed conception of partisanship relevant to the contemporary world.

The core idea is that partisanship is an associative practice that sustains and enhances political commitment; the project seeks to explore its defining features, its value, the kinds of obligations it entails and its contribution to democratic theory and practice both in normal and in revolutionary circumstances. It tries

to show how partisanship, thus understood, differs from alternative forms of political engagement, such as interest groups and elite-based decision-making, and the extent to which partisanship can be reconciled with ideals of deliberative democracy and civic participation. It seeks to show how a richer conception of partisanship provides a sounder basis on which to assess its place in democratic theory and to revise or criticise existing party practices.

Recommended Reading

Ypi, Lea. "On Revolution in Kant and Marx." *Political Theory* 42, 3 (2014): 262–287.

—. "What's Wrong with Colonialism." *Philosophy and Public Affairs* 41, 2 (2013): 158–191.

—. *Global Justice and Avant-Garde Political Agency*. Oxford: Oxford University Press, 2012.

YONGLE ZHANG

Ph.D., Professor of Law

Peking University

Born in 1981 in Wenzhou, China

Studied Political Science at the University of California, Los Angeles

CONSTITUTIONAL HISTORY OF CHINA: FROM THE LATE QING ERA TO THE PRESENT

In the course of time from the late Qing era to the present, China has been a testing ground for a succession of different political regimes: constitutional monarchy (including the Prussian-German-Japanese type and the British type), presidentialism, parliamentarism, military government, civil government under a hegemonic party's tutelage, the Soviet system, the three-thirds system, the system of people's congress under people's democratic dictatorship, etc. Finally, China's constitution has evolved into a unique shape, stable in its appearance but full of internal tensions.

This project aims at contributing a new history of China's constitutional changes since the late Qing era. To understand this process, I attempt to combine constitutional hermeneutics with political sociology, seeking to restore the classical understanding of a constitution as the structure of a commonwealth, and to emphasize that the "constituting process" is an important part of constitutional research. This project takes a highly comparative approach, at least to the following four aspects:

1. The decadence of the old Empire and the transition to a republican regime
2. The failure of the parliamentary system
3. The transition from a competitive-electoral party system to a hegemonic party system
4. The evolution of national-regional autonomy under the unitary system.

From a practical perspective, this intellectual attempt is a necessary step in exploring the historical foundations, fundamental characteristics, and possible

future development of the contemporary Chinese constitutional order, whose basic framework was set by the constitution of 1982, but should be traced back to the whole experience of the 20th-century Chinese revolution.

Recommended Reading

Zhang, Yongle. "The Remaking of An Old Country: 1911–1917." *Journal of Modern Chinese History* 6, 2 (2012): 279–280 (Special Issue: Articulating "ism"s in modern China).

—. "No Forbidden Zone in Reading?" *New Left Review* 49 (January–February 2008): 5–26.

—. "The Future of the Past: On Wang Hui's Rise of Modern Chinese Thought." *New Left Review* 62 (March–April 2010): 47–83.

Schwerpunktgruppe *Genregulation und Organismenvielfalt*

Diese biologische Schwerpunktgruppe konzentriert sich auf die Frage, wie die große Vielfalt des Lebens im Verlauf der Evolutionsgeschichte entstanden ist. Die jüngsten Entwicklungen auf verschiedenen Gebieten der modernen Biologie deuten auf neue Ansätze und Denkweisen zur Lösung dieser altbekannten Probleme. Wir wollen sehr verschiedene Biologen mit ausgewiesenem Fachwissen zusammenbringen – Forscher aus ganz unterschiedlichen Bereichen, die für gewöhnlich nicht viel Zeit damit verbringen, ihre speziellen Sichtweisen miteinander zu vergleichen. Zu unserer Gruppe zählen Spezialisten, die die klassische Forschung an Fossilien mit moderner Molekularbiologie kombinieren, Molekularbiologen, die sich mit der Frage befassen, wie sich aus einer einzelnen Zelle ein komplexer adulter Organismus entwickelt, und Theoretiker, die sich mit der Verknüpfung der allgemeinen Theorie von der natürlichen Auslese und den komplexen molekularen und genetischen Details beschäftigen, die aus der modernen biologischen Forschung hervorgehen. Ausgehend von dieser Kombination aus Fossilien, Molekülen und Theorie wollen wir den aktuellen Zustand des Faches bewerten und erfolgversprechende Richtungen für neue Forschungen sondieren. Obwohl zu spezifischen Themen in den vergangenen Jahren große Fortschritte gemacht worden sind, blieben die ungeheuren Informationsmengen und spezialisierte Forschung oft unverbunden nebeneinander stehen – entscheidende Teile wurden nicht in das große Puzzle eingefügt. Die Einzelthemen umfassen eine breite Palette: von den verschiedenen Weisen, in denen Nahrung von Bakterien und Hefen in Energie umgewandelt wird, bis hin zur Frage, wie Tiere aus dem Wasser an Land kamen und damit neue Chancen auf vielfältige Lebensstile eroberten. Verbunden sind diese unterschiedlichen Themen über die grundlegenden genetischen und biochemischen Steuerungsmechanismen, die für die Regelung der Energieverwendung und der Formentwicklung von Organismen sorgen.

Die Mitglieder unserer Schwerpunktgruppe sind Steven A. Frank, Anton Crombach, Johannes Jäger, Thomas Pfeiffer und Orkun Soyer.

Steven A. Frank

Focus Group *Gene Regulation and Organismal Diversity*

This biology group will focus on how the great variety of life arose over the course of evolutionary history. Recent developments in different areas of modern biology suggest new approaches and ways of thinking about these traditional problems. We will bring together very different types of biologists with distinct expertise – people from different fields who do not usually spend extended time together comparing their different perspectives. Our group includes specialists who have combined the classical study of fossils with modern molecular biology, experts in the molecular biology of how an organism develops from a single cell into a complex adult, and theoreticians who specialize in connecting the general theory of natural selection to the complex molecular and genetic details emerging from modern biological studies. From this combination of fossils, molecules, and theory, we will evaluate the current state of the discipline and the most promising directions for new work. Although great progress has been made in recent years on specific topics, the vast amount of information and specialized study has left many key parts of the larger puzzle unconnected to each other. Particular topics range from the variety of ways that bacteria and yeast transform food into energy to the ways animals moved from water to land to reach new opportunities for diverse lifestyles. These different topics are united by the underlying genetic and biochemical mechanisms that control how organisms regulate their usage of energy and their development of form.

The members of the Focus Group are Steven A. Frank, Anton Crombach, Johannes Jäger, Thomas Pfeiffer, and Orkun Soyer.

Steven A. Frank

Schwerpunktgruppe *Tibetische Genealogien*

Auf Grundlage der laufenden Arbeiten ihrer Mitglieder erforscht die Schwerpunktgruppe die historischen Kontexte von mittelalterlichen (vorbuddhistischen und buddhistischen) Stätten oder Monumenten aus West- und Zentraltibet. Ein besonderes Augenmerk gilt den Genealogien dieser Orte. Abgesehen von Fragen der kulturhistorischen Herkunft und Verwandtschaft konzentriert sich die Untersuchung im engeren Sinne auf Liniengeschichten, die sich im Umfeld dieser Orte etabliert haben. Neben den verwandtschaftlichen Linien – *lineages* (Klans), die auf eine frühe Siedlungsgeschichte des Hochlandes zurückgehen – inkludiert dies im buddhistischen Tibet unterschiedliche Konstruktionen von religiösen Linien einschließlich des Phänomens der Inkarnationsfolge. Allesamt beinhalten sie Anbindungen an transzendente Räume oder Wesenheiten, und sie sind gewöhnlich überregional, mit oft weit verzweigten und einander überschneidenden Wirkungsfeldern. Am Beispiel bestimmter hegemonialer Zentren des mittelalterlichen West- und Zentraltibet werden Liniengeschichten dokumentiert sowie die rechtlichen und politischen Implikationen der verschiedenen Formen von genealogischen Traditionen erörtert.

Zur Schwerpunktgruppe gehören Guntram Hazod, Tsering Gyalpo und Per K. Sørensen (Universität Leipzig, als Gast).

Guntram Hazod

Focus Group *Tibetan Genealogies*

On the basis of its members' ongoing work, the Focus Group will investigate the historical context of medieval (pre-Buddhist and Buddhist) sites and monuments in West and Central Tibet. Particular attention will be paid to the genealogies of these places. Apart from questions of cultural-historical descent and kinship, the study will concentrate on the history of lines, in the narrow sense, that have established themselves in the environs of these places. Along with kinship lines (lineages or clans that go back to the early history of settlement of the highlands), in Buddhist Tibet this includes varying constructions of religious

lines, including the phenomenon of incarnation succession. They all involve connections to transcendental spaces or beings, and most are supra-regional, often with broadly branched and overlapping fields of effect. Using the example of specific hegemonic centers in medieval West and Central Tibet, we will document the histories of lines and explore the legal and political implications of the various forms of genealogical tradition.

The members of the Focus Group are Guntram Hazod, Tsering Gyalpo, and Per K. Sørensen (University of Leipzig, as a guest).

Guntram Hazod

EURIAS Fellowship

Als Mitglied des Netzwerkes europäischer Institutes for Advanced Study nimmt das Wissenschaftskolleg am EURIAS-Fellowship-Programm teil. Im Rahmen dieses Programms werden zwei zehnmonatige Fellowships durch die Europäische Union co-finanziert.

As a member of the Network of European Institutes for Advanced Study, the Wissenschaftskolleg participates in the EURIAS Fellowship Programme. In the framework of this programme, the European Union is co-financing two 10-month Fellowships.

John Maynard Smith Prize Fellow

Das Wissenschaftskolleg hat mit der European Society of Evolutionary Biology vereinbart, dass die jungen Preisträger des John-Maynard-Smith-Preises, die in einem hoch kompetitiven Verfahren ausgewählt werden, einen dreimonatigen Forschungsaufenthalt am Kolleg verbringen können.

The Wissenschaftskolleg has agreed with the European Society of Evolutionary Biology that the young prize winners of the John Maynard Smith Prize, who are chosen in a highly competitive procedure, will be granted a three-month research residency at the Kolleg.

COLLEGE FOR LIFE SCIENCES

Mit dem *College for Life Sciences* will das Wissenschaftskolleg jungen Forscherinnen und Forschern aus den Lebenswissenschaften Gelegenheit geben, in der anregenden Atmosphäre eines internationalen und multidisziplinären Institute for Advanced Study zu arbeiten. Je nach persönlicher Situation soll der Aufenthalt den ausgewählten Junior Fellows dazu dienen, sich neu zu orientieren, Ideen zu entwickeln, Forschungspläne zu entwerfen, frühere Arbeiten oder empirische Daten zu überdenken – jedenfalls für eine beschränkte Zeit aus der Routine der täglichen Arbeit, aus dem vorgegebenen Rhythmus des Labors auszusteigen, Umschau zu halten, und dabei je nach Umständen mit Wissenschaftlern und Intellektuellen verschiedenster Fachgebiete und Traditionen zu interagieren.

Die Fellows des *College for Life Sciences*, die nach Begutachtung durch ein Expertengremium für eine Dauer von drei bis sechs Monaten eingeladen werden, sind im Übrigen den Fellows des Wissenschaftskollegs gleichgestellt und haben dieselben Rechte und Pflichten. Das Institut erwartet, dass sie für die Dauer ihrer Fellowships in Berlin arbeiten und an der Gemeinschaft der Fellows teilnehmen (am internen wöchentlichen Colloquium sowie an den Mahlzeiten). Das Wissenschaftskolleg stellt Stipendium, Unterkunft und Dienstleistungen zur Verfügung.

Den Fellows des *College for Life Sciences* ist es freigestellt, in ihrer Gruppe zusätzliche Aktivitäten zu betreiben. Ein Wissenschaftlicher Koordinator steht bereit, Hilfestellungen und Anregungen zu geben, gemeinsame Unternehmungen zu organisieren und Verbindungen zu Berliner Institutionen und Kollegen zu schaffen.

COLLEGE FOR LIFE SCIENCES

With the *College for Life Sciences*, the Wissenschaftskolleg wants to provide early-career researchers in the life sciences the opportunity to work in the stimulating atmosphere of an international and multidisciplinary Institute for Advanced Study. Depending on the personal situations of the selected Junior Fellows, the residency should serve to gain new orientation, develop ideas, project research plans, rethink earlier work or empirical data – at any rate, to

drop out of the routine of daily work and the predetermined rhythm of the laboratory, to take a look around, and thereby, in accordance with circumstances, to interact with scientists and intellectuals from the widest possible spectrum of fields and traditions.

Selected by a group of experts, the Fellows of the *College for Life Sciences* are invited to come for three to six months. They are on equal terms with and have the same rights and duties as the Fellows of the Wissenschaftskolleg.

The institute expects them to work in Berlin for the duration of their Fellowships and to take part in the community of Fellows (at the weekly internal Colloquium and at meals). The Wissenschaftskolleg provides the stipend, accommodation, and services.

The Fellows of the *College for Life Sciences* are free to engage in additional activities in their group. A Research Coordinator is ready to provide assistance and suggestions for organizing common undertakings and for establishing connections with Berlin institutions and colleagues.

Scientific Committee des College for Life Sciences

Raghavendra Gadagkar	Biologie	Bangalore
Shakti Lamba	Anthropologie, Biologie	London
Roger Nitsch	Molekulare Psychiatrie	Zürich
Nikolaus Rajewsky	Systembiologie	Berlin
Constance Scharff	Verhaltensbiologie	Berlin
Paul Schmid-Hempel	Biologie	Zürich

Wissenschaftlicher Koordinator: Giovanni Frazzetto