

2023 — ISSUE 2

MAGAZINE

of Heinrich Heine University Düsseldorf

A close-up photograph of two bees on a green flower. One bee is in the foreground, facing right, and the other is slightly behind it, also facing right. The bees are fuzzy and have orange and black stripes. The background is a soft, out-of-focus green.

About bees and genes

Social behaviour
requires a large brain

LAW
Political scandals

MEDICINE
Time is Retina

ARTS AND HUMANITIES
Music videos

hhu.



PHOTO CHRISTOPH KAWAN

The social behaviour of the honeybee can be found in its DNA. At the Institute of Evolutionary Genetics, Professor Dr Martin Beye is conducting research into this behaviour.

Faculties

- FACULTY OF ARTS AND HUMANITIES**
- 04 Music videos as a form of self-empowerment
- FACULTY OF BUSINESS ADMINISTRATION AND ECONOMICS**
- 08 Ordering way too much

Title

- 12 **About bees and genes**
Social behaviour requires a large brain

Faculties

- FACULTY OF LAW**
- 22 A major storm or just a storm in a teacup?
Political scandals
- FACULTY OF MEDICINE**
- 26 Retinal artery occlusion: Time is Retina



PHOTO PICTURE-ALLIANCE/DPA – MARTIN ATHENSTÄDT

The Düsseldorf Party Research Institute (PRUF) addresses the phenomenon of political scandals and their influence on democracy.

Legal notice

PUBLISHER

Communications Office of HHU Düsseldorf in cooperation with the Office of the Vice President for International Relations and the International Office, Universitätsstraße 1, 40225 Düsseldorf

EDITORIAL TEAM

Dr Arne Claussen, Susanne Dopheide, Carolin Grape, Achim Zolke

EDITOR-IN-CHIEF

Dr Victoria Meinschäfer

PHOTOGRAPHY

Christoph Kawan, Ivo Mayr

LAYOUT AND TYPESETTING

vista – Digital Brand Content Design studiovista.de

TRANSLATION

Catherine Illsley

CONTACT

“Magazine of Heinrich Heine University Düsseldorf”, Heinrich Heine University Düsseldorf, Universitätsstraße 1, 40225 Düsseldorf

prorektor.international-wisskomm@hhu.de

Editorial



Dear Reader,

There is something special about bees. Not only because they always seem so extremely hard-working, but also because they display an incredible community spirit. And because they also happen to produce a fabled food: honey. Consequently, it can come as no surprise that bees enjoy an excellent reputation overall in our culture.

Bees are also a subject of attention and interest in research, in particular at Heinrich Heine University. A team from the field of evolutionary genetics headed by Professor Beye is investigating the extent to which the highly coordinated community in which bees live is based on their genes. It is in fact the case that bees inherit the majority of their behaviour, rather than having to learn it. Bees have what can be referred to as a “social brain”, which aids the communication and coordination, without which life in such a large and complex community would not be possible. Switching off individual genes is reflected in corresponding behaviour of the bees. This research not only gives us the opportunity to learn a great deal about bees but also about the interrelationships between genes, behavioural patterns and neural structures.

In addition to bee research, this Magazine also looks at other topics at HHU: For example, the phenomenon of retinal artery occlusion, which can result in a severe loss of vision if left untreated. A research group at HHU is working hard to find a medication-based therapy. A further – completely different – research topic comes from the Faculty of Arts and Humanities: music videos. Far more than just the visualisation of songs, they reveal insights into current perceptions of society and politics. These perceptions are also reflected in political scandals or how certain incidents are “scandalised” – a research topic not only but also of interest to our Faculty of Law. Finally, an article looks at the flood of returns in the online shopping sector. Researchers at HHU have developed measures to stem this tide.

This and all the other research projects mentioned show how relevant scientific findings are to our real lives.

I wish you an enjoyable read!

Kind regards,

Professor Dr Stefan Marschall

Vice President for International Relations and Science Communication

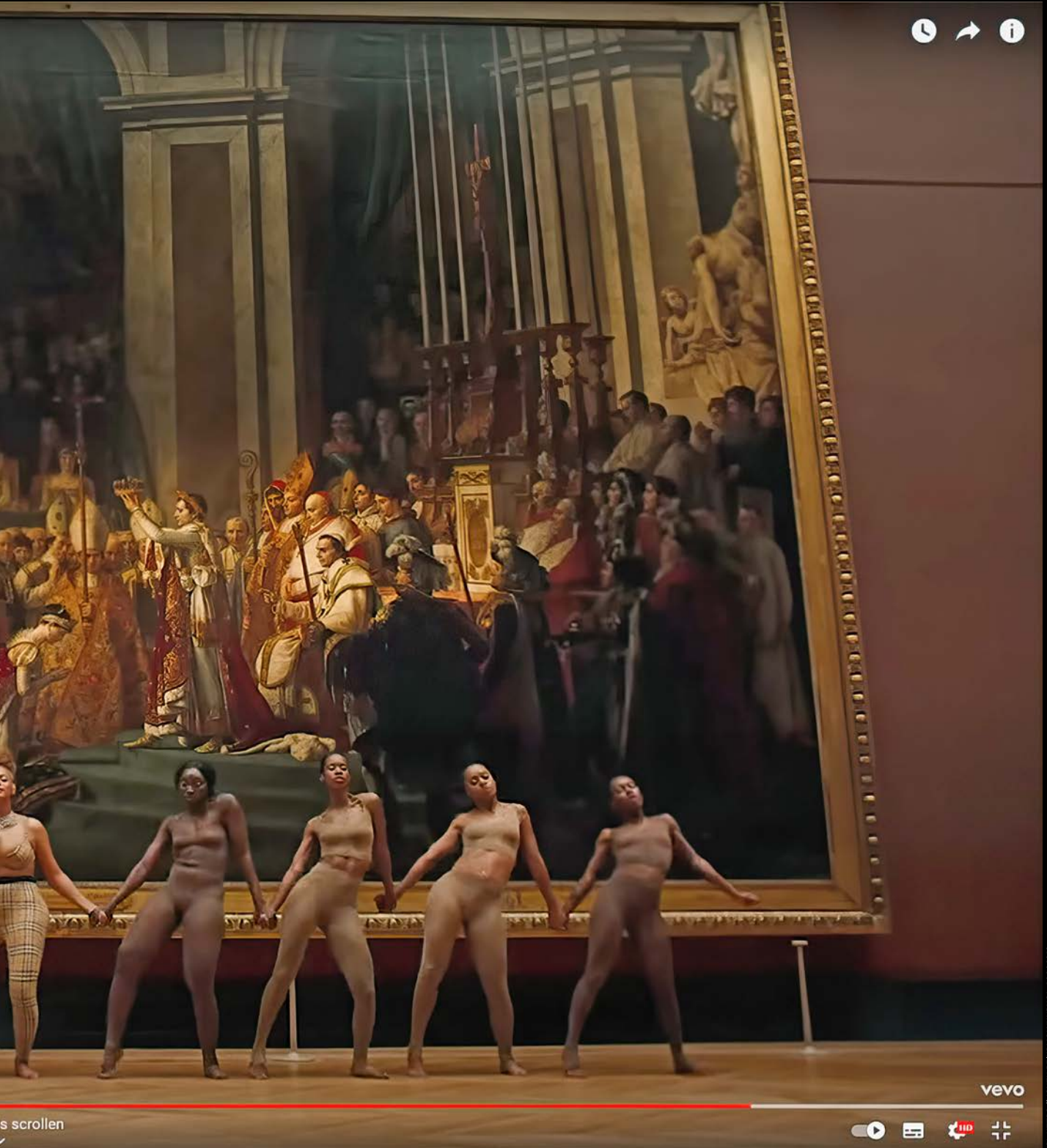
“We are so rich, we can afford it.”

Music videos as a form of



self-empowerment

The Carters: "Apushit"
(Official Video)



s scrollen

BY VICTORIA MEINSCHÄFER

In the 1980s, music videos were primarily a promotional tool: Musicians illustrated their songs with colourful moving images to increase sales figures. However, music videos have since moved on a long way from this means to an end and the videos now being produced by Beyoncé, Janelle Monáe and – on the German market – Deichkind are complex, elaborately staged critiques of society and politics, which often utilise the Western canon of art and moving images to get their messages across. Dr Kathrin Dreckmann (Department of Media and Culture Studies) is a leading expert in the field and has been researching this topic for many years.

A “Apeshit” by Beyoncé and Jay-Z is a video that reflects on cultural theory and which – Dreckmann is convinced – cannot have been created without good knowledge of European art history and the media and cultural studies research of recent decades. “The way in which Beyoncé and Jay-Z dance and pose in front of artwork in the Louvre shows that not only the location but also each and every piece of artwork was selected specifically.”

The setting is a striking choice as the Louvre is the most important and well-known site of European artistic and remembrance culture. “The collection itself is remarkable – and the ostentatious architecture that houses Europe’s pictorial memory is no less so,” says Dreckmann. Beyoncé, who refers to herself as Queen B, showcased herself there as a new black queen, utilising the painting “The Coronation of Napoleon” by Jacques-Louis David. “This painting stands for royal self-empowerment more than virtually any other and was created to symbolically legitimise Napoleon as the French ruler,” says the media and culture studies expert. The video repeatedly shows Beyoncé and Jay-Z in front of this painting and “also places them in a self-empowerment fantasy displaying no less pomp. The two singers appropriate the painting to present themselves as a truly royal couple.”

Black, female and queer self-empowerment are arguably the most important themes of the music videos.

Conventional social and moral convictions have been depicted, confirmed and relayed in European art over the last 500 years. Museums such as the Louvre are of course key locations for cultural memory due to their reputation as the “most important museum” and because priceless works of art are stored and displayed there. Yet, it is clear from the obviously good knowledge of the mythological scenes shown that the videos do more than just use the location for the sake of it. In their song “Apeshit”, Beyoncé and Jay-Z sing “we made it” and that they are thankful for their fame. “However, it is not only about their own fame, but rather

Art, fame and power

about positioning themselves as black artists,” explains Dreckmann. At the beginning of the video, a black Icarus – a winged man – is shown as excluded, crouching in front of the entrance to the Louvre. The next scene takes place in the *Galerie d’Apollon*, the prestigious structure built at the order of Louis XIV, and shows the painting “Apollo Slays Python” by Delacroix. Displaying this particular painting in the video transfers the connection between art, fame and power to Beyoncé and Jay-Z and is intended to show a rise to prominence, an ability, a talent that exists and is used and at the same time appropriately showcased.



Top: Janelle Monáe: “The ArchAndroid” (Album Cover Art),
Bottom: “Metropolis” (film poster, 1927)

“The way in which Beyoncé and Jay-Z dance and pose in front of artwork in the Louvre shows that not only the location but also each and every piece of artwork was selected specifically.”

Dr Kathrin Dreckmann — media and culture studies expert

Following the early success of music videos as a promotional tool, they have only gained prominence again since the 2010s. Dreckmann believes this is attributable among other things to changes in mobile Internet usage behaviour and the rise of YouTube. She has also noted that students have also once again become increasingly interested in music videos since streaming platforms such as Spotify or Apple Music have started showing them. “They all share a hybrid clip aesthetic. The artists draw from all genres and forms, cite films as well as images and early video art, and play synaesthetically between sound and moving image.” In addition to European artwork, contemporary videos also often reference early film history. For example, artist Janelle Monáe works with references to the film *Metropolis*, directed by Fritz Lang, while Lil Nas X refers to the film “Call Me By Your Name” in his video “Montero”. What was a critique of the repression of gay sexuality at the time of its publication is now in turn exposed as an instrument of repression when it is made clear that it refers solely to white gay representation.

“Obviously, those who do not know this will not understand the reference,” says Dreckmann, “but that does not mean it should not be taken seriously.” After all, people

will not necessarily understand the Schopenhauer links when they read the novel “Buddenbrooks” by Thomas Mann for the first time. Whether the intellectual input for the videos comes from the artists themselves is unclear, however. The directors and choreographers are known, but they change and do not comment on the videos and their messages. It is also interesting to note that, with their videos, the artists are also acknowledging the canon they are permanently criticising – a canon that actually excludes them, confronting this exclusion through empowerment and deconstruction.

Participation is also achieved here through immense wealth – the artists demonstrate that they can buy participation with the money they have. “We are so rich, we can afford it,” is an important statement. It goes beyond the fact that they can rent the Louvre for the video shoot: Clothing, jewellery, hair and make-up all emphasise the vast amounts of money available.

Adapting canonised content

The music videos perform a central operation within the iconic cultural memory site that is the Louvre by adapting and recasting canonized content. In the process, something like a pop-cultural re-evaluation also emerges. Millions of fans make the pilgrimage to the Louvre – not to view the art displayed there but rather to see where the music video was shot. Beyond this striking individual case, Dreckmann states that this also gives rise to the project of a redefinition of central aesthetic categories as developed and discussed since Benjamin, Adorno and Vernallis. Accordingly, music videos are more than just illustrated music – they are in fact art themselves.

→ **More Than Illustrated Music: Aesthetics of Hybrid Media between Pop, Art and Video.**
 Edited by Kathrin Dreckmann and Elfi Vomberg.
 London: Bloomsbury 2023.

Lil Nas X: “Montero” (Call Me By Your Name) (Official Video)



Ordering way

Tackling the flood of returns
in online retailing



too much

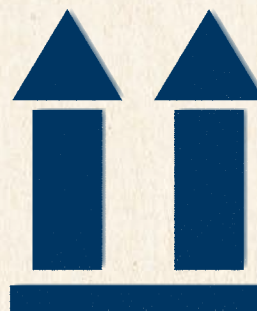


BY CAROLIN GRAPE

The good news: Return rates can be reduced. The Institute for Consumer Studies (*Institut für Verbraucherwissenschaften – IfV*) has developed and trialled easy-to-implement, effective measures aimed at changing order behaviour in collaboration with the online retailer OTTO.

That new pair of trousers is too tight, the colour of that blouse does not match your skin tone at all and, to be on the safe side, it is best to order three different sizes of that pair of shoes to make sure you get a pair that fits properly. So you put the articles back in the box, stick the free returns label on it and put the parcel back in the post. Germany is the “European Champion” when it comes to ordering – and returning – products: In 2021, 1.3 billion articles bought online in this country were returned. That is three times as many as before the pandemic – in 2018, the number of returned items lay between 480 and 490 million. Not without reason: Germans order a comparatively large amount of goods on account, companies offer return periods that are, on average, generous and free returns have become more or less standard here. While this is of course positive for consumers, it is a huge problem for businesses and the environment.

Returns are one of the biggest challenges facing the online shopping sector – in three respects. Vita Zimmermann-Janssen and her colleague Freya Blickwedel, both from the Chair of Business Administration, esp. Marketing headed by Professor Dr Peter Kenning, explain: “According to scientific studies, every returned parcel costs the sector approx. seven euros. In addition to shipping, this figure also includes costs for reconditioning the goods (such as cleaning



and repairs to returned items of clothing). Contrary to the principle that those who incur costs should be the ones to pay for them, these additional costs are simply shared between all customers on a pro rata basis where necessary. In addition to these economic and social sustainability consequences, returns also impact the climate and environment through additional transports and the consumption of further resources as a consequence of packaging waste. All the extra transports generate significant greenhouse gases equivalent to around 800,000 tonnes of CO₂ per year, which in turn corresponds to the emissions caused by roughly 5.3 billion kilometres of car travel.”

Consumption of further resources

Beyond making return shipping and handling processes more sustainable, the biggest lever for solving the problem is to reduce the actual number of returns. “Our primary objective was to develop measures that can be implemented quickly and help prevent the customer from wanting to return goods in the first place. In our RESOLVE research project, we are focusing on consumer behaviour – both before and at the time of ordering/buying,” says Vita Zimmermann-Janssen.

According to her, clothing and shoes account for 85% of returns in Germany. “So we selected the online clothing shopping sector in Germany for our study and established

“According to scientific studies, every returned parcel costs the sector approx. seven euros.”

Vita Zimmermann-Janssen — e-business expert

a collaboration with the company OTTO, one of the largest online retailers in the country. An article-related return rate of around 35% puts them right on the front line when it comes to the issue of returns.”

Major field trial with practical partner OTTO

Freya Blickwedel explains the next steps: “We scrutinised how a typical online order process works in detail. First of all, we conducted a pre-evaluation of the various types of measures and possible touchpoints between the person ordering and the online shopping platforms. Two concrete options emerged. They were initially tested in the laboratory and optimised until they appeared to be capable of influencing behaviour without resulting in any negative side effects (e.g. with regard to retailer image or intentions to switch to a different shop). Finally, we tested the measures in the field with the team from OTTO. They made a section of their online shop available as a test environment and additionally enabled us to conduct a survey of their customers.”



The results of the trials show: An informative message explaining the negative consequences of returns (personal time/effort involved, ecological impact and the risk of rising prices) is an effective tool for raising awareness. Short and to the point, and displayed relatively early on in the buying process, among other things it encourages customers to reflect on their own behaviour – and had a positive effect in the field trial: The share of selective orders (e.g. orders involving articles in multiple sizes) decreased by more than 2% following the display of a “returns message” on the shopping cart page. That may not sound like much in the first instance, but with return costs per article of around five euros and 1,000,000 orders, it can already bring a cost saving of approx. EUR100,000. At the same



time, economic key indicators (e.g. click rate, sales, number of orders) remained at a constant level. A short “returns message” evidently does not result in any negative consequences for the online shopping trade.

Incentives provide motivation

Alternatively, companies can also offer incentives to reduce returns through their bonus programmes: Buyers can be rewarded with bonus points when they choose their orders more carefully and no longer return articles. By contrast, points can be deducted for any returns that do not involve guarantee issues. Contrary to the concern expressed at the start of the project that negative incentives such as the deduction of points could lead to economic disadvantages (e.g. customer exodus, damage to image and loss of trust), the study shows that more than 20% of those surveyed are in principle willing to participate in a bonus programme that not only rewards fewer returns, but also sanctions high numbers of returns.

Good news for the online shopping industry, where competitive pressure is extremely high. In the debate surrounding sustainable returns management and consumer behaviour, the Institute for Consumer Studies has made an important initial contribution with its research into reducing returns.

→ www.verbraucherwissenschaften.de

Institut für
Verbraucher
wissenschaften



Social behaviour requires a large brain

About bees

and genes

BY ARNE CLAUSSEN

The honeybee *Apis mellifera* is a highly social animal. Its complex social behaviour can be found at its very core, so to speak – in the nucleus of its cells, in its DNA. At the Institute of Evolutionary Genetics, bee researcher Professor Dr Martin Beye and his team are examining how the behaviour essential for the functioning of the insect state is encoded in the genome of the creatures and how it is reflected in its nervous system.

I “I grew up with bees and they have always fascinated me,” says Professor Beye in response to the question as to why he chose to specialise in bee research. “I wanted to know how the insects work together, how the colony as a whole forms a functioning unit in which each and every creature knows and performs its own specific task.” Beye has turned his early fascination into a profession: At the Institute of Evolutionary Genetics, he and his team are researching the genetics of bees, in particular the honeybee.

Each individual bee can be compared with a cell in an organism, the beehive, says Beye: “In biology, we call this ‘eusociality’, which is seen as a pinnacle of evolution:

The individual organisms form a highly coordinated community by working together successfully.” An important characteristic of eusocial creatures: Some of the individuals give up reproduction, while a “reproductive caste” develops – the queen – and there is a division of labour between reproduction and brood care. This behaviour can also be found in ants and termites, and examples of social species can even be found in the world of mammals, namely naked mole rats. In such colonies, this collectively optimises reproduction: Only the queen reproduces, but she does so on a continuous basis and highly effectively as she is relieved of other duties.

Professor Beye’s research team at HHU are interested in how this cooperation is encoded in the genes.





“In biology, we call this ‘eusociality’, which is seen as a pinnacle of evolution: The individual organisms form a highly coordinated community by working together successfully.”

Professor Martin Beye — biologist





“Bees inherit the majority of their behaviour patterns, meaning that they do not need to learn them.”

Professor Martin Beye — biologist





There are several bee colonies at the Institute. Researchers use them to examine the extent to which genes influence the behaviour of bees.

“Bees inherit the majority of their behaviour patterns, meaning that they do not need to learn them,” says Beye. This applies to all behaviours the worker bees need in the course of their – in summer just six-week-long – lives, during which they perform a wide variety of functions: from brood care and nest building to defence of the hive and gathering nectar and pollen outside it.

Inherited choreography

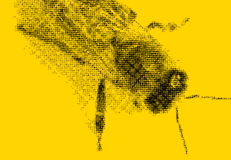
“These inherited behaviours even include the choreography of the waggle dances via which the bees communicate, including local ‘dialects’, where the dances vary from region to region.” Forager bees use these dances to share information with other bees such as the location of good food sources or the best sites for a new hive.

Martin Beye: “Even the early behaviour of newly hatched queens is inherited.” Several queens are always reared simultaneously. They develop from normally fertilised eggs, which are laid in special cells – the “queen cells”. The larvae in these “cells” receive special food and thus develop differently to the worker bees. When the first queen hatches, she emits a characteristic sound, which the other queens still in their cells answer. The hatched queen then goes to all the cells and kills her sisters.

“The actual ‘intelligence’ in the colony can be found in the worker bees – of which there may be tens of thousands – and they also take decisions about the future of the colony rather than the queen,” emphasises Anna Wagner, PhD student at the Institute: “The queen bee has no influence in the hive, her job is simply to lay eggs on a continuous basis – up to 2,000 per day. When the queen no longer does her job properly, the workers eject her and replace her with a new queen.”

The queen has no influence at all

Male bees (drones) – which develop from unfertilised eggs – and how they are treated are also “pre-programmed”. Drones cannot find food for themselves and are dependent on being fed by the workers. Their function is to mate with the newly hatched queens in the various hives during mating flights. The successful drone then dies as it leaves its reproductive organs in the queen. The remaining drones are no longer fed after the mating season. They are driven out of the hive and then die – they play no further role in the future of the colony.



Controlling the complex social behaviour in a large community and the communication and coordination needed for this – by means of the so-called “social brain” – requires greater neural processing capacity. This is reflected in the anatomy of honeybees: Compared with other insects – including wild bees – they have a significantly more complex brain. This anatomic characteristic can also be found in other eusocial insects, which share the labour in their colonies and need to coordinate with each other. And it can also be observed in mammals: Brainpower has increased notably over the course of the evolution of modern humankind and its complex social structure.

Social brain

But how are these behavioural patterns encoded in the genome of the bees? The bee researchers at HHU are using modern genetic methods such as the CRISPR/Cas genetic scissors to find out. PhD student Jana Seiler: “We can switch off individual genes in a targeted way and then see how the behaviour of the bees changes.”

The first weeks of May are a period of intense activity in the Institute laboratory and the hives, which are located in an enclosed area of the Botanical Garden. Seiler: “We prepare artificial combs for the queen to lay her eggs in. Student assistants then take these combs out of the hive and bring them to me in the laboratory, where I process every egg.”

During this period, the conditions in the laboratory are tropical: To ensure the survival of the egg cells, the room must be kept at a constant temperature of 30°C and 70% humidity. Seiler takes the eggs out of the combs, lays them under a microscope and injects the previously prepared CRISPR/Cas complex into each egg using an extremely sharp glass needle. “This is piecework – in three days a week, my colleagues and I process up to 3,500 eggs,” Seiler says.

The eggs prepared in this way, in which the complex makes the desired change to the genome, remain in the lab. After 72 hours, the larvae hatch and are raised in special vessels. Seiler: “Then we see how many injections were successful. Not all the eggs survive the intervention, but around 20% produce viable larvae.” After around ten days, the larvae pupate and adult bees emerge. Anna Wagner and her colleague Ann-Christin Langen then carry out the behavioural measurements on them.

First, the bees are placed in individual chambers. Langen: “We observe whether the juvenile bees demonstrate fundamental behavioural patterns, for example whether they move towards the light, like every bee should.” Precision hands-on work is then called for



Piecework: The CRISPR/Cas complex is injected into a bee egg using a glass needle. (top)

The queen has laid eggs on tiny plastic plugs, which are prepared for injection. (bottom)





again: A tiny piece of paper with a unique QR code is attached to the back of each juvenile bee. Surely there is a risk of being stung when doing that? Wagner: “These very young bees still have a soft sting, which cannot penetrate human skin. So the job is fiddly, but not dangerous.”

In the experimental hive

Equipped with their code, the bees are transferred to the experimental hive, a large comb between transparent acrylic glass plates. Everything is recorded by a camera, which shoots four frames per second and produces such high-resolution images that the QR codes on the backs of the bees can be read out. Professor Beye: “We developed our ‘tracking tool’ in collaboration with the HHU Centre for Information and Media Technology (ZIM), the Chair of Databases and Information Systems and the Institute for the Mathematical Modelling of Biological Systems. It enables us to identify every single bee and observe its individual behaviour.” The evaluation software uses AI techniques to classify movement patterns of individual bees. “For example, we can identify whether a bee is involved in brood care,” explains Anna Wagner, “but also whether their behaviour differs from the typical patterns of a worker bee. When the software indicates signs of this, we examine the bee in question more closely.”



This enables the young researchers to assess whether and how changes to a gene affect the behaviour of the bee – and thus what behaviour is encoded in a gene that has been switched off. Interaction with other bees is also recorded, as it is possible to observe several hundred bees simultaneously with the tracking tool.

Switching off genes

In addition to the laboratory premises, Professor Beye's working group also has a flight enclosure on the outskirts of the Botanical Garden, which is used to observe the collective behaviour of the bees. It is also where the hives belonging to the Institute are located.

At the Institute, the researchers then examine how the genetic and behavioural biology changes affect the neural connections in the brains of the bees. Alina Sturm is focusing on this field of research in her doctoral thesis: "We include fluorescence genes with the genetic changes to show us which areas of the brain have changed." This enables the researchers to establish how and where the social behaviour is specifically manifested in the neural structure: "These areas that control social behaviour appear green under the confocal fluorescence microscope."

Professor Beye has never regretted devoting his life as a researcher to bees: "We are constantly discovering new interrelationships between genes, behavioural patterns and the neural structures in which they are represented. New genetic techniques in particular have provided us with a toolbox that enables us to address and answer many more questions. My team and I are dedicated to tackling this task, supported by our many little helpers in the beehives."

CONTACT

Professor Dr Martin Beye
Institute of Evolutionary Genetics
martin.beye@uni-duesseldorf.de



The bees are fed and temporarily kept in small cages in the laboratory. (top)

Front row (from left): Tamao Nishizuka, Alina Sturm, Maryam Masrouri, Tabea Nüßer, Jana Seiler and Martin Beye; back row (from left): Marc von der Heiden, Ann-Christin Langen, Emma Zimmermann, Anna Wagner, Marion Müller-Borg and Pia Ulbricht. (bottom)

A tiny QR code is attached to each bee, which enables the specific behaviour of every single bee to be analysed via the tracking tool. (right)





“We include fluorescence genes with the genetic changes to show us which areas of the brain have changed.”

Alina Sturm — biologist



BY CAROLIN GRAPE

What do we know about political scandals? How do they work? And why does each country have its own particular triggers? The Düsseldorf Party Research Institute (PRUF) addressed this phenomenon at its annual conference.

Bonus air miles, extramarital affairs, morally dubious business relationships, plagiarism in doctoral theses or parties during lockdown: Every legislative period has its own scandals. When things that otherwise have nothing to do with politics suddenly become political, MPs frequently bow to significant public pressure, which influences democratically elected decision-makers and demands resignations, dismissals or political concessions. The power of political scandals is feared. What triggers a scandal, how it develops and what consequences it has are all unpredictable.

The Düsseldorf Party Research Institute addressed this fascinating topic area at its 29th Party Research Symposium at the end of March under the title “Political Scandals and Political Power”. Co-Director Professor

Dr Sophie Schönberger explains: “We want to consider what influence scandals have on democracy in an interdisciplinary way because, unlike in the study of law, history, sociology, political science and media studies all address the topic intensively.”

Influence on democracy

In a political scandal, the entire nation focuses its attention on a single person on the political stage who finds themselves in the spotlight as a consequence of some wrongdoing. This person has to respond and defend themselves. Both the government and the opposition also need to respond. And the media cover the story in minute detail



PHOTO PICTURE ALLIANCE/REUTERS - CARL RECINE

Human rights violations, contempt for the freedom of the press and corruption: Scandals and uproar preceded the 2022 Soccer World Cup.



PHOTO PICTURE-ALLIANCE/DPA – MARTIN ATHENSTÄDT

Philipp Jenninger (CDU) on the way to a special meeting of the CDU/CSU parliamentary group before announcing his resignation. Theo Waigel, Deputy Chair of the parliamentary group, can be seen on the right. Jenninger's speech to the German Parliament on the 50th anniversary of *Kristallnacht* on 10 November 1988 caused an uproar and led to his resignation as President of the Parliament a day later.

On 30 October 1962, a group of students staged a sit-in at the *Hauptwache* plaza in Frankfurt to protest against the arrest of editors of the *Spiegel* news magazine. The article “*Bedingt abwehribar*” (“partially ready to defend”) by Conrad Ahlers, published in *Spiegel* on 8 October 1962, led to searches of the magazine's editorial offices in Hamburg and Bonn, as well as the arrest of several people, including *Spiegel* publisher Rudolf Augstein and Editor-in-Chief Claus Jacobi, on suspicion of “treason”.



PHOTO PICTURE-ALLIANCE/DPA – GOETTER

and often with relish. Scandals thrive on emotion – the attention factor for those involved and the entertainment factor for the public. “Scandals are somehow fun and serve our desire for outrage,” says Sophie Schönberger.

Dynamics of outrage

However, they also realise an important stabilising function for the political system as a whole: “They initiate democratic discourse about our ethical and moral standards, as well as our expectations with regard to community in general. They expose issues, facilitate reform and correction, and contribute to updating social norms,” the expert continues.

Yet, whether a situation becomes a full-blown scandal depends entirely on public opinion – the extent of the scandal is determined solely by public outrage, not by the wrongdoing itself. Democracy is a prerequisite for political scandal. Freely articulated public outrage about political wrongdoing will only trigger a scandal in a democracy as it takes a free press to expose the political scandal, the opposition to “fan the flames” and the public to get outraged about it. Political scandals are thus a visible result of democratic control in a constitutional state, which takes effect above all when politicians consciously and publicly break the law. In states where no-one is aware of abuses of power or corruption, or ignores them, there are no scandals – and if so, they are deliberately staged as a way of steering public outrage, for example in autocracies.

Political scandals not only play a major role in defining the image of individual politicians, but also in how society views politics and the state as a whole. They trigger collective outrage and shape opinions about the abuse of public office in a range of areas. Scandals about party donations, severance payments or air miles used for private purposes all suggest the corruption of politicians and their use of public funds for personal gain, reinforcing the image of the “lying political caste”.

Cultural differences

Can scandals result in greater political apathy among the population? Do they have the potential to undermine liberal democracies? According to Sophie Schönberger, this risk does in fact exist – although only under two prerequisites: “One is when too much wrongdoing occurs. In this case, the problem is not the scandalisation itself, but rather a mechanism in the system. The other is when the tolerance threshold for the difficulties inherent in democracy is too low. Even if the system as a whole works well, every democracy is governed by people and people make mistakes.” Politicians who get caught up in scandals react very differently. What may be perceived as a major storm by some, is just a storm in a teacup for others. Some see their prompt resignation as the only way to limit the damage to themselves or their political office, like Minister for Family Affairs Anne Spiegel, who resigned following massive criticism of her holiday trip shortly after the flood in the Ahr region. Others, meanwhile, are prepared to ride out the storm in consensus with their party supporters, who they have rallied behind them: Issuing sweeping denials and only admitting to what has already been proven is a frequently used tactic, which was also employed by former Transport Minister Andreas Scheuer (CSU) during the toll scandal.

Scandals reveal a great deal about the standards that apply in a particular society. Experts differentiate between different categories, including corruption and enrichment, party financing, scandals involving the abuse of power, police scandals and moral scandals. What constitutes a political scandal and when resignation becomes a necessity varies in many countries: “Each country has its own scandal culture and triggers. The cases of Bill Clinton, Donald Trump and Anthony Weiner show that sex scandals are at the top of the list in the USA, while in France, François Fillon accepted suits as gifts and pretended to employ his wife – a perfect fit with the French political environment. By contrast, moral scandals are more of a rarity in this country as the majority of the German media and the law differentiate between private life and public office. The



PHOTO: PICTURE ALLIANCE/ASSOCIATED PRESS – MICHAEL SOHN

One of the first German politicians to cause a plagiarism scandal: Karl-Theodor zu Guttenberg.

most common type of scandal in Germany, above all in recent times, has been plagiarised doctoral theses,” the researcher explains.

Law as a subject struggles with political scandals – “the human factor of politics”. According to Schönberger, the formalistic separation between office and incumbent does not seem to work here. And yet, the law fulfils various functions. It is both an object of political scandals and at the same time, the instrument for recording and dealing with them. It is not uncommon for scandals to result in legal proceedings – such as the Wulff affair or the mask affair involving Alfred Sauter and Georg Nüsslein – but they do not necessarily end in legal sanctions. In the majority of cases, the appraisal of scandals under (criminal) law is more of a follow-up, which takes up too much time compared with the attention span of the political public.

“They initiate democratic discourse about our ethical and moral standards, as well as our expectations with regard to the community in general.”

Professor Sophie Schönberger — legal expert

Retinal artery occlusion: Time is Retina

Multi-centre study examines
the effect of stroke medication

BY SUSANNE DOPHEIDE

Retinal artery occlusion is not a well-known eye condition. In the same way as the brain in the case of a stroke, the eye can also be affected by an acute blockage of the blood supply. It is characterised by a sudden, painless deterioration in vision within a few seconds. If left untreated, it results in a severe and permanent loss of vision in around 95% of cases, significantly impairing those affected.

Once you know how the condition occurs, it becomes clear that central retinal artery occlusion (CRAO) constitutes a medical emergency, which requires immediate treatment. It is caused when a clot blocks the blood vessels that supply the retina. This stops the supply of oxygen, causing the tissue to die off. The quicker the blood can flow freely again, the better the prognosis. So it is all the more important that people in general and non-specialist doctors in particular are also capable of recognising the situation as an emergency.

Rare condition

Professor Dr Rainer Guthoff of the Department of Ophthalmology, who is participating in a study on the medication-based treatment of this condition together with Dr John-Ih Lee of the Department of Neurology, warns: “Anyone who notices a deterioration in their sight, which occurs within seconds, and a shadow right across one eye should immediately go to the nearest eye clinic or casualty department – in an ambulance if necessary, even if the shadow only lasts for a short time.” Affecting less than one person in 100,000, retinal artery occlusion is admittedly a rare condition. However, a verifiably effective therapy does not yet exist. A research team from the Tübingen University Hospital, the Hertie Institute for Clinical Brain Research and the Eye Clinic at the University Medical Center Hamburg-Eppendorf is now aiming to change that. Together, they are examining the extent to which medication can dissolve the blood clot and thus stop the retina being destroyed. The medical trial was recently launched in Tübingen and the recruitment of patients has begun – also via the Department of Ophthalmology and the Department of Neurology at Düsseldorf University Hospital.

Under the lead of Professor Dr Martin Spitzer from the Eye Clinic at the University Medical Center Hamburg-Eppendorf, the team conducting the trial is now working with 23 linked centres within the framework of the REVISION clinical trial to examine the extent to which the medication Alteplase can dissolve the blood clot and thus stop the retina being destroyed. This medication is used successfully within the framework of the lysis process in the case of ischaemic strokes, so it is logical to conclude that it may also help in the case of retinal artery occlusion. The study will now establish whether this is the case.

Around 400 patients across the country are to be treated within the framework of the medical trial, which has already begun at the Tübingen University Hospital. Düsseldorf University Hospital also began recruiting patients this year.

→ You can find more information on the study here: www.revision-trial.de (German only).

“Anyone who notices a deterioration in their sight, which occurs within seconds, and a shadow right across one eye should immediately go to the nearest eye clinic or casualty department.”

Professor Rainer Guthoff — ophthalmologist



Haus der Universität

The *Haus der Universität* is a place of dialogue and exchange between science and society – in the heart of Düsseldorf. After extensive renovations, the van Meeteren Foundation kindly allowed Heinrich Heine University to use the building at Schadowplatz 14 as an event centre and, since 2013, as a venue for scientific conferences and for presenting university research and teaching

as well as academic culture. The *Haus der Universität* takes on a central function for Heinrich Heine University at the interface between science and public. It is part of the higher-level public engagement strategy being pursued by the university, which actively furthers the exchange between the city of Düsseldorf, its citizens as well as society as a whole.

Further information, programme, bookings:
Haus der Universität
Schadowplatz 14
40212 Düsseldorf
Tel. +49 211 81-10345
hdu@hhu.de
hdu.hhu.de