Lifeline

69

Year 17

Edition 1

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Dear friends of Idun,

I am proud to welcome you into a new academic year and treat you with the first Lifeline of the year - Lifeline 69! This is a special occasion for all of us, so we have given our all to bring you the best entertainment. Our theme 'Nice' is quite broad this time, everyone is welcome to interpret it however they wish, same applies to all our writers and lay-outers, who all got inspired by the diversity of this theme. What is nice? Have a little self-reflection.....What is nice for you? What do you enjoy in life? There is something for everyone here: a bit of wholesome, a bit of memes (69.....noissss!), beautiful pictures of fellow Idunaren and of course something a bit sexy as well. Oh, and a secret poster in the middle, a Lifeline first! Go see what it is! We also have another first in this edition, a thorough overview of the work of the lab group of iGEM Groningen, who will lead us through their project, hopefully further inspiring many of you. As the new chairwoman of Lifeline, although nervous, I am also delighted to present our newest creation - I hope you enjoy the read as much as we loved creating it! And don't forget to enjoy all the little nice things in life!

With love,

Anette Hallik
Lifeline editor in chief 2022-2023

Dear members,

Nice to meet you, very nice. This year it is my honor to write the preface for the Lifeline. First, I would like to welcome everyone back to Idun this academic year, we have missed you. This edition is a remarkable one, it is especially nice, and I do not mean the French city in the province of Alpes-Maritimes. I mean the other interpretations of the word: Giving pleasure or satisfaction, kind, well executed, socially acceptable, or delightful. I do hope that while exploring this new edition of the magazine, you will find pleasure in doing so, maybe you might even feel that the assembly of this Lifeline was particularly well executed. While reading, you might find that the life enriching information within this reader might even make you a more socially accepted person. For now, thanks for taking the time to read the preface, how delightful! The theme of this one must seem obvious by now, it is of course: NICE.

With kind regards,

Jippe Jansman
Chairman of GLV Idun 2022-2023

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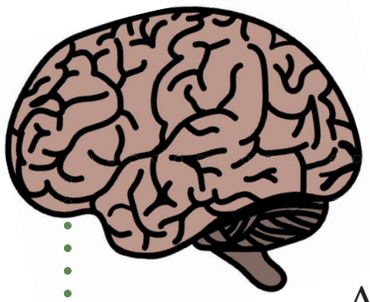
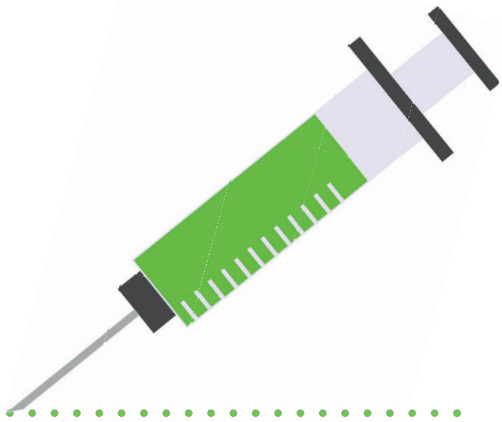
SCIENTIFIC NEWS

By Cecile Bruil & Jelle de Jong



Pigs provide insight into Alzheimer's ?!

For a couple of decades, three genes have been known to be causal for the development of Alzheimer's disease. Now, researchers can add a fourth gene to the list: SORL1. This gene was already found to be defective in 3% of early-onset Alzheimer cases in humans. Though, the causality was not yet established. Using state-of-the-art CRISPR-Cas9 gene editing techniques on cloned minipigs, researchers have defined that SORL1 is a gene which can single handedly cause Alzheimer's disease. So there is no need for the other three Alzheimer genes to be defective. As pigs are quite similar to humans, they are a great animal model, which can bridge the gap between research and pharmaceuticals. With this newfound knowledge, biomarkers during early stages of Alzheimer's can be found. Pharmacologists can start experimenting on the pigs to find pharmaceuticals early on in the disease's trajectory. Possibly even before the brain damage is irreversible. Even though there is still a long way to go, the finding in these pigs gives great perspective for the future treatment of Alzheimer's disease.



Bacterial Syringes: Biomolecular Nanomachines of the future

It has been known that some bacteria are coated in syringe-like protein complexes, each ready to pierce through and inject their contents into anything it comes in contact with. Strangely enough, some bacteria hide these syringes in their inner membranes instead of presenting them on the outside. Another bacterium was found to have syringes not anchored to any membrane but floating freely through the cell. Using tools like cryo-electron microscopy, researchers in Zurich are slowly uncovering the mysteries surrounding these molecular syringes. They found several strategies of how the syringes are used. One of these strategies is the triggering of programmed cell death. Under stress conditions, the syringes could fire into neighbouring cells (of the same species) triggering apoptosis. Another way by which these syringes are used is to efficiently kill off competitors and predators with lethal chemicals. With more knowledge of how these molecular syringes operate it might be possible to engineer them; load them with any content, release them into the body and let them inject that content into any target of choice. Imagine the possibilities of custom made medicine that, instead of diffusing through the whole body, is delivered only to targeted cells.

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RESURRECTION

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2021-2022

For the real paperwork

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MARIT'S MYTHBUSTERS

ANIMALS ONLY HAVE SEX TO REPRODUCE

THEY SAY KNOWLEDGE IS POWER,

but what if this knowledge is total nonsense? When you fall on your tailbone, you won't get blind and when you get a jellyfish sting, please don't pee on it. You will be surprised how many biological misconceptions are rooted in your mind and that of others. In our rubric 'Marit's Mythbusters', I will debunk common myths that many of you believe to be true.

Sex is the ultimate goal. That is, at least, if you are to believe many biologists. After all, only humans have sex because it's nice! Fortunately, animals do not only do the dirty to produce some offspring, but like to get funky once in a while as well. But why did non-reproductive sex, as biologists call it, evolve? Doesn't evolution have BaBiEs as its main goal?

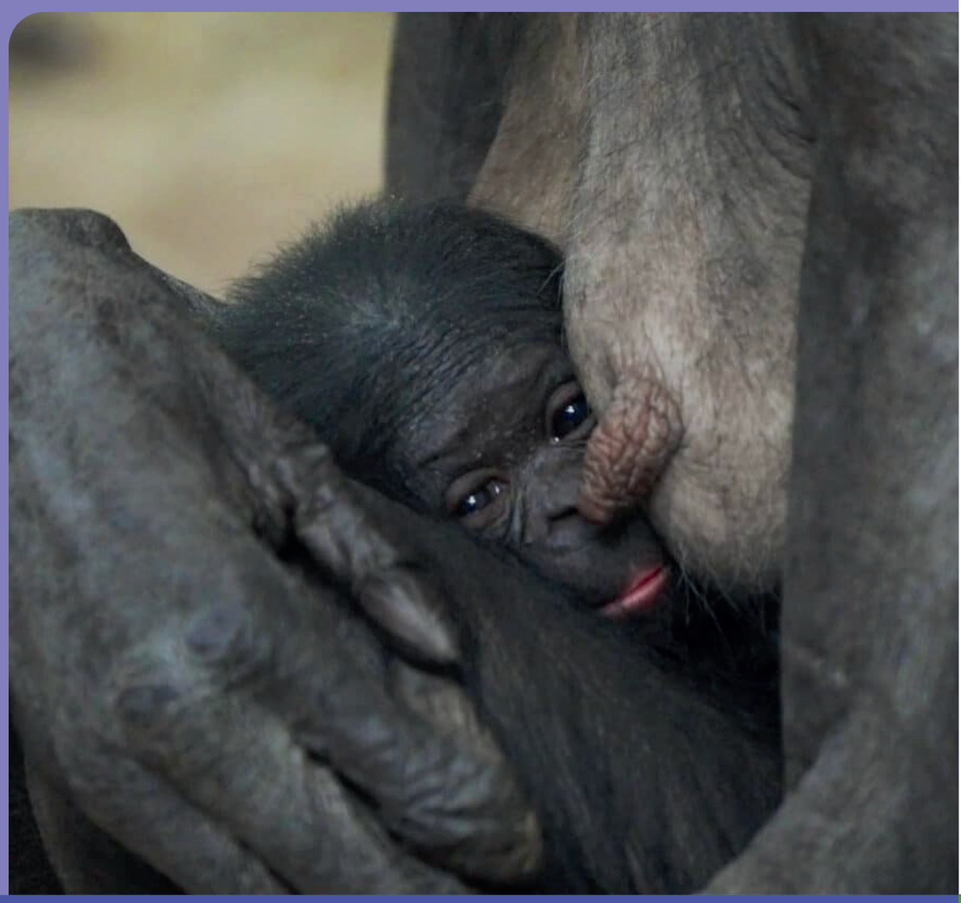
Not only does the belief that the only goal of sex is reproduction completely disregard queer animals; it is simply not true. All around us in the animal kingdom, animals have sex for way more reasons than passing on genes. In social settings, for example, sex can be used to strengthen a bond between two (or more!) individuals. What's the best way of illustrating this? Providing some nice examples of course!

The first horny animal would be the king of the jungle (although they live at savannas mostly), the lion. Lions live in prides. The females in a pride have been part of the social group since birth, but the males have entered the pride at a later point. This entry is not without aggression; new males have to fight the current male off. Of course, you can imagine that the take-over is more successful when you have a few helping hands. These so-called coalitions are strong bonds between males that will help them take over a pride together. During their journey, the males often have gay sex to strengthen their bond!

A very familiar example perhaps, is the bonobo. Females have sex to ensure bonding with dominant males, so the males will share some food. These very polygamous apes also participate in lesbian sex when new females enter the group, to avoid conflict and promote integration into the group. Interestingly, young females become sterile for a short period of time in their adolescence, during which they go wild like a human teenager would. Most of the time, this is heterosexual sex, which due to the sterility does not lead to pregnancy. Man, the world of biology is cool.

Especially the adolescence sterility phenomenon in bonobos illustrates that sex doesn't have to lead to pregnancy and offspring, even though that's what is being taught in high school biology classes. Reproduction may be nice so a species won't go extinct, but the observation that many animals (the lion and bonobo are just the tip of the iceberg!) participate in homosexual, polygamous sex and use it to solve conflicts and strengthen bonds, shows that sex has a way bigger importance than just providing us with babies.

Masturbation, anal sex, homosexual sex, oral sex, and even interspecific sex. It has all been observed in non-human animals as well. We can thus safely say that the ultimate goal of sex is not reproduction and that it can be very important to form stable societies, as it helps, among others, with bond formation and conflict solving. Let's also emphasise this in high school biology!



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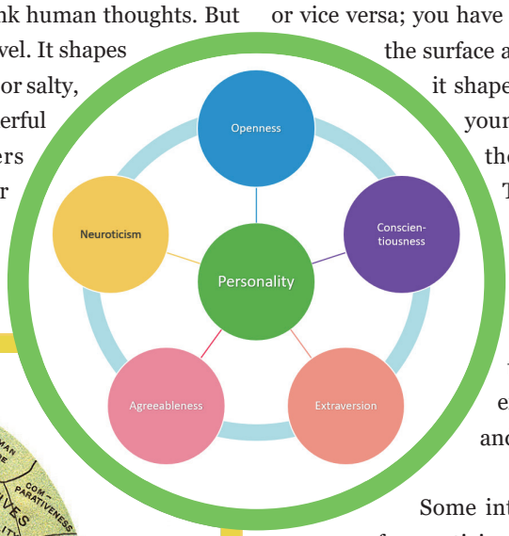
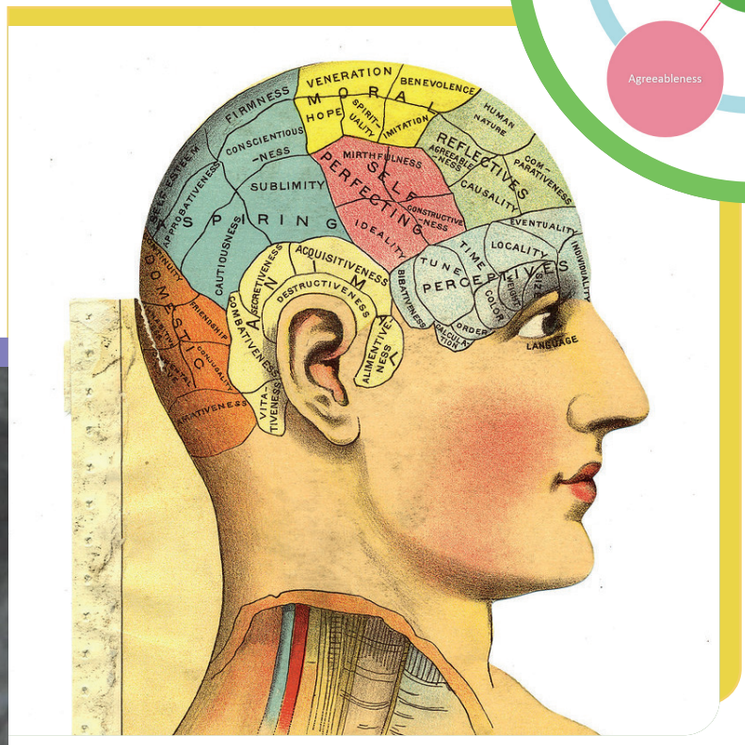
NAUGHTY OR NICE?

YOUR PERSONALITY IS SHAPED BY YOUR BRAIN

By Cecile Bruil

The brain is the most wonderfully complex organ in the human body. And the most interesting one too, at least in my opinion. 1.5 kilograms of sulci and gyri, filled with blood vessels and neurons that make us who we are. It makes us human, it makes us be able to do human things and think human thoughts. But it also makes us 'us' on an individual level. It shapes our personality. Whether you are sweet or salty, your personality is encoded in that wonderful brain of yours. However researchers discovered that you could take 'your personality is shaped by your brain' quite literally, as the morphology of the brain can predict your personality





No, I am not talking about phrenology. Although interesting, the science of assigning personality traits based on how your skull feels (where the bumps and crevices are) has been proven wrong a long time ago. The pseudoscience divided the brain into different areas and assigned a specific trait to each. Then, a physician would feel your skull, and he could explain your personality. In the late 18th century this theory, by Franz Gall, arose from the fact that your skull is not completely smooth, and all people have different personalities, therefore the bumps in your brain determine your personality, or so he thought.

Now, many years later and with phrenology being disregarded, researchers have discovered that there might be some truth to the story.

The researchers of the human connectome project found that the physical structure of your cortex determines your personality. Whether it is thick and has a smaller surface area with fewer folds or vice versa; you have many folds in your cortex which make the surface area large but the thickness rather thin, it shapes you. Over 500 MRI scans of healthy young people were analyzed to determine the ratio of cortex folds and thickness. These data were then compared to the results of the FFM personality test, which is a self-assessment test, though has been regarded to have a high validity. The personality traits that were assigned are; neuroticism, extraversion, openness, agreeableness and conscientiousness.

Some interesting results are that a high level of neuroticism is associated with increased cortical thickness in the prefrontal and temporal cortex (therefore also reduced area and folding), and openness had the precise opposite results; reduced cortical thickness and increased surface area and folding in the prefrontal cortex are associated with openness.

What these results show is that our personality is not fully formed by our experiences and the environment we live in, but also by genetics. Shocking right? Jokes aside, this seemingly simple analyzing research might have great implications for our understanding of the brain for the future. The link between personality traits and brain morphology can be detected early on, in infants already. This can predict whether a child will grow up to be naughty, or nice, but more importantly, this can predict whether a child is more likely to suffer from neuropsychiatric disorders which are often related to personality traits. A better understanding of structural brain differences might lead to better treatment and better understanding of disorders overall.

There is still a long way to go to understanding everything about our beautiful brain, but researchers have yet again solved a little piece of the infinite puzzle.

IF THEY WOULD SCAN YOUR BRAIN, WOULD YOU BE CONSIDERED NICE? ; -)

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NANOBUDDIES: GMOS 'SMALL FRIENDS,

As we all know, Linnaeusborg is a huge building with mazes after mazes of labs. Today, we are gonna have a sneak peek into one of those - the lab of iGEM Groningen. The team welcomed me to their work spaces and let me - and all of our readers - have a little insight of what they do and how they do it, to show us what we - as students - can already do and inspire all of us to pursue with cool scientific projects.

Working on iGEM project

iGEM is a wonderful opportunity for anyone to participate in a project on genetics. Although every team needs some biologists/scientists, even if you come from any other area of study (business or arts etc) and have something to offer to the team: negotiating with potential sponsors, coding, design of the website or anything else that helps with the project, you are welcome to join the team. The duration of the project is roughly 8 months during which one can spend countless hours in the lab working on the project of their dreams. To end this spectacular project on a bang, the team will fly to meet all other iGEM teams around the world to see what they have done and to determine the most creative and well-executed projects. If this article makes you excited about science and lab-work, why not apply next year!

iGEM Groningen team 2022

This year in the University of Groningen the iGEM team has a very novel and fascinating project - Nanobuddies! For a brief (but very clear) introduction, you can scan the QR code which leads you to a small video made by the team themselves. They have decided to tackle a currently relevant problem: the wide outbreaks of Avian Influenza.

Nanobuddies are approaching the virus from the side of genetic engineering, their design is clever but relatively simple. Their goal is to genetically modify a bacteria that naturally already lives in the lungs of poultry - *Lactobacillus reuteri* - to produce nano-bodies. 'What exactly are nano-bodies?' you may wonder. They are very similar in function to antibodies, which can identify an intruder - in this case Avian Influenza - in the body and mark them accordingly to avoid infection. This strategy is a bit different from classic vaccination, instead of making the chicken immune to the virus, the nano-bodies capture and neutralize the virus. And as the bacteria in use already lives in the bird's lungs, just by spraying the genetically modified bacteria on the poultry, the bacteria will be inhaled by the chicken, leading to production of the nano-bodies inside the chicken, neutralizing virus before infection. It is not yet determined how often the bird farms should be sprayed to ensure the poultry stays healthy, as animal testing is outside of the scope of this project.

What is avian influenza?

Commonly known as bird flu, Avian Influenza is an infectious viral disease that spreads amongst all birds, therefore also infecting poultry farms, leading to pointless killing of many birds to avoid further infection.

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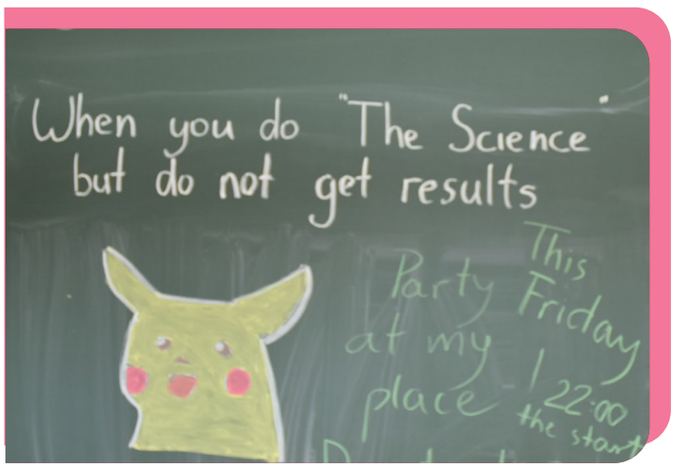
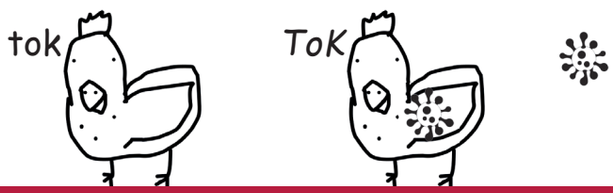
BIG SOLUTIONS' AGAINST AVIAN INFLUENZA

By Anette Hallik

The term 'GMO' might be very scary for some as the discourse around this term has caused controversies left and right. As scientists, we all know that GMO is not anything to be scared of, anyhow, we still need to be careful of keeping laboratory GMO-s under control so the modified bacteria could not undergo mutations in nature, leading to unpredictable consequences. Our iGEM team has also thought about that, creating a kill-switch system to neutralize the modified bacteria if they are out of a chicken's body. How is that even possible?



They are looking into two off-switching systems, light and heat based. For now, the photosensitive system is a tad bit complicated for the scope of this project, as the genetic modifications necessary for a system as such are very complex. That system would activate with light, as there is no light present in the insides of a bird. However, the heat-based kill-off system is much more promising and also seems quite trust-worthy in this stage of the project. The internal temperature of chickens is 41°C, creating a contrast between the outside temperature and the internal temperature of animals different from chicken (human internal temperature: 36,8°C), leading to quite a precise mechanism, which triggers cell death of the bacteria when the temperature is lower than 41°C. This would solve the problem of the bacteria further multiplying in nature and keeping the mutated bacteria only in the poultry in the farms. Sounds kind of ideal, doesn't it?



In the last 7 months, the team has done a lot of problem-solving, brain-storming and development. So far, the experts on the topic of research, who have heard about this project are baffled by its novelty - they have never thought of usage of this platform before. Spraying nano-body producing bacteria to the poultry farms would largely simplify the prevention of Avian Influenza outbreaks. Furthermore, this kind of platform - modifying Lactobacillus reuteri to produce nano-bodies - can potentially be used to prevent other viral infections in organisms other than chicken, as this bacteria is also native for the lungs and gastrointestinal tracts of humans, sheep, pigs and rodents.

What is iGEM?

iGEM is a yearly competition organized by International Genetically Engineered Machine Foundation, where all high-schools and universities all over the world can participate in, by forming a team who will come up with a creative genetical engineering project on one of the following categories: diagnostics, therapeutics, climate crisis, environment, conservation, food & nutrition, bio-manufacturing, industrial scale-up, energy, foundational advance, software & AI, and high school.

We can really say that the future of medicine and disease prevention is deeply rooted in microbiology and genetic modification - there are so many possibilities! And there are so many possibilities for you, as a student, to do awesome, world-changing research!

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MEET THE KEA PARROT

APPRECIATE THE PIGEON

By Jelle de Jong

The birds we tend to see often are likely birds that have integrated into the city-life, like pigeons. Thousands of years ago pigeons traded their mountain homes for a more hectic life in our cities. Pigeons often get hate for painting the signs, statues and frontages of many a city centre white. They get in the way, sometimes at risk of their life. Imagine them like a flock of roomba's, continuously working to keep the streets clean of crumbs. If it were not for the work these birds put in everyday, the streets would be overrun by vermin.

We can thank the pigeons, but also sparrows, gulls and corvids (jackdaws and crows) for swooping down to get anything we drop in record times, keeping the rats and roaches in check. Even non edible litter does not go to waste: in Vancouver, during Canada's opioid crisis, a pigeon nest was found made entirely out of needles. "Never waste a good crisis" comes to mind here. There's a bird that seems to live by this motto; the kea parrot. If you truly want to appreciate our pigeons, go and meet the kea parrot.

The kea, a rare parrot native to New Zealand, is critically endangered and thus protected. This fact doesn't seem to bother the kea at all though. These extremely intelligent and opportunistic birds are taking full advantage of their conservation status, pestering natives and tourists alike. Not only do keas steal whatever they like much like corvids, they also like to destroy anything they can get their beaks on, just for fun. Harming the birds is strictly illegal, and they are fully aware of this. The pesky birds have turned into true criminals, burgling homes by flying in through windows, robbing people of their purses, glasses and phones, vandalising anything they can get their beaks on. Many visitors on a road trip through New Zealand have had their windscreen wipers chewn off; allegedly even flat tires. No wonder why local car rentals make sure to let tourists know they do not provide insurance for kea related damage.

Even more disturbing, or fun, depending on whether you're the parrot or the tourist, are the schemes the parrots employ. In one case, a group of tourists was lured away from their bags, taking pictures of a suspiciously well behaved kea; meanwhile a band of kea were going through their bags. There even is some camera evidence of one of their tricks; In a video a kea can be seen tirelessly moving traffic cones in order to block the road, creating a traffic jam. This was filmed after road workers set up a camera trap to catch the troll that stole their traffic cones. How did it come to this?

Because the kea is native to the mountains, hikers have likely been their first target. They have been seen stealing the laces from shoes, cutting tent wires and eating the food hikers leave behind. The high-energy nutritious food gives the kea ample time to be bored, and of course look for more humans with great interest. Not a bad idea from the government to place signs everywhere along hiking trails that read; don't feed the kea! It might be too late now, is the kea here to stay? Will it trade its mountain home and take over the cities like the pigeon did? If the kea succeeds in this, the good old pigeon will look like a saint.

Images: Freepik.com

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SIXTY "NEIN"

ASEXUALITY EXPLAINED

By Juultje Eenink

Pizza is like sex: even when it's bad, it's still pretty good. But what if I told you, there are people who are not interested in eating pizza at all? What if I told you the same goes for having sex?

What is asexuality?

Asexual people have a lack of sexual attraction to others, or low or absent interest in or desire for sexual activity. Like most sexualities, it is on a spectrum. People with less sexual attraction to others, or who only sometimes experience sexual attraction can be called graysexual or demi-sexual.

How can it biologically exist?

One of the questions that often pops up around sexualities that differ from the heteronormative one, is: "How can it biologically exist?" Evolution should not allow for a subcategory of a species that does not reproduce to exist, is often the argument. Therefore: it must be "unnatural", right? Wrong.

Let me emphasize this again: a non-heteronormative sexuality is not unnatural. For starters, we as humans are a part of nature and therefore natural. Besides us primates, there are more species that show non-heteronormative sexualities. But how is this possible? What about evolution?!

First, consider that evolution actually relies on diversity. Without variation, there would be no evolution and we would not even exist. So are non-reproducing members of a species, just a variation of the species that do not add to the evolutionary strength of a species, but also do not harm it? Not necessarily.

It is not really possible to look at individuals of a species and determine if they are evolutionary "good" or "bad". It is true that it would be less likely for an asexual to reproduce (a lot), but even so: reproducing yourself is not the only way to add to the survival of a species. For example, take bees: the biggest part of the colony does not reproduce at all. Still, the non-reproducing bees cannot be missed if the species is to survive.

That's not to say that asexuality can only exist because they add to the survival of the species in other ways. For the record, it is possible for a species to have some members that do not add to the survival of the species - and that does not make those members less valuable. Especially nowadays, when we have quite enough people on earth, we should not value people by the amount they can and want to reproduce.

How asexuality can exist in a person is not entirely clear; there is not a single or simple reason for it. It might have different causes in different people. It can be caused by genetic traits: it might be a difference in the brain, it might be hormonal. This does not mean it needs to be treated. It might also be caused by non-genetic factors, someone on quora suggested it to be caused by the oversaturation of sex in our culture. These are all possible explanations. Whatever the case; people have their own desires, or lack thereof, and are allowed to make their own choices based on those desires.

Can an asexual person be in relationship?

Not all asexual people want to have relationships, but they definitely can. While sexual and romantic attraction are often linked, they can exist independently from each other. Most people can watch and enjoy porn without being romantically attracted to the actors. The opposite is also possible: you can be romantically attracted to others, without being sexually attracted to them.

It can be challenging if only one member of a relationship is asexual, but it definitely does not make the relationship impossible. Relationships like these do exist. How? That is, like with any other relationship, to be figured out by the people in said relationship.

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INTRODUCING NEWBIES

My name is **Alessia**, I am 19 and I am currently in my second year of the bachelor Biology. I like everything about life: from the most complicated molecular pathway to the (unfortunately not so great) biodiversity we have. However, even if my passion for biology is unquestionable, I still have no idea on what to focus in the future!
Other things that I enjoy are: reading, walking in the park, going to the gym and cooking dinner with friends. Fun fact about me: I have an obsession with sea turtles (because they are sooo cute) and last summer I went volunteering in a rescue center. Now every time that someone buys me a gift, it has sea turtles on it!
I am very excited to be part of the lifeline and I can't wait to start.

Ciaooo

I am **Clara**, 24 years old and pretty clumsy. Because I am really passionate about my studies, I tend to spam all my friends with biological fun-facts – which they may or may not want to hear - so I thought joining Lifeline and sharing them with you instead might be a better idea. I am new to Groningen, where I just started a Master's in Behavioural and Cognitive Neurosciences, so you might find me lost in the confusing maze of Linnaeus-borg. Anyways, I am more than excited to start writing and share weird facts from the animal kingdom with you!

Cheers :-)

My name is **Stein**, or as my nickname goes; Banjo. I am an 18 year old student and a proud Groninger (I hope you all have eaten a so-called 'Eierbal'). In my spare time, I love to play games, swim, and make music. I play bass, piano, ukulele and banjo. I always tell people weird facts and want to do the same to you readers. I hope you tell your friends and family the facts with as much enthusiasm as I would tell it. You may count these as the main reasons I joined Lifeline, but I also joined to enjoy the occasional drinks and events with this great group. I am looking forward to create some reading entertainment for you!

Moi eem

I'm **Ella**, I'm from the UK but moved to Groningen in 2018 for my BSc Biology (ecology & evolution), and I'm now in the second year of my MSc in evolutionary biology. I enjoy drinking coffee (probably a bit too much), programming, taking walks or cycling through nature, and growing lots of houseplants. I also get carried away with researching whatever sparks my interest at a certain time, and so I joined Lifeline to be able to share some of the interesting things that I find!

I am **Gintare** (it means amber), a 21-year-old girl from Lithuania. I came to Groningen to study Life Science & Technology. Despite my passion for science, I love drawing and designing stuff. Therefore, I am thrilled to join Lifeline and take part in creating visuals for this lovely journal. Some random facts about me: I love swimming, even though I'm not good at it, I can't stand the taste of caramel, last year I created an art piece made of about 500 Petri dishes with growing bacteria and fungi, and I illustrated a book for children.

See you all in the pages of Lifeline!

Hi there,

My name is **Michelle**, I am 20 years old and a third year biology student with the major behaviour and neuroscience. For my first year at Lifeline I aim to make some beautiful layouts and practise my writing skills. I am a bubbly, sweet, talkative, and versatile person who enjoys good people and good conversations with a cup of tea or a cold beer. Furthermore, I enjoy doing sports, reading, cooking for my friends & family and doing spontaneous things with my friends: from going to lunch lectures, walks, to other activities. I look forward to work with these amazing people and make some beautiful magazines.

Hello beautiful world,

My name is **Eva** (Dine), 18 years old, and I study Biology. I am not just new to this committee, but to student life as well. I love to go out (from shops to bars to whatever place you might like) and always seem to have read, seen, or know some absurd fact to tell you about. I am a walking contradiction with a love for maximalism, sustainability, travel, and locking myself up in my room (while in the progress of a painting). But most of all, I love procrastinating and distracting others while doing so. I hope to share some of my enthusiasm for life with you this year!

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(N)ice cream

RECIPE

By Lisanne Leenheer

Ice cream – it's the perfect comfort food. Did you know you can easily make some at home? All you need is a blender and a few ripe bananas (that's right, it's time to finally use up those brown bananas you probably forgot you had). You'll be surprised by how creamy and delicious this vegan nice cream is; try it out yourself!

Ingredients (for ± 1 serving):

- 3 ripe frozen bananas (peeled and sliced)
- If needed, a splash of (plant-based) milk
- Your favourite spices or toppings for different flavours *(see yellow box for some ideas)*

Instructions

Peel the bananas, slice them into pieces, and freeze them in a bag or container. You could do this a few weeks ahead, so you'll always have a batch of bananas ready to go when you get those ice cream cravings.

Throw the frozen banana slices in your blender or food processor. Depending on the strength of your blender, you might want to wait a few minutes before blending so the banana will soften a bit. Alternatively, you could add a few tablespoons of (plant-based) milk to help your blender. Blend until it gets a smooth and creamy texture.

Now add the desired flavours to create your favourite ice cream. Here's some ideas that we know work, but also feel free to use your imagination and be creative!

Tips:

- Make sure the bananas are very ripe! Bananas that have turned almost entirely brown work best for making nice cream, as these are sweeter and have developed a rich caramelized flavour.
- If you've got a craving for soft serve, eat your nice cream right away. If it's a firmer consistency you're after, put it in the freezer for 20-30 minutes, then scoop it out with an ice cream scoop.

Cinnamon peanut butter

Add cinnamon before blending and top your nice cream with some (or lots of) peanut butter.

Chocolate banana

Add cocoa powder, a pinch of salt, and a dash of vanilla extract to the basic recipe and blend it all together. If you want to go the extra mile, you can stir in some chopped walnuts, chocolate chips, or cacao nibs before serving.

Chocolate hazelnut

Add Nutella (or any chocolate hazelnut spread) before blending. When you've reached the perfect ice cream consistency, stir in some chopped hazelnuts.

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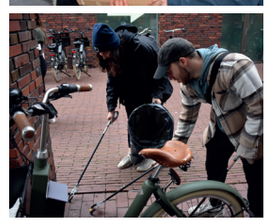
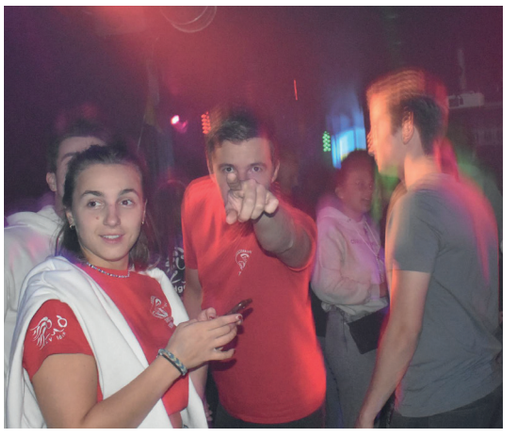
BRUGGE




GAZE


Lifeline









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NICE THINGS

YOU MAY WANT TO KNOW ABOUT LEARNING

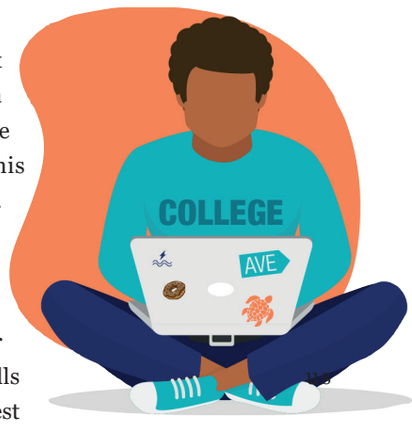
By Roos Slijfer

What interests me is that we were taught what we needed to learn but not how we learn what we need to learn. That sounds complicated but it is rather easy. The question I ask myself is: How do we learn? There has been tons of research focused on cognitive learning strategies. That's why I hope I will make your studies NICER by teaching what you need to do and what you can better not do when studying for your exams.

The first thing you need to do is to throw your marker in the bin. This is not an effective learning strategy. Studies show that people who learned without the marker and with the marker, remembered just as much. Also summarising and rereading are not effective learning strategies. These are maybe strategies to memorise a text, but to understand the text and eventually apply the text, it is more effective to apply other learning strategies.

Science says that it might be more effective to start cramming the night before an exam. The next morning you will probably know most of the things you studied. However, when you want to learn something for the long term, this might not be the best strategy. After 24 hours you forget almost 70% of what you learned. To get information from your working memory to your long term memory there are some things you can do. First, you start by giving meaning to the things you try to learn or memorise. This causes your working memory not to overload. After some practice this information will go to your long term memory. But we are not there yet.

To have this information ready when you need it, some more things need to be done.



Testing yourself is the best way to get the information in your long term memory to be ready when you need it. This might seem controversial. The last couple of years there were a lot of reasons to be found that testing on schools should be banned or at least different. Science tells however that tests are the best way to really learn something and remember this in the long term. It is also important that during the learning process there is enough variety in your learning methods. When learning Spanish, you should not learn the words in the same order all the time but switch them around from time to time. Otherwise your brain will only memorise the words in a certain order. When asked for a random word, your brain will then find it is difficult to retrieve this information.

Next to the variety in how you learn, it is also important to spread your learning. When you want to memorise something, try to learn for a short period of time and then take a break. So do not try to memorise something on the first try, because you will probably forget most of it after 24 hours. Try to repeat what you are memorising and spread it out over a good amount of time.

So no more highlighting or summarising texts, but try to really understand the text. What do they want to accomplish with this text? After that try re-reading the text. Then, maybe try to test yourself, but not only on a level of memorization but also on understanding. Take enough time between these steps and you will ace these exams for sure.

Disclaimer: I am not responsible for any bad grades that might or might not be a result of the advice I've just given.

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WEIRD IS NORMAL

By Nadia van Eekelen

You have probably noticed this edition's number. Nice. For this article I dove into a freaky corner on the internet about animal mating rituals. Some were beautiful, others were funny, and a few were a bit disturbing. Let's talk about some of the slightly unusual lovemaking tactics I found.

When we think about the birds and the bees, we tend to associate penises with males and vaginas with females. However, take one look in the world of animal genitalia, and notice that it is far more complex than this. For many animals, there is no such thing as being male or female. They can be neither. They can be male early in life and female later in life. Or the other way around. They can also be both at the same time. The latter is called simultaneous hermaphroditism. This is a sexual system owned by some animals, which means they have both sex organs.

Most corals are simultaneous hermaphrodites, but mixes of genitalia can also be found in several types of fish, worms, leaches, slugs, sponges, and barnacles. A good example is the terrestrial slug. These shell-less molluscs possess both female and male reproductive organs that are functional at the same time. Because of this, they are able to self-fertilize, but for the most part, they will mate with each other simultaneously to double their output. And of course, they do this in the infamous 69 position. Not exactly the same as humans do (and interestingly, also other great apes such as gorillas and bonobos!) because there is no oral stimulation, but the idea is similar: the slugs lie in an antiparallel configuration.

The slugs take the 69 position to the next level to ensure the survival of the species. With the simultaneous sperm transfer, the slugs are fertilizing each other's eggs, so they have to invest an equal amount of energy in the next generation. This seems like a fair way of copulating that makes you wonder why there aren't more species that evolved the simultaneous hermaphroditic lifestyle. It would definitely get rid of many sexual conflicts, because unlike many other sexual strategies, no one can run away to find the next partner while the other one is busy keeping the babies alive.

The terrestrial slugs blur the line in what is seen as male and female. Throughout history there has been a tendency for sexual selection research to focus on species where the roles of male and female are easily identified. Because that is our 'normal' and thus everything else is 'weird'. The more you go into the topic of sex in nature, the harder it is to categorize one from the other. In some species of beetles, the female is the one that penetrates the male with a penis-like organ. And in some species of snakes, the females are capable of fertilizing their own eggs without needing a male, even though they are not simultaneous hermaphrodites. Weird? Sure. But are they normal? Yes.

We have been so focused on our idea of what is male and what is female that we have forgotten to look at the world around us and everything that falls in between. Research on sexual selection is fundamental in understanding our biological evolution.

> "SLUGS TAKE THE 69 POSITION TO THE NEXT LEVEL TO ENSURE THE SURVIVAL OF THE SPECIES

Who knows what extraordinary things we will discover when we shift our focus towards researching the more unconventional species, away from the gender binary.

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REVIEWING... LUBES ...REVIEWING

In order for your life to go smoothly, lubes are a necessity (literally). With our theme being 69 (hehe nice), Lifeline made it their duty to test various lubes and provide you Idunnaren with the important information on which one is the best. Fortunately, we are not the only ones that understand the importance of lubes during sex! 'Christine le Duc' is a classy sex shop located in the city centre of Groningen, at the Gedempte Zuiderdiep 88, which kindly provided us with free lubes to review! A wide range of lubes was tested, from anal lubes to warming lubes! Seriously, apart from lubes, Christine le Duc has way more tools to offer. It's a beautiful store that is totally worth checking out!

We tested the lubes on our hands (no, we didn't have a Lifeline orgy) and based our judgement upon the following criteria: stickiness, slipperiness, smell, flavour, and packaging. The price of the lubes ranged from €10,- to €15,-. All the lubes came in a pump bottle with a twistable cap, to close off the bottle for travelling purposes, for example.

Sensitive lube

Latex allergies, penis rash and vagina burns. Not with this lube for sensitive skin! The first impression from our praesus: 'It's not sticky, it's oily!!'. Lifeline agrees that this lube is slippery, which is very nice. While the lube itself is completely odourless, the flavour is a bit sweet and tastes pleasant overall. Moving on to packaging, nothing too shabby. Some of our members thought that the packaging resembles a face cleanser, while others got the vibe of a disinfection gel tube. Might be nice when your parents are visiting and you want to hide your lubes from them though, but it does lack the classiness the other lubes have (spoiler). Overall, a good lube!! It would be great to use, but there is nothing special about it. Sometimes there is beauty in simplicity, which definitely holds true for this lube.

Aloe vera

Although we were off to a great start, this lube disappointed us a bit. Well, not a bit, a great bit actually. Our seccie noted that "It's like the soap you never use because it isn't nice, but then, it's lube." Unfortunately, this lube was suuuper sticky, which can only equal being stuck to your toy or partner when using this. Slipperiness, on the other hand, was less; it reminded us of the consistency of soap. These qualities we can overcome, but not the smell and taste. It was a gross combination of soap, cucumber, and salad. Again our seccie: "I would not eat a spoonful of it". The packaging was very nice though, super classy with the black and gold. However, true beauty comes from within, and this lube was definitely not the prettiest.

Anal relax

This lube piqued our curiosity. What feeling would this lube bring? What would anal relax taste like? Upon application on our hands, we wondered if it was going to be numbing. Parit came up with the ingenious idea to test it like cocaine; on your gums. And oh boy, numbing it was. A few dearest members couldn't feel the tip of their tongues for over 30 minutes! Strong stuff indeed. While Lifeline was unsure whether it would really relax the anal region, we could imagine the pain many associate with anal sex would definitely be less. Consistency-wise, the texture was a bit soapy when rubbed between hands, and sticky, rather than slippery. The taste was, surprisingly, minty! Jelle: "It tasted like dentist mint. He wasn't wrong: the lube tasted like you swallowed a dentist's office. Better than anal relax, I guess, but not very pleasant nonetheless. For the packaging: 10/10, Christine le Duc did it again with their high-class bitch packaging.

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By Marit Bonne

In collaboration with...

Silicone

'I wanna fuck with this'; is a quote from one of our dear members. While that is the point of most lubes, Lifeline agrees that this would probably be one of the best. It feels super nice on both hands and lips (on the face): it is zero sticky and has all the slippery, but in the best way possible! This lube is odourless and tasteless; it is a neutral option; which is considered a plus by Lifeline. Packaging is, again, classy and beautiful. Really, there isn't much to say about this lube other than that it feels amazing on the skin and that the neutrality of the lube makes it suitable for many! An editor's note, however: silicone lube and silicone toys do not really match. While it won't melt off the outside of your toy immediately, silicone lube can degrade it over time. So beware! Condoms are no problemo, by the way.

Passion fruit

Woooow, another 'special' lube! And it did not disappoint. The consistency is slightly sticky and medium slippery. Could be better, could be worse. The smell is kind of like a candle, according to yours truly. Our praesus would eat it by the spoon, as the taste is glorious (Which was to be expected, as it is a flavoured lube, but still). The flavour is not artificial and is on the sweeter side. The aftertaste is nice, a bit like skittles. Although the stickiness called for a good hand wash afterwards, the good taste put everything else in disregard. Additionally, the packaging is even more beautiful than the others, showcasing a sexy purple.

Warming

We saved the best for last. Did we? Unfortunately not. Lifeline had it all pictured: a cold winter evening, candles on the couch, blankets nearby, and this warming lube to get the red cheeks started. To our disappointment, however, it was more of a big bottle of lip plumber. It tingled like hell!!! (Which could be nice, but it is something to be aware of). This lube was tasteless and odourless but had a weird toothpaste-like consistency. Praesus: "It's thiccccc". It felt slippery, and a bit sticky. Make sure you clean this afterwards, otherwise you might tingle all day long (unless, of course, that's your thing). The bottle is again, so beautiful.

> "I WOULD NOT EAT A SPOONFUL OF IT

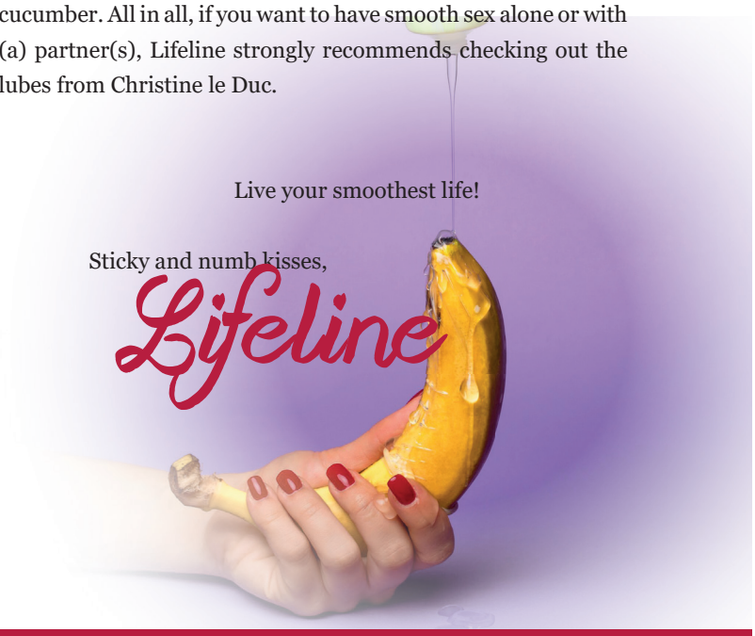
C O N C L U S I O N

After tasting 6 lubes, including a numbing one, the mouths of Lifeliners were dry and numb. But we were satisfied nonetheless, as we came to a great review and discovered which Christine le Duc lube was our absolute favourite. No surprise: silicone. Seriously, buy this. The passion fruit came (haha) in second place, while the sensitive lube reached a solid third. The tingling one and the anal relax were intriguing, and not bad, but not really our thing. Be sure to check them out if you are curious! We advise you to skip the aloe vera, however, that's just liquid cucumber. All in all, if you want to have smooth sex alone or with (a) partner(s), Lifeline strongly recommends checking out the lubes from Christine le Duc.

Live your smoothest life!

Sticky and numb kisses,

Lifeline



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BAS EN Z'N BEESTJES

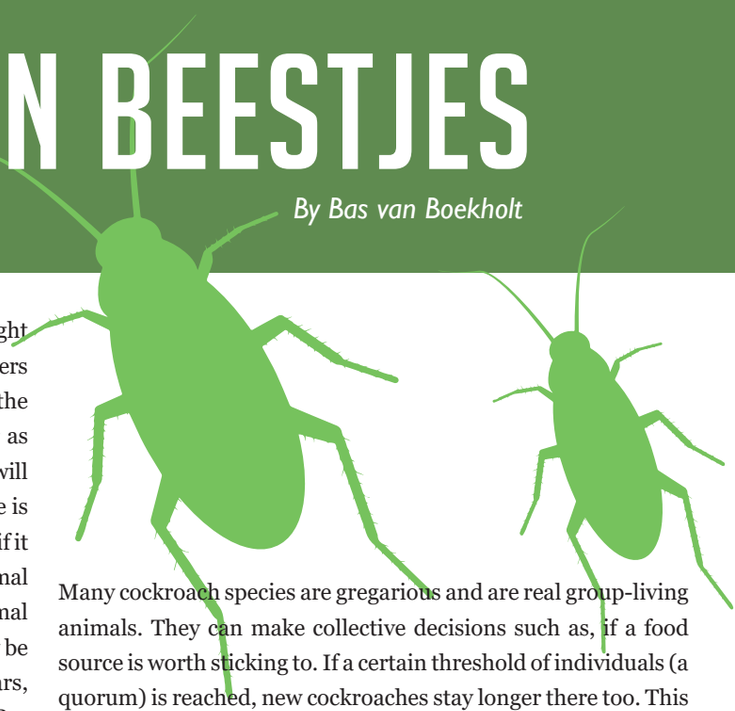
BEASTS BY BAS

By Bas van Boekholt

Different people like different animals. While one person might love to have a cat as pet (me), others prefer a dog, and again others prefer something more exotic like a snake. This also works the other way around: while one person might jump on a chair as soon as the smallest spider rears one of its eight legs, another will scream when they encounter a tip-toeing rat. However, there is one animal that seems to be universally disliked. I don't know if it is its appearance, movement, or living conditions, but this animal induces general disgust in anybody that sees it. If one animal would come last in the "Nice!" competition it would probably be this one, and that is unfair. So, put away those irrational fears, put aside your prejudices and get rid of your readied frown. Really take a time to look at this animal with an open mind. Maybe after reading this, you still dislike it, or maybe, just maybe, this piece will change your mind. In the end, at least I tried. So, time to pinch your nose and raise your eyebrows as I will enlighten you about the criminalized cockroach.

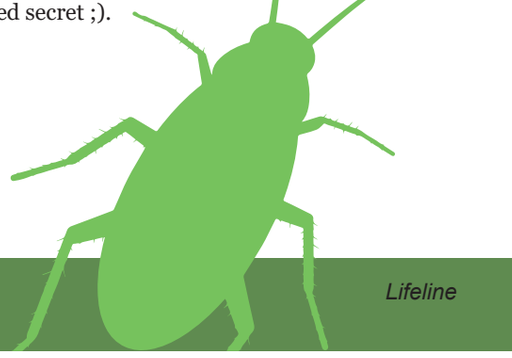
Cockroaches are part of the order of Blattodea which, besides cockroaches, only consists of the epifamily of termites (Termitoidae). Interesting to note here is that the termites, while forming their own group, are really entangled within the cockroaches where some roaches are more related to termites than to other roaches. Cockroaches are an ancient species and have roamed the earth for over 350 million years where they have barely changed in the last 200 million years. The name cockroach comes from the Spanish "Cucaracha" which in its turn derives from the Latin Blatta meaning "an insect that shuns the light". This is true, as cockroaches are nocturnal and avoid lights. But that is not the only reason they flee into small crevices when you shine on them. Cockroaches are the opposite of claustrophobic and actually "like" the sensation of things pressing their exterior which happens when they squeeze themselves through small holes or cracks.

One thing cockroaches are famous for is that they eat anything. Unlike other urban legends, like the fact that they can withstand enormous amounts of radiation (believe me, it is nothing compared to the fruit fly), this is actually true. Cockroach can sustain themselves on almost anything which includes but is not limited to, the glue on the back of postage stamps, books, leather, and even other cockroaches. However, they do seem to have a fondness for sugar and beer, which I can agree with. One reason that they can have such a broad diet is their gut bacteria. These bacteria, which are inherited genetically, help the cockroach digest anything it can get its appendages on and turn it into healthy vitamins and amino acids the cockroach needs to survive.



Many cockroach species are gregarious and are real group-living animals. They can make collective decisions such as, if a food source is worth sticking to. If a certain threshold of individuals (a quorum) is reached, new cockroaches stay longer there too. This drive is so strong that they even would hide together in a well-lit place if enough other individuals were there. Experiments even showed that when these social creatures are reared in isolation they show behavioural syndromes that look similar to what we call depression, showing less interest in food and interacting less with conspecifics when given the chance. If you want to kill a cockroach you need to bring your a-game. You can't starve them as they can go without food for over a month. Beheading is also a slow death because even then they live on for over a week due to their decentralized nervous system (still nothing compared to Mike the Headless Chicken). Even drowning them would not be fast as that can easily take close to an hour!

As you can see these "disgusting" insects are more interesting than most of you would give them credit for. I wonder what they would think of us. Maybe they are not running away from the light but from these ugly fleshy giants that disturbed them during their meal. Who knows, maybe we are the ones that can make a cockroach lose its appetite. They have been around a lot longer than us and will probably outlive us by another 100 million years. In the mean time I think some sort of co-habituating truce is in order and I am happy to accommodate them in my hall of fame (together with their brothers the termites who have been there since the 4th edition of this column). And to continue with the theme of this lifeline let me end with a "nice" fun fact. The cockroach Nadezhda was sent into space by Russian scientists. During her mission she mated and later became the first terrestrial animal to produce offspring that had been conceived in space. If she was the first animal to mate in space at all is up till today a very guarded secret ;).



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Sexshop, Cinema, Erotic Maze

Gedempte zuiderdiep 130
www.maze.nl

Maze is a sex shop, cinema and erotic maze in one! At Maze you can buy the most exciting toys and accessories. In addition, you can enjoy cruising and dating with like-minded people in a discreet and relaxed environment.

In our exciting maze we provide a pleasant atmosphere through music and effects. Upon entering, the cruising begins with a large central mattress. Surrounded by a number of larger and smaller booths with TVs where porn is played! For each his own; we play different genres so that everyone gets their money's worth. Gloryholes are located in some of the cabins and a number of larger cabins have mattresses. We also have the opportunity to fascinate or enjoy yourself in the sling or in one of our chairs!

9 - Dec - 2022
11:00 / Free

12 - Dec - 2022
11:00 / €9,-

30 - Dec - 2022
11:00 / €9,-

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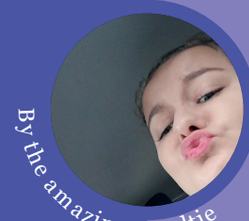
THE IDUZZLE

YOUR FAVOURITE PUZZLE



By the amazing Juultje

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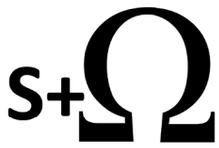

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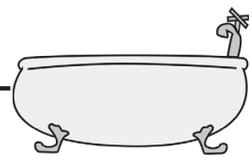

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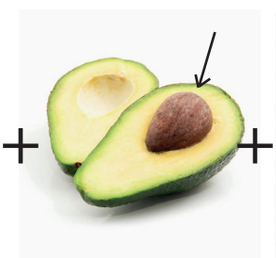

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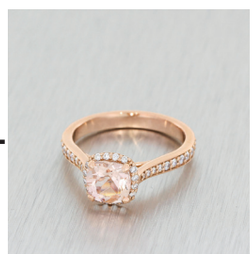

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The previous Iduzzle was won by **Eva Lemson**. Congratulations! She has won a marvelous prize, which she is very happy with! Would you like to be mentioned here in the next Lifeline? Please submit your answer to the Iduzzle to redactie@idun.nl before January 8th.

Answer to iduzzle 68: Let the sun illuminate the words that you cannot find.