Prompt:  
Upcoming issue of Waggel ~1500 words

The story is for our ’Senses’ issue - pet insurance company who publish their own digital zine. Do the research first - explain how the dog smells and compare it to cats and humans.

Julian: “I think my idea was to have an article like that one but incorporate the human (Sarah) element to it, comparing the two to make it more elegant and less dog heavy piece about the understating of the sense of smell. Ideally, I want a good balance between dog and human, not cutesy or too scientific. The general gist of it is an understanding of a dog’s sense of smell in comparison to a humans’. We want to relate her story to the informative story of a dog’s sense of smell and use it as a comparison.”

Julian Prompts:  
Identify gender and mood: Dogs can do this, and we should talk about it and how does that compare to humans? can we smell gender? mood? Or is it social norms that forced us to think women smell like roses and men smell like wood/tobacco?

Dogs also have a good scent memory that can identify other dogs they haven’t seen for years….: Does Humans connect smells to specifics things in the past? is scent part of human memory?

I think before we get into her scents and products we should have a conversation with her about the sense of smell. I think it will be interested to find out if she has an advance sense of smell compared with other people? I think some people are more sensitive to smells than people like me for example who can’t not smell things that well.  Maybe this lead her to work with scents and potentially create this brand. I am pretty sure she has a back story about smells and scents.

How do you choose the scents that go into your candles?

Find out why or how we react to scents differently, like you said, why do we feel calm with lavender? What is the science behind it? Do people react different to a specific scent that others? Or the scents are universal? Why some people dislike one scent and other people like it?

What are your personal favourite scents? ... And why?

What scents do you *not* like in your candles?

Do you find people are most drawn to certain fragrances in the candles – popular?

Do you have a naturally strong sense of smell?

Have you become more attuned to certain smells since starting Evermore?

We should explore more smell (scents) and dog. We should definitely ask if she knows if dogs react the same way to smells or scents (in terms of benefits) like with humans. Has she use her knowledge of scents to help her dog, like maybe he was stressed and she lighted up a lavender candle or something? Or maybe skin problems and she used some oils on him? Has she noticed her dog reacting to different smells? Positive or negative!

Does Raph (Border Terrier) ever help you with scents? Do you feel he has a favourite scent?

Evermore – Sarah Bell

Vegan luxury wax candles inspired by nature

Sarah Interview Questions (Raph - Border Terrier)

* Do you feel you have an advanced sense of smell/are more sensitive to smells compared to other people?
* If so, did this lead you to work with scents and create Evermore?
* Do you ever choose scents based on their emotional impact – i.e., lavender being calming, firs and cedar being grounding, etc.?
* Have you become more attuned to certain smells since starting Evermore?
* Do you find people are most drawn to certain fragrances in the candles – popular?
* Do you feel women are usually drawn to certain smells that are more flowery and men drawn to more musk, woody, vetiver, clove and tobacco scents?
* How do you choose and combine the scents that go into your candles?
* Do you feel Raph reacts positively or negatively to scents?
* Does Raph ever help you pick out scents?
* Do you think dogs can benefit in the same way as humans do to scents?
* Have you ever used your knowledge of scents to help Raph, for instance if you ever felt he was stressed you used lavender oil on him or lit a lavender candle? Or perhaps skin problems where you used oils on him?
* What are your personal favourite scents and why?
* What scents do you *not* like in your candles?
* In your Harper’s Bazaar article, you spoke on your 3-week Campervan trip around California and mentioned a stop off in Monterey - a place known for its endemic cypress trees. Do you often get inspiration for candle scents while on your holidays? [Reference how the smell of trees in California is different than in England]
* Is it difficult sourcing sustainable ingredients?

Article  
For Sarah Bell, founder of eco-friendly luxury candle brand Evermore, the smell of Yves Saint Laurent’s Opium perfume instantly brings back memories. Just a whiff of the scent and she recalls watching her mum get ready while looking with fascination over all the trinkets spread onto her dressing table. Sarah’s mother wore the evocative scent every day, a fragrance that made a lasting impression. Sarah explains, “Scents instantly transport you back to that time, even if it’s just for a millisecond you get all the old emotions coming back. Whatever it does to your brain is so powerful.” What actually happens when scent triggers a vivid memory stored away in some hidden corner of the brain, and why is it so emotive?

The answer is that in just a couple quick synapses, the nose inhales a scent which travels a direct line to the emotional and memory centres of our brain, the amygdala and hippocampus. Meanwhile, the remainder of our senses - touch, taste, sight and sound - must first travel through the thalamus which discerns and relays information to the rest of the brain to process before reaching those centres. For these reasons, not only are memories physiologically triggered most rapidly by scent, but scent-induced memories also generate significantly stronger emotional responses. One could say this makes smell a human’s strongest sense.

Sarah feels she has always been able to pick up on smells quicker than other people and often smelling things other cannot. This was a big factor guiding her decision to immerse into the business and art of candle-making, inspired by the way fragrances are put together. Combined scents create a “fragrance profile,” i.e., top, middle and base notes falling into categories from floral to woodsy with every individual having their own preferences. Sarah divulges her acute sense of smell increased during her first 12-weeks of pregnancy, an evolutionary effect said to protect the mother from ingesting anything which could have adverse effects for her or the baby.

Sarah explains developing candle fragrances for Evermore has made her even more attuned to picking up the most nuanced scents both in products and in nature. Meanwhile, Raph, her eight-year-old Border Terrier is equally as discerning. Sarah says he’s a “doggy dustbin” when it comes to most food, however when offered bananas or prawns he’ll sniff it and scoff. And while other dogs may dart their noses towards another dog’s droppings, he backs well away - however fox waste is entirely another matter. When Sarah washes his bed, he doesn’t like it at first as it smells of washing powder rather than all the delicious scents he has cultivated himself.

Between pursuing suspects on the run and sniffing out the leftovers from the roast tucked far back in the fridge, a canine’s acute sense of smell is unquestionably their strongest sense. This evolutionary advantage provides a framework not only for their perception of the world, but also the way they assist us in ours, from medical service to detecting human illness. Like humans, dogs have an incredibly strong scent memory which triggers the pleasure centre in their brains, the caudate nucleus, more than any other sense can [facilitate](https://www.sciencedirect.com/science/article/pii/S0376635714000473). This means when a dog is food-motivated, it’s not so much the visual of the piece of chicken that tempts him, but more so the odour emanating from it connecting his brain to the memory of the pleasurable taste. Their scent memory is so acute, they remember other dogs who they’ve not had physical contact with for years, recalling who was the more dominant or submissive. After returning from a period of absence, a dog will sniff another from his pack to ascertain a mass amount of information from where he went and who he played with to what he had eaten.

How are dogs able to interpret such an array of information using only their nose? To start, a dog’s olfactory cortex is 40 times the size of a humans with a smelling ability ranked between 10,000-100,000 times greater than ours. Putting this into perspective, using their 100 million scent receptors, dogs have the ability to detect one drop of liquid within a lake the size of roughly 20 swimming pools. This is compared to a human’s mere six million scent receptors which wouldn’t even be able to discern a drop of liquid within a pot of water.   
  
Dogs’ super-sense is enhanced by the Jacobson’s Organ, found in many mammals and even reptiles, located in the nasal cavity just behind the incisors. This organ assists them in the mating process as it allows male dogs to understand if a female dog is ready to breed. It also allows dogs to smell ‘undetectable’ and almost odourless chemicals which have particularly large molecules such as pheromones. This is how dogs respond so quickly to their owner’s mood change, because when a human experiences fear and stress the hormone adrenaline is released and transported to the skin, which a dog instantaneously picks up on. For humans, Sarah explains that since base notes contain larger molecules, they are smelled first whereas top notes like florals and citruses with smaller molecules would be picked up on last. Thanks to the Jacobson’s Organ, dogs are able to smell all of it at the same time.

Humans also have the ability to discern mood and gender via smell though it’s much less pronounced than dogs. Men emit odours from [testosterone](https://www.sciencedaily.com/releases/2018/12/181218171544.htm#:~:text=%22Human%20males%20and%20females%20smell,cannot%20detect%20it%20at%20all.) and women from the oestrogen sex hormone [estratetraenol](https://time.com/84286/you-can-smell-someones-gender-says-science/), which studies show men and women pick up gender and even sexual orientation [cues from](https://www.jwatch.org/jn200510200000002/2005/10/20/human-pheromone-brain-response-and-sexual). From a biological angle, men are particularly attracted to vanilla scent on women and often find it relaxing due to the fact it smells closest to the first source of comfort: [breast milk.](https://spoonuniversity.com/news/science-says-we-like-vanilla-because-it-reminds-us-of-breast-milk) In terms of gender preferences, the mid-nineteenth century beckoned in the stereotyped [viewpoint](https://www.ncbi.nlm.nih.gov/books/NBK92802/)s still held today: sweet florals associated with women and sharp, pine and cedar scents kept for men. By the mid-twentieth century, this evolved into men of a respectable social position smelling only of tobacco and clean skin, while women could wear only faint florals. Meanwhile, heavier scents remained for “immoral” ladies.

Times have changed and scent-aficionados like Sarah create unisex blends, omitting masculine or feminine descriptors. When Sarah is asked about male and female preference for her candles, she remarks while her customer-base is largely of the female variety, men who purchase her candles don’t often opt for floral scents. However, she says women often favour Evermore candles such as North and Smoke which contain traditionally musky, masculine notes such as tobacco, leather and oud. So, the question is whether this preference arises from enjoying the scent for its own distinctive qualities, or because the evocative scent subconsciously kindles memories of a quintessentially attractive man.   
  
Scent’s profound effect on mood has been widely researched since the beginnings of folk medicine. Sarah’s candles are made to incite a mood meant for each room in the house; her bestselling candle Moon is infused with rose petals and saffron with smoky base notes to induce a calm night’s sleep, North’s warm and enveloping oud and patchouli for a comforting living room, and Grove’s pine and cedarwood scents to help people feel grounded and energised in a study or office. Sarah also understands the relaxation benefits of fragrance on dogs and uses a specialty dog body spray for Raph which is infused with specific scents to help calm him.

The physiological effects of scents cannot be dismissed as modern science is now beginning to support claims used widely in alternative medicine. [Linalool](https://www.sciencedirect.com/topics/medicine-and-dentistry/linalool) - a naturally occurring alcohol found in over [200 plant species](https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/linalool) including lavender, basil, rose, neroli oils – when applied topically or inhaled reduces the [stress response](https://www.mdpi.com/1420-3049/26/9/2571/pdf) in the brain comparably to the effect of pharmaceutical drugs such as [Valium.](https://www.frontiersin.org/articles/10.3389/fnbeh.2018.00241/full) Particularly in lavender, the combination of linalool and linalyl acetate [calms receptors](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6007527/) associated with anxiety, making it the best option for relaxation and sleep. So, while an individual’s mental or emotional state may be influenced by the memory connected to a scent, there is also scientific research to back the biological effects of many natural plant and flower oils used on humans today. When an individual has a strong dislike for a particular smell, it a might be due to a forgotten memory linked to the [smell](https://www.webmd.com/brain/news/20050107/why-we-love-hate-certain-smells); when an odour is connected with a positive or negative emotional event we regard that odour accordingly – even when we can’t remember the event itself.

So many factors play into our experience of scents. It’s never simply the smell itself but the cultural underpinnings, biological processes, perceptions of an individual’s chemistry and connections made with the given fragrance during memorable times. Sarah’s personal favourite scents draw on the memory factor and can be found in Evermore’s Tides candle, an unusual and herby scent laden with figs and thyme. Sarah loves the nostalgia it evokes as she is reminded of being away on holiday in the Greek isles in the summertime, walking dusty paths in the balmy evenings. The candle Light was inspired by her trip to Seville, eliciting memories of orange trees and peacocks walking around the gardens. Whatever the fragrance of choice, it’s important to have an awareness of the way the scents that surround us have an effect on our mind and body, as well as the wellbeing of our beloved pets. To understand the world from a dog’s olfactory vantage point means gaining an even deeper level of respect for our canine companions, and perhaps a bit of mercy when they get into the bin for the twentieth time.

Sarah Bell’s candles are currently stocked at Harvey Nichols and can be purchased online at <https://evermorelondon.com/>

1614 Words

Additional bits found but not integrated into the article:

Sarah says mint, aniseed and liquorice are her least favourite scents so will never be found in Evermore candles, along with genuine rose and cedarwood essential oils as they are a drain on natural resources and synthetics in small amounts can be perfectly suitable.

“Dogs also have something called neophilia, which means they are attracted to new and interesting odors.”

“Dogs' noses also function quite differently than our own. When we inhale, we smell and breathe through the same airways within our nose. When dogs inhale, a fold of tissue just inside their nostril helps to separate these two functions.”

“When we exhale through our nose, we send the spent air out the way it came in, forcing out any incoming odors. When dogs exhale, the spent air exits through the slits in the sides of their noses. The manner in which the exhaled air swirls out actually helps usher new odors into the dog's nose. More importantly, it allows dogs to sniff more or less continuously.”

“We can't wiggle our nostrils independently. Dogs can. This, along with the fact that the so-called aerodynamic reach of each of their nostrils is smaller than the distance between the nostrils, helps them to determine which nostril an odor arrived in. This aids them in locating the source of smells—we've all seen dogs on an interesting scent weave back and forth across its invisible trail.”

“Dogs also have a great homing instinct that depends on their ability to smell. Since dogs move their nostrils independently, they can determine the direction of an odor and use their sense of smell like a compass.”

“Humans each have a unique innate scent that enables dogs to tell one person from another. Our dogs don’t need to see us to identify us. The dog’s sense of smell is so adept that a blind dog has much less difficulty adjusting to the loss of vision than a human does.”

**Why do dogs have wet noses?**

“The canine nose works best when it is damp. The wet outer nose and mucus-covered nasal canal efficiently capture scent particles. Moisture is so important to the canine sense of smell, that dogs will lick their noses when they become dry. Smart canines don’t want to miss out on important information due to a dry nose!”

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884888/>

“Dogs have repeatedly demonstrated “hemispheric specialization,” that is hemisphere specific brain processing of emotional, acoustic, and olfactory stimuli ([37](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884888/#B37), [38](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884888/#B38)). Unlike other senses, olfactory pathways ascend from the point of detection (nasal cavity) to the point of perception in the brain (olfactory cortex) ipsilaterally: right nostril sensory input is delivered to the right brain hemisphere, and left nostril sensory input is delivered to the left hemisphere ([37](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884888/#B37)). Canines preferentially use the right nostril to sniff conspecific arousal odors and novel odors, delivering sensory input to the right brain hemisphere, which processes threatening and alarming stimuli. Canines preferentially use the left nostril to sniff familiar odors and non-aversive stimuli such as food, as well as heterospecific arousal odors (such as human fear-induced sweat samples) ([37](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884888/#B37)).”

“The current literature contains conflicting information about breed-specific olfactory capacity. Jezierski et al. ([50](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884888/#B50)) demonstrated that German Shepherds were significantly better at detecting narcotics than Labradors and Terriers. In contrast, Hall et al. ([5](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884888/#B5)) reported that Pugs consistently outperformed German Shepherds and Greyhounds in olfactory acquisition and discrimination tasks. Polgar et al. ([51](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884888/#B51)) reported that “scent-group” dogs (e.g., basset hound, German pointer, etc.) performed better on a natural detection task than “non-scent” dogs (e.g., English greyhound, Afghan hound, etc.) and “short-nosed” dogs (e.g., Cavalier King Charles spaniel, Boston terrier, etc.). Additional research is needed to determine if breed specific olfactory capabilities are correlated with genetic polymorphism or if olfactory performance is more a function of behavioral attributes like inherent motivation (i.e., drive) and trainability.”

“Anatomical connections between the olfactory pathways of the amygdala and piriform cortex and the limbic system underlie the interconnection between olfaction and memory ([9](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884888/#B9)). Olfaction and other forms of learning/memory are regulated by the same neurobiological rules ([40](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5884888/#B40)). In working canines, memory of smell is of critical importance: when does odor memory begin? How many odors can canines remember? How long do canines remember trained odors?”

“Jacobson’s Organ also enhances a newborn pup’s sense of smell so he can find his mother’s milk source, and allows a pup to distinguish his mother from other nursing dogs. With a quick sniff, a pup placed between two females will migrate to the mother that gave birth to him!  Pups also have heat sensors in their noses that help them locate their mothers if they wander away.”