

Breaking Carnivore Myths through “Awan” The Clouded Leopard: A Preliminary Character Design

Trianata Pahlevy¹, Banung Grahita², Harifa Ali Albar Siregar³
{trianata.pahlevy@gmail.com¹, banung@itb.ac.id², egopye@itb.ac.id³}

Institut Teknologi Bandung, Faculty of Art and Design, Master of Design, Jalan Ganesa 10,
Bandung, Indonesia^{1,2,3}

Abstract. This paper explores how character design in animation can raise awareness about endangered species in Borneo. Using Roland Barthes' mythology theory, the study reshapes public perceptions of the Sunda clouded leopard as a species threatened by deforestation and poaching and as a carnivore. This project introduces "Awan," a character designed to challenge negative views of carnivores. Scott McCloud's design principles—focusing on inner life, distinct visuals, expression, and body language—guide Awan's character design development. Survey results reveal that most respondents were unaware of the species and saw carnivores negatively. However, after seeing Awan, respondents found the character friendly and relatable, showing a shift in perception. It highlights Awan's potential as a conservation tool to dispel myths. Future research could expand on Awan's visual presentation and explore real-world applications in conservation campaigns to understand its impact better.

Keywords: Character design, myths, clouded leopard, carnivore, and endangered species.

1 Introduction

Borneo Island, known for its tropical rainforest, is home to the Sundanese clouded leopard (*Neofelis diardi*), contributing to its immense biodiversity. Unfortunately, this species is considered vulnerable while serving as an apex predator on Borneo Island [1-2]. Furthermore, the clouded leopard, a carnivorous and endangered species, is subject to several myths that jeopardize its survival. The first myth is that humans view carnivorous creatures as hunting trophies. Successful hunting of these species gives many hunters a sense of accomplishment, enjoyment, and a boost in social standing [3]. The status of endangered animals exacerbates the situation, as many hunters regard rarity as a more valuable asset [4]. Hunting sports perpetuate a myth that portrays carnivorous animals as solely malevolent personalities. Popular culture often portrays carnivores as villains, making people believe hunting them is necessary [5]. These misunderstandings lead to disproportionate hunting of vulnerable carnivorous animals, thereby increasing their vulnerability and potentially leading to the extinction of species like the clouded leopard [4,6], as well as negatively impacting ecosystem functioning [7]. This becomes more critical since Borneo Island already faces a high risk of species extinction, mostly through habitat degradation [8-9].

Addressing the issue of endangered animals requires many conservation efforts, one of which is through digital media [10]. Digital media, particularly animation, offer promising avenues for raising awareness about endangered species and conservation issues. Animations

can be effective tools for promoting energy conservation and developing eco-friendly behaviors, especially among young audiences [11]. Big-screen animations featuring tropical biodiversity and conservation themes can serve as powerful outreach tools when complemented with supporting educational materials and campaigns [12].


Animation has many elements; one of the most important elements or aspects is character design. Character design plays a crucial role in shaping audiences engagement and emotional investment. Effective character design uses player psychology to create powerful social and emotional connections as the story progresses. Cultural studies are important in building relatable characters because they provide a foundation for understanding and representing various cultural views [13]. Semiotics, specifically Roland Barthes' mythology theory [14], is a significant cultural theory in design. This notion was chosen based on the cultural mythologization of the clouded leopard, which refers to the depiction of malicious figures in current pictures. Designers can use culturally relevant character studies to improve character values [15]. As a result, it is critical to consider cultural background while creating relevant characters, particularly myths.

By developing an initial character design from Barthes' mythology, this paper aims to debunk the myths of the clouded leopard, commonly perceived as an adversary and pursued as a prestige trophy. The primary goal of this preliminary design is to raise public awareness about a critical factor contributing to the species' extinction

2 Clouded leopard morphology

The design process begins with an accurate depiction of the clouded leopard's morphology, enhanced by insights from a subsequent myth analysis. By faithfully representing the true animal while considering its shape, the authors create character designs that challenge common myths about carnivores. A Sunda clouded leopard (*Neofelis diardi*) is a medium-sized leopard with large, cloud-like spots along its body. The spots and fur are darker and larger than their mainland counterpart (*Neofelis nebulosa*). There are black lines within the spots, and the interior is darker than the color of its main fur. Thick fur adorns its long tail, which aids in balance. This leopard has short legs and wide paws, which makes it exceptional at climbing trees and moving silently through the forest.

Table 1. Clouded leopard morphology identification.

Animal full-body appearance [16]	Identifications [2]	
	Scientific name	<i>Neofelis diardi</i>
	Conservation Status	Vulnerable
	Diet	Carnivore
	Length	115 – 201 cm
	Weight	15 – 30 kg
	Active time	Nocturnal
	Reproduction	<i>Viviparous</i>
	Habitat	Low-land and high-land rainforest

3 Defining myths

In this research, the term "myth" specifically refers to Roland Barthes' mythology theory. Myths, according to Barthes, are stories that a culture believes in to understand reality or nature. Myths, as a form of discourse, aim to distort historical reality and transform it into a tool for propagating an ideology [14]. Ideology, on the other hand, is a distinct belief system associated with a specific class or group, frequently combining false beliefs with scientific knowledge within a comprehensive framework to generate meaning and ideas [17]. Using Roland Barthes' mythology theory [14], the authors create the clouded leopard 'Awan', aiming to dispel the myth that carnivorous animals are evil and deserving of hunting as trophies. To achieve this, the authors identify the myths associated with the clouded leopard as a carnivore and a rare animal. The process of identifying myths based on Barthes' theory proceeds as depicted in figure 1.

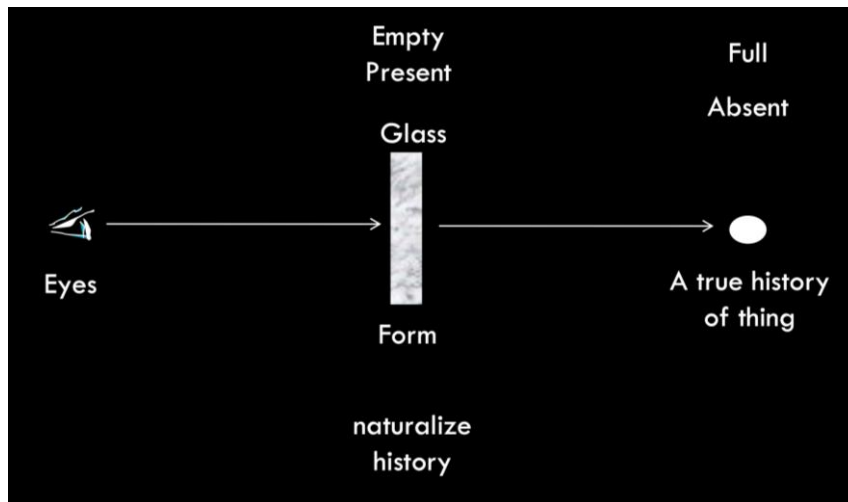








Fig. 1. Illustration of the process of how myths work in falsifying reality [17].

4 Myth analysis

The authors will analyze these myths and their portrayal by examining visual designs of popular figures resembling the clouded leopard, specifically the leopard. This analysis will include both the antagonist and protagonist leopard characters, comparing how their designs bring myths to life and challenge them within the context of leopards. For this purpose, the authors will focus on the characters Sabor and Bagheera, who appear as leopard-shaped adversaries in Tarzan [18] and protagonists in The Jungle Book [19].

In Tarzan, Sabor is depicted as evil, while the gorillas are portrayed as good [18]. This concept serves as a guide in designing the character Awan, avoiding traits that would make Sabor appear evil. Even though both Sabor and Bagheera in The Jungle Book [19] draw inspiration from leopards, the design analysis in table 2 on the next page reveals differences between them. Bagheera's soft features and friendly demeanor help dispel myths about leopards, making him seem more benevolent than Sabor.

Table 2. Comparing myths and realities through Sabor, Bagheera, and real leopard.

Sabor (antagonist)	Leopard (reality)	Bagheera (protagonist)
		
Closer look		
		
Displayed traits	Real traits	Displayed traits
<ol style="list-style-type: none"> 1. Exaggerated long fangs and claws; 2. sharp eyelids and pupils; 3. angry expression with excessive aggression; and 4. more muscular build compared to real leopards. 	<ol style="list-style-type: none"> 1. Fangs and claws only for hunting and self-defense; 2. eyes are mainly for hunting; 3. excessive aggression only happens occasionally; and 4. muscle designed specifically to survive the environment. 	<ol style="list-style-type: none"> 1. Not showing the fangs and claws exaggeratedly; 2. calmer and rounder eyes; 3. gentle expressions and body postures; and 4. not showing the body with exaggerated muscle.
Displayed myths	Concealed realities	Debunked myths
<ol style="list-style-type: none"> 1. Killer, 2. monster, 3. aggressive, and 4. villain. 	<ol style="list-style-type: none"> 1. Only hunt when hungry; 2. avoid humans as much as possible; 3. a mother's instinct to protect her children; and 4. have a prosocial role in the ecosystem. 	<ol style="list-style-type: none"> 1. Befriending Mowgli; 2. protecting Mowgli from Shere Khan; 3. gentle expressions and body postures; and 4. actively participating in raising Mowgli.

5 Preliminary design process

In this preliminary design process, the authors adapt Scott McCloud's character design method from Making Comics [20]. McCloud's work explores the potential of comics as a storytelling medium, particularly character design, which also applies to animation creation. Globally recognized for its impact [21], McCloud emphasizes the importance of a character's inner life, visual distinction, expressive traits, and body language. This paper first delves into the concept of visual distinction, highlighting how these visuals challenge certain myths. The paper then scrutinizes inner life and expressive traits as crucial components of character design, demonstrating their role in dispelling the myth of the clouded leopard through the Awan's inherent narrative.

5.1 Visual distinctions and debunked myths

Visual distinction refers to the unique and memorable features of a character, including their face, body, clothing, and accessories. The writer will present further details in a table, which will include visuals and keywords from the earlier analysis. These elements will help highlight the character's distinctive appearance [20]. The authors develop five visual distinctions to dispel myths based on their clouded leopard study and myth analysis. Table 3 contains debunked myths about these visual distinctions and figure 2 shows the main view of preliminary character design.

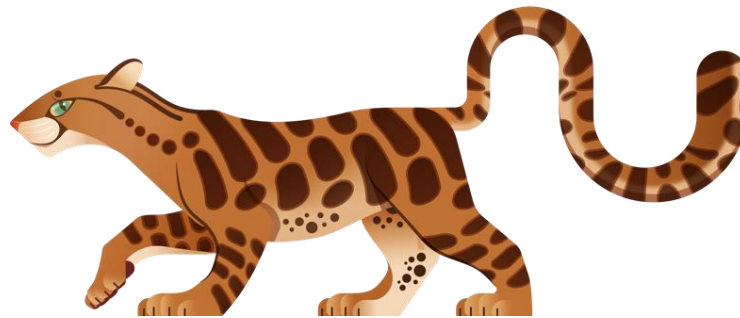





Fig. 2. The main view of Awan's preliminary character design.

Table 3. Visual distinctions and debunked myths.

Visual distinctions	Debunked myths
<p>Unnoticeable talons and claws.</p> 	<p>Carnivorous animals are often shown with exaggerated fangs and claws. Artists alter these features to make designs more stylish and expressive [22], usually using large canine teeth to symbolize strength in carnivores. However, this portrayal is inaccurate. Carnivores adapt their canine teeth to their specific diets and hunting needs. Fangs have different functions—piercing, penetrating, and cutting prey—so their shapes vary by species. The same myth applies to their claws [23-25]. To counter this myth, the authors create visual keywords to show the clouded leopard as non-evil, even when displaying its fangs and claws. These traits are emphasized as survival tools, not symbols of malice.</p>
<p>Rounded shape & pattern</p> 	<p>Sharp-angled shapes in Sabor's design emphasize its evil portrayal, following Tips & Techniques Shape Language by The Walt Disney Family Museum [26]. The guide explains that sharp or triangular shapes evoke fear, while circular or oval shapes convey softness and approachability, fitting for friendly characters. Using this concept, the authors create visual keywords—shapes, skin patterns, and movements—based on circular forms to depict a non-evil character.</p>
<p>Blud eyelids and pupils.</p> 	<p>Sharp eyes in villains are a common trope in literature and film, often used to suggest evil [27, 28]. This supports the idea that certain facial features, especially the eyes, strongly affect how a character's personality is perceived [29, 30]. The "uncanny valley" effect shows that changing eye shape can make characters look creepy, linking sharp eyes to a sinister impression [31]. Based on these findings, the authors conclude that Awan's eyes should be softer to convey friendliness.</p>

Still scientific-accurate design.	It's crucial to preserve the core characteristics of the clouded leopard, despite adaptations or modifications to certain traits. This ensures that Generation Z will still recognize the real clouded leopard when they encounter it, even after seeing Awan's character design.
-----------------------------------	---

5.2 Character inner life

McCloud uses "inner life" and "expressive traits" to strengthen a character beyond visual appearance. "Inner life" includes a character's backstory, perspective, and deepest desires. Myths connected to the character can help reveal these desires. "Expressive traits" refer to visual aspects that show a character's demeanor and behavior. The character's environment—including theme, genre, setting, and world-building—is also essential to its development [20]. Details of Awan's inner life, the story behind the name, debunked myths, and expressive traits are shown in Tables 4 and 5 below.

Table 4. Awan's inner life details.

Inner life aspects	Details
Name and gender	Awan - Male
Debunked myths through the name	Specific names have positive meanings due to cultural associations, beliefs, and language roots [32, 33]. Names can also shape how others interact with a character by influencing social perception, self-image, and cultural associations [34]. Simple, easy-to-pronounce names tend to be viewed more favorably. The hedonic marking hypothesis explains this, suggesting that stimuli that create positive emotions are more likely to lead to favorable perceptions [35]. Based on this review, the authors argue that selecting a suitable name, is essential for creating a friendly impression for young audiences, leading to the name "Awan."
Character's backstory	Awan, a clouded leopard from Borneo, was born into a joyful family. His parents named him "Awan" to inspire him to explore the forest with footsteps as light as clouds. Life was peaceful until a hunter appeared, capturing and killing his closest relatives. Left alone and confused about why his family was hunted, Awan fled into the forest. He now roams, hoping to survive and find his relatives still alive.
Perspective on reality	Awan views the world as a battlefield to continue living, and he perceives humans as monsters due to their past misfortunes.
Character's deepest desire	To survive, Awan seeks to find others of its species. Despite his fear of humans, Awan remains unafraid and determined to continue exploring the vast rainforests of Borneo.

Table 5. Awan's expressive traits.

Expressive traits	Details
Story theme	Clouded leopard as the main character in a fictional world of Borneo wild animals with personification.
Location background	Vast rainforest of Borneo Island.
Time background	Modern present times.
Story genre	Adventure, fiction, family, action, and drama.
Visual style	Cartoon.

5.3 Body language

The body language of the cloud character highlights its flexibility and supports the design goals. First, the design shows the character as agile and nimble, like the natural clouded leopard's climbing skills and silent movement through forests. Second, this design contrasts with Tarzan's Sabor's harsh, malevolent look. Third, circular shapes in the design give a gentle, harmless impression influenced by mythological analysis. The authors incorporate these body language traits into different aspects of the character, from the tail to the spot patterns, while staying close to the clouded leopard's natural appearance.

5.4 Design evaluation results

The author distributed an online survey to 60 respondents from Generation Z who are familiar with video games and character design and live in East Borneo. These respondents were chosen due to their potential influence on the gaming and media industries, as they are likely to be both consumers and creators of content. The results of this design evaluation survey can be seen in Table 6. The author formulated two initial questions to determine respondents' knowledge of clouded leopard species and respondents' views on the representation of carnivorous animals in many popular Culture products. Based on the survey results in Table 6, it's clear that there's an urgent and significant need for education about the clouded leopard species, as around 80% of respondents lack knowledge about it. More than 50% think that it is true that carnivores, in general, have an image as evil characters. These results highlight the significant potential of Awan's character design to dispel these myths and foster a more accurate understanding.

Table 6. Design Evaluation Survey Results.

Survey questions	Survey results				
Have you heard of the clouded leopard before this survey?	19,7% said yes		80,3% Said no		
What is your view on the carnivores' portrayal in pop culture?	54,1% Said as villain	45,9% Said neutral		0% Said as protagonist	
Do you think the preliminary design of Awan looks friendly or frightening?	1 1,6%	2 14,8%	3 11,5%	4 55,7%	5 16,4%
How much do you like the initial character design of Awan	1 0%	2 6,6%	3 13,1%	4 41%	5 39,3%

Notes: 1=Strongly disagree 5=Strongly agree

Based on the survey, many respondents were unfamiliar with the clouded leopard and viewed carnivorous animals as evil. When evaluating Awan's design, most rated it friendly and gave it the highest overall score, indicating the design met its goal of breaking this myth. However, improvements are still needed. Randomly sampled respondents provided feedback, including:

1. Awan's eyes are soft, but still carry a suspicious look, likely due to lingering stereotypes of the clouded leopard.
2. Brighter colors could make Awan appear more cheerful.
3. More comprehensive visuals, including gestures, expressions, and interactions, along with a detailed character narrative, are needed to strengthen Awan's design.

6 Conclusions

The conclusion summarizes the main findings of the character design process for "Awan." This design integrates cultural context and myths to reshape public perceptions of clouded leopards, aligning with the goal of raising awareness about this species' endangered status and challenging the myth that carnivorous animals are inherently evil.

Based on the survey results, there is a clear and urgent need for education about the clouded leopard, as approximately 80% of respondents were unfamiliar with the species. Additionally, over 50% viewed carnivores as inherently evil, underscoring the significant potential of Awan's character to dispel these myths and foster a more accurate understanding. Most respondents rated Awan's design as friendly. They gave it the highest overall score, indicating that the character met its design objective. However, there is still room for improvement. Randomly sampled respondents provided feedback suggesting that:

1. While Awan's eyes appear soft, a lingering suspicion remains, likely due to existing stereotypes about clouded leopards.
2. Brighter colours could enhance Awan's cheerful appearance.
3. A richer depiction of Awan's personality, including more diverse visuals of gestures, expressions, and interactions, as well as a comprehensive character narrative, could strengthen his portrayal.

The findings demonstrate the potential for character design to serve as a tool in conservation campaigns, especially in addressing myths about endangered species. Awan's design could be practically applied to educational resources and conservation campaigns to engage audiences more effectively. Future work should explore integrating character design in real-world conservation campaigns or media to assess its impact more comprehensively. To expand the character design process, incorporating other cultural elements, such as visual discourse and imagology, could help enrich Awan's portrayal and introduce more characters from Borneo's wildlife. Moreover, future research could involve direct measures, such as surveys or focus groups, to evaluate shifts in public perception after interacting with the character. Explicit experimental studies with audience feedback would provide valuable insights into emotional engagement and changing attitudes toward wildlife conservation.

References

- [1] C. H. Gordon, A.-M. E. Stewart, and E. Meijaard, *BMC Ecol.* **7**, 5 (2007). <https://doi.org/10.1186/1472-6785-7-5>.
- [2] A. Hearn et al., *IUCN Red List Threatened Species* **2015**, e.T136603A97212874 (2015). <https://doi.org/10.2305/IUCN.UK.2015-4.RLTS.T136603A50664601.en>. Accessed September 9, 2024.
- [3] G. Beattie, *Trophy Hunting: A Psychological Perspective* (1st ed.) (Routledge, 2019). <https://doi.org/10.4324/9780429297984>.
- [4] L. Palazy, C. Bonenfant, J. M. Gaillard, and F. Courchamp, *PLoS ONE* **6**, e22424 (2011). <https://doi.org/10.1371/journal.pone.0022424>.
- [5] G. Cook, "The Mind of the Predator," *Scientific American*, April 4, **2017**. [Online]. Available: <https://www.scientificamerican.com/article/the-mind-of-the-predator/>. Accessed September 9, 2024.

- [6] W. J. Petersen, T. Savini, and D. Ngoprasert, *Glob. Ecol. Conserv.* **24**, e01354 (2020). <https://doi.org/10.1016/j.gecco.2020.e01354>.
- [7] F. Isbell et al., *Ecol. Lett.* **21**, 763 (2018). <https://doi.org/10.1111/ele.12928>.
- [8] M. Merritt, M. E. Maldaner, and A. M. R. de Almeida, *Front. Young Minds* **7**, Article 29 (2019). <https://doi.org/10.3389/frym.2019.00029>.
- [9] N. Myers, R. A. Mittermeier, C. G. Mittermeier, G. A. B. da Fonseca, and J. Kent, *Nature* **403**, 853 (2000). <https://doi.org/10.1038/35002501>.
- [10] IUCN-CMP, *IUCN - CMP Unified Classification of Conservation Actions Needed* (2012). https://nc.iucnredlist.org/redlist/content/attachment_files/dec_2012_guidance_conservation_actions_needed_classification_scheme.pdf.
- [11] C. Phongthanachote, P. Rattanadecho, C. Com-arch, and R. Prommas, *Sci. Technol. Asia* **24**, 21 (2019). <https://ph02.tci-thaijo.org/index.php/SciTechAsia/article/view/171199>.
- [12] D. L. Yong, S. D. Fam, and S. Lum, *Trop. Conserv. Sci.* **4**, 244 (2011). <https://doi.org/10.1177/194008291100400302>.
- [13] L. C. Luzar and M. Monica, *Humaniora* **5**, 1295 (2014). <https://doi.org/10.21512/humaniora.v5i2.3272>.
- [14] R. Barthes, *Mythologies: The Complete Edition, in a New Translation* (Hill & Wang, 2013).
- [15] N. Muharam, M. H. Jarit, and M. F. Kamaruzaman, *2023 IEEE 12th Int. Conf. Eng. Educ. (ICEED)* **33**, 23 (2023). <https://doi.org/10.1109/iceed59801.2023.10264038>.
- [16] J. Sartore, *National Geographic Photo Ark: ANI105-00205* (2024). <https://www.joelsartore.com/ani105-00205/>.
- [17] Y. A. Piliang and H. A. A. Siregar, *MITOLOGI. Dalam Desain dan Kebudayaan* (Institut Teknologi Bandung, 2023).
- [18] C. Buck and K. Lima, *Tarzan* (Walt Disney Studios Motion Pictures, July 9, 1999).
- [19] W. Reitherman, *The Jungle Book* (Walt Disney Studios Motion Pictures, October 18, 1967).
- [20] S. McCloud, *Making Comics: Storytelling Secrets of Comics, Manga and Graphic Novels* (1st ed.) (HarperCollins Publishers, 2006).
- [21] Publishers Weekly, *Making Comics by Scott McCloud* (September 25, 2006). <https://www.publishersweekly.com/9780060780944>.
- [22] K. Deguzman, *Studiobinder* (December 25, 2022). <https://www.studiobinder.com/blog/what-is-proportion-in-art-definition/>
- [23] J.-P. Brugal and J.-B. Fourvel, *Quaternary Sci. Adv.* **13**, 100129 (2024). <https://doi.org/10.1016/j.qsa.2023.100129>.
- [24] T. Pollock, A. Evans, and D. Hocking, *The Conversation* (September 16, 2021). <https://theconversation.com/jaws-of-death-how-the-canine-teeth-of-carnivorous-mammals-evolved-to-make-them-super-killers-166029>.
- [25] T. I. Pollock, D. P. Hocking, and A. R. Evans, *Zool. J. Linnean Soc.* **196**, 1138 (2022). <https://doi.org/10.1093/zoolinnean/zlab064>.
- [26] The Walt Disney Family Museum, *Tips & Techniques Shape Language* (April 2020). https://www.waltdisney.org/sites/default/files/2020-04/T%26T_ShapeLang_v9.pdf.

- [27] M. A. Allen, J. P. Lucas, M. Chung, H. M. Rayess, and G. Zuliani, *Facial Plast. Surg.* **37**, 348 (2021). <https://doi.org/10.1055/s-0040-1716885>.
- [28] I. W. Kreutz, *Nineteenth-Century Fiction* **22**, 331 (1968). <https://doi.org/10.2307/2932527>.
- [29] S. V. Paunonen, K. Ewan, J. Earthy, S. Lefave, and H. Goldberg, *J. Pers.* **67**, 555 (1999). <https://doi.org/10.1111/1467-6494.00065>.
- [30] K. Ruhland, K. Zibrek, and R. McDonnell, *Proc. ACM SIGGRAPH Symp. Appl. Percept.* 19 (2015). <https://doi.org/10.1145/2804408.2804424>.
- [31] C. Schein and K. Gray, *Interaction Stud.* **16**, 173 (2015). <https://doi.org/10.1075/is.16.2.02sch>.
- [32] E. Korkmazer, E. Arslan, and T. Çift, *Turk. Klin. J. Health Sci.* **3**, 137 (2018). <https://doi.org/10.5336/healthsci.2018-59607>.
- [33] P. Mateos, *Names, Ethnicity and Populations* 81 (Springer, Berlin, Heidelberg, 2014). https://doi.org/10.1007/978-3-642-45413-4_5.
- [34] C. Jarrett, *BBC Future* (May 26, 2021). <https://www.bbc.com/future/article/20210525-how-your-name-affects-your-personality>.
- [35] P. Koval, *The Conversation* (June 25, 2013). <https://theconversation.com/by-george-easy-names-give-off-more-positive-associations-16331>.