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Plastic Domestication: Reading Species Stories Through the Framework of Plasticity

Пластичное одомашнивание:
чтение нарративов о видах через призму пластичности

Абстракт

В статье анализируется понятие пластичности как теоретический инструмент для интерпретации нарративов о нечеловеческих животных, с особым учетом популярной американской прозы о животных начала XX века, в частности романа Джека Лондона о гибридах собаки и волка. Пластичность – способность организмов формироваться под воздействием окружающей среды – исторически использовалась для построения видовых иерархий, в которых собаки изображались как наиболее пластичные и адаптируемые животные. Такая перспектива часто усиливает убеждение в их способности усваивать человеческие ценности и позиционирует *canis familiaris* как вид, по своей природе связанный с человеком. Хотя понятие пластичности традиционно служило для закрепления антропоцентрических интерпретационных рамок, в статье доказывается, что оно может также выступать инструментом их оспаривания. Повторное прочтение этих нарративов

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Reading Species Stories
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Abstract

This article examines plasticity as a theoretical lens for analyzing non-human animal narratives, focusing on popular animal fiction from the early twentieth century, especially Jack London's wolf-dog novels. Plasticity – the capacity of organisms to be shaped by environmental pressures – has historically been used to construct species hierarchies, with dogs, particularly wolf-dogs, portrayed as the most plastic and adaptable. This framing often reinforces their ability to internalize human values, positioning *canis familiaris* as inherently defined by their bond with humans. While plasticity has traditionally upheld anthropocentric frameworks, this article argues that it also offers a means to challenge them. By reconsidering species stories through plasticity, it becomes possible to disrupt hierarchical assumptions and highlight animal agency within broader multispecies networks. This approach not only repositions dogs as active participants in ecological systems but also provides a methodology for disentangling them from human-centered

через призму пластичности позволяет подвергнуть сомнению иерархические предположения и подчеркнуть активность животных в рамках более широких межвидовых сетей отношений. Данный подход не только переосмысливает собак как активных участников экологических систем, но и предлагает методологию, позволяющую отделить их от антропоцентрических нарративов. Кроме того, он рассматривает псовых как полноправных объектов экологических гуманитарных исследований.

Ключевые слова: пластичность, Джек Лондон, собаки, волки, нарративы о видах, видовые гибриды

narratives. It also conceptualizes canids as full-fledged subjects of environmental humanities scholarship.

Keywords: plasticity, Jack London, wolf-dog, species stories, animal hybrids

> They were his environment, these men, and they were moulding the clay of him into a more ferocious thing than had been intended by Nature. Nevertheless, Nature had given him plasticity. Where many another animal would have died or had its spirit broken, he adjusted himself and lived, and at no expense of the spirit… It was another instance of the plasticity of his clay, his capacity for being moulded by the pressure of his environment.
>
> Jack London, *White Fang*[1]

Introduction

In recent years, scholars in the humanities have increasingly embraced the concept of plasticity as both a method and a theoretical framework. This adoption of plasticity aids in the re-conceptualization of body–world relations, challenging the perception of the body as a self-contained, stable, independent entity. Instead, it reveals the body's malleability, relationality, and susceptibility to environmental influences. This burgeoning interest, most visible in new materialist approaches, is partly inspired by philosopher Catherine Malabou, whose work keeps returning to the theme of plasticity. In the American context, in literary and cultural studies, plasticity and its historically contingent corollary, impressibility, have proved

[1] Jack London, *White Fang* (New York: Grosset & Dunlap, 1905), 218.

useful for discussing constructs of race and gender.[2] Plasticity provides an ideal theoretical framework for exploring changes in shape, form, and behavior as well as the embeddedness of these changes in techniques of biopower. Surprisingly, the concept of plasticity has not yet been extensively employed in analyzing fictional narratives about nonhuman animals, even though it would seem that plasticity has been a central concern of so-called animal fiction since at least the nineteenth century. As exemplified in the Jack London quote above, plasticity emerges as an explicit thematic concern in turn-of-the-century animal fiction, giving rise to narrative tensions and generating a series of ethical questions. In turn, using plasticity as a theoretical lens for reading such texts opens up the potential for a nuanced exploration of the dynamics of companion species in a way that makes it possible to go "beyond nature and nurture," as the subtitle of Massimo Pigliucci's book on phenotypic plasticity suggests.[3]

The current absence of scholarly engagement in the humanities with the intersections of plasticity and representations of nonhuman animals is noteworthy. Even Zakiyyah Iman Jackson's book *Becoming Human*, which is grounded in animal studies, is interested in plasticity as a concept used to evaluate the ontological status of non-white humans. It is particularly surprising considering the common usage of the term plastic in nineteenth-century biological thought with regard to nonhuman animals, especially domestic animals. Charles Darwin wrote of the "plastic organisation" of domestic animals in *On the Origin of Species* – "Breeders habitually speak of an animal's organisation as something quite plastic"[4] – and later revisited this idea in *The Variation of Animals and Plants Under Domestication*.[5] For Darwin, "plastic" denoted the quality of being easily shaped, malleable, and he saw this characteristic as particularly visible in domestic species that have been shaped by humans, as evidenced by the great variability of shapes and sizes within a single domesticated species. Dogs, alongside pigeons, stood out as prime examples of such plasticity.

However, in contemporary evolutionary and developmental biology, referred to in shorthand as evo-devo, plasticity is usually associated with the legacy not of Darwin but of Jean Baptiste Lamarck,[6] whose ideas had been discredited for a long time,

[2] Kyla Schuller, *The Biopolitics of Feeling: Race, Sex, and Science in the Nineteenth Century* (Durham, NC: Duke University Press, 2018); Zakiyah Iman Jackson, *Becoming Human: Matter and Meaning in an Antiblack World* (New York: New York University Press, 2020); Jules Gill-Peterson, *Histories of the Transgender Child* (Minneapolis: University of Minnesota Press, 2018).

[3] Massimo Pigliucci, *Phenotypic Plasticity: Beyond Nature and Nurture* (Baltimore: Johns Hopkins University Press, 2001).

[4] Charles Darwin, *On the Origin of Species* (London: Ward, Lock, and Company, 1911), 34.

[5] Charles Darwin, *The Variation of Animal and Plants Under Domestication* (Baltimore: Johns Hopkins University Press, 1998).

[6] Maurizio Meloni, *Impressionable Biologies: From the Archeology of Plasticity to the Sociology of Epigenetics* (London: Routledge, 2019); Richard W. Burkhardt, Jr., "Lamarck, Evolution, and

but who is now enjoying something of a vindication with the rise of epigenetics.[7] While debates persist in the life sciences, particularly concerning the mechanisms of transgenerational plasticity, a general consensus exists on the fundamental definition of the concept as the "ability of any particular genotype to adjust its development, and therefore, phenotype in response to the environment."[8] In essence, plasticity is linked to an organism's response to environmental influence, a notion not far removed from Darwin's understanding of the concept, especially if – as I suggest in this article – we consider the presence of humans as the most significant difference in environmental conditions for domesticated animals.

The meanings of plasticity, as the term has been recently used in the humanities, are related to its usages in the natural sciences. Malabou's early work on plasticity (*The Future of Hegel*, *What Should We Do with Our Brain?*) is linked to neurobiology and explores brain plasticity.[9] Her later work, conscious of the paradigm shift within biology toward post-genomics, begins to focus on the significance of plasticity for epigenetics.[10] While Malabou's work on plasticity is wide-ranging and comprehensive, her position could be summed up as exploring the concept's usefulness for speaking of the materiality of changes that would otherwise defy materialist readings, for example, through linking changes in thought processes to tangible changes in the brain. Malabou understands plasticity quite broadly, as the double capacity to give and receive form and her early definition, interestingly, uses many of the same vocabulary items as the Jack London quote in the epigraph: "'Plastic' as an adjective has two meanings. On the one hand, it means 'to be susceptible to changes of form' or 'to be malleable.' Clay, in this sense, would be 'plastic.' On the other hand, it means 'having the power to bestow form.'"[11] This double meaning of plasticity – encompassing the susceptibility to both act and be acted upon – is crucial for the framework I propose as well.

Meanwhile, North American scholars like Kyla Schuller and Jules Gill-Peterson have taken their understandings of plasticity, or the related concept of

the Inheritance of Acquired Characteristics," *Genetics* 149, no. 4 (2013): 793–805, https://doi.org/10.1534/genetics.113.151852.

[7] Meloni, *Impressionable Biologies*; Snait B. Gissis and Eva Jablonka, *Transformations of Lamarckism: From Subtle Fluids to Molecular Biology* (Cambridge, MA: MIT Press, 2011); Russell Bonduriansky and Troy Day, *Extended Heredity: A New Understanding of Inheritance and Evolution* (Princeton, NJ: Princeton University Press, 2018).

[8] Pigliucci, *Phenotypic Plasticity*, xi.

[9] Catherine Malabou, *The Future of Hegel: Plasticity, Temporality and Dialectic*, trans. Lisabeth During (London: Routledge, 2005); Catherine Malabou, *What Should We Do with Our Brain*?, trans. Sebastian Rand (New York: Fordham University Press, 2008).

[10] Catherine Malabou, *Before Tomorrrow: Epigenesis and Rationality*, trans. Carolyn Shread (Cambridge: Polity Press, 2016).

[11] Malabou, *The Future of Hegel*, 65.

impressibility in Schuller's case, from debates in late nineteenth-century biology, especially the American school of "neo-Lamarckism," associated largely with Edward Drinker Cope.[12] Within these debates, the assumed plasticity of certain human populations becomes politicized: a population's perceived ability to be molded and shaped is seen as a marker of the racial group's potential for "civilization." This neo-Lamarckian understanding of plasticity is of key importance for speaking of the plasticity of species, and the domestication of nonhuman animals can be conceptualized as yet another instance of the recognition of the plasticity of certain species and their potential for becoming incorporated into anthropocentric frameworks of utility through the explanatory narrative of civilization. Many contemporary posthumanist scholars – including Cary Wolfe, Benedicte Boisseron, Harlan Weaver – have explored the entanglement of race and species, and the understandings of plasticity at the turn of the century provide yet another area for conceptualizing this entanglement.

Why Plasticity?

A key question to consider before proceeding with the analysis of what I term "species stories" – twentieth-century popular fiction that foregrounds domestication and taming – through the notion of plasticity is whether plasticity can be a useful concept for the environmental humanities. Can plasticity help push readings in new and productive directions? And what are these directions? My response here is both optimistic and cautious. I contend that plasticity, as an interpretive framework, has the potential to further the primary objectives of environmental humanities scholarship – namely, to decenter the human and redirect scholarly focus toward non-human entities and the intricate interdependence of diverse actants. However, given the concept's historical ideological baggage, it is imperative that we approach its use with care.

Central to the debates in environmental humanities is the redefinition of agency in ways that seek to dismantle the traditional primacy of the individual subject and foreground the relationality and interconnectedness of multiple actants within broader networks. Since the advent of Cartesian thinking, agency has been largely restricted to human beings, conceived as rational subjects possessing dominion over the natural world. Nature, conversely, has been reduced to a passive collection of objects, devoid of any capacity for agency. One of the most significant contributions

[12] Schuller, *Biopolitics of Feeling*, 36–40.

of recent environmental humanities scholarship has been its emphasis on the relationality and interdependence of humans and their environment.

Scholars such as Donna Haraway, Jane Bennett, Timothy Morton, and others, have developed theoretical frameworks in which agency is no longer an attribute of an individual subject but rather emerges from relational interactions. Haraway, in particular, has had a crucial influence on the literary scholarship concerning human–canine relationships. Through her concept of companion species, Haraway has illuminated both the interdependence of humans and dogs and the performative nature of interspecies relations, arguing that subjects are constituted through their relationships with others. In defining companion species, Haraway famously asserts that "none of the partners pre-exist the relating, and the relating is never done once and for all."[13] To further conceptualize human–dog relations, she employs the term "co-evolution," a concept that is also gaining traction in the natural sciences to denote the reciprocal evolutionary shaping of two species over long periods of time.[14]

While Haraway's contributions to animal studies are invaluable, her focus on human–canine relations as narratives of companion species and co-evolution may have inadvertently overshadowed approaches that situate canines within broader networks of actants or that consider them as subjects potentially independent of human influence. Within literary studies, the human–canine dyad has become a focal point for critics who explore the complexities of asymmetrical power relations in texts featuring literary canines engaging with humans.[15] Kendall-Morwick's recent book on literary canines, *Canis Modernis: Human/Dog Coevolution in Modernist Literature*, explicitly frames human–canine relationships as coevolutionary in an understanding that is both Harawayan and that refers to the current bio-archeological hypotheses on the domestication of canines.[16]

As a result of the emphasis on coevolution, dogs, unlike other non-human agents, are often perceived as existing solely in dyadic relationships with humans, complicating their inclusion as subjects in environmental humanities scholarship. To a certain extent this dyadism – dogs always accompany humans; dogs and humans

[13] Donna Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Otherness* (Chicago: Prickly Paradigm Press, 2003), 3.

[14] Donna Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2007), 220.

[15] Susan McHugh, *Species Stories: Narrating Across Species Lines* (Minnepaolis: University of Minnesota Press, 2011); Nicole Shukin, "Security Bonds: On Feeling Power and the Fiction of an Animal Governmentality," *ESC: English Studies in Canada* 39, no. 1 (2013): 177–198; Karalyn Kendall-Morwick, *Canis Modernis: Human/Dog Coevolution in Modernist Literature* (University Park, PA: Penn State University Press, 2020).

[16] Raymond Pierotti and Brandy R. Fogg, *The First Domestication: How Humans and Wolves Co-Evolved* (New Haven: Yale University Press, 2017); Pat Shipman, *Our Oldest Companions: The Story of the First Dogs* (Cambridge, MA: Belknap Press, 2021).

form pairs – has deterred environmental humanities scholars from seriously pursuing the scholarship on canines, largely because the primary interest of the environmental humanities is in multispecies networks and ecosystems. The study of literary canines – largely understood as the study of human–canine relations – has become relegated to animal studies, also known as human–animal studies. While the application of the term coevolution to the history of human–canine relations in literary studies was undertaken to prove that canines can and do act as agents shaping human–canine relations and are not solely objects that are acted upon, somewhat ironically, it has also tied dogs to humans even further.

As Haraway herself argues in *Staying with the Trouble*, "[i]t matters what relations relate relations… It matters what stories tell stories."[17] The narrative of human–animal relations told through the lens of plasticity differs markedly from one told through the lens of coevolution. A "plastic" reading emphasizes the processual nature of organism–environment interactions and the ways in which organisms respond to environmental pressures. Such an approach shifts the focus of analysis away from the human and toward the broader array of forces acting upon the dog, thereby effectively effacing the centrality of the human figure. In this view, human influence is merely one among many environmental pressures. A plastic reading not only acknowledges the relationality of the subject but also recognizes the agency of that subject, exploring the complex conditions that shape it. The dog's agency can and should be considered not only as formed through interactions with humans. Doing so enables us to consider canines as legitimate subjects within environmental humanities scholarship.

However, one must proceed with caution because plasticity – in the early twentieth century the understanding of the term, clearly well known to Jack London and his followers – was implicated in creating both racial and species hierarchies. Identifying plasticity as a governing logic of a literary text does not mean that the text enacts a liberatory, or at least progressive, politics. In *Impressionable Biologies* Maurizio Meloni problematizes "the ubiquitous claim that epigenetics and related ideas of plasticity are 'a break from past thinking' about heredity."[18] Meloni deconstructs the association of fixedness with racism and conservatism and the association of plasticity with progressive ideas related to race by showing how plasticity was used to justify causes that could only be described as racist. Plasticity, writes Meloni, "is not a discourse of emancipation."[19] A very similar position is taken by Kyla Schuller, who writes of impressibility (a synonym for plasticity) as creating "an animacy hierarchy that unevenly apportions the capacities of plasticity and determinism among

[17] Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Minneapolis: University of Minnesota Press, 2016), 35.

[18] Meloni, *Impressionable Biologies*, x.

[19] Meloni, *Impressionable Biologies*, 5.

a population."[20] Those deemed the most impressible are seen as capable of civilizational advancement and potential for self-government. Through the application of certain techniques of biopower, they could be turned into productive citizens. This is also the case in animal narratives of "plastic domestication." While they are genuinely concerned with the plasticity of animal bodies in relation to various environmental pressures, with possibilities of shaping, molding of the animals but also by the animals, the identification of plasticity within a species has been significant for establishing the utility of that species in relation to humankind. I propose that we read species stories in ways that uncover the ideological implications of the historical understandings of plasticity. Only through recognizing and exploring this ideological baggage of plasticity will we be able to read plasticity against the grain, so to speak, as a logic that potentially decenters the human and speaks of the nonhuman animal's adaptive responses to the environment.

Plasticity and Species Stories

This article aims to explore the role of plasticity as a lynchpin connecting various animal narratives that have received limited scholarly attention. These texts defy easy categorization into a distinct genre but are united by a common narrative trope: the transition of an animal character from wild to domesticated or tamed, or vice versa, at least once within the storyline. This convention – one may call it "plastic domestication" – manifests across different, though largely popular, genres and across literary and visual media.

In these narratives, animal domestication takes center stage. The animal heroes of these narratives are wolf-dogs and mustangs, and human presence is an environmental catalyst, triggering an adaptive response in the animal. I look at texts about canids in juxtaposition with "wild-animal-tamed" narratives, which focus on the taming of usually juvenile representatives of other non-domesticated species. Texts within the "plastic domestication" convention propose a hierarchy in the plasticity of species. Within this convention, plasticity emerges as a characteristic most strongly associated with canids, followed by equids. Meanwhile, the juvenile plasticity of "wild" species is not sufficient to ensure their suitability as human companions in the domestic sphere. Animal characters such as deer, raccoons, or foxes exhibit a contrasting trait: elasticity. Despite human efforts, they exhibit a tendency to revert to their original form, which distinguishes them from their more plastic counterparts.

[20] Schuller, *Biopolitics of Feeling*, 11.

While these narratives focus on individual animal characters, they can be read as "species stories," revealing a certain "truth" about an entire species, or rather its relationship to humans. I borrow the term "species story" from Mariam Motamedi Fraser, who uses it in her book *Dog Politics: Species Stories and the Animal Sciences* to argue that popular science books that attempt to tell the story of canine domestication "consider dogs to be virtually incomprehensible without humans."[21] As Motamedi Fraser argues, dogs' species story "conflates speciation with domestication and, in that gesture, installs humans at the very heart of the evolutionary becoming of dogs."[22] Considering the narratives I dub "species stories" through this framework, the narrative strategy of depicting a species through a singular protagonist explains some of the ethological incongruencies as hyperbolic representations of the process of domestication compressed into a single generation. This deviates from ethological realism but enhances narrative coherence and creates an unmistakable narrative arc. My transposition of Motamedi Fraser's term "species stories" onto the popular narratives about domestication and taming suggests that they can be read as examples of what David Herman refers to as "multiscale narrations," that is narratives in which the storyteller crosses the boundaries of scale, for example, telling the story of an entire species through the story of an individual.[23]

I diagnose these texts as explicitly fascinated with the potential of plasticity in non-human animals, some in more sophisticated ways than others, though all obsessively replaying the scenario of the wild animal responding to human-created pressures, moving between the boundaries of the wild and the domestic. For Jack London, plasticity was not only an explicit preoccupation in his dog books, but also a theme he reflected upon in his non-fiction writings: "Every atom of organic life is plastic… Let the pressure be one way and we have atavism… the other, domestication, civilization. I have always been impressed with the awful plasticity of life and I feel that I can never lay enough stress upon the marvelous power and influence of the environment."[24]

Jack London's *The Call of the Wild* (1903) and *White Fang* (1907) are exemplary of the convention, and London is generally the best known and most acclaimed of the species authors. However, it is precisely London's association with writing "dog stories for boys"[25] that literary critics needed to overcome to ensure his – still

[21] Mariam Motamedi Fraser, *Dog Politics: Species Stories and the Animal Sciences* (Manchester: Manchester University Press, 2024), 2.

[22] Motamedi Fraser, *Dog Politics*, 18.

[23] David Herman, *Narratology Beyond the Human: Storytelling and Animal Life* (Oxford: Oxford University Press, 2018), 253.

[24] George Wharton James, "A Study of Jack London in His Prime," *Overland Monthly* 69, no. 5 (1917): 361–399.

[25] George H. Tweney, review of *The Complete Short Stories of Jack London*, edited by Earle Labor, Robert C. Leitz III, and I. Milo Shephard, *Western American Literature* 29, no. 2 (1994): 181–82.

half-hearted – recognition as a serious writer,[26] even though it is London's dog novels that brought the author literary fame and have continued to fuel popular interest in his fiction.[27] In their efforts to safeguard London's literary reputation, most London scholars have not highlighted the fact that his legacy includes a plot pattern that became incorporated into pulp and juvenile fiction in the early twentieth century: the wolf-that-became-dog (and the corollary, though somewhat less popular pattern: the-dog-that-became-wolf).[28] While so-called nature writing was already popular in the United States and Canada in the second half of the nineteenth century, London's contribution is seen as the rechanneling of focus in the animal story onto the process of domestication/feralization, i.e. the incorporation of human–animal relationships, hitherto associated with sentimental animal autobiographies like *Black Beauty* (1877) or *Beautiful Jo* (1893),[29] into the realms explored by nature writers like Ernest Thompson Seton or Charles G. D. Roberts.

Ironically, despite the above thesis highlighting London's unmistakable impact on the genre of nature writing, the author desperately struggled with inventing original plot lines. He even resorted to purchasing ideas for plots from other writers, including Sinclair Lewis.[30] Moreover, London faced accusations of plagiarism after the publication of *The Call of the Wild*[31] with additional charges surfacing over

[26] Rebecca Stefoff, *Jack London: An American Original* (Oxford: Oxford University Press, 2002), 106; James L. Haley, *Wolf: The Lives of Jack London* (New York: Basic Books, 2010), 10; James Earle Labor, *Jack London: An American Life* (New York: Farrar, Straus and Giroux, 2013), 8.

[27] It should be emphasized that neither *The Call of the Wild* nor *White Fang* were written with a specifically juvenile audience in mind and were not received as children's books. However, over time, both books have entered the canon of children's literature. London did write texts specifically intended for younger readers. His writings for children included many short stories published in magazines such as *The Youth's Companion*, the novel *The Cruise of the Dazzler* (1902) and the collection of stories *Tales of the Fish Patrol* (1905). London's two posthumously published dog novels, *Jerry of the Islands* (1917) and *Michael: Brother of Jerry* (1917), were also marketed to a juvenile audience.

[28] The reason why it is the plot pattern of *White Fang* and not of *The Call of the Wild* that becomes a reproducible template in popular fiction is most likely linked with the fantasy of canine love for humans. In *Pets*, Erica Fudge calls this fantasy "one of the most potent myths of modern pethood" (16) and analyzes how it operates in *Lassie-Come-Home*, where the stolen dog traverses hundreds of kilometers to be reunited with his beloved boy. "The White Fang school of fiction" – as one can refer to all the wolf-dog novels that imitate London's oeuvre – plays out the same myth as *Lassie*, even strengthening it through the use of the evolutionary scale. What unites these two antithetical plots is their obvious fascination with the possibilities and limits of canine plasticity. This fascination is expressed through the figure of the wolf-dog.

[29] David Herman makes the connection between *Black Beauty* and *The Call of the Wild* in his *Narratology Beyond the Human* (2018), where he notes that both *Black Beauty* and *The Call of the Wild* can be aligned with what he calls Human-Source-Animal-Target Projections, that is, narratives in which human templates are used to interpret animal behavior.

[30] Stefoff, *Jack London*, 105.

[31] Stefoff, *Jack London*, 107.

time.[32] He openly acknowledged drawing inspiration for *White Fang* from a story published in 1905 by Flora Hines Loughead in *The San Francisco Chronicle*, titled "The Call of the Tame: An Antithesis," which itself was based on his *The Call of the Wild*.[33] This intricate web of influences surrounding the originality of London's work implies that the plot pattern he contributed to popular culture was not solely an outcome of his individual genius but rather a skillful interpretation of concerns prevalent among the post-Darwinian generation. My point here is neither to rehabilitate nor to condemn London but to emphasize his connectedness to lesser-known writers of "dog stories for boys" who shared his interest of exploring animal plasticity in relations with humans. Indeed, my interest is not in London but in the conceptualizations of species plasticity within these popular narratives.[34]

The deluge of wolf-dog books that followed *The Call of the Wild* and *White Fang* began even before London's death with James Oliver Curwood's *Kazan: The Wolf Dog* (1914) and its sequel *Baree: Son of Kazan* (1917); Max Brandt's *The Untamed* (1919) and *Comanche: A Western Story* (serialized in 1926 and 1927 in *Far West Illustrated*) followed shortly. Writers who published wolf-dog stories in the 1920s and 1930s included Hal G. Evarts, Thomas Hinkle, Arthur C. Bartlett.

[32] Loren Glass, "Nobody's Renown: Plagiarism and Publicity in the Career of Jack London," *American Literature* 71, no. 3 (1999): 529–549.

[33] James L. Haley, *Wolf: The Lives of Jack London* (New York: Basic Books, 2010), 291; Jack London, *Letters of Jack London, Volume 1: 1896–1905*, edited by Earle Labor, Robert C. Leitz, III, and Milo Shepard (Stanford, CA: Stanford University Press, 1988), 455.

[34] Admittedly, Jack London knew little about wolves. When he came up with the idea for *White Fang*, he fact-checked by writing his friend, Frederick Bamford – whose knowledge of wolves was also not first-hand knowledge but who was a reference librarian in Oakland – with the following questions that revealed the depths of London's ignorance of the subject: "Can you find out for me the following: (1) when do wolves mate? (2) how long do they carry their young? (3) what time of the year do they bring forth their young?" (*Letters of Jack London, Vol. 1*, 480). It is quite likely that London also knew little about sled dog training. He did not use a sled dog team on his way into the Yukon, because he could not afford one; he carried his equipment on his back. He certainly must have seen quite a lot of sled dogs during the winter he spent in Dawson City and on Split-Up Island, including the dog which served as inspiration for the character of Buck, but he returned from the Klondike by boat, not by dog team. As Franklin Walker writes in *Jack London and the Klondike*, an attempt at retracing London's movements in the Yukon: "How much experience he [London] had with Northland dogs is a matter for conjecture" (147). Ironically, London's wolf-dogs – also through the coming into being of the "plastic domestication" plot pattern – have influenced popular and even scientific views. Konrad Lorenz, one of the founders of modern ethology, read Jack London and admired his works for their "truthfulness." In fact, it is speculated that he may have based his theory of canine domestication on *White Fang* (Mariam Motamedi Fraser, *Dog Politics: Species Stories and the Animal Sciences* (Manchester: Manchester University Press, 2024)). In *Animal Stories*, Susan McHugh reads London's influence of Lorenz optimistically, as one of the few examples where fiction has served as an influence on the development of science (214–215). Some ethologists, e.g., Raymond and Lorna Coppinger, have remained much more skeptical of London's ethological knowledge and see him as implicated in perpetuating fallacious views of canine domestication that have influenced the lives of real dogs for the worse, causing misunderstanding and pain.

With the waning popularity of pulp fiction at mid-century, the wolf-dog became a staple of American juvenile fiction: the trope was used by Joseph Wharton Lippincott, Joseph E. Chipperfield, Gerald Raftery, Walt Morey, Sterling North, and Mel Ellis, among others. In this article, I confine my references to texts from the period 1903–1969, though I believe the convention persists in contemporary fiction as well, and, with the rise of contemporary writers' serious attention to nonhuman characters, it has even become somewhat rehabilitated and is ascending the ladder of literary prestige. Some writers rework the theme in ways that sometimes consciously respond to the Londonian tradition – for example in the case of Jethro Compton's play *Wolf Blood* (2018), while others, like the 2018 movie *Alpha* or W. Bruce Cameron's 2015 novel *The Dog Master: A Novel of the First Dog*, remain within the realm of the popular, while presenting a somewhat scientifically updated take on London's classic species story.

Furthermore, the "plastic domestication" convention could be expanded through the inclusion of stories about the taming of wild horses, a very substantial subgenre represented by both popular westerns and juvenile fiction, such as Will James's *Smoky: The Cow Horse* (1926), Mary O'Hara's *My Friend Flicka* (1941) and novels by, among others, Walter Farley and Marguerite Henry. For reasons that have to do with the length of this article, I forgo a more detailed inquiry into the mustang tales, but two key staple elements of all of the wild horse stories that could be looked at through the framework proposed here are the capture and breaking of the mustang as a synecdochal representation of the process of equine domestication.[35] Meanwhile, the wild animal-tamed subgenre serves as a counterpoint to the stories of the successful domestication, as the plot lines invariably end with the animal's death or its return to the wild. These narratives include Marjorie Kinnan Rawlings's *The Yearling* (1938), Vance Hoyt's *Malibu: A Nature Story* (1931), and Sterling North's *Rascal* (1963). A compelling argument for grouping these books together is that many of the popular authors published all three types of stories: about wolf-dogs, mustangs, and non-domesticated species tamed. For example, Sterling North's *Rascal* is the story of a tamed raccoon, while his *The Wolfling* is the story of a wolf-dog. Thomas Hinkle, Joseph Chipperfield, and Gerald Raftery wrote about wolf-dogs and mustangs. This suggests that similar concerns guided their depictions of different species, specifically a preoccupation with the wild/tame dialectic.

The logic of these "plastic domestication" stories grouped *en masse* posits the existence of a hierarchy of plasticity among species: the more plastic species are recognized with more significance within the plots; their characters are penned

[35] Justyna Włodarczyk, "Domestication Western-Style: Fantasies of Harmony and the Violence of Plasticity in Mary O'Hara *My Friend Flicka*," *Comparative American Studies: An International Journal* 21, no. 1/2 (2024): 101–117, https://doi.org/10.1080/14775700.2023.2282240.

with more complexity, and their stories elicit greater empathy in readers who can see reflections of their own dilemmas in the animal character's choices. This set of beliefs and the interconnected set of literary practices can be read with the help of the notion of the animacy hierarchy. The concept, as discussed in *Animacies: Biopolitics, Racial Mattering, and Queer Affect* by Mel Y. Chen, refers to a scale that ranks entities based on their perceived liveliness or agency.[36] This hierarchy traditionally categorizes beings and things from most animate to least animate, with humans typically at the top, followed by animals, plants, and inanimate objects. This framework allows Chen to explore how societal power dynamics – such as racism, ableism, and heteronormativity – are intertwined with cultural perceptions of who or what is considered "alive" or capable of agency, ultimately questioning the rigid boundaries between the animate and inanimate. It can also be used to trace how literary texts form hierarchies among nonhuman species.

The Wolf-Dog as Plastic Hero

Within the "plastic domestication" convention various species are classified along a scale of plasticity with canids deemed the most plastic and, as such, the most capable of internalizing human values. Crucially, it is the realization of this potential for "civilization" that becomes the distinguishing feature of the *canis familiaris* species. Much like the popular science books scrutinized by Motamedi Fraser, narratives of "plastic domestication" portray the only difference between a wolf and a dog as the latter's affiliation with humans. At the same time, the animal's tangible and physical link to the wild is crucial for upholding the effectiveness of this species story: being with humans is presented as the wolf's choice. Paradoxically, the presence of wolf ancestry in these canine heroes bolsters the illusion that dogs are with humans because they choose to do so. The fact that these wolf-dogs are technically wolves continuously reminds the reader of the possibility of the animals' choosing to live in the wild.

The above thesis also addresses the paradox noted by many London scholars: the observation, first articulated in 1947 by Phillip Foner, who found it intriguing that a writer vehemently opposed to miscegenation would create animal characters

[36] Mel Y. Chen, *Animacies: Biopolitics, Racial Mattering, and Queer Affect* (Durham, NC: Duke University Press, 2012). I have previously mentioned the notion of "animacy hierarchy" in a quote from Kyla Schuller's *Impressionable Biologies*. Schuller takes her understanding of the concept from Mel Y. Chen.

who were hybrids, or, as he put it, mongrels.[37] Towards the end of his life, London expressed his views on racial mixing in a letter to Spiro Orfans: "God abhors a mongrel. In nature is no place for a mixed breed."[38] Over the years, scholars have attempted to reconcile this inconsistency in various ways. For example, in *The Racial Lives of Jack London*, Jeanne Reesman complicates London's attitude to race, noting the evolution of London's own views on race and the presence of sympathetically portrayed mixed-race characters in some of his stories.[39] Reesman's explanation is, of course, rooted in species functioning as an analogy of race; a perspective embraced by most major London scholars who interpret Buck's and White Fang's narratives as animal allegories.[40] As Cary Wolfe critically noted in *Animal Rites*, the discourse of species has served as a tool for countering or covering over ideas about race and gender.[41]

Indeed, the psyches of the wolf-dog heroes, both in London and in his imitators, are constructed using similar techniques as the psyches of characters in novels of racial passing, for example, frequent reliance on free indirect discourse. Much like mixed-race characters, the wolf-dogs are shown as liminal figures, torn between two worlds and experiencing pressures from the environment. They cross the species line through their association with humans or the rejection of this relationship. The difference is that stories of racial passing from the same time period ultimately end in heartbreak and tragedy, while the wolf-dog stories do not: they culminate with the animal's successful integration into his chosen environment. The crossing of the species line by the wolf-dog, while not always unproblematic, is deeply rooted in the canine's extreme plasticity, exhibited in the animal's ease of adapting to various environments. James Oliver Curwood's *Baree: Son of Kazan* (1917) emphasizes that the naturalness of these species changes when Baree, a wolf-dog living with humans, leaves them to join a wolf pack:

[37] Phillip S. Foner, *Jack London: An American Rebel: A Collection of His Social Writings Together with an Extensive Study of the Man and His Times* (New York: Citadel Press, 1947), 53.

[38] Jack London, *Letters of Jack London, Volume 3, 1913–1916*, edited by Earle Labor, Robert C. Leitz, III, and Milo Shepard (Stanford, CA: Stanford University Press, 1988), 1533.

[39] Jeanne Reesman, *Jack London's Racial Lives: A Critical Biography* (Athens, GA: University of Georgia Press, 2011).

[40] Earle Labor, "Jack London's Mondo Cane: *The Call of the Wild* and *White Fang*," in *The Call of the Wilde: Complete Text with Introduction, Historical Contexts, and Critical Essays*, edited by Earl J. Wilcox and Elizabeth Wilcox (Boston: Houghton Mifflin, 2004), 158–169; Donal Pizer, "Jack London: The Problem of Form," in *Jack London: Bloom's Modern Critical Views*, edited by Harold Bloom (New York: Infobase Publishing, 2011), 3–12; Jonathan Auerbach, *Male Call: Becoming Jack London* (Durham, NC: Duke University Press, 1996).

[41] Cary Wolfe, *Animal Rites: American Culture, the Discourse of Species and Posthumanist Theory* (Chicago: University of Chicago Press, 2003), 124.

> It was as if Baree had belonged to the pack always. He had joined it naturally, as other stray wolves had joined it from out of the bush. […] He belonged with these slim, swift-footed outlaws of the old forests, and his own jaws snapped and his blood ran hot as the smell of the caribou grew heavier, and the sound of its crashing body nearer.[42]

The wolf-dog is marked by extreme plasticity, while the mixed-race human – at least in these narratives from the turn-of-the-century – is not sufficiently plastic, and it is this lack of plasticity that predicates the character's ultimate tragedy.

Thus, here, it is essential to resist the simplistic analogy between race and species while acknowledging their entanglement, following Wolfe's plea for the irreducibility of species. In other words, it should be acknowledged that while the discourses of race and species are entangled in London's works, and in the species stories written by London's followers, they are not necessarily analogous: London and the other species writers may have expressed contradictory views about human miscegenation and animal hybridity. Admiration for the wolf-dog as a figure of plastic possibility can be mixed with contempt for the "mixed breed" human.

In London's mind, the infusion of wolf blood into the dogs serves as a vaccine against the degeneration associated with domestication, while the dual nature of being both wolf and dog offers the broadest framework for showcasing the animal's plasticity. Paradoxically, the element of wildness appears necessary for the wolf-dogs to become more "civilized" than other dogs. Plasticity, in its nineteenth-century understanding, evoked a preoccupation with excessive sensitivity. As Schuller writes, paraphrasing Lamarck, "The 'most perfect animals,' those on the uppermost tier, possess highly sensitive nervous systems."[43] For writers like London, fascinated with vigor and physical fitness, dogs that have been bred by humans for generations, are seen as overly sensitive, while wolf-dogs possess the ability to become civilized without the danger associated with the debilitating long-term effects of civilization.

Lilian Carswell, one of the few scholars who has noted London's fascination with plasticity, argues that London's wolf-dogs are symbols of the limitless potential of canine plasticity: "[H]is fascination with the figure of the wolf-dog hybrid seems to stem from its position at the interface between the domesticated human world and the wild, and its ability to survive, and even thrive, in either realm. This plasticity allows London to envision an autonomous life for his canine protagonists in the wild, a life to which human beings may be peripheral or even entirely absent."[44]

[42] James Oliver Curwood, *Baree: Son of Kazan* (NewYork: Grosset & Dunlap, 1917), 179.

[43] Schuller, *Biopolitics of Feeling*, 48.

[44] Lilian Carswell, "'The Power of Choice': Darwinian Concepts of Animal Mind in Jack London's Dog Stories," in *America's Darwin: Darwinian Theory and U.S. Literary Culture*, edited by Tina Gianquitto and Lydia Fisher (Athens, GA: University of Georgia Press, 2014), 323.

Carswell emphasizes that plasticity is key to the liminality of the figure of the wolf-dog and the potentialities associated with that liminality include a life outside of human influence.

Within this framework, the wolf-dog's plasticity clearly has adaptive value: it manifests in the animal's capacity to respond to changes in its environment in ways that ensure its survival. Essentially, plasticity appears to be a quality that enables the survival of the fittest. However, it transcends mere survival; it also confers agency upon the animal, ennobling it and enabling it to exert a degree of control over its own existence. For instance, White Fang's decision to accompany Weedon Scott to California is not rooted in a desire for an easier life in an urban setting – it is clear that White Fang could easily cope with the dangers of the wilderness. It stems from his affection for his chosen human. Consequently, it represents a form of sacrifice: the relinquishing of a life in the wilderness as a wolf. Once again, to be a dog is synonymous with being in the company of humans, but it is the wolf's inherent plasticity that makes this transition possible.

The species stories about wolf-dogs phrase the dogs' decision to live in the wild or in the company of humans as a choice; one made by an agent fully aware of the consequences and not simply instinctively drifting into one of the two positions. This argument has been posed by Lilian Carswell whose article on London's dog stories is aptly titled "The Power of Choice." Carswell emphasizes that the possibility of the dog making a choice confirms the existence of mental activity in the animal's mind and is thus an argument against a view of non-human animals as creatures acting purely on the basis of instincts.[45] Such a reading can only be strengthened by placing the canid within the framework of plasticity and of comparing the wolf-dog's position in that framework to those of representatives of other species. This can be achieved through a juxtaposition of canid species stories and stories about attempts at taming other species.

Wild-Animal-Tamed: Plasticity and Elasticity

The next sub-genre of species stories revolves around narratives of wild animals being tamed with the intention of becoming family pets. These stories typically culminate with a separation of the human hero and his wild pet: the animals either meet a tragic fate or, in more optimistic renditions of the plot pattern, are eventually released back into the wild. Although I examine narratives featuring species

[45] Carswell, "Power of Choice," 313.

beyond dogs, such stories are often interpreted within the framework of the "boy and his dog" convention. In *Melancholia and Maturation*, Eric Tribunella posits that the boy's loss of his animal companion in such narratives is a crucial structural component of the bildungsroman genre: the boy must endure the pain of losing his beloved pet to undergo the transition to manhood and full citizenship. Tribunella suggests that "willingness to make sacrifices is critical to the formation of the disciplined and mature citizen."[46] This scenario stands in stark contrast to the plots involving wolf-dogs discussed earlier, where it is the animal who must make sacrifices. In this narrative, it is the child who is the exemplary plastic creature, not the animal.

Examining these narratives through the lens of plasticity enables us to shift away from the typically anthropocentric perspective often employed in analyzing such stories and no longer focus on the boy's experience of trauma. Instead, attention can be centered on the animal and the "species story" perpetuated by the narrative as well as on unearthing the animal's perspective and experience – even though with effort and through a reading that goes against the grain of the dominant one. In this dominant reading, the species story underscores the fact that animals such as deer and raccoons lack the plasticity demonstrated by wolf-dogs. Unlike wolf-dogs, they are unable to fully internalize the rules governing human society; they remain incapable of evolving into self-governing biopolitical subjects. Instead of plasticity, they exhibit elasticity, suggesting a limited capacity for adaptation and integration into human-dominated environments.

In her analysis of Freud's *Beyond the Pleasure Principle*, Catherine Malabou observes that Freud introduces the concept of elasticity to conceptualize the work of the libido in the death drive, a notion seemingly opposed to plasticity. Freud characterizes elasticity as a form of inertia inherent in organic life. Malabou further explains that, for Freud, "[a]n elastic material is able to return to its initial form after undergoing a deformation. Elasticity is thus opposed to plasticity to the extent that a plastic material retains the imprint."[47] According to Malabou, Freud is interested in uncovering the root causes of the plasticity/elasticity dynamic but ultimately falls short, concluding only that an organism's degree of plasticity is an innate trait: "It is given by nature. Some individuals are plastic while others are not."[48] Although Malabou's intention in examining Freud's plasticity/elasticity dichotomy is to critique it – she argues that Freud's division of plasticity into progressive (plasticity)

[46] Eric Tribunella, *Melancholia and Maturation: The Use of Trauma in American Children's Fiction* (Knoxville: University of Tennessee Press, 2011), xiv.

[47] Catherine Malabou, "Plasticity and Elasticity in *Beyond the Pleasure Principle*," in *Plasticity: The Promise of Explosion*, edited by Tyler M. Williams (Edinburgh: Edinburgh University Press, 2022), 281.

[48] Malabou, "Plasticity and Elasticity," 284.

and conservative (elasticity) elements reveals his failure to grasp the dual nature of plasticity, its capacity to both shape and dismantle form, a duality central to Malabou's own work – the fact that she acknowledges this dialectic in Freud is significant. It indicates that, in the late nineteenth century, plasticity functioned as a tool for constructing social hierarchies. Moreover, in the species narratives I analyze, plasticity emerges not as an indicator of individual difference, as Freud suggested, but as a marker of species difference.

Another scholar interested in plasticity, Maurizio Meloni, works out an understanding of elasticity similar to that appearing in Malabou's reading of Freud. In *Impressionable Biologies*, Meloni writes "[w]hile elasticity is the capacity to regain an original form after the deforming pressure has ceased, plasticity is about undergoing a permanent change."[49] Even though Meloni's thinking is associated with a different theoretical and intellectual background than Malabou's – he is a science and technology scholar writing a history of biology – much like Malabou he emphasizes the plasticity/elasticity dialectic as a tool used for classifying and categorizing. Meloni argues that in contemporary biology the distinction between plasticity and elasticity is "more blurred."[50] Both Malabou and Meloni suggest that the definition of plasticity has expanded over time and that contemporary understandings of plasticity incorporate elasticity into plasticity or, at the least, problematize the binary opposition between the two terms. However, early twentieth-century species stories firmly embody the distinction, providing readers with stories of plastic possibilities or elastic reversions.

An excellent example of the wild–animal–tamed plot pattern is Marjorie Kinnan Rawlings's largely forgotten book *The Yearling* (1938), in which young Jody Baxter takes in an orphaned fawn and forms a profound connection with the animal. Despite Jody's dedicated care, Flag repeatedly ventures into the Baxters' cornfield, endangering the family's livelihood. Jody endeavors to safeguard the field by constructing a fence, only to witness Flag effortlessly leaping over it. Ultimately, Jody is forced to tragically end Flag's life. The inevitable outcome is hinted at in an earlier dialogue between Jody and an older neighbor recalling his own experience with a raccoon: "'I had me a 'coon when I were a young un,' he said. 'Hit were gentle as a kitten for two yare. Then one day hit bit a chunk outen my shin.' He spat into the fire. 'This un"ll grow up to bite. Hit's 'coon nature.'"[51] In this framework, despite the plasticity exhibited by all species as juveniles, wild animals have a tendency to revert back to their "non-civilized" behavior.

[49] Meloni, *Impressionable Biologies*, 3.

[50] Meloni, *Impressionable Biologies*, 4.

[51] Marjorie Kinnan Rawlings, *The Yearling* (New York: Charles Scribner's Sons 1938), 53.

A similar, though not as tragic pattern, can be observed in Sterling North's *Rascal*, a fictionalized memoir of North's childhood in rural Wisconsin. The main character takes in a raccoon kit and names him Rascal. Predictably, at least within this convention, the depictions of boy-raccoon adventures take on a more somber character when the Norths' neighbors begin complaining about the raccoon stealing corn from their garden. The boy's attempts to train Rascal or constrain his movements fail and Rascal's fate is sealed. Rather than having the pet killed, the boy takes him far away from human settlements and releases him into the woods. The raccoon has no qualms about leaving his boy: "'Do as you please, my little raccoon. It's your life,' I told him. He hesitated for a full minute, turned once to look back at me, then took the plunge and swam to the near shore."[52] It is interesting to note that in both cases mentioned above, the animals do not fail to form bonds with humans. However, the bonds lack the depth of mutual understanding assumed in the wolf-dog stories. Both Flag and Rascal fail at internalizing the myriad human-derived rules, for example, those related to the concept of private property. They lack the necessary plasticity.

Using Meloni's and Malabou's terminologies, Flag and Rascal exhibit the opposite of plasticity – that is, elasticity. The change effected in these animals through their interactions with humans is not permanent. Both Flag and Rascal eventually spring back to the ways of the wild. In *Beyond the Pleasure Principle*, Freud discusses elasticity in terms of an instinctive reversal, in a way that seems to align surprisingly well with the wild-animal-tamed stories:

> It seems then that an instinct is an urge inherent in organic life to restore an earlier state of things which the living entity has been obliged to abandon under the pressure of external disturbing forces; that is, it is a kind of organic elasticity, or, to put it another way, the expression of the inertia inherent in organic life.[53]

While these animals are clearly capable of existing without humans, this possibility is not phrased as conscious choice but rather as instinctive drift.[54]

Sterling North's *Rascal*, the story about a raccoon, can also be juxtaposed with his *The Wolfling* (1969). In the latter book, the wolf-dog, also taken in as a cub

[52] Sterling North, *Rascal* (New York: Simon & Schuster, 1963), 189.

[53] Sigmund Freud, *Beyond the Pleasure Principle*, translated and edited by James Strachey (New York: W. W. Norton & Company, 1961), 30.

[54] The term "instinctive drift" refers to an animal's tendency to revert to unconscious and automatic behavior. It comes from animal psychology and was first coined by Marian and Keller Breland in their article "The Misbehavior of Organisms," which criticizes B. F. Skinner's purely behaviorist theory of operant conditioning by observing that animals trained to perform a specific behavior have a tendency to revert to more species-specific behaviors over time.

from a wolf den, stays with the boy at the end of the story and manages to adapt to a life centered around human presence and anthropocentric rules. While there do exist narratives in which the canids eventually return to the wild, this usually happens not because of their lack of ability to integrate into the fabric of human society, but because of that society's prejudice (Mel Ellis's *Flight of the White Wolf*) or because of the death of the human they are associated with (Jack London's *The Call of the Wild*).

An intriguing paradox is central to the concept of impressibility: it is perceived as a hallmark of "higher" organisms, showcasing their potential for "civilizational progress." Yet, it can also signify vulnerability, potentially limiting survival prospects due to heightened sensitivity. The ability to respond to the environment – to be moved by something or someone – puts one at risk. As Schuller puts it:

> the more refined and delicate the tissue, and by association the individual, the greater the organism's capacity for impressibility. Heightened impressibility enabled growth and the acquisition of knowledge. Yet to be impressible is to be vulnerable.[55]

The link between plasticity and vulnerability is also present to some degree in tales of wolf-dogs, whose vulnerability seems to be located in their attraction to humans.

However, vulnerability does not hinge solely on plasticity. In Kinnan Rawlings's *The Yearling*, the deer Flag ends up dead precisely because he was not plastic enough; he did not adapt to the arbitrary cultural codes of humanity. Conversely, as the wolf-dog stories show, plasticity renders one vulnerable in an emotional way:

> The faint note of sadness in Robbie's voice reached a part of Wolf's brain more sensitive than its human counterpart, a maze of sensual responses that could interpret the slightest whiff on the wind, that could 'hear a cloud passing over,' that could know to the finest nuance the exact state of Robbie's sorrow or happiness.[56]

The keen sensitivity that the canine characters have for sensing human emotions is what puts them at risk of being hurt. In Sterling North's *The Wolfling*, the sensitivity of the wolf-dog's perception of natural phenomena is linked with a sixth sense: his ability to feel his young owner's emotions.

[55] Schuller, *Biopolitics of Feeling*, 39.
[56] North, *The Wolfling*, 109.

Conclusion: Reading Plasticity Against the Grain

The article's argument has primarily traced how, in the early twentieth century, plasticity – particularly as it appeared in popular species narratives – was implicated in discourses that established hierarchies among different species. In these narratives, plasticity is attributed to species in varying degrees, with dogs portrayed as the most plastic of all non-human species. Within this context, plasticity emerges as a highly anthropocentric metric of animal utility: the species deemed the most plastic are simultaneously regarded as the most useful to humans, yet this same trait renders them particularly susceptible to abuse and exploitation. These species hierarchies bear a resemblance, to some extent, to the racial and eugenicist hierarchies of the era, though they do not permit a straightforward analogy between race and species. Nonetheless, I have argued that, despite this ideological burden, plasticity can serve as a tool that decenters the human in narratives about canids, offering a substantial contribution to methodologies within the environmental humanities by demonstrating the involvement of non-human animals in broader networks of relationships. To realize this potential, we must interpret plasticity against the grain, or at least against its early twentieth-century conceptualization, engaging with its contemporary range of meanings.

As Malabou herself contends, "[t]he very significance of plasticity itself appears to be plastic."[57] Although plasticity has historically been employed to construct species hierarchies, it also possesses the potential to dismantle them. Many contemporary formulations of plasticity, whether emerging from the humanities or the biological sciences, inherently contain an element of doubling or duplicity. Plasticity is simultaneously "this and that": it embodies both the creation and destruction of form, adaptability and vulnerability. It denotes the capacity to be shaped, molded, and transformed, yet it also encompasses the potential to resist being confined to any singular form. For the wolf-dog writers, plasticity was compelling precisely because of its ability to bind canines to humans. However, it logically follows that such binding is never absolute and that other environmental forces equally contribute to shaping the lives of canines.

This duality of plasticity enables animality to be interpreted both as something shaped by external forces and as something that possesses the agency to reshape itself, actively engaging with various environmental influences. The wolf-dog narratives, when contrasted with the wild-animal-tamed narratives, reveal plasticity as a mechanism for establishing hierarchies in which dogs – the animals that

[57] Catherine Malabou, *Plasticity at the Dusk of Writing: Dialectic, Destruction, Deconstruction*, translated by Carolyn Shread (New York: Columbia University Press, 2010), 67.

ultimately choose to coexist with humans – are attributed greater complexity, dignity, and agency. However, these narratives need not be read as simply opposing plasticity to elasticity or as categorizing certain species as plastic and others as elastic. Plastic species inherently resist finitude or determinism, precisely because, as Malabou articulates, "[p]lasticity is in a way genetically programmed to develop and operate without program, plan, determinism, schedule, design, or preschematization."[58] Plasticity is responsiveness to environmental circumstances. Canine plasticity, therefore, encompasses the potential for ongoing change – change that is neither predetermined nor entirely explicable in purely evolutionary, or even co-evolutionary, terms.

On the narrative level, this possibility is hinted at in the repetitive plot patterns in which the wolf-dog heroes cross the species line multiple times, even if they eventually choose to live with humans. They are liminal figures, traversing the boundary between wilderness and domestication, thereby unsettling the two categories. For example, James Oliver Curwood's Kazan, born in captivity, moves between living with humans and living with wolves a total of eight times during the time frame of the novel. Curwood's Baree, born in the wild, also moves between the domestic and the wild several times before eventually settling with his beloved human – Nepeese. The wolf-dog's feats of plasticity are instigated by environmental circumstances to which the animal adapts in both body and mind. The repetitiveness of the changes suggests that the wolf-dog's coupling with humans is never final. Even Sterling North's *The Wolfling*, a book that also ends with the wolf happily domesticated with his beloved boy, contains a postscript in which the narrator suggests that one day a story of how Wolf returns to the wilderness may also need to be told.

I have tried to point to both the way that plasticity explicitly structured species stories from the first half of the twentieth century and the very concept – though in an updated understanding – holds the potential to uproot ways of thinking about literary canines that have become somewhat schematic. Thinking dogs through plasticity holds the potential to make us reconceptualize literary canines as full-fledged subjects of environmental humanities scholarship, rather than as beings relegated to the field of human–animal studies. Ethologists Jessica Pierce and Marc Bekoff, in their recent book *A Dog's World: Imagining the Lives of Dogs in a World Without Humans*, create a scenario that traces the lives of dogs after the potential disappearance of humans. Without undermining the theory of co-evolution, the ethologists draft an argument in which canines' phenotypic plasticity becomes key to their survival in a (potential) world without humans. Plasticity, argue Pierce and Bekoff,

[58] Catherine Malabou, "Will Sovereignty Even Be Deconstructed?," in *Plastic Materialities: Politics, Materiality, and Metamorphosis in the Work of Catherine Malabou*, edited by Brenna Bhandar and Jonathan Goldberg-Hiller (Durham, NC: Duke University Press, 2015), 43.

"complicates the project of trying to predict how individuals of a given species – in this case *Canis lupus familiaris* – will respond to evolutionary pressures."[59] Pierce and Bekoff's explorations image a world in which plasticity exists but humans do not. This scenario simultaneously severs canine plasticity from human presence and reveals the understanding of plasticity and elasticity present in the wolf-dog and the wild-animal-tamed narratives as implicated in ideological frameworks in which non-human plasticity is judged purely through anthropocentric frameworks. Stepping beyond this framework – while remaining wary of its historical weight – makes it possible to productively complicate understandings of literary nonhuman animals as operating in networks of multispecies relationships and, at the same time, to bring canines back into environmental humanities scholarship.

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