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The Five Serizawas and the Practice of Sacrifice: Reframing the Stereotypes of Scientists in Godzilla Media

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Abstract: With the growing popularity of Godzilla and *kaijū* media, scholarship on these topics is also increasing. While science themes (i.e., nuclearism, genetics, and environmentalism) are regular aspects of these publications, a research gap on the scientists themselves exists. Therefore, this article focuses on the five Serizawas (Daisuke, Eiji, Ishirō, Ren, and Shigeru) of Godzilla media (namely films, novelizations, and a webtoon) to examine their significance. Haynes' six scientist stereotypes and Frayling's considerations of how scientists are disconnected from laypeople provide frameworks for the analysis. Yet the complexities of the Serizawas ultimately suggest that interpreting them through a lens of sacrifice (of their families, loves, creations, and lives) provides a more solid thread by which to understand these men and their utilization of what can be deemed 'Godzilla science'—a method to (re)assert the natural order of the world on (and in) which humans and *kaijū* must learn to live.

Keywords: Godzilla; Daisuke Serizawa; Eiji Serizawa; Ishirō Serizawa; Ren Serizawa; Shigeru Serizawa; scientist; sacrifice; film; (graphic) novel; webtoon; stereotypes

1. Introduction

Pop culture often propagates symbols, archetypes, and even stereotypes that both reflect societal trends and counter them. The same process has occurred with scientists, as Christopher Frayling's *Mad, Bad and Dangerous? The Scientist and the Cinema* (Frayling 2005) indicates about the perceived morality of scientists—as well as about the disconnect between lay and scientific perspectives—and as Roslynn D. Haynes, in *From Faust to Strangelove: Representations of the Scientist in Western Literature* (1994), argues about literary scientists, citing six main stereotypes. While these categories have merit, there are nevertheless ways of combining and complicating them that permit additional representations.

This situation occurs in Godzilla media[1]—which includes films, movie novelizations, graphic novels, and a webtoon[2]—with five men whose surname is Serizawa[3]: Daisuke (*Gojira*, Ishiro Honda 1954; played by Akihiko Hirata); Eiji (*Godzilla: Awakening*, graphic novel by Borenstein and Borenstein 2014), Ishirō (*Godzilla*, Gareth Edwards 2014, and *Godzilla: King of the Monsters*, Michael Dougherty 2019; played by Ken Watanabe), Ren (*Godzilla vs. Kong*, Adam Wingard 2021, played by Shun Oguri), and Shigeru (*Godzilla: Black Mass*, webtoon by steel_neck 2023–2024). Similar to how scientists seek to make discoveries and give 'names' to them, these aptly named Serizawas exist around a new scientific method in Godzilla media—the natural balance created by Godzilla.[4] Furthermore, the Serizawas demonstrate how a practice of sacrifice facilitates this method and interweaves throughout Haynes' six themes, for these Serizawas sacrifice their families, their creations, their loves, and ultimately their lives for both *kaijū* (Titans)[5] and humans.

Moreover, while Daisuke, Eiji, Ishirō, and Shigeru are nominally heroes, Ren plays an antagonistic role in *Godzilla vs. Kong*, indicating not only that in this new natural balance, a scientist's technology cannot replace the benevolence of living beings (both *kaijū* and human) as it merges with the contemporary world, but also that the morality of a Serizawa (and a scientist) does not have to be the same for this reframing to occur. Instead, it is

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critical that audiences see through the Serizawas how science in Godzilla media—as well as science in general—highlights a complex reality of gains and losses that can and do occur simultaneously, not only in fictional worlds, but also in the real world.

2. Scientists: Trends and Stereotypes

Due to the complexity of some scientific information and fields (i.e., physics, astrophysics, chemistry, and mathematics, in particular when paired with gender (Makarova and Herzog 2015)), in lay perspectives, scientists tend to be stereotyped and placed out of reach of the 'average' person (Sonnert and Holton 2002). Nevertheless, analyzing these biases and understanding them has been a multifaceted process, not only because different decades and media present various kinds of stereotypes, but also because studies can focus on one variable or scientific theme (i.e., the gender, age, and appearance of the scientist or similar variables of the people propagating these assumptions) or how science is disseminated (from an 'ivory tower' lab, via governmental science initiatives, through voluntary public interest associations, and through the efforts of citizen scientists, as Sonnert and Holton (2002) discuss), thus preventing the formulation of a broader interpretation of these phenomena.

For instance, there are numerous studies involving primary-, middle-, and high-school students' perceptions of scientists. Mead and Métraux (1957) investigated how high-school students envisioned scientists, and they found that specific symbols, situations, and settings, such as being in a lab, wearing a white coat, having many secrets, engaging in potentially dangerous work, and reading a lot are part of the scientific lifestyle. Similarly, Flick (1990) found that students perceived scientists as boring workaholics, which could explain why enrollment in STEM fields, especially for women, has lagged. Karaçam (2016) analyzed Turkish students' drawings of scientists, discovering how the previous elements—from Mead and Métraux (1957) and Flick (1990), for instance—were interactional components that might become more prevalent when one theme—untidy hair, a lab coat, symbols of knowledge or research, being middle-aged, and working alone—appeared in the drawings. Moreover, Quílez-Cervero et al.'s (2021) post-COVID-19 study offers evidence that scientific stereotypes might be 'abandoned' or reduced if the scientist is female, for students assume that having a female scientist is already an unconventional indicator. The fact that the Serizawas, at this point, are all male reveals a gap in the tradition and implies that their portrayals will likely not differ much from the general scientific trends of these studies.

Nevertheless, when applying these themes and stereotypes to the Serizawas, it becomes evident that an educational-based approach to scientist stereotypes is not enough to develop a lens for evaluating their depictions in Godzilla media. Thus, Haynes' (1994) and Frayling's (2005) studies are critical tools that can be added to this research. Haynes' six scientist stereotypes—the alchemist, the stupid virtuoso, the (Romantic) emotionless scientist, the heroic adventurer, the helpless scientist, and the idealist—are particularly relevant to the Serizawas. Even though Haynes' thesis centers on literature, many of the works that she discusses have been adapted to film with the same themes intact. Moreover, Carazo's (2022) consideration of Haynes' themes in her evaluation of heroic female scientists in the *Jurassic Park* (1993–2025) film franchise—females that include humans *and* dinosaurs—aligns with literary and cinematic renderings of the Serizawas as well as the importance of Godzilla as a scientific element in their lives.

Finally, the addition of the theme of sacrifice as experienced by the Serizawas can be attributed to several factors. First, the details that Haynes (1994) and Frayling (2005) offer about literature and films, respectively, suggest that scientists make sacrifices often. Second, because *Godzilla* is a Japanese creation—with Japanese and American sequels appearing regularly—many social and communicative aspects about Japan must be considered. The collectivism of Japanese culture (Ozaki and Travagliato 2021) and the tradition in many films, such as samurai productions, in which honor comes from (self-)sacrifice (Hearn 2007), indicate that when evaluating the Serizawas as scientists, it is necessary to avoid a purely westernized perspective. In fact, in *King of the Monsters*, Dr. Ilene Chen (Zhang

Ziyi) suggests this open-mindedness when she shares the history of King Ghidorah with her colleagues: 'Slaying dragons is a Western concept. In the East they are sacred. Divine creatures who brought wisdom, strength . . . even redemption'. As a Chinese, female scientist, Chen exists outside westernized stereotypes focused on male scientists, which allows her to perceive (mythical) creatures differently than her colleagues; in fact, her twin sister, Ling Chen, is a guardian of Mothra, a female *kaijū*, giving them both a unique place in *kaiju* science that—while reminiscent of the Shobijin twins who originally protected Mothra in the 1961 (Honda 1961) film—allows for an Asian connection to *kaijū* that is not solely Japanese either. Therefore, how one perceives a *kaijū* (Titan), just like how one perceives a scientist, depends greatly on the worldview of the person making the judgment, whether one is a middle-school student, a cinemagoer, or a scholar.

3. Godzilla Science

This examination of scientists, and the Serizawas in particular, adds to several main scholarly threads concerning Godzilla media and science. Since Godzilla is an irradiated *kaijū* responding to humanity's nuclear capacities, much research about Godzilla's connection with nuclear fears/anxiety (Rhoads and McCorkle 2018; Barr 2016; Tsutsui 2004); nuclear politics (Barr 2016; Noriega 1987); (power) consumption, by humans and *kaijū* (Rawle 2022; Rhoads and McCorkle 2018; Brophy 2000); and nuclear disaster and fallout (Sontag 2007; Tsutsui 2004; Enns 2001; Napier 1993) has been written. Anisfield (1995) examines cultural differences in nuclear interpretations, finding that in twentieth-century Godzilla media, '[t]he Japanese embrace the bomb/monster into their cultural conscience, whereas Americans push it away' (p. 53). Furthermore, Brophy's (2000) perception that '[t]he Toho monster movies document this moral drama of postnuclearity, and imply an inevitability on a multitude of narrative planes: nuclear testing will produce mutations; Japan's postwar industrial boom will explode; Godzilla will destroy Tokyo' (p. 40) brings together these themes of nuclear anxiety, disaster, and (power) consumption in a fitting way. Altogether, these research threads reveal how nuclear science remains at the forefront of scholarly works about Godzilla media.

Moreover, biological and genetic explorations, many of which are combined in certain narratives involving *kaijū* and Godzilla media, are popular research topics. For instance, Soles (2021) interprets Emmerich (1998) in terms of de-extinction narratives (i.e., *Jurassic Park* [1993]) when '[n]ew species may well become dominant as conditions worsen for sustainable human habitation' (p. 301). Lees (2006) discusses *kaijū* in biological terms and as having a genus, fitting with *Godzilla: Black Mass*'s treatment of Godzilla as *Andrius gojira*. Furthermore, Rhoads and McCorkle (2018) argue that biological and technological themes in Godzilla media are becoming stronger than *Gojira*'s (1954) original nuclear focus, allowing for Godzilla media to adapt to as well as comment on future kinds of science. Moreover, the manner in which Monarch members and scientists in Legendary's films, in particular, deliberate on the biological nature of *kaijū* reflects the importance of biological and technological scholarship regarding Godzilla media.

In addition, growing ecological concerns in society have appeared in *kaijū* media, which Rhoads and McCorkle (2018) discuss in detail not only about Godzilla, but also about Mothra and Gamera. Their premise of being green rests upon the color of the three *kaijū*, the environment, and money, for not only does unsustainable industry threaten the natural world, but proper funding is one way by which people can counteract these ill effects on the environment. The ubiquity of environmental messages in Godzilla media for Rhoads and McCorkle (2018) comes from the reality that in *kaijū* films, 'humanity's attempts to control nature end poorly for both parties, [and that] nature invariably suffers more' (p. 10). This consideration explains why, for example, in the Legendary films, Dr. Ishirō Serizawa expects Godzilla to fight other *kaijū* to restore environmental balance, and why Dr. Emma Russell (Vera Farmiga) is willing to sacrifice the lives of countless humans in waking the *kaijū* so that they will reset the cadences of the natural world.

Depictions of science in Godzilla media are also infused with moral and ethical considerations. According to Rhoads and McCorkle (2018), there is 'a conviction that technology and nature are neither good nor bad, but the reckless pursuit of scientific progress without consideration of the potential consequences is the true evil' (p. 154). In this view, then, nature and *kaijū* have aspects that, while read as positive or negative by humans, are just parts of their daily existence. Thus, Godzilla's resetting of the natural order by defeating the MUTOs in the 2014 film is just as normal as Godzilla's destruction of Tokyo in *Gojira* (1954). Similarly, Daisuke Serizawa's desire to understand oxygen carries no inherent ethical problems; it is only the device he creates, the Oxygen Destroyer, which could have negative consequences on humanity and the natural world. Yet there are cases where science can fight science, positioning specific fields, studies, and experiments against one another. Rawle (2022) supports this reading, explaining how there is a 'good/bad scientific ambivalence of the *kaijū* movie: the only way to defeat the consequences of bad science is through good science' (p. 89). In this case, then, sciences do have evident moral boundaries that must be relied upon by their practitioners, the human agents of science who are the topics of this research.

Throughout Godzilla and *kaijū* research, there are mostly commentaries and brief analyses of scientists. For instance, Tsutsui (2004) remarks that '[s]cientists and reporters are generally portrayed as more honest and honorable figures, out for the truth in one way or another, and the stereotypical mad scientist is relatively rare in the series' (p. 97). Hence, Tsutsui supports seeing the Serizawas as overall heroes and truth seekers, with which this research aligns. Nevertheless, as further investigation will demonstrate, there are ways that Daisuke, Eiji, Ishirō, Ren, and Shigeru fit the 'mad scientist' trope through Haynes' (1994) lenses of scientists being alchemists and stupid virtuosos—adding to Tsutsui's notion that Dr. Shinzō Mafune (Akihiko Hirata, who also portrays Daisuke Serizawa) from Honda and Fukuda (1975) and Dr. Genichiro Shirigami (Kōji Takahashi) from Ōmori et al. (1989) are the primary 'mad scientist' figures in Godzilla media.

Only Jason Barr (2023) provides a chapter-length analysis of Ishirō Serizawa, arguing that the conflicting portrayals of Ishirō in *Godzilla* (2014) and *Godzilla: King of the Monsters* (2019) remain problematic. Barr attributes these differences to Ishirō's Japanese heritage, which is subsumed by the American, 'bomb-dropping' attitude, as well as to Ishirō's early avoidance of using nuclear weapons until his final acceptance of and death from using one. However, what Barr does not explore—and what this research will show—are the intricacies of the notion of (self-)sacrifice that appear with all the characters named Serizawa, and the reality that Ishirō uses the nuclear weapon to recharge Godzilla not because he approves of using nuclear weapons all the time, but because it is intended as an act of love toward the *kaijū* whom he and his father, Eiji, have cared about for decades. It is a long-term connection that Ishirō sacrifices not just for humanity's sake, but also for Godzilla. One could also argue that the setting in deep waters and the ability of Godzilla to absorb the radiation so that it does not poison the environment as it might in other cases mitigates the effects of the weapon in this instance—consider, for example, that the Oxygen Destroyer kills everything in its wake in *Gojira* (1954), but Daisuke Serizawa chooses to use it this one time, with the intention that it will never be used again. Thus, with all the connections that this article makes amongst the Serizawas, it is possible to argue that Ishirō would feel the same way had he lived longer.

Therefore, this research has two primary aims. Since there are few extensive studies of scientists in Godzilla media, this work seeks to address this gap by investigating the Serizawas, who are figures sharing the same surnames and roles in Godzilla media, thus serving as a useful starting point for further explorations of scientists in Godzilla and *kaijū* media. Moreover, this article can add additional nuances to Barr's (2023) ideas as well as provide another explanatory variable for what he notices about the Serizawas, as exemplified through his case study on Ishirō. Consequently, examining the Serizawas through Haynes' (1994) and Frayling's (2005) research as well as through the lens of sacrifice, it becomes evident how multifaceted they are as characters and how, as unique parts of

a media-based tradition, they have much to teach audiences about how science, in all its complexities, can lead to new perspectives in the contemporary world.

4. Daisuke Serizawa

While Daisuke Serizawa is not the only scientist in *Gojira* (1954), he is important because he is the first Serizawa in Godzilla media and because his eyepatch—which he wears from a wartime injury—makes him stand out. In fact, the novelization explains how his scars 'giv[e] him a cold, prickly look', indicating that he can be intimidating to others due to his appearance and scientific role (Kayama [1955] 2023, p. 38). Daisuke is seen most often in a white lab coat and with dark gloves on, adding to his unforgettable representation. He has been engaged to Emiko Yamane (Momoko Kōchi), the daughter of his scientific associate, Dr. Kyohei Yamane (Takashi Shimura). Nevertheless, Emiko now loves Hideto Ogata (Akira Takarada)[6], and while she still esteems Daisuke, his focus on his work has steered her toward Ogata. Within this human narrative appears the dangers posed by Godzilla, with calls for his destruction dismaying Yamane, and Daisuke's reticence about his scientific work.

In many ways, Daisuke's character fits with traditional stereotypes and Haynes' six categories of scientists. Daisuke is the alchemist—an 'obsessed or maniacal' (Haynes 1994, p. 3) figure whose work, which collates new biological and technological elements, relates back to alchemy's original concern with 'the physical and chemical transformation of metals and other substances' (Oxford English Dictionary 2023)—whose lab is full of tools, equipment, and liquids that appear mysterious and even dangerous to general viewers. The novelization supports this idea, for while Daisuke's house 'had an antique quality about it', his lab 'was as cold as death' (Kayama [1955] 2023, p. 47). In addition, when Emiko enters the lab to see the Oxygen Destroyer, '[s]he could smell something medicinal, and she felt a chill pass over her' (Kayama [1955] 2023, p. 63). Daisuke is a stupid virtuoso since he works alone, creating dangerous devices without wanting to discuss his work or its consequences with anyone else. Even though he attempts to diffuse this interpretation of his actions when he tells Emiko, 'I'm just a scientist who takes his work seriously. All I was doing was testing the limits of this power' (Kayama [1955] 2023, p. 95), the hubris of taking such a task upon himself and in secrecy remains evident. Moreover, Daisuke's wartime service, which led to his access to German scientists—as Hagiwara's attempted interview in the film, and as Hagiwara's contact with a Swiss reporter with a German connection reveal (Kayama [1955] 2023)—places Daisuke in a place of moral ambiguity that fits within this category, at least until his self-sacrifice exonerates him. Daisuke is a (Romantic) emotionless scientist when he initially refuses to use his Oxygen Destroyer against Godzilla, even as people are dying around him. His lack of expressiveness when Emiko departs for Ōdo Island makes Emiko wonder if her words of farewell even reached him (Kayama [1955] 2023)—and, based on Daisuke's demeanor, one presumes that they did.

Daisuke is a heroic adventurer who stands as the first in his field of oxygen studies, for he set out to 'research [it] thoroughly from every angle'.[7] He even goes deepwater diving without prior training in order to safeguard his creation and ensure that it is properly used, both of which require his self-sacrifice. Furthermore, Daisuke is the helpless scientist who feels unable to truly compete against external forces that will, he fears—and rightly—take over his device for less noble ends. Daisuke is an idealist because he believes in the ethical nature of science that exists separately from how humans might use such work. Moreover, in terms of Frayling's (2005) argument that scientists are often separated from the concerns and lived experiences of lay people, Daisuke aligns well with this idea: as Ogata tells Emiko, 'he rarely leaves his lab', and as the books, television, and furniture in the lab reveal, Daisuke's hidden realm is more homelike than the visible, upper parts of his residence where he offers visitors few answers.

Nevertheless, Daisuke's character complicates these categories. The presence of the television and the radio in his home and lab attests to his everyday aspects that exist alongside the bubbling liquids and elaborately wired devices. Daisuke's fears about his

work reveal that he is not stupid, and his dedicated support network in Dr. Yamane and Emiko, even though he keeps secrets from them, counters his isolation. Similarly, Daisuke is a pragmatist about his work and his failing engagement with Emiko; when her serious mood misaligns with the radio, which he just turned on, he quickly silences it and takes her to his lab, where they discuss his work and the ethics of its usage. However, despite Daisuke's 'sterile' exterior, he is not emotionless. From the start of the film, he shows an attachment to Emiko by leaving his lab and seeing her off on her journey to help her father on Ōdo Island, where Godzilla destroyed a village. When he shows Emiko the Oxygen Destroyer, '[c]omplicated emotions were visible in his expression—he was glad he had cleared his conscience by revealing his important secret, but he was also overcome with regret' (Kayama [1955] 2023, p. 65). His jealousy of Ogata then culminates in their fight, which leaves Ogata's head bleeding. Plus, when the children 'sing from their hearts' for Japan to be liberated from Godzilla's threat, Daisuke cries. Situations such as these lead the novel's narrator to comment, 'Poor Serizawa. Doubts upon doubts. Worries upon worries. His heart was full of grief' (Kayama [1955] 2023, p. 101), revealing that Daisuke's emotions are what help make him a sympathetic character.

Furthermore, Daisuke also acts cowardly: he hides in his lab and would have stayed there with his Oxygen Destroyer even as the city, Japan, and the world suffered if Emiko would not have told Ogata about his work and encouraged him to use the device. His terror at making and using the device masks the fact that not acting results in deaths as well. In addition, Daisuke is not as helpless as he often presents himself: he chooses to isolate himself, to invent the Oxygen Destroyer, to use it—even though he tells Emiko and Ogata '[y]ou two win'—and to sacrifice himself, giving Emiko and Ogata a life together. Hence, rather than trying to typecast Daisuke as one kind of scientist, it is more useful to look for common threads running throughout these categories. The practice of sacrifice therefore remains one way of explaining how Daisuke becomes such a complex and intriguing character.

The first thing that Daisuke sacrifices is his family. The mutual esteem between Daisuke and Dr. Yamane makes Daisuke part of the family. In fact, this belonging results in his betrothal to Emiko. Even though this relationship wanes, Daisuke's trust in her remains strong. When Daisuke shows her his lab and explains his work, he admits, 'You're the only person I'd show this to. Don't forget that'. Hence, even though their romantic connection is broken, their esteem and love for one another as trusted family members do not falter, even going beyond the established hierarchy when Emiko assures him, 'I understand. I won't say a word. . .even to Father'. Thus, because interactions between Emiko and Daisuke would generally be shared with Dr. Yamane, as occurs with interdependent family members, Daisuke bypasses and sacrifices this traditional familial process to ensure the secrecy of his Oxygen Destroyer. The decision is significant since the public esteems Daisuke for being 'Professor Yamane's future son-in-law'. Reporter Hagiwara's thought that Emiko 'might introduce [him]' to Daisuke for an interview supports this connection, making them a family in practice if not by marriage. Hence, by both withholding information about the Oxygen Destroyer from others (especially Dr. Yamane) and by using it against Godzilla—and thus resulting in his death—he sacrifices these established bonds that so effectively define him.

A similar argument can be made about Daisuke and his romantic life. Despite being perceived as a detached, uncaring, workaholic scientist, a closer look reveals how much personal happiness Daisuke sacrifices. For instance, his seeing-off of Emiko from the dock shows caring for her, even if only from a distance. Similarly, Daisuke perceives her presence in his home as a positive thing even though he is unable to answer Hagiwara's questions. He only agrees to see Hagiwara because of her, and most tellingly, as soon as Hagiwara leaves, Daisuke turns the radio on to set a mood for their time together. The fact that this ambience ends abruptly because of Emiko's agenda does not alter the fact that he is trying to make her feel at home in his presence. When Emiko later cries over the deaths of the fish

in the tanks, Daisuke even holds and comforts her through his seemingly sterile lab coat and gloves.

Furthermore, Ogata understands that Daisuke does love Emiko, which is why he is too nervous to inform Daisuke about his desire to marry her, telling Emiko, 'We have nothing to be ashamed of . . . but when I think about Serizawa, I lose my nerve', to which she replies, 'I think it would be better if he heard it from me. It'll be easier on him'. If Daisuke's feelings were absent, this discussion would be unnecessary; plus, Emiko's decision to deliver the news herself reveals that Daisuke's love is sincere, a notion reinforced when he forgives her for telling Ogata about the Oxygen Destroyer. When Emiko feels guilty, Ogata assures her, 'you did it to save us from utter disaster. I'm sure he'll forgive you'. Daisuke does even more, though; he wishes for her happiness with Ogata, to the detriment of his own. Therefore, Daisuke's scientific background both facilitates and leads to the end of his betrothal.

Daisuke's status as a scientist then forces him to sacrifice his work, the defining aspect of his life. It is evident that Daisuke is an expert scientist even though the ethical ramifications of his work are much more complex. For example, his initial foray into oxygen studies is intended to be ethical and comprehensive, with an approach 'strictly in the interest of science'. The presence of such intentions indicates why Daisuke refutes Hagiwara's idea that his work is meant to be violent (against Godzilla) and states, 'There must be some mistake. That's not what my research is about at all'. Later, when Ogata learns his secret, Daisuke then emphasizes that he opposes violence:

> if the Oxygen Destroyer is used even once, the politicians of the world won't stand idly by. They'll inevitably turn it into a weapon. A-bombs against A-bombs, H-bombs against H-bombs—as a scientist—no, as a human being—adding another terrifying weapon to humanity's arsenal is something I can't allow.

Hence, Daisuke began his scientific journey with good intentions and a willingness to examine all facets of one subject.

Yet the irony is that his scientific inquiry jeopardizes the morals he seeks to uphold. In general, science and its findings are meant to be shared with others—just as Dr. Yamane discloses his knowledge about Godzilla; however, Daisuke sacrifices open conversations about his work, commenting to Hagiwara that '[i]t isn't worth discussing'. Nevertheless, as the ethical issues associated with the Oxygen Destroyer indicate, with Rhoads and McCorkle (2018) referring to devices such as these as sources of 'widespread ecological damage' (p. 95), Daisuke's work certainly needs to be discussed. Plus, Daisuke's lab tests commit violence against numerous fish, a microlevel rendering of this ecological destruction; his secrecy results in the fighting with and injuring of Ogata; and his scientific knowledge not only leads him to be 'filled with horror at the power [he]'d unleashed' that he 'couldn't eat for days', but also encourages him to consider the ultimate act of violence against himself, telling Emiko and Ogata: 'Should anyone try to force me to use it [. . .] I'm willing to give up my life and destroy my work'. Yet Daisuke does not anticipate the coercive power of Emiko, Ogata, and the singing children, for these are people for whom love and life resonate above his own needs. Therefore, just like Daisuke's creation has made him a true innovator, it also puts him in a situation that forces him to destroy and sacrifice the primary evidence of his worth.

Finally, Daisuke's science results both in the sacrifice of others and himself. In order to create his Oxygen Destroyer, Daisuke kills many aquatic creatures in his lab. While the worth of nonhuman animal test subjects is still being debated in contemporary society—with the possibility of synthetic organs replacing animal testing in many situations a reality (Brown 2024)—these are nevertheless deaths attributable to Daisuke's bid for knowledge and recognition. However, for a long time, Daisuke refuses to use his device to kill the biggest creature, Godzilla, which results in many human deaths and destruction to his homeland. As he explains to Ogata, 'If it could be put to good use, I'd be the first to reveal it to the world. But right now, it's nothing but a weapon of mass destruction. Please understand!' The paradox of this comment is that trying to save others would ethically

be putting it to good use; yet, in reality, since its creation, it is unclear what its 'good use' really is because it is inherently a destructive innovation. This fact is why, with his hands on his head, Daisuke exclaims, 'If only I'd never invented it!'

Moreover, just as Daisuke sees others' potential use of the device as dangerous, he also mistrusts himself. Ogata, his rival, sees Daisuke's potential as a hero, explaining, 'Only you can save us from this tragedy', but Ogata does not understand the reality of the situation, as Daisuke earlier told Emiko, 'I'm risking my life on this project'. In effect, then, the life of the Oxygen Destroyer and its creator are intertwined, as are their dangers. Daisuke explains this idea in more detail to Ogata and Emiko, stating, 'we human beings are weak creatures. Even if I burn my notes, everything's still in my head. As long as I'm alive, who could say I wouldn't be coerced into using it again?' He then reveals his intent to die with his work, declaring, 'this will be the first and last time I ever allow the Oxygen Destroyer to be used'. Nevertheless, it is not until he and Ogata go diving and prepare to use the device against Godzilla that this interconnectedness becomes more evident.

Emiko, Ogata, and Dr. Yamane expect everyone to return to the ship after initiating the Oxygen Destroyer against Godzilla. Yet Daisuke's determination to die with his creation remains firm. Daisuke at first says, 'I can do it alone', but Ogata refuses. However, once they find Godzilla, Daisuke acts more decisively, sending Ogata back up and then cutting his own lifeline. Daisuke admits, 'I never dreamed I'd unveil my discovery like this', for he assumed he would be alive long enough afterward to see its impact. Yet he dies with a good will, telling Ogata, 'I hope you two will be happy. Farewell!' After his death, Daisuke gains the scientific recognition he desired, with a reporter declaring, '[t]he victory belongs to young Dr. Serizawa, scientist of the century!' Nevertheless, this self-sacrifice is complicated by the idea that Godzilla is the 'monster of the century'. While Daisuke sacrifices himself and his creation to save lives against a 'monster', it is also evident that he is saving his life and reputation from his own monstrosity in creating such a weapon. Similarly, Godzilla is more of a monster in this film than in other films (i.e., *Godzilla vs. Megalon* (Fukuda et al. 1973), *Godzilla* (2014), *Godzilla: King of the Monsters* (2019), *Godzilla x Kong: The New Empire* (Adam Wingard 2024)), indicating that Daisuke arguably helps to kill this monstrous Godzilla so that the *kaijū* could live again in other forms. And the fact that four other Serizawas follow Daisuke in Godzilla media indicates that his sacrifices, despite their intricacies, were successful.

5. Eiji Serizawa

While the next Serizawa in the films is Ishirō, chronologically, Ishirō's father, Eiji—likely named for Eiji Tsuburaya, special effects director for *Gojira* (1954)—from the graphic novel *Godzilla: Awakening*, follows Daisuke. *Awakening* is a prequel to *Godzilla* (2014) that serves as a narrative in the developing, transmediated MonsterVerse. Readers meet Eiji as an older man, greeting Ishirō as he prepares to tell him the truth about his past. Then, the narrative shifts to right after the bombing of Hiroshima, when Eiji not only loses his wife, but also sees firsthand the then-unnamed Shinomura ('swarm of death'), a regenerative creature that Godzilla eventually battles and defeats. The narrative ultimately follows Eiji's integration into the Monarch Unit, which is tasked with dealing with *kaijū* (Titans) like Godzilla and Shinomura. Eiji struggles to navigate the situation in which the Americans involved with Monarch seek to destroy Godzilla and Shinomura while he advocates for allowing Godzilla to battle Shinomura. Eiji further petitions that bombs should not be used against the creatures.

Even though Daisuke and Eiji are not related, it is evident that Eiji's surname is intended to be a tribute to Serizawa and *Gojira*. As the most visible scientist in *Gojira*, the Serizawa name has become a symbol in MonsterVerse texts that indicates the narrative significance of scientists who share this moniker. Furthermore, throughout the graphic novel, Eiji 'inherits' many of the complex scientific tropes that apply to Daisuke. Eiji relates to Haynes' (1994) six categories through zoological science instead of lab work. For instance, Eiji's (workaholic) alchemy involves combining human and intellectual elements

intended to restore the world's natural balance. Even though he hesitates to collaborate with the Americans, he does so for the greater good; he even relies on his relationship with Lieutenant Shaw to help him navigate the military elements of this 'alchemy'. Moreover, Eiji performs the necessary research to show that 'Gojira *must* be even older. *Ancient*. From a time when the Earth was *ten times* more radioactive than today' (Borenstein and Borenstein 2014, p. 32). Due to this finding, he posits that Gojira—which is the preferred name for Godzilla in *Awakening*—and Shinomura are natural enemies, with Godzilla being ascendant, and that they have 'got to *find* Gojira and get him to do what it is his *nature* to do' (p. 39). In other words, Eiji is an adept collector (alchemist) of multiple pieces of scientific information, putting them together to give Godzilla—and thus the world—a chance to survive. It is primarily the 'obsessed' manner (Haynes 1994, p. 3) in which he works that aligns him with the 'mad scientist' trope.

Eiji displays elements of the stupid virtuoso through his drive to do things alone even though working with a team tends to be safer. Such situations appear when he rushes into a damaged and sinking ship to save people, leading Shaw to invite him to the team; when Eiji keeps supporting Godzilla against the scientific and military communities, represented by Dr. Zamalek and the Americans/General MacArthur, respectively; and when Eiji chooses to conduct research at Challenger Deep alone and without official support.

Eiji is perceived as a (Romantic) emotionless scientist by Ishirō for being remote from his family and by the scientists and military personnel acquainted with Monarch for his relentless, unsympathetic advocation for Godzilla to fight Shinomura. While in the case of Godzilla, it makes sense, Eiji does experience a period where he lacks empathy for Americans, commenting 'now *they* call and *we* come running', to which his colleague reminds him, 'That's what sailors *do*, Serizawa. It's the rule of the sea' (Borenstein and Borenstein 2014, p. 10). For Noriega (1987), Eiji's expressions fit with Godzilla media's dealing with (dis)connections between the Japanese Self and the American Other, demonstrating how scientists often deal with the dilemma of choosing sides in practical rather than in emotional ways.

Eiji's role as the heroic adventurer—a trope that also references other famous characters, from Professor Challenger to Indiana Jones—stands out, especially because these are the early days of Monarch when scientists know little about *kaijū* (Titans). Even before Eiji joins Monarch, he rushes into a ship destroyed by Shinomura in an effort to save lives, an act that leads Shaw to comment, '. . .you handled yourself pretty well out there. . .' (Borenstein and Borenstein 2014, p. 18); then, Eiji stands up to scientists (i.e., Dr. Zamalek), General MacArthur, and Shaw when necessary. Eiji, therefore, is the epitome of a character who often finds himself in the 'unknown', whether it is in the natural world, with scientific ideas, or in the early days of Monarch. His adventurous spirit, rather than having previous scientific and zoological training, is what facilitates his journey.

Nevertheless, Eiji can also be a helpless scientist. His undisclosed educational background and seeming lack of formal training in science and zoology at first slows his ability to stand up for his beliefs. He strives to learn and offer rational scientific explanations for the acts of Shinomura and Godzilla, but he encounters resistance. Even Shaw, his friend, cautions him, 'take it *easy* on the 'Gojira' stuff in there' (Borenstein and Borenstein 2014, p. 28). Moreover, the fact that the novel ends with Eiji emphasizing to Ishirō that he should continue supporting Godzilla and avoid using weapons of mass destruction suggests that for all his effort, Eiji remains helpless against social and military powers. As Eiji expresses to adult Ishirō, 'Maybe what I *learned* about Gojira wasn't *enough* to stop us from trying to destroy him' (p. 63). Thus, for Eiji, knowledge without action or power to lead is not enough, making scientists like him feel helpless.

Eiji's search for balance and morality in a world turned upside down also makes him an idealist. He loses much, but he still strives to save people and especially Godzilla, knowing that '[w]e *must not* make the same mistake again' (Borenstein and Borenstein 2014, p. 64). Yet his hopes override his fear, which is why he offers his watch that stopped at the time of the bombing in Hiroshima—and which also importantly appears in *Godzilla* (2014)

and *King of the Monsters* (2019)—to his son, thus passing on his scientific knowledge and romanticism to Ishirō as he states, 'Perhaps one day, maybe not until you're my age, he'll come again' (p. 64). In fact, Eiji's certainty that Godzilla was not killed because 'that bomb couldn't have destroyed him. *Nothing* in our power *ever could*' is the starkest way in which Eiji believes science, no matter its power, cannot kill Godzilla (p. 63).

Eiji's experiences also demonstrate how scientists become disconnected from lay people. Eiji is ordered not to go on the island where Godzilla is arriving because, as the military comments, he 'like[s] to be a hero to these natives' (Borenstein and Borenstein 2014, p. 52). Eiji experiences firsthand the devastation of Hiroshima and the atomic bomb, yet the Americans associated with Monarch are ready to use similar weapons against Shinomura and Godzilla without much thought to the lived experiences of the people in their wake. Eiji opposes such actions, but he remains limited in his decision-making abilities. Similarly, Dr. Zamalek's calling himself 'Lead Problematica Biologist' because Godzilla and Shinomura are 'these diverse monsters, this 'kingdom miscellaneous'. They present a thousand problems for we who thought we *understood* nature's world' (p. 28) pokes fun at the *kaijū* being social problems, for which scientists liked to assume they had all the answers.

Nonetheless, like Daisuke, Eiji complicates these scientific trends. Rather than performing his research and scientific 'alchemy' in a secret lab with bubbling tanks, bright electric devices, and dangerous chemicals, Eiji does his work in offices, boats, and in the field amongst the indigenous peoples he encounters, making him an everyday, approachable scientist. Plus, even though Eiji applies his scientific knowledge to *kaijū*, the science itself is conventional. Second, while he works alone (and against the wishes of MacArthur and the Americans), Eiji also discusses his ideas with Shaw and demonstrates that his adventurous spirit is not always 'stupid'. When MacArthur inducts everyone into Monarch, he states, 'Your *job* is to hunt them. *Kill* them, and do it all in secret to prevent a worldwide panic. If you happen to figure out what these things are along the way, that's *your* business' (Borenstein and Borenstein 2014, p. 20). Thus, one could argue that this approach is not about gaining knowledge—and is stupid in that sense—whereas Eiji's individual research and debates with Shaw are the smarter approaches.

Third, there are times when Eiji is quite emotional, providing evidence that science and emotion are not opposites. Eiji is emotional when he searches through Hiroshima's devastation for his family, when he realizes his wife is dead, and when he must leave his son with other caretakers so that he can try to save the world. Most critically in terms of Godzilla science is Eiji's attachment to the *kaijū*, which others discourage. Yet Eiji claims, 'I saw it in his eyes. It's the other creature he's after' (Borenstein and Borenstein 2014, p. 59), indicating the connection he feels with Godzilla—and hence, the attachment Eiji feels for his scientific work. Fourth, even though Eiji is an adventurer, he does feel fear and makes mistakes. When Shaw asks the Japanese sailors to help his shipmates, Eiji states, 'This makes me nervous. He keeps referring to a 'something' and 'it' that *attacked* his ship' (p. 13). Moreover, Eiji's fear about the world's future if Shinomura continues to grow larger causes him to repeatedly petition for 'funding and [his own] team to go looking for' Godzilla (p. 39), thus alienating him from his colleagues, similar to how Daisuke's abruptness and evasiveness with reporters makes people nervous.

Fifth, Eiji is not always helpless. Not only does he refuse to allow other people to make him believe Godzilla does not exist and that Godzilla is dead, but Eiji also prepares a future for his son in which Ishirō will build upon his work and have more power in Monarch. Eiji's calls for humans as a whole to take responsibility for their current situation with the *kaijū* is a powerful act: if Shinomura is '[a] *monster* summoned by our [human's] own *monstrosity*' (Borenstein and Borenstein 2014, p. 7), then people like him have the power to repair the damage. Therefore, Eiji's constant looking to the future gives him insights that other Monarch scientists lack. Finally, there are numerous ways in which Eiji's worldview is not idealist. He knows that he is striving to find the truth about Godzilla because Godzilla's future is threatened. In addition, Eiji's experience in Hiroshima and the

loss of his wife always affect his perception. His fear, which he expresses to Ishirō when he gives him the pocket watch, is strong, and it prevents Eiji from seeing Monarch's growth through rose-colored glasses.

An evident thread running through Eiji's narrative involves the sacrifices that he makes in pursuit of science and his Monarch career. The loss of Eiji's family is a theme that bookends the narrative. At the beginning, adult Ishirō visits Eiji, and after Eiji asks him, 'How much do you remember about my work, Son?' Ishirō responds, 'For the *shipping company*? Only that your colleagues saw you more than *I did*' (Borenstein and Borenstein 2014, p. 5). Therefore, even before readers know what happened to Eiji's wife, Ishirō complains about his father's absence—Ishirō spent a large part of his early years with his grandparents. As Ishirō ages, he desires to accompany his father to form a stronger connection with him. In front of Shaw, Ishirō comments, 'You're *always* working. Why can't I come this time?' (p. 28). Yet Ishirō has no idea what his father does, which makes Eiji's refusal heartbreaking for him. By the narrative's end, Ishirō better understands his father's work as well as the reasons for his sacrifices, but this knowledge does not give them much time together. Eiji passes away from old age, and his legacy is now in Ishirō's hands.

Eiji sacrifices his loves, who are most obviously his wife and son. In the devastation of Hiroshima, Eiji finds his dead wife and recovers his baby son, admitting to Ishirō, 'You were the first thing I thought of when I came-to after the blast. You and your mother' (Borenstein and Borenstein 2014, p. 6). As the narrative continues, it becomes evident that Eiji also develops love for Godzilla. As the 'alpha Titan' and enemy of Shinomura—which Eiji associates with Hiroshima and his wife's death—Godzilla becomes the primary recipient of his emotions. Eiji does everything that he can to protect Godzilla from being bombed, as his family, his city, and his nation were. He never loses faith in proving that Godzilla exists, and he believes in the rightness of leaving Ishirō with the task in his place, encouraging the protection of Godzilla to become an intergenerational enterprise. Moreover, when the Americans bomb Godzilla and Shinomura, Godzilla retreats for a while, depriving Eiji of seeing him. As a result, Eiji again is prevented from spending time with one of his loves, even if his time with Godzilla is meant to be at a distance. Thus, one could argue that the 'monstrosity' of humanity—epitomized by the bombing of Hiroshima—and the 'monstrosity' of Shinomura (p. 7) are indeed linked because both take his loves from him.

Finally, Eiji sacrifices his life for his science and his 'creations'—his son and Godzilla—even though it occurs in a less dramatic way than with Daisuke. To have had a family life would have been the ultimate success for him, but the bombing of Hiroshima and his sighting of Shinomura alter this trajectory. Science and Eiji's research for Monarch then become his life. Yet his work is not always accepted, and even when Godzilla's existence is acknowledged, the *kaijū* is bombed and presumed dead. The life that Eiji cultivated in defeating Shinomura while protecting Godzilla is only half successful: Eiji sacrifices further work on Godzilla, who presumably lives, to protect him. Nevertheless, he still fears for the future, which causes him to sacrifice Ishirō's separation from Monarch so that Ishirō can have the same kind of life, which, as audiences know, ends with Ishirō's own sacrifices.

Eiji's narrative arc therefore resembles Daisuke's. Both men face moral and ethical dilemmas as competing perspectives seek to use their scientific work against Godzilla. In the aftermath of these struggles, Daisuke and Eiji give up their work and former lives in an effort to maintain a habitable planet less affected by the imbalance caused by bombs, radiation, and a lack of scientific understanding of the natural world. Consequently, Eiji's complexities as a scientist match Daisuke's, and his sacrifices are for the benefit of humans as well as for Godzilla, thus building upon Daisuke's narrative.

6. Ishirō Serizawa

Ishirō Serizawa appears a few times in *Godzilla: Awakening*, but his most recognizable guise is Ken Watanabe's portrayal in *Godzilla* (2014) and *Godzilla: King of the Monsters* (2019). In these narratives, Ishirō is a middle-aged man with years of experience looking for *kaijū*. Most of the people he encounters respect him as a person and as a scientist. Moreover, he

interacts with the primary leaders of governments and militaries, giving him an integral place in the decision-making aspects of the Godzilla narrative.

Godzilla (2014) follows Ford Brody (Aaron Taylor-Johnson), a military man trying to be with his son, Sam (Carson Bolde), and his wife, Elle (Elizabeth Olsen), in San Francisco, but nonetheless called to Japan to help his father, Joe Brody (Bryan Cranston). Joe had headed a Janjira nuclear facility fifteen years before when crisis struck: his wife, Sandra (Juliette Binoche), died there, and the area had to be evacuated. Unbeknownst to them, a (male) MUTO (Massive Unidentified Terrestrial Organism) that had escaped from the Philippines where Ishirō was called to investigate burrowed into the facility to wait until its dormant mate—housed in Nevada—woke. As the narrative continues, the male MUTO escapes from Japan, and Ishirō and the Brodys cross paths briefly. Throughout the narrative, as Ford Brody encounters the *kaijū* in the field, Ishirō works with military leaders like Admiral William Stenz (David Strathairn) to affect the outcome. Ishirō pleads that everyone allow Godzilla to fight the MUTOs while the military decides to prepare a nuclear weapon to stop all three creatures. In the end, Ishirō's faith in Godzilla is validated: Godzilla defeats the MUTOs and restores the natural balance.

Nevertheless, things become more difficult for Ishirō in *King of the Monsters*. Dr. Emma Russell (Vera Farmiga), who lost her son in San Francisco and whose ex-husband Dr. Mark Russell (Kyle Chandler) is a former Monarch member now looking for her, has developed the ORCA, a device that can wake the other *kaijū* being held and observed by Monarch. With the help of a militant group led by Alan Jonah (Charles Dance), and accompanied by her daughter Madison (Millie Bobby Brown), Emma awakens King Ghidorah, a three-headed creature not part of the natural order. Godzilla seeks to destroy this usurper king, for which Ishirō advocates, but as Ghidorah takes command of other *kaijū*, Godzilla's task seems insurmountable. Only after Godzilla is almost killed by an Oxygen Destroyer—harking back to Daisuke's device—and after Ishirō sacrifices himself to recharge Godzilla with a nuclear weapon, does Godzilla destroy Ghidorah and reclaim his place as the alpha.

Throughout these events, Ishirō's narrative follows those set by Daisuke and Eiji in terms of Haynes' (1994) scientist tropes: the alchemist, the stupid virtuoso, the (Romantic) emotionless scientist, the heroic adventurer, the helpless scientist, and the idealist. Ishirō is not often in a lab, as is Daisuke, but he does have a way of combining elements—like his father—to make his ideas work. For instance, he brings together Joe's research and Ford's limited knowledge of it after Joe's death to make sense of the MUTO's presence at Janjira, helping him make decisions. Moreover, the way in which Ishirō oversees many *kaijū* containment areas and can decide their fates resembles Daisuke's power over his fish. With the flip of a switch, Ishirō can have a *kaijū* terminated, and he makes this call with the male MUTO even though the process does not kill the creature. Yet Ishirō also has the opposite ability: he combines the power of a nuclear bomb with the recharging capacities of Godzilla's underwater home not only to heal the *kaijū*, but also to set Godzilla on a rampage against Ghidorah. Thus, Ishirō's alchemy inspires the comment that 'Serizawa's got that lizard juiced', for Godzilla is so radioactive afterward that he goes thermonuclear.

Ishirō is a stupid virtuoso sometimes. Like Eiji, he believes in Godzilla even when others do not. He is willing, albeit regretfully, to endanger human lives to give Godzilla a chance to rebalance the natural world. When Godzilla nears the USS *Saratoga* in Hawaii, Ishirō goes on deck to glimpse him even though it is dangerous—there is no indication that Godzilla will dive under the ship until the last minute. Finally, when Godzilla lies dying in his underwater home, Ishirō elects himself for the self-sacrifice of carrying the nuclear weapon to the *kaijū* and then detonating it. He knows that his 'science of Godzilla' has gotten him and his team this far, and he understands that only he can carry the burden the rest of the way.

In addition, there are times when one could argue that Ishirō lacks emotion. After Joe Brody's death, Ishirō has little time to grieve because he needs Ford to share what he can about Joe's research, which includes echolocation. Furthermore, Ishirō often advises Mark Russell, Emma's ex-husband and Madison's father, against taking out his rage on

Godzilla for causing the destruction that killed Andrew Russell in San Francisco. There is a moment when Ishirō thinks, '*I should have known better*' for 'had [he] been in Mark's position—if his own son Ren were the one in there—he would probably have done the same thing' (Keyes 2019, p. 79). He therefore admits to missing an emotional connection with Mark. Yet Ishirō is also stoic about his own fate: as he prepares to take the nuclear weapon into Godzilla's lair, he 'nodded without expression as he took in the specifics of his impending death. Stanton was trying to be precise, clinical. To make sure Serizawa's attempt didn't fail' (p. 194), and Ishirō's reserve aligns with this reality.

Partaking in these Monarch expeditions makes Ishirō a heroic adventurer. Like Eiji, Ishirō ventures into unknown places to find and understand *kaijū*. When he and Vivienne Graham (Sally Hawkins), his longtime colleague, go to the Philippines, they are unsure what they will find. Yet even after a sinkhole opens and people sicken from radiation, he and Graham don special suits and explore the tunnels, where they find the female MUTO dormant and the hatched male's exit route. Ishirō risks his life on the deck of the USS *Saratoga* when Godzilla approaches because he 'ha[s] to see this'. Moreover, despite his impending death, being in Godzilla's abode, a stunning archeological find, gives him comfort, '[a]nd he found he was no longer afraid' (Keyes 2019, p. 198). Entering Godzilla's lair and touching the great *kaijū* requires bravery, which Ishirō demonstrates in ways that Daisuke and Eiji would find remarkable.

Nevertheless, even as a Monarch leader and capable scientist, Ishirō does not have ultimate power. He must deal with national and military leaders, and the limitations of other people involved. When Admiral Stenz decides upon a strategy using a nuclear weapon, for his 'first priority is to safeguard our citizens', Ishirō can only plead with him not to use it. He also shows Stenz Eiji's watch that stopped at '8:15 in the morning. August 6, 1945'. While Stenz is sympathetic to Ishirō's perspective, he remains beholden to his superiors, which often renders him 'helpless' too. Hence, as much as Ishirō knows and strives to accomplish, certain processes and people do limit his goals.

Due to Ishirō's unshakeable faith in Godzilla as a world protecter, Ishirō is an idealist. Calling Ghidorah 'a false king' aligns with the future orientation of traditions like medieval epics in which honorable kings (i.e., Arthur) always return. The way in which Ishirō perceives *kaijū* communication also reveals this outlook. When everything seems hopeless, Mothra appears. As described in the film novelization: 'Serizawa took a breath. Mothra hadn't come to fight a losing battle. She had come to show them the way. To bring Godzilla back. That was the rational core of the hope he'd felt at the sight of her petal-like wings' (Keyes 2019, p. 168). Then, right before his death, Ishirō briefly connects with Godzilla: 'Godzilla's eyes were open, watching him come. And although it was impossible, he believed that he saw recognition there. Compassion' (p. 199). Despite the tragedies and challenges that he faces, Ishirō never loses hope in nature or its messenger *kaijū*; he does not lose faith in his '*kaijū* science' either, which shows his idealist perspective, built from years of doubt after Eiji appeared to have deserted him.

Like Daisuke and Eiji, Ishirō shows how scientists can become disconnected from everyday people (Frayling 2013). For instance, for years, he and Joe Brody were collecting data on similar phenomena regarding the MUTOs. However, because Brody was not in the social and political circles in which Monarch operates, they never met one another until the MUTO left the Janjira facility and sought its mate. When Ishirō realizes this missed opportunity, he thinks, according to the official novelization, '*What a pity* [. . .] *that we never knew each other existed*' (Keyes 2019, p. 116). Moreover, by seeking to allow the *kaijū* to fight, even if it means destroying cities and killing people, he demonstrates how he has been living separately from everyday people, for whom these spaces are everything. Therefore, even as Ishirō seeks to save the world, he also exists outside it, adding to the impression that a disconnect endures between scientists and lay people.

Nevertheless, like Daisuke and Eiji, Ishirō's character and actions do not perfectly conform to Haynes' (1994) themes. Even though Ishirō understands the 'grander' and more innovative aspects of *kaijū* science—which sometimes puts scientists and *kaijū* in

labs—much of his discourse centers on zoological and biological principles. For instance, Ishirō explains that the male MUTO 'will be looking for food', that Godzilla 'is hunting' the MUTOs, that the echolocation that Brody heard 'must be a mating call', and that '[t]he female remained dormant until the male matured'. None of this knowledge derives from unnerving bubbles or lights in a secret lab. Instead, it comes from the systematic study of nonhuman animal behavior.

Ishirō is not just a stupid virtuoso either. Much of his knowledge and influence comes from being part of the Monarch team, as was the case with Eiji and Shaw. In particular, Ishirō relies on Graham, a longtime colleague and friend. When they learn the other MUTO lacks wings, Graham posits, 'A different sex?' to which Ishirō replies, 'A female'. Then, Dr. Chen—who shares a sense of wisdom and respectfulness with Ishirō that fits with Orientalist stereotypes (Rawle 2022)—becomes important to his team when she provides Ghidorah's narrative, explaining that he is '[a] great dragon who fell from the stars. A Hydra whose storm swallowed both men and gods alike', and '[h]e's not part of our natural order. And he's not meant to be here'. When asked what team members he needs after the MUTO's escape from Janjira, Ishirō immediately chooses the Brodys; knowing that he does not have all the answers, since he 'thought all the data from that day [in Janjira] was lost', Ishirō eagerly seeks help and information from others. Even when he disagrees with Stenz, they show esteem for each other and their ability to collaborate.

As Ishirō's encounter with the irradiated miners in the Philippines indicates, he is not emotionless. Furthermore, he is affected by colleague Gregory Whelan's death in Janjira, deeming him a well-intentioned man despite the MUTO's escape (Cox 2014). Ishirō is upset by the news of Joe Brody's death, even leaving his discussion with Stenz to show his empathy with Ford as well as to explain what was happening. Most significantly, in human terms, when Graham is killed by Ghidorah, Ishirō is heartbroken. In the film, these feelings appear as Ghidorah eats her, when Ishirō falls to his knees in despair, and later as he stares at an image of Graham on a computer screen, with his head bowed and leaning on his hand. Then, as the novel's narrator reveals,

> Serizawa was staring at where she had been. He looked like someone who had just been asked a question he should be able to answer, but couldn't. Then his features began to crumple in on themselves. Mark had never seen him look so beaten or broken. (Keyes 2019, p. 92)

Ishirō then declares to her presence, which lingers in her room, 'You are irreplaceable' as he 'felt a tear trace down his face' (Keyes 2019, p. 170). Finally, Ishirō often loses his stoicism when Godzilla is involved. His amazement at seeing Godzilla fallen at the end of *Godzilla* (2014) is palpable, and his mixed feelings when Godzilla stands back up reveal his attachment to the *kaijū*. Furthermore, when Godzilla is dying from the military's deployment of the Oxygen Destroyer, Ishirō's melancholy reappears. As Mark Russell muses,

> Someone way above his pay grade must have made the call. Serizawa would never willingly allow his favorite monster to get blasted. And despite himself, Mark felt the stirrings of sympathy for Serizawa's point of view. Godzilla had saved their lives a couple of times now, whether he meant to or not. (Keyes 2019, p. 126)

Mark reveals this attitude in the film when he empathetically observes Serizawa's depressed reaction to Godzilla's impending death, especially when Ishirō tells him, 'Looks like you got your wish, Mark'. Hence, these losses and potential losses show how Ishirō is an emotional scientist.

There are times when Ishirō is fearful, nervous, and anxious, all of which attest that he is not simply the heroic adventurer who rushes headlong into every situation. When Ishirō ruminates about events and decisions, he usually spins or moves Eiji's pocket watch: 'Serizawa was playing with his pocket watch again. A sign he was thoughtful or nervous, or both. Often both' (Keyes 2019, p. 172). Ishirō even looks at the watch at the start of

Godzilla (2014), while he is in the helicopter in the Philippines. Moreover, he uses it as a symbolic crutch when he tries to convince military personnel not to use nuclear weapons, indicating that he does not have complete confidence that his own words and expertise will have the desired impact. Plus, Ishirō has second thoughts about his sacrifice in Godzilla's underwater lair: while he does not lose his resolve, his anxiety appears through his rationalizing:

> As he passed the last of the Lamassu guardians, he knew it was now done. He was surely past the point of no return. If he turned around, his only reward would be to spend the rest of his short life in misery. He had seen people die of radiation poisoning. It was no way to die. (Keyes 2019, p. 197)

In effect, then, even though he heroically decides to sacrifice himself, he relies on pragmatism as much as adventurous heroism to achieve it.

Despite his challenges, Ishirō is more than a helpless scientist. He stands up for his beliefs, even when there is huge public and military pressure against him. He makes tough decisions without undue hesitation: when the situation at Janjira appears to be worsening, he calls for the MUTO's termination even though the creature does have scientific value. He makes the critical and swift decision to bring the Brodys onto the USS *Saratoga*. And he advocates for peace in a world full of fear, anger, tragedy, and war. For instance, even as he sympathizes with Mark Russell for the loss of Andrew Russell, he counsels Mark, 'Sometimes . . . the only way to heal our wounds is to make peace with the demons who created them'. Thus, in the face of all these terrible events, he nevertheless advocates for peace and healing—decisions that people can make and choose to adhere to, giving them agency above the uncertainties caused by the (re)acquaintance of humanity with *kaijū*.

Moreover, there are moments when Ishirō is obviously not an idealist. Ishirō laments the death and suffering of the miners in the Philippines, recognizing that Monarch's activities are often surrounded by destruction and human misery. As much as he believes in Godzilla, he does not seek to control him or think that people will have an ideal life under Godzilla's reign; in an orientalist platitude (Rawle 2024) in the 2014 film, he tells Stenz, 'The arrogance of men is thinking nature is in our control and not the other way around'. Ishirō even flips the notion that humans are in charge of nonhumans in *King of the Monsters* when he recommends that people '[l]earn to live with the Titans' and that humans 'are their [the Titans'] pets'. In effect, then, Ishirō respects *kaijū*, but he also knows that everyone, including himself, could be considered dispensable.

The thread of sacrifice, though, runs through all these themes. Ishirō's efforts with Monarch sacrifice his family even though his younger self lamented his father's similar actions. Audiences eventually learn that Ishirō has a son, Ren, and had a wife. Yet Ishirō's home life is sparsely discussed. In fact, when his wife dies, Ishirō remains unaware of it for a week, leaving Ren to manage the funeral and 'show[ing] up two days after' it (Keyes 2021, p. 232). Moreover, Ishirō neglects passing on his Monarch heritage to Ren, as is symbolized by the pocket watch. Before Ishirō dies, he 'took out his pocket watch and looked at it one last time', thinking that '[*t*]*hings like this should pass from father to son*' (Keyes 2019, pp. 198–99) However, because Ren is not present at Ishirō's death, this bequest does not happen, which could arguably be seen as another issue that leads Ren down his own sacrificial path.

In fact, the symbolic bequest of Ishirō's efforts and '*kaijū* science' occurs with Vivienne Graham and Mark Russell. After Graham's death, he sees 'a simple pendant carved from stone, a bipedal lizard with a long, thick tail and ragged dorsal spines. He had given her that one himself [. . .] His father had given it to him, years before. His father had been given it by a Yapese man who had carved it from memory' (Keyes 2019, p. 170). Even though Ishirō has biological family members, he gifts a pendant that Eiji had given to him to Graham, suggesting that he was entrusting her with Monarch's future. Her death, then, serves as a part of the sacrifice of the family tradition, ending it before it goes any farther. Yet Ishirō does leave his notebooks to Mark, rather than destroying them as Daisuke does,

suggesting that Mark, who '[feels] the weight of it in his hand. And in a way, he felt Serizawa there, too' (p. 211) can continue Ishirō's work in a comparable way.

Furthermore, Ishirō sacrifices his many loves, including the 'creations' associated with Monarch, so that its members could study and protect *kaijū*. Ishirō's dedication to his work does not prevent him from calling for the termination of a *kaijū* that might endanger the planet; in effect, then, to kill a *kaijū* is to sacrifice a part of his work, which is one of his loves. As a result, rather than spending more time with his wife, she accepts Ishirō's efforts and takes care of Ren. Several times, Ishirō is asked to sacrifice Godzilla, the love that he has taken over from Eiji. When he briefly believes that Godzilla died in San Francisco, he becomes emotional. Later, he regrets Godzilla's injuries and impending death due to the military's Oxygen Destroyer. Most poignant, though, is that he sacrifices the lifetime that he and Godzilla could have spent in proximity to each other by reviving the *kaijū* with the nuclear weapon. Just before Ishirō dies, he removes his mask and touches Godzilla, taking in his nonhuman love with his own senses, and says, 'Goodbye, old friend'.

And, as already revealed, Ishirō sacrifices his life to save Godzilla, and thus the planet, an act that most resembles Daisuke's last moments despite Daisuke's aim to kill rather than revive Godzilla. Like Daisuke, Ishirō 'had skipped to the obvious conclusion: that to bring Godzilla back to health—to have a shot at saving what was left of their world—someone had to die. And he would be that person' (Keyes 2019, p. 188). With Dr. Chen seeking another way, much like Ogata and Emiko expect Daisuke to live, Ishirō insists that he must make the sacrifice. Yet this ultimate sacrifice is not in vain—as one might argue Ren's is—for 'over the years, he had more and more come to understand Godzilla's place in the world. And thus, his own purpose' (p. 198). Therefore, just as Godzilla had given him a new life that followed Eiji's footsteps, he also kept his promise to this bequest by giving Godzilla a new life with which to defend the planet against Ghidorah. Rather than death occurring in dark water (Daisuke), from old age (Eiji), or by being subsumed into another consciousness (Ren), when Ishirō dies, '[t]here was light' (p. 199), indicating his heroism and the fulfillment of his work in a way that evades the other Serizawas.

7. Ren Serizawa

While not explicit in *Godzilla vs. Kong* (2021), Keyes' 2019 and 2021 film novelizations reveal that Ren Serizawa is Ishirō's son.[8] The film version of *Godzilla vs. Kong* presents Ren (Shun Oguri) as a quiet man who normally appears at the side of Walter Simmons (Demián Bichir), leader of Apex Cybernetics. Ren serves as Apex Chief Technology Officer, which keeps him within the scientific community like the preceding Serizawas. Ren's aims with Apex are to secure a stronger power source for his psionic uplink with a Ghidorah skull—two skulls in the novel—with which he and Simmons are hoping to control Mechagodzilla, a robotic Godzilla that is, according to Simmons, 'not only Godzilla's equal, but his superior'. Godzilla, though, attacks Apex holdings multiple times in protest of this technology, which he can sense. Simultaneously, Dr. Nathan Lind (Alexander Skarsgård), Dr. Ilene Andrews (Rebecca Hall), Andrews' adopted Iwi daughter Jia (Kaylee Hottle), and their team follow Kong to Hollow Earth where Maia Simmons (Eiza González), Simmons' daughter, plans to obtain a sample of the *kaijū*'s power source and send it back to him. Eventually, Godzilla, Kong, and Mechagodzilla face off in a grand finale in Hong Kong that leaves the two alphas as respected opponents who work together to defeat Mechagodzilla.

Throughout this narrative, Ren, like the Serizawas before him, aligns with the six primary depictions of scientists that Haynes (1994) describes. Ren is clearly an alchemist when he is shown seated in the Ghidorah skull—which was presumably the one stolen by ecoterrorists in the previous film—with all its differently colored lights running upward from the bone and connecting it to Mechagodzilla. In fact, as Rawle (2024) argues, Ren can be seen as a Frankenstein figure, resurrecting Mechagodzilla from the dead tissue of a *kaijū* and with a power source taken directly from Earth's core. As the novel explains about the 'control' skull,

> The organics were long gone, rotted away, but they had been replaced by wires, conduits, fiber-optic cable and strands of superconductor. Some tracked in from supercomputers outside; others were grounded in the skull itself. But all of it snaked itself to the equipment at the crux of it all. The control helmet. (Keyes 2021, p. 230)

Even though there are no bubbling tanks full of fish, the scene nevertheless serves as a more modern version of Daisuke's secret lab, especially from an outsider's perspective. In this case, Madison Russell (Millie Bobby Brown), her friend Josh (Julian Dennison), and Bernie Hayes (Brian Tyree Henry) encounter the room in Hong Kong and have a reaction that attests to its strangeness.

> They hadn't stepped into just any room. They had stepped into a really *weird* room.
>
> To begin with it was a sort of technological nightmare, a mad scientist's playground. A mass of computers and machinery connected by freeways of electricity, complete with blinking lights and glowing components and a generally neon feel. But in the center of it all was something decidedly non-technological, at least on the surface; an immense horned skull, suspended by wires and fiber-optics and tubes of some kind of goo and who knew what else. (p. 255)

Thus, the way in which bones, lights, and technology interweave has the same effect as the lights and pulsations of other 'mad scientist' labs. Moreover, just like Eiji's putting together of different research elements to learn about Godzilla, Ren combines *kaijū*, human, and technology in ways previously unimagined.

Ren is also a stupid virtuoso in a high stakes scientific game. With Simmons, Ren decides to take a secret path toward destroying Godzilla even though, as he reminds Simmons when they have the *kaijū*'s energy source, 'the uplink is untested'. Despite this warning, Ren proceeds and merges his mind with Ghidorah's consciousness without considering if he can really maintain control—which, in fact, he cannot. This merging also brings out Ren's sinful side, for at one point, after the Mechagodzilla shuts down from lack of power, Ren is affected: 'To be shut down like that was . . . hard to take. He needed more power. He craved it. Only then could the Mecha be what he had designed it to be. Only then could *he* be what he was meant to be' (p. 243). Thus, Ren's power trip from his blending with the Mecha gives him a false sense of security and positions him as an antagonist, unlike the other Serizawas. In the film, Ren appears to be electrocuted and killed; in the novelization, Ren's body is missing, and his mind has been fused into the greater consciousness that controls Mechagodzilla, for as Madison discovers, 'when she tried to return to the control room inside of Ghidorah's skull, she found that it had also been annihilated when Mechagodzilla killed Simmons. She found no sign of the pilot' (p. 292). Both these 'endings', though, reveal what many Godzilla media fans consider 'an obscene level of arrogance, stupidity and recklessness in Ren' (Gojipedia 2024) that arguably surpasses the presumptions of the other Serizawas, and that aligns with his categorization as a stupid virtuoso.

Due to his quiet character, Ren can easily be perceived as an emotionless scientist. His film scenes generally show him as second to Simmons or engaged in scientific activity rather than addressing committees or making plans with others, as Eiji and Ishirō in particular do. Plus, specific facial expressions and written descriptions support this emotionless portrayal. During his test of the Mecha, he enjoys killing Skullcrawlers and disregards the pain he causes them. Specifically, 'he absolutely had no compunction about killing them. As they were made to prey on everything else, he had been built to end *them*. He was the alpha now, the apex predator' (Keyes 2021, p. 241). *Gojipedia* considers this behavior the showing of 'both hubris and a sadistic side', even calling Ren in this moment 'a nightmare fetishist'. In addition, Ren's reaction to Ishirō's death reveals a selfish focus on mourning what he, rather than his father, lost.

Ren is a heroic adventurer as well. The moments during which he comments upon the uncharted nature of his work with the Mecha and its psionic capacities demonstrate that his decisions to press forward, while not always the best choices, nevertheless merit an adventurer status. Dr. Nathan Lind and his brother, David, whose backstories are more accessible in the novelization, were pioneers trying to enter Hollow Earth. While they failed at first, they were heroic for putting their lives at risk to try something new. Similarly, when Nathan, Ilene, and Jia finally do enter Hollow Earth with Kong, they also become heroic adventurers. Thus, the failure of Ren's adventure does not negate its status as such, for even the protagonists fail sometimes.

Finally, Ren serves as a helpless scientist in many ways. First, his learning of science to impress Ishirō rather than improve himself begins a trajectory in which he relies more on others' perspectives than his own. This trend is amplified once he teams up with Simmons. Ren is at Simmons' mercy throughout the narrative. Even when Ren cautions against using Hollow Earth's full power for the Mecha without testing it, Simmons manages to overrule him, often without a word. For instance, Ren notices that

> The new data suggested a whole series of uncertainties from the quantum level up. They had harnessed the telepathic potential of the two Ghidorah skulls without ever *really* understanding how and why they worked. And this new genetic information, so intimately related not just to the energy, but to Gojira[9] and how he metabolized that energy—all of this was introducing a series of X-factors that ought to be explored, quantified, understood. If they kept his creation shut down, if they turned off all of the ancillary systems connected to the skulls—chances were Gojira wouldn't know exactly where to look. In fact, Ren thought, they could probably relay a false signal elsewhere, to draw Gojira away—give them more time to truly perfect his creation.
>
> But he had a sinking feeling that he would never convince Simmons of any of that. (Keyes 2021, pp. 264–65)

In this scene, Ren's knowledge and common sense about how science ought to be done gives audiences the opportunity to see that, despite his faults, he is not the villain that Simmons is. For instance, Ren recognizes how much data they have, which would require more testing and evaluation. He also admits that neither he nor Simmons fully understands how the connection works, which could introduce maintenance and self-protection issues later on. Furthermore, Ren does not condone antagonizing Godzilla with the creation's signal at the expense of better comprehending and testing the creation, for this work is more important to him than his hatred of the *kaijū*. Yet even after Ren provides all this evidence, he checks himself because he remains (or allows himself to remain) helpless against Simmons. Furthermore, in spite of his planning with the Mecha, Ren also falls prey to the consciousness of the 'alien' Ghidorah that takes over him and the Mecha,[10] once more making him a pawn in the larger battle being played.

Ren fits the idealist trope as well. In his youth, he studied hard and learned as much as he could to impress his father. Even though his anger with Ishirō taints these efforts, the fact that he believes learning about science and Godzilla is for a greater purpose still makes Ren an idealist, for despite the problematic ways in which his plan is executed, Ren sees the ultimate issue to be that while '[h]is father had chosen to side with monster. Ren chose humanity' (Keyes 2021, p. 98). In addition, Ren learns so much about science because he, at first, thinks it will eventually bring him and Ishirō into a better relationship. As the novel reveals, Ren

> supposed that was because he had always imagined they would reconcile, he and his father. That the old man would have a moment of *satori*, that the fish scales would fall from his eyes, and he would understand what he had been neglecting in the pursuit of his obsession. In pursuit of Gojira. (p. 97)

Ren is therefore often looking toward a greater purpose even though all his efforts fail.

Nevertheless, Ren's character and behavior problematize seeing him only in these ways. Ren does more than just put unconventional elements together (as in alchemy) in his work. The modern nature of AI and nonhuman animal studies posits that much of Ren's science is based on legitimate qualities, such as using AI to improve communication between humans and nonhuman animals (Bushwick 2023). Ren's reliance on others ensures that he is not the stupid virtuoso working alone and without a degree of social acceptance. Apex is a world-renowned company—until, of course, its psionic use of the Ghidorah skull(s) encourages Godzilla to attack. In addition, Ren's collaboration with Simmons and Lind concerning Hollow Earth and the HEAVs are part of the process of creating scientific opportunities. Even Apex's purchase and acquisition of the skull(s) from Alan Jonah indicates that Ren is not working in a vacuum. He is a part of Apex and the social systems in a world now dealing with *kaijū*.

There are moments when Ren is emotional as well. His feelings toward his father cover a range of emotions, including love, disappointment, depression, and anger. Moreover, Ren is disgusted at Ishirō's ability to 'let [the *kaijū*] fight', for he sees it as being 'a sign of callousness' (Gojipedia 2024). When Ren tests the Mecha, his sense of enjoyment at using it and killing the Skullcrawlers indicates how emotionally invested he is in his work. As the narrator reveals, 'He felt a shudder of ecstasy as it died, writhing in his grip' (Keyes 2021, p. 241). Furthermore, his hesitance and frustration with Simmons, while not often expressed aloud, nevertheless reveal someone more responsive to his environment than his stoic façade suggests.

Ren's opposition to Ishirō and Simmons is also where Ren shows the most agency. Ren's ceaseless desires to counter his father's work as well as kill Godzilla push forward his own agenda 'deliberately as an expression of rage and rebellion', especially when he realizes that his family has invested so much in protecting Godzilla and helping Monarch. In addition to perceiving Simmons as 'a mere stepping stone' (Gojipedia 2024), Ren understands Simmons' egoism—which will not endure the passage of time—and need to take credit for others' work, silently correcting Simmons by attributing the Mecha to both of them (Keyes 2021). Pointing out these aspects gives Ren power. So too does his decision to ignore his fears about the Mecha's untested nature with the full power source.

> He knew what was expected of him; he knew why he was here. This was no time to be timid; Kong was down, and he wasn't getting up. The upload signal was all Gojira needed to find them, and Simmons wasn't going to let him power that down. It was either take control of the Mecha and obliterate the Titan or be crushed by him. Why was he even hesitating? He had waited most of his life for this. (p. 288)

At any point during the narrative's climax, Ren could have taken a stronger stand against using the Mecha without further testing. However, he chooses not to, and he therefore displays more agency than perhaps he is willing to attribute to himself.

Due to his pragmatism, Ren is not always an idealist. When contextualizing Ren's disagreements with Simmons, it is evident that Ren does not stay with Apex because Simmons' mission is philanthropic and good, as Apex's commercials claim, but because Ren relies on Simmons' own pragmatism. This notion appears in the novel: 'Ren had thought him paranoid. But Simmons had not gotten where he was by being stupid' (Keyes 2021, p. 96). Moreover, Ren's frustration and disappointment with Ishirō serve as a tainted lens through which Ren views everything; even when he is working on innovative machines and partaking in scientific discoveries, all he can think about is beating Godzilla and 'surpassing his father' (p. 264). In fact, Ren's hatred of Godzilla, which stems from Ren's feelings toward his father and the breakdown of the Serizawa family, not only is as far from being idealist as possible, but also becomes a driving force of Mechagodzilla's own desire to kill Godzilla. When the novel reveals that 'the thing that called himself Ren was gone, and *it* had arrived. It did not know who it was, or what it was, but it was full of rage and the black joy of finally *being*, and having limbs, and teeth, a boundless, unending energy at its command' (p. 289), it supports seeing Mechagodzilla's desire to kill Godzilla

as coming not only from Ghidorah's consciousness, but also from 'Ren's hatred of him' (Gojipedia 2024), which has been festering for years.

These complexities once again reveal how there is a disconnect between science and lay perspectives (Frayling 2005). Ren's concerns with defying Ishirō and destroying Godzilla do not align well with his aims to help humanity overall. Countless people die from the response that Godzilla takes toward the Mecha, and in many ways, Ren's use of his science is not what lay people—whom Madison, Josh, and Bernie represent—think is appropriate. This trio is appalled by the technology's existence and its aim to take over Godzilla's role as an arbiter of global justice and balance. If Ren's ultimate goal is to assist humanity even if he is not remembered, the general public does not perceive his scientific methods as the most effective ones. Ren will also be memorialized as a dangerous scientist even though his science took advantage of him as he did with others. The celebration of 'good' scientists in *Godzilla x Kong: The New Empire* (2024), for example, supports this interpretation. Dr. Ilene Andrews (Rebecca Hall) and Trapper (Dan Stevens) help prevent the resurfacing of a global enemy—the Skar King—by using nature and science—symbolized by the teaming up of Godzilla, Kong, Mothra, and the Iwi in Hollow Earth—in collaborative ways, unlike the Skar King who abuses and enslaves a *kaijū*—Shimo.

Due to these complexities, considering the thread of sacrifice in Ren's narrative better links him to all these experiences. Ren's youth was sacrificed by Ishirō just as Ishirō's youth was sacrificed by Eiji. Since Ren has no known children, he cannot sacrifice his own son in the same way. Yet he can sacrifice his family connections to Eiji and Ishirō, in particular Ishirō, whom he blames for neglecting him and overlooking his scientific efforts that were aimed to please him. Thus, Ren sacrifices his family connections by refusing to follow the Serizawa path with 'a little time to reconcile, for father to pass the torch to son' (Keyes 2021, p. 97). Instead, he seeks to destroy all their work: 'His father had made his choice. Ren had made his. What father worshipped, the son would revile. What the father saved, the son would destroy' (p. 98).

Moreover, Ren is ready to sacrifice his 'brother', Godzilla. Since Ishirō entrusted the planet's future to Godzilla rather than to his son, he was treating Godzilla more like a son. This interpretation is especially relevant to Ren,

> It was on Gojira that Ren focused his anger. Gojira had felt almost like a big brother to him—the older brother his father truly loved and doted on. And in the end, his father had died for Gojira—a monster who had killed thousands—rather than come home alive to his only son. (pp. 97–98)

Consequently, when Ren sends his thoughts to Godzilla in the novel, stating, '*Hello, brother* [. . .] *Those pitiful weapons can't stop you. But I can. I will*' (Keyes 2021, p. 98), it is evident that Ren is willing to sacrifice his nonhuman brother just like the rest of his family so that he can wipe the Serizawa slate clean.

Ren also sacrifices his loves—his creation of the Mecha and his psionic connection with it. Surely, by choosing to go against his father's and grandfather's legacies, he is pushing away their love; however, Ren's most affectionate moments in the book and the film revolve around the skull(s) and the Mecha. As the narrator reveals, Ren 'ran his fingers across the interior of the skull' and remembered that '[i]t had been love at first sight when Simmons showed it to him, but his affections had further deepened as he studied its structure . . .' (p. 231). Moreover, when Ren uses the helmet, '[i]t ran through the colors of the rainbow and back again; he felt the colors in his brain and smiled a little. The control helmet was not only his invention, but also his new favorite toy' (p. 233). The helmet then links him to the Mecha, and as detailed previously, Ren is emotional about killing the Skullcrawlers with this creation. And while Ren is willing to forgo credit for the creation to Simmons, he is not willing to give up the creation itself. Therefore, when Ren's consciousness becomes fused into and overtaken by the Mecha's consciousness, he loses everything he loves the most.

When the Mecha takes over, Ren then makes the ultimate sacrifice: like the Serizawas before him, he loses his life. Unlike the sudden deaths of Daisuke and Ishirō, Ren's 'death' is more gradual and akin to Eiji's dying from old age. Yet unlike Eiji, who knows his time

is limited—telling Ishirō '[a]t my age, *everything* is' urgent (Borenstein and Borenstein 2014, p. 5), Ren does not realize what is happening until it is too late, for at first, his connection with the Mecha leads him to believe that he has reached his highest potential: 'he felt like he had truly become the man he was meant to be' (Keyes 2021, p. 234). And while his test against the Skullcrawlers introduces a moment when, 'for the first time since wearing the control helmet there was almost a sense of resistance, a slight pushing-back' (p. 237), the moment is brief, luring him into a false sense of security.

Nevertheless, once Simmons has the power from Hollow Earth and Ren puts on his control helmet, the narrator reveals,

> It was not just him entering the machine—something was also entering him, oscillating, a feedback loop between his own consciousness and the AI. He felt a million years of rage rising in him [...] He felt as if he was sinking into it, dissolving, as another mind full of terrible, alien thoughts began to take his place. (p. 288)

Thus, Ren, who believed that he controlled the Mecha by putting his consciousness in it, suddenly becomes infused with another consciousness, as if he were a Mecha. While Ren tries to fight it, he no longer has control of his body. He momentarily sees his father, and then 'the thing that called himself Ren was gone, and *it* had arrived [...] It saw everything as a blur, but as the one known as Ren died, its vision sharpened' (p. 289). Even though this explanation differs from the film, in which Ren is electrocuted and his body is accounted for—which is likely a result of the filmmakers wanting to provide a tidy closing of the distance (and disconnect Frayling 2005) between 'bad' science and the fate of their practitioners for viewers (Rawle 2022), the results are the same. Ren's life changes drastically, and the self he had before is irrevocably gone. This conclusion also aligns with Ren's thoughts to his father: '*You gave your life so that this monster could live, Father* [...] *I now present mine to destroy him*' (Keyes 2021, p. 288).

Ren's narrative arc therefore adds a unique element to the links between the Serizawas that supports viewing their scientific efforts through the lens of sacrifice rather than stereotypes. While Daisuke, Eiji, and Ishirō are meant to be interpreted as heroes despite their individual faults, Ren serves as an antagonist, albeit one who does earn audiences' empathy due to his desire to break this Serizawa mold, and to Simmons' poor treatment of him. While Ren's overarching fault as a scientist in Godzilla media is that his acts are never truly heroic—but only verge on being heroic through his final attempt to resist Simmons—his trajectory as a Serizawa remains consistent with those of his forebearers.

8. Shigeru Serizawa

While the focus of this research has been on the 'official' Serizawas related to the films and novelizations, there are other ways that future Serizawas can appear and that could add to the theme of sacrifice. Webtoons—webcomics presented in 'long, vertical strip[s]' that give individuals the opportunity to create their own series (Wesson 2019, para. 2)—provide another venue for Godzilla-themed work. For instance, a webtoon creator called steel_neck (2023–2024) has been producing a series called *Godzilla: Black Mass*, which is described as 'a nightmarish reimagining of the original with elements of body horror and classic monster movies'. The Prologue (Episode #1) was released on 10 December 2023, and, as of this writing, there are five other parts, with the newest from 8 September 2024. In the series, a character named Shigeru Serizawa—who has an eyepatch just like Daisuke and whose name references Shigeru Kayama, the writer of the original screenplay and its novelization—serves as the protagonist, and many of his characteristics relate to the Serizawas who have come before him.

In the series, which begins in 1978, Shigeru is a scientist testing chemicals on amphibians affected by nuclear fallout in the hope that gains made on these creatures will be able to protect humans. While the amphibians have died so far, one named Reed is still alive. In fact, the chemical appears to be healing the tumors that have formed on Reed. Yet things go badly in Episode #2 when Reed grows into a monster, attacks people in the lab, and then

escapes. In Episode #3, Shigeru feels depressed about the situation and remarks upon his lost fiancée, Emiko Ogata, a budding paleontologist who combines references to Emiko and Ogata from the 1954 film. Shigeru's work with the amphibians is meant to honor Emiko, which is why the tragic turn of events with Reed hurts him so much.

Episode #4 next reveals how other scientists are experimenting with oxygen weapons—harkening back to the Oxygen Destroyer—to damage tissue and thus bring down creatures like Reed. Even though the testing of the oxygen weapon demonstrates that it still needs work, the process reveals the production of dangerous weapons that, just like the bombs that brought the *kaijū* back into the world in other narratives, discloses humanity's flaws. Episode #5 then presents a flashback of Shigeru's better days with Emiko—when a sign in the background reveals the name of the amphibian species to be *Andrius gojira*—as well as the scientists' realization that Reed has grown even more. In fact, Reed's final appearance in the water increasingly resembles Godzilla's. Episode #6 reveals Shigeru's plan to find Reed. Since Shigeru has taught the other amphibians to come when a bell chimes, he hopes to project the same sound from a crab boat that he hires, a vessel meaningfully named *Gloire*—in reference to the *Eikō-maru no. 5* ('*Glory*') that Godzilla attacks in the opening scenes of *Gojira* (1954)—with a French captain named Filippe whose appearance links him with Philippe Roaché (Jean Reno) in Emmerich (1998).

In terms of Haynes' (1994) six types of scientists, Shigeru relates to the alchemist trope from his ability to innovate with anti-radiation chemicals as well as his persistent testing of their results. The lab setting at Blue Oyster's resembles Daisuke's and Ren's secretive environments, and Shigeru's reliance on biological knowledge aligns with the efforts of Eiji and Ishirō. Moreover, Shigeru combines Emiko's knowledge about the amphibians and the results of his own scientific tests in a way that mirrors how the other Serizawas depend on combinations of chemistry, biology, technology, and zoology to further their works. Shigeru also fits the stupid virtuoso type. Much of his work with the amphibians is done alone, and only when Reed injures Shigeru's coworkers and escapes do other people become involved in the situation. Plus, when these challenges occur, Shigeru assumes the bulk of the burden, telling the other amphibians '[s]tay strong, my friends. I promise you, I will fix this' (Episode #5) and causing his colleague, Damon, to comment: 'He's been sittin' by his lonesome for a good bit now' (Episode #3).

Due to Shigeru's fixation with healing the amphibians' tumors and creating an anti-radiation chemical, he often appears as the (Romantic) emotionless scientist. When Reed first starts attacking people at the lab, Shigeru is more concerned about Reed than his coworkers, calling out, 'JONES STOP! He means us no harm' (Episode #2). Even after Reed kills people, livestock, and devastates the landscape, Shigeru does not display much emotion. Moreover, Shigeru acts like a heroic adventurer in several instances. For example, when it comes to the challenging task of trying to heal the amphibians' tumors and create a life-saving anti-radiation chemical, he bravely takes it upon himself to find a solution. Shigeru goes out into the field as well, seeing the devastated landscape with his own eyes and traveling the sea in the crab boat.

Shigeru is the helpless scientist, especially in conversations with Raymond Cooper, his boss, and when he faces the realities of Reed's unleashed power. Cooper complains early on to Shigeru that '[y]ou've been working on this chemical for years with almost no progress. And your one breakthrough still requires further testing. You understand the frustration, right?' (Episode #2). While Shigeru convinces Cooper to give him more time, after Reed's escape, the situation changes. He tells Cooper, 'I am so sorry. I didn't—I couldn't—to which Cooper replies, 'Not. Another. Word. Serizawa', and '[t]he big boys are gonna take it over from here' (Episode #3). In effect, then, while Shigeru has agency in his lab settings and with his work, he is often helpless to make decisions because he ranks lower than characters like Cooper. Finally, Shigeru is an idealist. He admits, 'I'm trying to save the world' and that '[t]he fear of nuclear annihilation looms over all of our heads. And I must ensure that we have a chance of surviving it' (Episode #1). Hence, in these moments,

not only does Shigeru believe in the rightness of his work, but he also feels assured that the world can become a better place.

Nevertheless, like the other Serizawas, Shigeru breaks these six stereotypes. Much of Shigeru's science aligns with contemporary social expectations, in which scholars experiment with genetics, nonhuman animals, and chemicals/medicines in laboratories. Rather than being only a mysterious, intimidating alchemist in a secret workspace, Shigeru's colleagues know about his work and are accustomed to it. For example, at a barbeque, Damon comments, 'I've worked at Blue Oyster's for 3 years. I saw them use pollen from a talking plant to cure memory loss. I'm used to crazy shit like this' (Episode #3). These friendships reveal that Shigeru is not always a stupid virtuoso. Shigeru's colleagues discuss his work with him and protect him from Reed's initial assault. Moreover, Virgil gives Shigeru information about the 'super [oxygen] weapon' that the leaders are working on as well as news about its funding (Episode #2).

Shigeru is often emotional in *Black Mass*. When he believes that Reed is the answer he has been looking for, he hopefully tells the amphibian, 'Alright, get yourself some proper rest. We did it, Reed. We're gonna change the world' (Episode #1). Then, when Reed attacks the guards, Shigeru fears for Reed's life, telling Damon, 'please he. . .He's just scared' (Episode #2). Later, he sits in a depressed state while his coworkers have fun because he misses Emiko and regrets the tragic turn of events with Reed at the lab. Moreover, his moments of fearfulness and cowardice prevent Shigeru from always being the heroic adventurer. After Emiko's death, he becomes drunk and falls into a state of uselessness that he has to purposefully pull himself out of. In addition, even as people present evidence to him that Reed is attacking others and destroying the landscape, he refuses to believe it, stating, 'That's just preposterous' (Episode #5). Only after several people assure him that these reports are true does he have the courage to admit that Reed has become dangerous.

Furthermore, Shigeru is not always a helpless scientist. Even as Cooper tries to shut down his testing, Shigeru argues for keeping it going. Plus, Shigeru's experiments are methodical and well planned, indicating that, despite Reed's unforeseen attack, Shigeru has been leading and facilitating an advanced scientific operation. Finally, there are moments when Shigeru is more of a pragmatist than an idealist. Although he seeks to save the world, he also emphasizes to Cooper that '[y]ou cannot rush science. Especially science that could save billions!' (Episode #2). His wartime experience and his loss of Emiko have also given him a pessimistic perspective that he seems to fall back on when things go wrong. For instance, Shigeru considers Emiko, a woman of passion and hope, his opposite because he was 'a bitter war veteran, blinded by [his] scars' (Episode #3). After Reed's attack, Shigeru tells Damon, 'I fail again and again. Now all I have left. . .are my scars', to which Damons replies, 'Good people are made of great mistakes' (Episode #3). Therefore, in these moments, Shigeru is not an idealist and depends on others to raise his spirits.

In addition, Shigeru's character and actions reveal the disconnect between science and lay perspectives (Frayling 2005). When Reed is endangered, Shigeru petitions for the creature's life to be spared, just like Ishirō (and Dr. Yamane in *Gojira* (1954)) does for Godzilla despite the fact that countless people are dying from the *kaijū*'s destruction. In addition, Shigeru's work occurs mostly in a confidential space, keeping his efforts, while nobly intended, distanced from the people whom he is trying most to help.

Even though this series is unfinished, Shigeru's links to the sacrifice of family, love, and his creation are already part of the narrative. His loneliness and perception of Reed as a family member in place of Emiko points to what he has already lost and now stands to lose. It is uncertain if Shigeru will lose his life, as the other Serizawas have, but the fan-made storyline nonetheless reveals how the theme of sacrifice is a huge part of the depictions of scientists named Serizawa in Godzilla narratives and one that might be more relevant than other scientist stereotypes.

9. Conclusions

This research applies findings about scientist stereotypes (in particular Haynes' (1994) and Frayling's (2005) works) to the five Serizawas (Daisuke, Eiji, Ishirō, Ren, and Shigeru) of Godzilla media. Nevertheless, even though using these lenses for the Serizawas provides valuable insights about these characters, Serizawa complexities still require another thread to tie their scientific experiences together. Hence, the lens of sacrifice (of family, creations, loves, and lives) serves as one possible link that broadens current assessments of scientists in both the real and fictional worlds. Moreover, this association functions well for protagonists *and* antagonists while suggesting that, together, these men create the ultimate 'Godzilla science' that can be passed down from generation to generation, and from scholar to scholar. Further investigations of this 'Godzilla science' may be performed over time, including parsing out how these scientists' trajectories either reflect the adoption of Japanese tropes, or their distortion in Americanized versions of Godzilla narratives, but the core notion that the Serizawas as scientists in Godzilla media matter cannot be overlooked.

While there will probably be new Serizawas appearing in future iterations of Godzilla narratives—perhaps even female ones—it remains evident that these five men have already made a significant impact on Godzilla media, particularly in what it means to be a scientist. In fact, the novelization of *Godzilla: King of the Monsters* best reveals the significance of the Serizawas. At the end, Ishirō 'Serizawa's natural order was restored' (Keyes 2019, p. 237). Rather than calling it simply 'the natural order' or 'a natural order', it instead belongs to a Serizawa. And while it might seem simple to give all the credit to Ishirō in this moment, it is impossible to ignore how the Serizawa influences have been building and continuing over time. Moreover, as if in approval of this reading, 'Godzilla threw back his head and roared until the heavens shook' (p. 238), forever linking him with the Serizawas, for good or ill.

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Notes

1 Besides *Gojira* (1954), this analysis compares only English-language sources available in the United States.

2 Even though the films are considered the primary sources for *Gojira* (1954), *Godzilla* (2014), *Godzilla: King of the Monsters* (2019), and *Godzilla vs. Kong* (2021), this analysis includes and quotes from the film novelizations for three main reasons. First, due to the changing nature of film scripts during shoots, additional elements in the novelizations can still be considered relevant information used in characterizations and settings presented in the films. Second, many implications of the settings or symbols related to the films are more clearly expressed in the novelizations. Third, many fans and researchers visit sites such as the fan wiki *Gojipedia*, which provide character histories and details, many of which are quoted from the film novelizations and make the texts relevant for interpreting characters such as the Serizawas. Even Jeffrey Angles, who translated Shigeru Kayama's novels, supports seeing Godzilla narratives as multimedia since there was even 'an eleven-installment radio version' in 1954 (Kayama [1955] 2023, p. 207).

3 While Japanese names normally list the surname first, this research uses Japanese surnames last to avoid confusion, in particular because the five Serizawas must be called by their given names to facilitate their identification.

4 Even though this balance is most relevant in the MonsterVerse series, the fact that bombs and radiation awaken Godzilla in *Gojira* (1954), for example, suggests that had the world been in balance, he would have remained hidden and away from human society. Thus, while not explicit in the original, the notion that Godzilla is reacting to a problematic relationship between science and the natural world cannot be ignored. Rhoads and McCorkle's (2018) connection of the (superimposed) birdcage with Godzilla in *Gojira* supports this idea.

5 The Japanese term *kaijū* (monster) comprises creatures like Godzilla, as does Legendary's newer term *Titans*, which many people sometimes use interchangeably even though *kaijū* is most associated with the Japanese cinematic context.

6 In the novelization, the name of her love interest is Shinkichi Morita; Ogata remains a character in the narrative, but he ranks above Shinkichi as president of Tokyo Bay Rescue and Salvage.

7 All quotes from *Gojira* (1954) rely on the translations provided by the Criterion Collection version of the film.

[8] While these texts are important resources, as previously explained, there are times when they differ from the films, especially in the case of *Godzilla vs. Kong*. These variations will be noted when discussing Ren.

[9] Like Ishirō in the films and novels, Ren refers to Godzilla as 'Gojira' as a way for the writers to emphasize both the Japanese origins of Godzilla as well as the nationality of these men.

[10] A similar situation occurs in Tezuka and Ōmori (2002), when the spirit of 1954's Godzilla, whose skeleton supports the mecha, takes over Kiryu.

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