

Animating from Real Life: How to Embody the *Élan Vital*

Zeynep Akcay

Senior Lecturer, Griffith University

z.akcay@griffith.edu.au

Abstract: Throughout history, animators have utilized reference footage in different ways to enhance their understanding of real-life movement and create more elaborate animated performances. From the early days of Disney Animation Studios organizing specialized real-life performance sessions to the present-day practice of animators filming themselves for reference, the use of real-life motion has been integral to the animation process. Drawing upon Henri Bergson's concept of *élan vital*, this article argues that the practice of using reference footage can be understood not as mechanical reproduction but as a form of creative translation — a relay through which the vital impulse of living movement is preserved by being transformed. By placing the central practice of posing at the centre of analysis, the article shows how animators move between embodied observation, kinesthetic imagination, and formal construction, channelling vitality through the interval rather than destroying it. The article proceeds through a conceptual orientation grounded in Bergson's philosophy and animation studies, an account of posing as the site where duration is constructed, and a series of practitioner case studies in which reference footage and finished animation are examined together.

Keywords: Character Animation, Acting and Performance for Animation, Reference Footage, Élan Vital, Vital Impulse, Duration, Posing, Key Pose

Introduction

The phrase "animators are actors with pencils," often attributed to Walt Disney, resonates with the idea that animators, much like actors, infuse characters with life and personality through their craft. This comparison draws attention to the creative parallels between animated and live-action performance: both involve reflecting on character psychology, emotion, and gesture. Yet the analogy also obscures what is most distinctive about the animator's process. Actors perform

through their bodies in real time; animators construct performance indirectly, across drawings, keyframes, revisions, and intervals that may span weeks. Animation therefore raises a distinctive question: how does a character come to seem alive when no autonomous body occupies the frame?

Animation scholars have addressed this paradox in revealing ways. Annabelle Honess Roe (2019) argues that animation complicates conventional notions of liveness because the animated figure performs without a body present in the frame. Donald Crafton (2013) calls the resulting condition *proximal liveness* — an illusion of immediacy achieved through constructed timing and gesture. The animated character appears to live in time even though its motion has been assembled over months of labour. This paradox situates the animator as a *performer through mediation*: not someone who enacts gestures directly before an audience, but someone who designs gestures that will later be read as living performance.

Within this broader paradox, reference footage occupies a particularly peculiar place. In studio and independent practice alike, reference footage is used to study movement, try out performance ideas, and clarify choices before they are translated into animation. As such, it is an essential part of character animators' toolkit. But reference footage is a seldom studied practice in animation scholarship. Watching progression reels of feature film animators, one might think that animated performances are copied from the live-action performances of animators.

However, it is not as straightforward a practice as it looks. It can be used in ways that preserve and intensify the vitality of living movement, or in ways that merely copy its appearance while losing everything that made it alive. The difference lies not in whether reference footage is used but in *how* animators engage with it — and, crucially, in what they are looking for when they do. This article proposes that the Bergsonian concepts of *élan vital* and creative evolution might be useful in understanding the transformation of reference footage into animated performance, and the practice of “posing” can offer a fertile ground for analysis.

Poses may appear, at first glance, to confirm Henri Bergson's critique of the "cinematographic method": a process that reduces continuous movement to a succession of static intervals. Yet in practice, key poses are not inert slices of time. They are condensations of force, intention, rhythm, and direction — temporal structures in themselves. Read through Bergson's concepts of duration and *élan vital*, the key pose becomes the means by which animators shape continuity

rather than destroy it. Reference footage matters here because it provides the animator with embodied, living movement that can then be observed, internalised, and distilled into those condensations.

This paper asks: **how does Bergson's *élan vital* illuminate the animator's process in translating reference footage into animated performance through the practice of posing?** A supporting question follows: **How do practitioners' accounts of line of action (through-line), texture, and gesture shed light on the use of reference footage to create vitality in animated performances? In what ways does this process enact what Bergson calls creative evolution?**

A note on scope is necessary. The analysis focuses on hand-drawn and keyframe computer-generated (CG) animation, 2D and 3D alike — practices in which posing is the central organising activity of the animator's work. Motion capture, procedural animation, and AI-driven animation are not the primary subject of this article. This is not because they lie outside the reach of Bergsonian thought — questions of *duration* and *élan vital* remain productive lenses for understanding these technologies, and posing may be understood there as a preoccupation rather than a literal workflow activity: an animator with a thorough understanding of what makes a key pose vital would bring that sensibility to reorganising motion-capture data into expressive performance. However, the degree to which posing constitutes a foundational workflow activity varies considerably across these practices, and that examination is reserved for a separate paper. The purpose of this article is to establish a Bergsonian vocabulary at the level of more traditional animation practices in a way that may subsequently be extended.

The article is organised as follows. The **Conceptual Framework and Approach** establishes the philosophical and analytical foundations of the article, introducing Bergson's *élan vital* and duration in dialogue with animation scholars Gunning, Pierson, and Parry, whose accounts converge on the insight that vitality in animation is produced through the encoding of force and continuity in the drawn form. The section on **The Animator as Mediated Performer** then situates the animator's paradoxical relationship to liveness and traces the history of ambivalence around reference footage and rotoscoping, arguing that the key distinction is between copying a movement's appearance and channelling its through-line. The section on **Duration and Élan Vital** develops Bergson's philosophical tools — duration, tension of consciousness, *élan vital*, and grace — as the conceptual framework for analysing what animators are seeking when they

work with living movement. **The Key Pose as the Site of Duration** then argues that the key pose is not a frozen instant but a temporal structure: the site where duration is constructed in workable form, and where the animator's sustained attention crystallises into a configuration that encodes both the past and future of a movement. The **Case Studies** examine four practitioners whose work with reference footage illuminates different dimensions of this process — from tracking the through-line across different bodies, to discovering texture through physical experimentation, to accessing a character's inner state through personal embodiment, to feeling the quality of a movement's force directly through the animator's own body. The **Discussion** synthesises these cases to argue that in every instance, reference footage functions as a carrier of *élan vital* that the key pose then re-instantiates in a new form — a process that is neither imitation nor invention, but creative evolution in Bergson's sense.

Conceptual Framework and Approach

This article combines philosophical analysis in animation studies with practitioner accounts and the formal examination of specific practices involving reference footage. Its philosophical foundations are Bergson's concepts of *duration* (*durée*) and *élan vital* as developed across *Time and Free Will* (1889), *Matter and Memory* (1896), and *Creative Evolution* (1907). These concepts are brought into dialogue with three bodies of animation scholarship that, approached together, offer a convergent account of how vitality is produced and preserved in animated performance.

Tom Gunning's (2014) rereading of Bergson in the context of animation studies establishes the key departing point of this paper. Gunning shows that Bergson's critique of the cinematographic method is not simply a technological complaint but a philosophical diagnosis of mechanism as such — and that animation, rather than confirming that diagnosis, can be understood as its inversion: the point where mechanical means become the support for a living creative act. Gunning's argument prevents a simplistic opposition between life and mechanism and opens the question of what in animation practice allows movement to be reconstituted as living continuity rather than dead sequence.

Ryan Pierson's (2019) account of figure and force in animation aesthetics provides the analytical vocabulary for answering that question in practice. Pierson's distinction between *rotoscoping by*

outline — tracing the external boundary of a figure — and *rotoscoping by through-line* — following the internal scaffold of forces that organises a figure's movements — names precisely the difference between copying a movement's appearance and channelling its vital tendency. His account of Disney's shift from "animating forms" to "animating forces" in the mid-1930s grounds this distinction historically and shows how the through-line, as a palpated axis of force and direction, became the operative concept of character animation practice.

Jack Parry's (2024) phenomenology of animation approaches the same territory from a different angle: the spectator's experience of the animated frame. Parry argues that animation achieves its sense of life and duration through six phenomenological dimensions derived from the study of animation practice, of which *grace*, *living lines*, and the *eternity of the frame* are most directly relevant here. Though Parry's primary project is a phenomenology of spectatorship — understanding how a viewing consciousness experiences motion and vitality in the animated image — and this article's primary concern is the practitioner's process of construction, the two projects converge on the same formal insight. What the spectator experiences as *grace* in the animated image — a movement's simultaneous acknowledgement of its own past and prefiguration of its future — is precisely what the animator is reaching for when they construct a key pose. Parry's *frame of grace* (2024, p. 93) and the animation practitioner's *golden pose* describe the same phenomenon. Similarly, what Parry calls *living lines* — curved lines that carry their own directional history and announce their continuation — corresponds directly to what Pierson calls the through-line: the invisible axis of force that organises the visible outline. These convergences confirm that the concepts being used here are not merely theoretical impositions on animation practice but genuine properties of the medium, recognised independently from both phenomenological and formal-analytical perspectives.

The methodological orientation of this article is a **practice-oriented philosophical analysis**. It uses Bergson's philosophy of duration and *élan vital*, in dialogue with Gunning, Pierson, and Parry, as interpretive tools — a conceptual lens through which to read and illuminate what practitioners describe and demonstrate when they engage with reference footage. The practitioner accounts examined here — from Frank Thomas and Ollie Johnston's historical testimony to the progress reels of contemporary animators — function as documents of creative experience and mental preoccupation. They record what animators seem to experience in the

process of translating reference footage into animated performance from the inside: what they attend to, what they appear to feel through their bodies, what they are trying to preserve or transform. Reading these accounts through a Bergsonian lens means attending to the specific language animators use, the distinctions they draw, and the values they articulate — treating them not as technical instructions but as evidence of a creative process oriented toward the illusion of life.

The practitioner cases discussed in this paper are selected because they make the relationship between reference footage and finished animation visible and comparable. Progress reels and behind-the-scenes materials in which both the reference and the resulting animation are available for examination allow us to observe what changes and what is preserved in translation. The cases are used illustratively, as practitioner case studies that bring theoretical concepts into contact with specific creative processes.

The Animator as Mediated Performer

Ed Hooks (2012) highlights one of the fundamental disparities between live performance and animation: the immediacy of the act. Stage actors engage with their audience in real time, using their physical presence to convey emotion and intention — embodying the character in their own body in the present moment. Animators, by contrast, build performances indirectly and over an extended period. This deliberate process involves iterative refinement, with each pose carefully crafted to evoke the desired expression, gesture, or movement that reflects the inner thinking process of a character. Consequently, what Thomas and Johnston (1981) called the "illusion of life" in animation emerges not from spontaneous performance, but from the deliberate assembly of individual elements over time.

This structural difference has consequences for how we understand what reference footage does. The closest an animator comes to acting in the traditional sense is when they film themselves to provide reference for their own animation. In this act, the animator briefly inhabits the performer's position — embodying a character's state in real time — before returning to the position of observer and translator. Reference footage becomes the trace of that inhabited moment, a record that can be replayed, analysed, and used as raw material for the construction of animated performance.

Yet what makes this translation generative rather than imitative is precisely what happens to the reference in the process: the animator does not simply copy what the footage shows. As Frank Thomas described it: "By shooting the live action, the director and animator could look at the footage and say, 'This part is right; this part is not right; it needs to be faster' and so on. And if you had good live action to start with, it would make your job a whole lot easier to get some imagination out of it" (Thomas, as cited in Korkis, 2022). This is not the logic of a copying machine; it is the logic of creative stimulation — using the footage as a springboard for imagination, not as a template to trace.

Ollie Johnston articulated the same principle differently: "The real value in shooting the live action was being able to get stimulation from actors doing tricks and using different timing that you may not think of yourself. The animator knows overall what he wants to do but you want to get a little something extra in it that you maybe can't draw out of yourself" (Johnston, qtd. in Korkis, 2022). The word "stimulation" is telling. Reference footage does not supply the animation; it activates something in the animator's imagination that would not otherwise have been reached. The living energy of the filmed performance serves as an occasion for the animator's own creative evolution.

From Reference Footage to Rotoscoping: A Necessary Distinction

The history of reference footage in animation is also a history of ambivalence about its use. Reference footage and rotoscoping are related but distinct practices: both involve working from live-action movement, but they engage with that movement differently and with different creative risks. Rotoscoping, as a technique, is not inherently a mechanical reproduction. It has been used creatively in many contexts — for example the rotoscoped figure of Cab Calloway in Dave Fleischer's *Snow-White* (1933) produces a powerfully expressive quality precisely through the friction between the live performer's physicality and the cartoon form it inhabits. In such cases, the trace of a living body in an animated world is itself the point — an aesthetic strategy that animates the boundary between registers. The concern arises when rotoscoping is used without that intention: when an animator traces the external boundary of a figure frame by frame not as an expressive choice but as a substitute for the harder work of understanding and translating its forces. It is in this context that reference footage, too, can lose its generative potential — when it is copied rather than translated.

Pierson (2019) offers the most precise analytical account of this difference through his distinction between *rotoscoping by outline* and *rotoscoping by through-line*. Rotoscoping by outline traces the external boundary of a live-action figure frame by frame, producing a line that coincides with the surface contours of the filmed body. The result is perceptually disturbing in a particular way: as Pierson notes, it looks "as if we were watching a shadow-play that only indirectly captured the actions of voluminous bodies" (Pierson, 2019, p. 116). Forces appear to be operating *behind* the outline rather than through it. The line traces the figure's appearance at each frozen instant, but misses precisely what makes the figure recognisably alive: the internal dynamics that give shape to the outline. Parry (2024) arrives at the same diagnosis from the phenomenological side: a traced line is, as Hannah Frank observes, "impoverished in comparison, static, dead" (cited in Parry, 2024, p. 90), because it captures the contour rather than the *grace* — the temporal charge that makes a living line carry its own history and announce its continuation.

Rotoscoping by through-line is different. Disney animators developed this approach from the mid-1930s onward, as part of the studio's broader shift from what Pierson describes as "animating forms" to "animating forces" (2019, p. 122). Rather than tracing the external boundary of a live-action figure, animators identified the underlying scaffold of movement — the invisible lines of force that run through and organise a body's actions — and drew their new outline around that centre of action. As Pierson notes, Disney animators were "discouraged from tracing frame by frame over figures' boundaries. Instead, actors were filmed in order to give animators a rough sense of proportions, staging, and timing. In other words, animators needed to see *through* an actor's outline to her center of action and animate a new outline around that center" (Pierson, 2019, p. 125, emphasis added). The figure was not copied; it was used as a guide to reconstruct the forces that made it move as it did.

The through-line is not a visible feature of the drawing; it is a *palpated* axis — the animator's felt sense of the centre of motion that holds a figure's parts together and dictates the direction of its movements (Pierson, 2019, p. 122). This is precisely the distinction between copying motion's appearance and channelling motion's force — and it maps directly onto the difference between reference footage used as a template to trace, and reference footage used as a source of kinetic intelligence to be translated through poses.

The veterans of Disney were acutely aware of this problem. Thomas and Johnston noted that heavily rotoscoped figures, though technically accurate, could lose the very quality animation was meant to create: "the moves appeared real enough, but the figure lost the illusion of life (...)" It was impossible to become emotionally involved with this eerie, shadowy creature who was never a real inhabitant of our fantasy world" (Thomas & Johnston, 1981, p. 323). The animator had copied the outline without engaging with the underlying forces, and the result was a figure whose movements appeared to lack an interior — a shadow rather than a living presence.

The production of *Snow White and the Seven Dwarfs* (1937) illustrates two different approaches to reference footage that illustrate a wide spectrum of its usages. Disney animators invited the burlesque comedian Eddie Collins to help develop the character of Dopey. Collins's vaudevillian physicality was broader and more elastic than the performance of dancer Marjorie Belcher, who served as the reference for Snow White. The two characters embody two different relationships to the reference footage. Snow White's movements remain relatively close to the filmed model — more even timing, less exaggeration, proportions that follow Belcher's body. Dopey's are freer, more thoroughly transformed through squash and stretch, timing, and anticipation. In a single film, the full range of possible relationships between reference footage and animated performance is on display, from the near-literal to the fully translated. It is significant that the character whose performance is more thoroughly transformed — whose reference footage was used more heavily as a through-line rather than as an outline to trace — is the one that animators have consistently described as more alive.

Duration and Élan Vital: The Philosophy of Living Movement

Henri Bergson (1859–1941) was one of the most influential French philosophers of the early twentieth century, whose thinking about time, duration, and consciousness has had a profound impact on fields ranging from psychology and literature to film theory and the visual arts. His concepts of *duration* and *élan vital*, developed across *Time and Free Will* (1889), *Matter and Memory* (1896), and *Creative Evolution* (1907), provide the philosophical foundation for this article's analysis of reference footage and animated performance.

Central to Bergson's philosophy is a distinction between two ways of understanding time. Clock time — the time of physics and mathematics — is a spatialised, measurable sequence of identical

units. Lived time, which Bergson calls *durée* (duration), is something qualitatively different. Duration is the experience of time as a continuous, indivisible flow in which past and present interpenetrate. In *Time and Free Will*, Bergson (1889/2001) argues that consciousness does not experience itself as a chain of successive, discrete states but as an ongoing becoming in which each moment carries the weight of everything that has preceded it. To reduce this continuity to a sequence of fixed positions is, for Bergson, to substitute a spatial map for the living territory of experience — to mistake the abstract representation of movement for movement itself.

Bergson further develops this account in *Matter and Memory* (1896/1991) through the concept of the *tension* of consciousness. Memory, for Bergson, is not a single faculty but a spectrum: at one extreme, pure recollection — the recovery of a past moment in all its singularity, requiring a maximum contraction of consciousness; at the other, motor habit — the automatic, spatialised response of a body trained to act without reflection. Between these poles lies the full range of lived experience, characterised by different degrees of tension: the more *tense* the consciousness, the more fully it inhabits duration; the more relaxed, the more it slips toward mechanical, habituated repetition (Bergson, 1896/1991, pp. 104–107). Maintaining the felt sense of a character's living movement across the temporal intervals of animation — holding the through-line in imagination even while working on a single pose — is precisely such a tension: a sustained attentiveness to the potential movement of what is, in any given moment, still.

Zeno's paradox of Achilles and the tortoise provides Bergson's sharpest illustration of the error he seeks to diagnose. The paradox claims that Achilles, however fast he runs, can never overtake a tortoise given a head start, because whatever progress he makes, the tortoise will have moved some further increment. Bergson's point is that Zeno's error lies in identifying movement with the space it traverses. Space can be divided infinitely, but motion, as a continuous process, cannot. The paradox arises only because we have substituted an abstract spatial model for the living reality of movement. The same error, Bergson argues, underlies the cinematographic method.

In *Creative Evolution* (1907/2022), Bergson observes that the cinema produces the appearance of motion by projecting a rapid succession of still images — immobile sections to which an exterior mechanical movement is added. This is, for Bergson, not a reproduction of life's motion but a demonstration of the Zenonian error: motion reconstituted from immobilities, a continuous

process reduced to an accumulation of frozen instants. Gunning's (2014) reading of this critique is decisive because it resists reducing it to a simple technological complaint. Gunning shows that Bergson's condemnation is "not merely a denial of the ability of still images to produce motion but a condemnation of cinema's motive force as inherently mechanical" (Gunning, 2014, p. 5), while simultaneously arguing that animation offers the possibility of enlivening the mechanical rather than simply confirming its limitations (Gunning, 2014, p. 7). The question then becomes practical: what in animation practice allows movement to be reconstituted as living continuity?

Bergson's concept of *élan vital* (vital impulse), introduced in *Creative Evolution*, offers part of the answer. *Élan vital* refers to the creative driving force fundamental to all living things — the inner impulse through which organisms develop, adapt, and differentiate themselves over time. Bergson was not positing a supernatural soul-substance; he was arguing philosophically against purely mechanistic accounts of evolution that left no room for novelty or spontaneity. *Élan vital* names the dimension of life that such frameworks cannot capture: its creativity, its tendency toward differentiation, its production of genuinely new forms (Bergson, 1907/2022, pp. 86–97). For Bergson, life is a *flowing continuity* — a ceaseless differentiation of form through time — and *élan vital* is its driving force.

Bergson also offers, in *Time and Free Will* (1889/2001, p. 6), an aesthetic concept that is directly relevant to animation practice: *grace*. For Bergson, grace is the quality of movement that makes the future legible in the present — "the present attitudes in which future attitudes are pointed out and, as it were, prefigured." If jerky movements are wanting in grace, it is because each is self-sufficient and does not announce those which are to follow; if curves are more graceful than broken lines, it is because every new direction is indicated in the preceding one (Bergson, 1889/2001, pp. 6–7). Grace is therefore Bergson's own description of how duration manifests visibly in a moving form: the living quality of movement is recognisable precisely because each moment contains, in compressed form, the sense of where it came from and where it is going. This is the concept that Parry (2024) develops into the phenomenological centrepiece of his framework — what he calls the *frame of grace*, the key frame that grasps the interdimensional duration of the moment.

How does all this connect to the animator working in front of a computer or drawing (or crafting) movements frame by frame (or pose by pose)? The connection lies in the *tension* of

consciousness (Bergson, 1896/1991, pp. 104–107). An animator working on a shot is not simply placing drawings at timed intervals. The animator must hold the character in imagination as a living, moving being — must feel the momentum of the gesture before it is committed to a frame, must sustain the *life* of the character across the gaps between poses. This imaginative endurance is itself a form of Bergsonian duration. The animator's mental occupation corresponds, in practice, to the tension of consciousness that Bergson identified as the condition for perceiving life in its continuity rather than its decomposition into moments.

When an animator works with live-action reference footage, this vital exchange intensifies. The recorded performer provides a first instantiation of *élan vital*: embodied physical gesture, shaped by a living consciousness moving through real time. The animator then observes, internalises, and transforms that energy — producing a second, mediated instantiation of life. The vitality does not belong exclusively to either body; it persists through the *relation* between them. In this sense, reference footage is not a source to copy but a carrier of *élan vital* to be translated. The key pose is the instrument of that translation.

The Key Pose as the Site of Duration

Norman McLaren's well-known formulation captures something essential about animation practice: "animation is not the art of drawings that move but the art of movements that are drawn" (cited in Sifianos, 1995, p. 62). This distinction points to a fundamental orientation: the animator's primary preoccupation is not the frame but the movement, not the picture but the *event in time*. In keyframe animation, this orientation finds its practical expression in the key pose — the pose that, in the animator's vocabulary, is sometimes called the "golden pose": the configuration that tells the story of the character's state, intention, and direction at the most concentrated moment of an action.

Parry's concept of the "frame of grace" (2024, p. 93) illuminates this from the phenomenological side. For Parry, the true key frame is the one that contains, in its immediate configuration, a sense of the movement's past and its prefigured future — all at once, without the need for empirical time. He cites Richard Williams's (2001, p. 60) account of a master animator who disappeared from the studio for days or weeks, only to return with a single drawing: "Of course, stupid, it's his key! It's the most important thing in the scene." What this animator was seeking

was not a comfortable position in space but the pose that expressed the full temporal weight of the moment — its accumulated history and its directional momentum. This is equally a description of Bergson's grace made practical: the key pose that prefigures its own future and acknowledges its own past is the frame of grace made workable within animation's formal architecture.

Pierson's (2019) distinction between *line of action* and *line of activity* provides the practical vocabulary for this. The line of action is the dominant curve that depicts the whole orientation of the body at a given moment; the line of activity is the path of change the body is taking over time. A well-crafted key pose coordinates both: its configuration at this moment encodes the direction and force of the movement as a whole. This is why the pose is temporal, not merely spatial. It exists in time, not as a snapshot of a frozen instant but as a concentration of tendencies — what the character is doing, why, how force passes through the body, and where the motion is heading.

The rough pass — whether in hand-drawn blocking or CG blocking workflows — makes this orientation visible in practice. At rough stage, animators consistently prioritise volume, balance, line of action, direction, and kinetic energy over surface finish and contour. The external appearance of the motion is secondary to its internal dynamics. Joanna Quinn's working method in traditional animation exemplifies this (Quinn, 2009): drawing rough, fast, with emphasis on mass and movement rather than outline. The hand's own kinetic energy participates in the drawing. What is being captured is not the appearance of life but its impulse — the through-line beneath the surface.

The hierarchy between key poses and in-betweens must be properly understood in this light. Key poses exist because the animator must identify the moments where force, intention, and narrative emphasis become maximally legible — where the character's inner state achieves its most concentrated expression, its *grace*. In-betweens are secondary not because they are unimportant, but because their task is relational: they articulate acceleration, deceleration, drag, overlap, and hesitation between the key moments. The hierarchy reveals a concern not with static instants but with controlling the *experience of transition* — which is, in Bergson's terms, a concern with the quality of duration itself.

Parry's concept of *living lines* (2024, pp. 90–91) gives further phenomenological grounding to this. Living lines are those that carry their own directional history and announce their continuation — curved lines that speak of past and future simultaneously. Both Parry's living lines and Pierson's through-line describe the same operative quality from complementary perspectives: the line that encodes the continuity of movement in a single frozen form. The C and S curves encouraged in animation pedagogy — curves that whiplash through a change of angle to depict force in action — are the practical expression of this. They are not aesthetic preferences; they are the visible record of force inscribed in the line: energy arriving from one direction, being redirected through the body's structure, departing in another.

Fredrik Nilsson's process for animating Viper's combat sequence in *Kung Fu Panda* (2008) makes this especially vivid (Nilsson, 2022). Rather than filming a reference performance, Nilsson first draws the snake with fast, raw movements — letting the speed and force of his own gesture shape the pose — before translating that energy into 3D animation via character controls. The C and S curves that dominate his rough sketches are not designed after the fact; they are the drawing itself at its most energetic, the visible record of force passing through the animator's hand into the character's form. This is what Norman McLaren meant — in its most literal sense — by "movements that are drawn": the animator's body participates directly in constructing the through-line. The gesture of the drawing hand *is* the first instantiation of *élan vital*; the key pose is the second.

From a Bergsonian perspective, posing correctly understood is not the division of movement into dead instants. It is the means by which the animator constructs *duration in workable form*. The interval is not the negation of continuity; it is the space where continuity is shaped, authored, and given the quality of life. The key pose is the instrument of this authorship — the moment where the animator's sustained attention to the character's living movement crystallises into a form that can be held, refined, and communicated to an audience.

Practitioner Case Studies: Reference Footage, Posing, and Vitality

The following four cases are analysed through a practice-oriented philosophical lens, drawing on publicly available practitioner materials in which both reference footage and finished animation can be examined. Each case illuminates a distinct dimension of how animators use reference

footage to seek and construct key poses — how the vital impulse of living movement is translated, through the animator's embodied attention, into the expressive architecture of animated performance.

Case Study 1: Tracking the Through-Line — Omar Labbad's Carson Dean vs Whitey Bear

One of the most revealing case studies is Omar Labbad's transformation of YouTuber Carson Dean's dance into a performance for the animated character "Whitey Bear" (Labbad, 2016). The comparison immediately illustrates the difference between copying appearance and following the through-line. Whitey Bear's proportions are so different from Carson Dean's that any literal trace is impossible: the bear has a longer, bulkier torso, a neck that functions as an extension of the torso rather than a pivot for the head, and shorter legs. If the animator were tracing by outline — reproducing the external contour of the human body at each frame — the result could not look like the same dance. The geometry of the two forms is too different.

What Labbad translates is not the outline but the movement's through-line — what we might call its *operative vitality*: the rotating spine, the curvy and bouncy transitions timed to the beat, the overall quality of lightness and playfulness that characterises the original dance. A line-of-action analysis reveals this directly: at certain key moments, the line of action of the bear merges with that of the human dancer — the two forms align in their fundamental directional impulse even as their outlines diverge entirely. At other moments, the animator departs from the human's line of action but follows the essential direction of movement that makes kinematic sense for the bear's different body architecture.

In Bergsonian terms, this is creative evolution: the movement continues by becoming different (Bergson, 1907/2022, pp. 88–94). The vital tendency persists not in the external shape of the gesture but in the transformation it undergoes as it passes through a new form. The reference footage provides the *élan vital* of the dance — its energy, rhythm, and directional character. The animator's task is to identify the key poses where that vitality is most concentrated and then reconstruct those poses in the bear's formal language. The result has the same dynamism and lightness as the original precisely because the animator was looking for the through-line, not the outline — seeking the moments where force and direction crystallise into legible, translatable form.

Case Study 2: Élan Vital Through Texture — Carlos Baena's Ratatouille Shot

A different dimension of reference footage emerges in Carlos Baena's progress reel for *Ratatouille* (2007), which foregrounds experimentation with the *texture of movement* — the variation in timing and intensity that gives a performance its living, organic quality (Baena, 2018). Texture, in this sense, is the interplay of faster and slower movements, more abrupt and more fluid transitions, within a single performance: the contrast that prevents animation from settling into mechanical evenness.

In Baena's reel, we see multiple takes of the same gesture — shaking the toque — with varying intensities, speeds, and degrees of broadness. The reference stage does not settle the shot; it opens possibilities. Each take is a different hypothesis about where the vitality of the gesture is most concentrated, about which texture best serves the scene's emotional content. What the animator is searching for, in each take, is the durations around a golden pose that capture the fullest expression of the character's state at that moment. The finished animation is not a literal transcript of any single take but the product of this search: a clarified performance in which the animator has identified, through physical experience, the poses that best encode the character's inner life.

Animator Vitor Vilela articulates this search clearly: "The key word here is translation. We have to be able to adapt and adjust the video reference input for our character's way of moving and acting. Translating it instead of copying it. Musicality also plays an important role... Every pause, breath, grunt and beat is there for you to use in your favour, incorporating those into your scene will enhance the feeling that your character is indeed alive" (Vilela, 2019). The language of translation is precise here: it captures both the fidelity and the transformation that the process demands — which is, in Bergson's terms, the persistence of *élan vital* through change of form.

From a Bergsonian perspective, Baena's approach enacts the *tension* of consciousness (Bergson, 1896/1991, pp. 104–107): each take represents a different degree of the animator's attentive engagement with the action, and the process of selecting between them is a process of finding the level of conscious investment that best corresponds to the character's inner state. The multiple takes are not failures corrected toward a predetermined ideal; they are a process of discovering, through embodied trial, the temporal shape of the character's vitality — and specifically, the key poses where that vitality achieves its most legible form.

Case Study 3: Embodied Experience in the Gesture — Frank Abney's *Incredibles 2* Breakdown

Frank Abney's breakdown of a shot from *The Incredibles 2* brings a further dimension into focus: the role of personal embodiment and psychological identification in finding the key pose and gesture (Abney, 2019.). The shot involves an exhausted Bob Parr alongside baby Jack-Jack and Frozone — a quiet, intimate scene that depends on micro-gesture and subtext rather than broad, exaggerated actions. Abney describes delving into his own experience of becoming a first-time parent and the particular quality of exhaustion — and obliviousness — that comes with it. This internal inquiry is not incidental to the animation process; it is how the animator locates the key poses that will carry the shot's emotional weight.

What the reference footage records and then makes available for analysis is the bodily expression of a state that the animator has genuinely accessed. The small gestures that appear in the finished shot — the little scratch of a hand landing on the belly, the quality of breathing out at the end of a sentence, the empty-looking eyes — are not invented by calculation. They are found through embodiment. Here, the golden pose is not a dramatic action but its apparent opposite: a character sitting still on a sofa, whose stillness is infused with the accumulated life of these small gestures. A reductionist account might mistake the key pose for a lifeless snapshot; what Abney's reference footage process reveals is that the pose is only alive because it has been inhabited from the inside — filled with the bodily knowledge of what it feels like to be exhausted in precisely that way. In Bergson's terms, these moments reveal the *élan vital* of the character's state: the inner impulse that shapes not just what the character does but how every movement is inflected by the lived quality of exhaustion.

The rough pass gives priority to attitude and weight before surface finish; each pose is built around the character's *state* rather than the shape of their body. The external form adjusts itself around the inner dynamic of the character's exhaustion, rather than the character's state being inferred from an externally reproduced outline. The result earns what Thomas and Johnston called emotional involvement — because the vitality it expresses has been genuinely felt, not merely designed.

Case Study 4: The Animator's Body as Primary Source — Feeling the Flow of a Gazelle's Bounce

The preceding three case studies all involve filmed reference footage — a recorded performance that the animator then studies and translates. This fourth case examines a different practice that extends the argument to its logical limit: the animator's own body as the primary source of kinetic reference. In an instructional post describing their animation workflow, animator Mike Nguyen demonstrates this with his hand: rather than acting out the full movement with his whole body or studying separately filmed footage, he films his hand enacting the bounce of a gazelle, using the hand as a reduced but physically committed surrogate for the whole movement. The filmed hand is not a detached analytical tool; it is a record of a bodily commitment to the quality of the force. Nguyen articulates the underlying principle clearly:

"Because animation is a language of motion, establishing a feel to the flow of force prior to animating is most critical, a foundation where all instructions to movement is found, from enabling the right storytelling gesture in harmony with the intended forces, informing the right arc path, anticipation, proper exaggeration, distortion of mass and to timing... Connecting to a flow of force should be part of the thumbnailing process. This connection is achieved by the animator physically mimicking, feeling out the flow of action in a scene through his or her full body or using hands, head and shoulders. To communicate a force successfully, one must personally felt that force." (Nguyen, 2016)

The example given is a gazelle bouncing. The *surface* of the story, as Nguyen puts it, is the bouncing itself. The *underlying* story — the one that must be decided before a single frame is drawn — is whether the energy of that bounce is soft or strong. The animator must resolve this not by consulting an external reference but by feeling the quality of the force in their own body, through hands, arms, or full-body mimicry. Only then can the thumbnailing process begin: only once the animator has internally inhabited the phrase of the movement can they construct the key poses that will communicate it.

This practice connects directly to Bergson's concept of the *tension* of consciousness (1896/1991, pp. 104–107). The animator who physically enacts the gazelle's bounce before drawing it is not performing a warm-up exercise; they are, in Bergsonian terms, contracting their consciousness toward the living quality of the movement — inhabiting its duration from the inside before translating it into the spatialised intervals of the drawn pose. The body's felt sense of softness or strength, of the arc's weight and timing, is the animator's access to the *élan vital* of that

movement. What the filmed reference footage provides in other cases, the animator's own kinesthetic imagination provides here: a first instantiation of the vital impulse that the key pose must then carry forward.

What is particularly striking in Nguyen's account is the equivalence drawn between bodily mimicry and musical phrasing: finding the right flow of action is described as finding "a phrase of music," and the choice of action must fit within the scene's length as a musical phrase fits within a measure. This is a practitioner's formulation of what Bergson calls duration — not measured time, but the qualitative, continuous flow of lived experience that has its own internal rhythm and cannot be reduced to a count of discrete units. The animator who mimics the gazelle's bounce with their hands is accessing that duration bodily, before committing it to the grid of keyframes. The key pose is the crystallisation of that felt phrase: the moment where the continuous flow of the movement is concentrated into its most legible form.

Discussion

Across these four case studies, a consistent pattern emerges. Animators use reference footage — and their own bodies — not to copy the appearance of movement but to access its through-line: the centre of force and direction that holds a figure's living quality together. What they are looking for, in each case, is the key pose: the condensation of the movement's vital tendency at the moment of its greatest legibility. This search is what Bergson's philosophy of *duration* and *élan vital* illuminates: the animator is not assembling a sequence of dead instants but constructing, through the key pose, a form of duration that preserves the creative impulse of living movement.

This is where Bergson remains useful for animation analysis. If one looks only at the ontology of individual frames, animation can appear to confirm the cinematographic reduction of movement to static units. But if one looks at animation practice — at rough blocking, line of action, key poses, and the translation of reference footage in animated performance — a different picture emerges. The animator is not primarily assembling images; the animator is shaping tendencies in time. The key pose is not a frozen instant but a temporal structure — a diagram of forces that encodes the movement's past and prefigures its future.

Pierson's (2019) distinction between rotoscoping by outline and rotoscoping by through-line provides the analytical vocabulary for understanding what is at stake across the case studies. In every instance, the creative use of reference footage involves identifying and following the through-line rather than copying the outline. This is true whether the animator is translating a dance to a different body (Labbad), discovering the texture of a character's state through multiple takes (Baena), accessing the lived quality of an experience through personal embodiment (Abney), or bypassing physical resemblance altogether and accessing the vital impulse of a movement through kinetic mimicry (Nguyen). In each case, what serves as the carrier of *élan vital* — whether filmed performance, personal memory, or the animator's own kinesthetic imagination — is translated into the expressive language of animation through the key pose.

Nguyen's example is particularly significant for the framework because it shows that *élan vital* does not require an external filmed form as its source. The vital impulse can be accessed directly through bodily engagement with the movement's quality — the softness or strength of the bounce — before any image is made. This brings Bergson's concept of duration into its most immediate relationship with animation practice: the animator's embodied inhabitation of a movement's temporal quality is itself a form of creative duration. Nguyen's phrase — "to communicate a force successfully, one must personally felt that force" — is, in effect, a practitioner's formulation of what Bergson means by living duration as opposed to spatialised time.

The broader argument of this paper finds convergent support across three bodies of animation scholarship that, approaching the same territory from different directions, arrive at a consistent conclusion. Gunning (2014) shows that the mechanical apparatus of cinema does not foreclose the illusion of life but provides the condition for it, as long as the animator brings sustained creative attention to the process. Pierson (2019) identifies the through-line as the operative instrument through which that attention is exercised: the palpated axis of force that distinguishes vital from lifeless animation. And Parry (2024) confirms, from the phenomenological side, that what the spectator experiences as grace in the animated frame — its simultaneous acknowledgement of past and prefiguration of future — corresponds precisely to what the practitioner constructs through the key pose. Together, these accounts support a view of animated performance not as imitation but as *creative evolution*: a process in which the vital

impulse of living movement is preserved not by being copied but by being rearticulated in a new form.

Conclusion

This article has argued that the value of reference footage in animation lies not in mechanical reproduction but in mediated translation: a relay through which the vital impulse of living movement is preserved by being transformed. What makes this translation possible is the animator's sustained mental attention — the *tension of consciousness* that Bergson (1896/1991) identifies as the condition for inhabiting duration rather than merely subdividing it. It is through this attentiveness, maintained across the iterations and gaps in the animation process, that the key pose becomes something more than a frozen instant: a condensation of force, intention, and direction in which the flow of living movement is preserved by being given form.

Bergson's concepts of duration and *élan vital* provide the philosophical vocabulary for this process. Duration is not the enemy of posing; it is what posing constructs. *Élan vital* is not the exclusive property of living bodies; it is the creative impulse that animators access through embodied engagement with reference footage and translate, through the key pose, into animated form. Gunning's reading of Bergson prevents a simplistic opposition between life and mechanism: the animated figure's mechanical substrate does not preclude vitality; it becomes its medium. Pierson's account of the through-line provides the animation-specific vocabulary for understanding what is being sought and what is being preserved in that translation. And Parry's phenomenology of animation confirms, from the spectator's side, what this article establishes from the practitioner's: that the key pose, when it achieves the quality Bergson and Parry both call grace, encodes the temporal weight and prefigured future of a movement in a single, legible configuration.

Across the four case studies — Labbad's dance translation, Baena's textural experimentation, Abney's intimate character embodiment, and Nguyen's bodily mimicry of the gazelle's bounce — the same underlying logic is at work. The animator engages with living movement not to copy it but to identify its vital impulse, and then to re-instantiate that impulse in the key poses that give animated performance its sense of duration and life. The source of that vital impulse may be filmed footage, personal memory, or the animator's own kinesthetic imagination — but in each

case it is accessed through the body before it is committed to the frame. The reference footage provides the first instantiation; the key pose provides the second. Between them is the animator's sustained attention — the tension of consciousness that Bergson (1896/1991) identified as the condition for perceiving life in its continuity.

The result is an understanding of animated performance not as imitation but as *creative evolution*. The vitality of the reference does not survive by remaining unchanged. It survives by being rearticulated — through the key pose, through the through-line, through the animator's sustained attentiveness to the living quality of movement — in a form that is both different from and continuous with its origin. This, in Bergson's terms, is what life does: it continues by becoming.

The framework developed here is grounded in hand-drawn and keyframe character animation, where the logic of the key pose and the through-line are most directly visible. Extending it to motion capture, procedural systems, and AI-generated animation — where the question of whether and how vitality persists through technical mediation will become increasingly pressing — would be the subject of a further focused study.

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