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Work and life in dynamic equilibrium

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We reframe the idea of balancing career and non-career interests for ecologists specifically. We introduce the concept of a dynamic work–life equilibrium (WLE) and draw parallels between ecological processes and processes affecting our continuously fluctuating sense of balance, with an aim at encouraging self-reflection and improving WLE mentoring in ecological disciplines.

A call to change the conversation

Work–life balance (WLB) refers to effective management of our career and non-career roles, such that one is satisfied in their ability to meet demands in each [1]. It has long been recognized that WLB is important for happiness, mental health, and job performance [2,3]. However, as women ecologists based in the USA, who entered our respective disciplines over a span of two decades (1995–2014), it was our shared experience that WLB was rarely discussed during our training and, when it did arise in conversation, was ill or narrowly defined. For example, WLB was often described as leaving the office by 17:00 h, dividing time equally between the home and office, or a challenge specific to women with children; sentiments that pre-date the ongoing deconstruction of household gender norms. More worrisome was the implicit messaging that WLB was desirable but not practically attainable because career success demands prioritization of career over personal life. This was compounded by the stark rarity of female mentors and perpetuity of institutional reverence for individuals achieving the highest levels of productivity at work, even at the expense of their own mental and physical health.

Although diversity within the ecological workforce has increased [4,5], the cultural norms and negative messaging surrounding WLB persist. This is concerning, because an individual's perceived ability to achieve fulfillment in both life and work can influence career decisions as early as the undergraduate level [6] and affect long-term retention [7]. Due to individual variation in values, responsibilities, and priorities, a one-size-fits-all solution to achieving WLB is nonexistent. However, increasing our willingness to engage in more explicit and frequent conversations about WLB is a starting point for providing future generations of ecologists with more thoughtful WLB mentoring.

To inspire such conversations, we present an extended metaphor to reframe WLB for ecologists specifically, that is shaped by our personal experiences, observations, and appreciation for complexity in the natural world. As an alternative to WLB, we introduce the concept of a dynamic WLE. The WLE concept relaxes our focus on striving to achieve and maintain a static sense of balance and embraces the reality that our perception of balance can be expected to change continuously in response to internal and external conditions that fluctuate at various temporal scales. Additionally, we emphasize how work and life dynamics are highly individualized, which we complement with a supplementary tool (Tool S1 in the supplemental information online) to guide others in reflecting on the dynamics of their own WLE and making decisions that align with their values. We do not intend to suggest that there is a simple solution to achieving WLE or to minimize the importance of broader systematic societal, cultural, and institutional issues that create challenges to managing the demands of work and life. Rather, our aims are to encourage readers to address factors within their control to enhance WLE where possible and to engage in more open conversations about WLE with colleagues, mentors, and mentees.

A dynamic WLE

If we conceptualize ourselves as an ecosystem, each role we fill (Figure 1) is akin to a unique species and our values, capacities, skills, and responsibilities constrain the diversity (richness and evenness) of our community. Distribution of effort among our roles defines the relative dominance (evenness) of species. Whereas antiquated notions of WLB suggest that balance requires high evenness, the WLE concept offers us permission to adopt a high degree of unevenness, because our sense of equilibrium depends on congruence between the value we place on a role and our perceived ability to succeed in it. Disequilibrium (Figure 1) occurs when there is mismatch, for example, when we feel constrained in our ability to invest in a highly valued role, are required to take on an additional role unexpectedly, or feel pressured to invest in one we do not inherently value.

Unique roles differ in their competitive ability to exploit resources. Highly competitive roles that demand our time and energy decrease available effort to invest in others, and sometimes displace them entirely. However, like species, interactions between roles are not always antagonistic. Symbioses can also exist, whereby investing in one role also fulfills another. Such occurs when friendships extend to colleagues and collaborators, or when the focus of a career or family role is tied intimately to our definition of self. Roles can coexist mutualistically, commensally, or even synergistically. Additionally, the competitive ability of a role is context dependent and constantly fluctuating, varying according to external (e.g., employer, peer, and cultural) and internal (e.g., goals, and mental

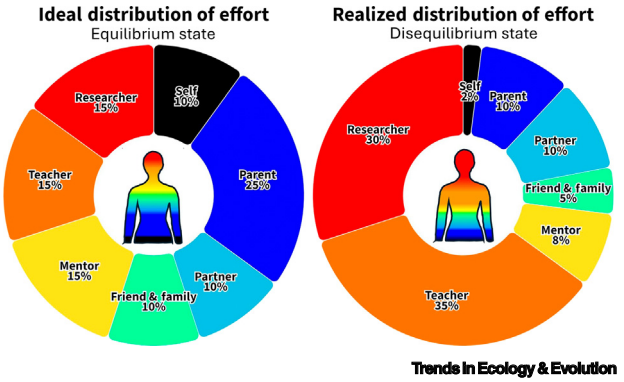

Figure 1. A visual representation of how a hypothetical academic ecologist might ideally (left) and actually (right) distribute effort across seven roles, and its relationship to a sense of work–life equilibrium (WLE) during a particular period (e.g., a semester). The hypothetical ideal scenario (left) assumes that distribution of effort across roles is congruent with the individual's relative valuation or prioritization of each role, which facilitates a sense of equilibrium. Note that equilibrium does not imply dividing effort equally between career (warm tones) and non-career (cool tones) roles and the ideal will be different for each person and can vary over time in the same person. In the realized example (right), the effort invested in each role is disproportionate to the individual's relative valuation of that role, thereby resulting in a sense of disequilibrium. Lack of congruence between realized and ideal effort can occur in response to internal or external pressures, constraints, or disturbances.

and physical health) pressures and constraints. As such, the influence a role has on WLE varies substantially from person to person and even over time within the same individual as our priorities, values, and resources change (Figure 2).

Significant events at work or home, analogous to ecological disturbances, can alter the composition of our community directly or indirectly (i.e., by altering the context that defines how interactions between roles play out [8]). As in natural systems, disturbances in life can be predictable or unpredictable, beneficial or destructive, and the duration of their impacts can vary. While many disturbances are beyond our control, others we desire and pursue purposefully (e.g., career transitions and change in family status). Disturbances can be significant enough to drive a role to local extinction and create niche space for new roles to colonize, and their effects on our community of roles can often lead to a sense of disequilibrium. The sense of disequilibrium they bring are a natural source of variation in our lives and it is unrealistic to imagine that they can be entirely avoided. Regaining equilibrium during, or following, a disturbance will often demand that we recalibrate our behaviors (or priorities) given the changes our community has incurred and the current context. Predictable disturbances afford us an opportunity to strategize how to mitigate their effects. For example, if we anticipate that demands in one role will conflict with those of another, we can strategically budget time to compensate (Figure 2A). Unpredictable disturbances are trickier to navigate. They can lead us to accept roles that we never imagined, as if a new species has invaded our community, and our ecosystem must adjust accordingly (Figure 2B). Severe disturbances may force us to triage roles and prioritize conservation of those most critical to ecosystem function. As in ecological systems, our perception of the impacts of disturbances can depend on the scale at which we evaluate them. While many disturbances can manifest a strong sense of disequilibrium over a short term, this does not necessarily translate to a chronic sense of disequilibrium over the long term (Figure 2).

Like ecosystems, each of us is shaped by and adapted to some disturbance regime [9]. However, unlike ecosystems, we have some power to shape that regime with our career decisions. Some of us thrive in a regime of high frequency disturbances (frequent travel and focusing on multiple short-term projects) while others may seek out more predictable and long-term disturbances (semesters, breaks in an academic calendar, and long-term research focus). Strategies we have developed to manage WLE under one disturbance regime may not transfer to another, and chronic deviations from our preferred disturbance regime can stress ecosystem resilience. Thus, pressuring oneself to conform to the regimes of peers or superiors, to which we are not well aligned, can lead to burnout and impact physical and mental health. In addition to career choice, disturbance regimes are shaped by our home and workplace environment. Being thoughtful about the relationships we pursue and the leadership, policies, and culture of the institutions and organizations we align ourselves with can enhance WLE. Undoubtedly many disturbances are outside of our control. These range from sudden illness and natural disasters to more systemic issues associated with discrimination and biases that continue to permeate our culture. While the impacts of some disturbances cannot be overstated, even in the most challenging landscapes we have some power to choose how we show up in our roles, and to some extent, which roles we occupy. By making intentional choices to enhance our WLE and using the power that accompanies our current positions to help others do the same, we can lay the foundation for cultural change.

Cultivating WLE in ourselves and our communities

We hope that the ideas and supplementary tool (Tool S1) presented here encourage our readers to reflect on the dynamics of WLE in their own lives and more readily integrate conversations about WLE into their mentoring. A key takeaway from our metaphor is that disequilibrium is an unavoidable and natural response to fluctuations in a complex system rather than an indication of failure to maintain balance. By recognizing indicators of disequilibrium

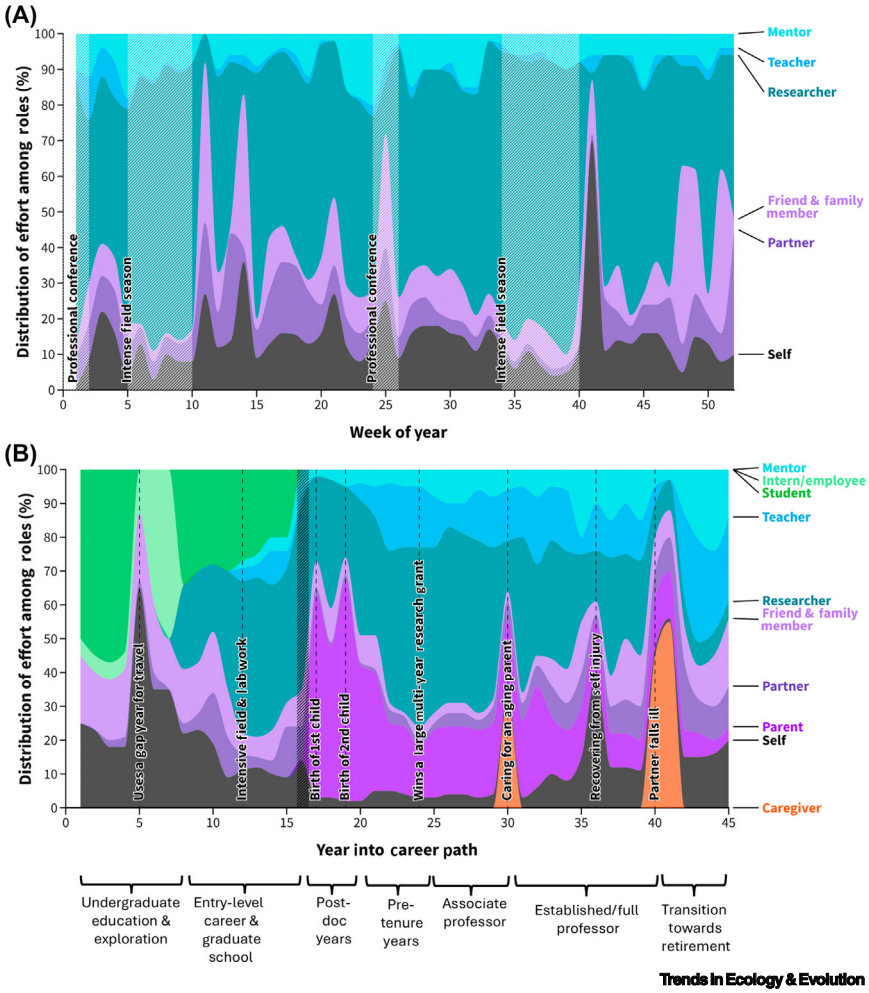

Figure 2. An illustration of how a community of roles (coded by color) might fluctuate within a single year (A) and over the course of an academic career (B) for a hypothetical ecologist pursuing a tenure-track career in higher education. The 1-year example (A) corresponds to year 16 (dark shading) in the career-long example (B). (A) Light shading and annotations indicate predictable disturbances that might be experienced throughout the year. Note how one might strategically compensate for having to reduce effort in some roles immediately following predictable disturbances to restore work–life equilibrium (WLE). (B) Vertical broken lines and annotations indicate predictable and unpredictable disturbances that might occur over a career span and operate over longer temporal scales by creating new roles and requiring a redistribution of effort among existing roles. This example does not show all possible roles, nor does it imply the existence of an ideal way to partition one's time. Rather, it is designed to highlight the natural temporal variation in how we might choose, or be required, to distribute effort among roles throughout life and prompt internal reflection about how managing WLE might look or feel at different scales (Tool S1 in the supplemental information online). The effect of distributed effort on WLE is not visually represented here because it depends most heavily on congruence between our values and how our effort is distributed, which varies over time and among individuals. As such, two individuals can fill similar roles and distribute effort in a similar way but perceive varying senses of balance or equilibrium.

(e.g., chronic stress, apathy, and discontent) we can be poised to redistribute our efforts among our many roles to better align with our values. As ecologists, we advocate for granting ourselves and others the permission to respond to complexity with the same context-dependency as the systems we study and honoring the decisions of others who choose to pursue a dynamic WLE that differs from our own.

Author contributions

All authors assisted with conception of the original idea, development of intellectual content, and drafting/revising the manuscript.

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Supplemental information

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