

Dynamic Symmetry and Foundherentism: Edge Theory's Contribution to Contemporary Epistemology

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Abstract: Susan Haack's foundherentism is a theory of justification that seeks to integrate the strengths of foundationalism and coherentism while avoiding their characteristic weaknesses. It affirms the evidential role of experience yet rejects a privileged class of infallible "basic" beliefs, and it allows pervasive mutual support among beliefs while resisting the threat of vicious circularity through the now-famous crossword puzzle model. Despite its elegance and resilience under critical scrutiny, foundherentism has remained comparatively marginal in mainstream epistemology. Dynamic symmetry theory (Edge theory), developed by Benedict Rattigan, offers a complementary framework that re-casts foundherentism's structural insights in the language of complex systems. Edge theory characterises stable, adaptive systems as those that maintain themselves in a moving balance between order and chaos, and it redefines symmetry as a dynamic process that sustains coherence while allowing change. This paper shows how Edge theory illuminates foundherentism in three ways. First, it provides a dynamical interpretation of Haack's mixed model of evidential support, treating the balance between experiential foundations and systemic coherence as a specific instance of a wider order-chaos equilibrium. Second, it clarifies why the crossword model is more than a vivid image, by aligning it with general features of adaptive networks near edge-of-chaos regimes. Third, it suggests that foundherentist criteria may offer not merely a logically attractive account of justification but a structurally plausible account of how real epistemic communities can remain both responsive to experience and resilient over time. The conclusion is that, when seen through the framework of dynamic symmetry theory, foundherentism appears as a more powerful and timely contribution to epistemology than its current reception suggests, and it deserves far wider recognition in both philosophy and the sciences.

Any attempt to speak about the justification of belief must confront a familiar family of problems: how finite, fallible agents can build and revise a body of beliefs without collapsing into either arbitrary authority or unconstrained circularity. For most of the twentieth century, the dominant options in analytic epistemology were foundationalism and coherentism. Foundationalism promised to halt regress by positing a class of basic beliefs, justified directly by experience or by their self-evidence, from which further beliefs could be inferred. Coherentism, by contrast, denied the need for such foundations and proposed that beliefs gain justification from their membership in a suitably coherent system. Both views faced deep difficulties. Foundationalism struggled to explain how putative basic beliefs could bear the justificatory weight demanded of them without begging the question or reducing to trivial truisms. Coherentism faced the problem that, in principle, many incompatible systems might achieve high internal coherence, and that a purely coherence-based picture seems unable to guarantee an adequate connection to the world.

Susan Haack's foundherentism is widely acknowledged as one of the most sophisticated attempts to move beyond this stalemate. In *Evidence and Inquiry*, she proposes a theory of empirical justification that is neither straightforwardly foundationalist nor straightforwardly coherentist, but "foundherentist". Her aim is to do justice both to the foundationalist insight that experience must matter for justification and to the coherentist insight that mutual support among beliefs is indispensable, while avoiding the principal pitfalls of each. She summarises the view in two key claims. First, "a subject's experience is relevant to the justification of their beliefs, but there need be no privileged class of beliefs justified exclusively by the support of experience, independently of the support of other beliefs." Second, "justification is not exclusively one-directional, but involves pervasive relations of mutual support." In other words, experience contributes to justification, but not in the form of incorrigible foundations; and coherence among beliefs also contributes, but within a structure that remains anchored in experiential input.

The most famous expression of this structure is Haack's crossword puzzle model. Clues to a crossword are analogues of experiential evidence; the already completed entries that intersect a candidate answer represent the subject's other beliefs. An entry is well supported when it both fits the relevant clues and meshes with the intersecting answers; in a similar way, a belief is well supported when it is both adequately grounded in experience and appropriately integrated into the wider web of beliefs. The metaphor has several virtues. It makes vivid how beliefs can mutually support one another without degenerating into circularity, because each answer is constrained by independent clues as well as by its relations to other entries. It also suggests that justification admits of degrees: some answers fit only weak clues and few intersecting entries; others are backed by multiple converging lines of support. Foundherentism thus offers a gradational, non-dichotomous view of justification.

Haack argues that this mixed model survives the main objections that have been considered decisive against both foundationalism and coherentism. She claims that it handles the "drunken sailors" objection to coherentism—the worry that mutually supportive but collectively misguided beliefs can wander arbitrarily—better than its rivals, precisely because experiential clues continue to exert an independent constraint. She further argues that foundherentism fares better than extrinsic versions of foundationalism when faced with arguments that justification cannot be purely one-directional "all the way down", since belief revision often involves re-evaluating even highly central commitments in the light of systemic considerations. In short, foundherentism is presented as a theory that keeps what is most plausible in the foundationalist and coherentist traditions while avoiding their most damaging problems.

Despite these strengths, foundherentism has not achieved the level of uptake that its merits might warrant. In part this may reflect disciplinary fashions; in part it may stem from the fact that Haack's work does not easily align with the more formal Bayesian or reliabilist frameworks that have dominated much recent epistemology. Yet when one looks beyond narrow intra-philosophical debates, foundherentism has proved attractive to scientists, economists, and legal scholars, many of whom have adopted the crossword model as a useful way of thinking about evidence and theory choice in their own fields. This suggests that the view captures something structurally important about inquiry that may not be fully visible from within standard epistemological dichotomies.

Dynamic symmetry theory, or Edge theory, provides a complementary perspective on these issues. Rattigan's framework, as expounded in OXQ and related publications, proposes that many complex systems—physical, biological, social, and cognitive—function best in regimes that are neither fully ordered nor entirely chaotic, but that maintain a dynamically adjusted balance between the two. Symmetry, on this account, is not merely a static property of invariance under transformation, as in classical physics. Instead, it is understood as an evolving pattern of constraints that allows a system to preserve identity while responding to perturbation. Systems that are too rigid lose adaptability; systems that are too unconstrained lose coherence. The "edge of chaos" is the band along the order-chaos continuum where complexity, adaptability, and resilience tend to peak.

Although Edge theory is primarily developed in dialogue with complexity science, it has explicit epistemological ambitions. The OXQ "Framework" and Schweitzer Institute materials emphasise that scientific and institutional practices can be assessed by where they sit on this order-chaos continuum: highly centralised, dogmatic structures are taken to represent over-ordered regimes; unfocused, constantly shifting discourses represent chaotic regimes; and well-functioning investigative communities aim to inhabit edge regimes in which norms, methods, and theories are stable enough to allow cumulative progress yet open enough to be revised when evidence or argument warrants it. Rattigan's essays link this explicitly to cognitive and social processes: they

speak of minds, groups, and institutions as complex adaptive systems whose “dynamic symmetries” must be maintained if they are to remain capable of learning and innovation.

If one brings these two bodies of work together, a natural question arises: how might dynamic symmetry theory shed light on foundherentism? The first point is that Haack’s theory can be seen as specifying an order–chaos balance for epistemic systems. Foundationalist models tend toward an over-ordered regime. They seek security by anchoring the entire edifice of belief in a limited set of basic propositions, whose justification is presumed to be unproblematic. This picture favours rigid hierarchies of support and resists the idea that the status of central beliefs might be revisable in the light of systemic considerations. From an Edge-theoretic standpoint, such systems risk brittleness. They may fail gracefully while evidence accumulates, because the commitment to basic beliefs is too strong to be destabilised by feedback. Coherentist models, by contrast, risk slipping into a chaotic regime. In the absence of any anchoring role for experience, there is no principled obstacle to multiple incompatible but internally coherent webs of belief, and the link between the system and its environment may become too loose.

Foundherentism, on this reading, aims to locate epistemic practice in an edge regime. It allows experience to play a genuine constraining role, without granting it the status of untouchable foundation, and it allows mutual support among beliefs to play a genuine role, without letting coherence float free from empirical contact. The crossword model corresponds neatly to this structure. Clues, in Haack’s analogy, represent experiential input; intersecting entries represent other beliefs; and a well-supported answer is one that fits both. If we transpose this into Edge-theoretic terms, one can say that a healthy evidential system is one in which experiential “signals” and internal “symmetry constraints” are continually brought into equilibrium. Too much weight on clues alone, without attention to intersecting answers, would yield a scattered, poorly integrated grid; too much weight on coherence among answers, without respect for clues, would yield a pleasing but unmoored pattern.

Dynamic symmetry theory adds several layers to this interpretation. First, it emphasises that such balances must be actively maintained over time through feedback. In Rattigan’s description, dynamic symmetry is not a static compromise between order and chaos, but a process in which systems constantly re-tune their level of constraint in response to perturbation. Applied to foundherentism, this suggests that justification is not a one-off achievement, but an ongoing activity of keeping beliefs, experiences, and coherence relations in a healthy range. The crossword is never simply “finished”; clues can be misread, new clues can appear, and earlier entries may need to be revised in the light of later progress. This resonates with Haack’s emphasis on degrees of justification and on the revisability of even highly entrenched beliefs.

Second, Edge theory offers a way to understand why foundherentism’s structure may be not only conceptually attractive but dynamically stable. Complex systems near the edge of chaos often show a capacity to recover from perturbations, because their pattern of constraints allows both error correction and exploration. Translating this into epistemic terms, one would expect foundherentist systems—those that make room both for experiential correction and for systemic reconfiguration—to be comparatively resilient against misperception, bias, and local failure. Coherentist systems might be slow to register new evidence that conflicts with an entrenched web; foundationalist systems might be slow to adjust central commitments even when multiple lines of evidence undermine them. A foundherentist system, by contrast, has the structural resources to respond to discordant clues and to re-work intersecting entries, because neither the “foundations” nor the web are untouchable.

Third, dynamic symmetry theory situates foundherentism among a broader family of “edge-regime” phenomena in science and social practice. Haack herself stresses that her crossword model has been found useful, not only by philosophers, but also by scientists and legal theorists who face the practical problem of weighing mixed bodies of evidence. Edge theory provides a rationale for this cross-domain uptake. Scientific communities, courts, and policy bodies all function as epistemic systems: they must integrate streams of experiential data (observations, experiments, testimonies) with existing frameworks of belief (theories, precedents, norms). Edge theory suggests that such systems will perform best when they maintain a dynamic balance between evidential constraint and theoretical coherence, just as foundherentism prescribes. The fact that Haack’s model has proved attractive in these applied contexts can therefore be seen as a partial empirical vindication of its structural soundness.

From the standpoint of dynamic symmetry, then, foundherentism looks less like a hybrid compromise between two traditional theories and more like a concrete realisation of a general order–chaos principle in the domain of justification. In Edge-theoretic vocabulary, one might say that foundherentism specifies the symmetry conditions under which epistemic systems can remain adaptive: evidence has sufficient authority to prevent arbitrary drift, while networks of belief are sufficiently rich and revisable to encode complex regularities and to adjust as new information arrives. This reframing is not merely cosmetic. It suggests lines of communication between epistemology and empirical work on cognition and collective intelligence. If, for instance, high-performing scientific teams and institutions tend to operate near edge regimes in their communication and decision-making patterns, as Edge theory proposes, then one might expect their justificatory practices to approximate foundherentist norms: evidence is neither ignored in favour of pure theory nor fetishised in a way that neglects the need for systemic coherence.

This brings us to the question of recognition. Why has foundherentism remained relatively marginal, despite its conceptual strengths and its apparent fit with broader patterns in science and inquiry? One practical reason is that the epistemological mainstream has often gravitated toward more easily formalised frameworks, such as Bayesianism or reliabilism, which lend themselves to mathematical treatment and to integration with cognitive science. Haack’s work, while precise and rigorous, is stylistically different and less readily convertible into standard formal models. Another reason is that the field has frequently been structured around dichotomies—foundationalism versus coherentism, internalism versus externalism—whose institutional and pedagogical inertia makes intermediate positions harder to foreground.

Dynamic symmetry theory does not, by itself, solve these sociological problems, but it highlights why foundherentism is worth more sustained attention. It shows that Haack’s structural insight aligns with a general pattern that recurs across complex systems: the most fruitful regimes are those that neither freeze nor dissolve, but maintain a moving balance between constraint and freedom. Foundherentism gives this pattern epistemological content. It tells a detailed story about how experience and coherence jointly contribute to justification, and it offers a model—the crossword—that has proved intelligible and useful in domains far beyond philosophical theory.

The conclusion to draw is not that dynamic symmetry theory vindicates every aspect of foundherentism, nor that Edge theory is needed in order to appreciate Haack’s contribution. It is rather that bringing the two into conversation clarifies what is distinctive about her view and why it matters. Foundherentism describes how an epistemic system can remain anchored in experience while still allowing rich internal structure and mutual support among beliefs. Edge theory suggests that systems with this structure are those most capable of adapting to complex, changing environments. Taken together, they point to a conception of inquiry in which the health of our cognitive lives depends on maintaining dynamic symmetries: enough order to sustain standards of

evidence and reasoning, enough openness to reorganise beliefs in the light of new insight. By articulating this balance with unusual clarity, Susan Haack's foundherentism deserves a more central place in contemporary epistemology than it has so far received.

References and further reading

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