

Action research and integral futures studies: a path to embodied foresight

Author: Joshua Floyd

This is the manuscript version of an article of the same title originally published in the journal *Futures*. The full citation for the original article is: Joshua Floyd, Action research and integral futures studies: a path to embodied foresight, *Futures*, Volume 44, Issue 10, December 2012, Pages 870-882, <http://dx.doi.org/10.1016/j.futures.2012.09.001>.

Abstract

Action research principles and practices have a long history of application in the futures field, and in recent years have seen a resurgence of interest. With the emergence of integral foresight and futures studies, action research takes on increased significance as a pathway to development of expertise in this new domain. This article outlines the essential characteristics of action research, and looks at how action research has influenced futures studies to date. It then explores in more depth the specific congruence between action research practices and the principles of integral foresight and futures studies. An approach to understanding expertise in futures and foresight practice consistent with the integral perspective is explored. This draws on the enactive approach to cognition and leads to a model of expertise described as embodied foresight. Action research is proposed as an important contributor to the development of embodied foresight.

1. Introduction

Foresight and futures studies work is carried out in a world of increasing complexity and uncertainty, in which change occurs more and more rapidly. It is becoming clear to many in the field that conventional ways of considering “the future”, based on a worldview in which knowledge creation is a matter of recovering a pre-given, objective reality, are breaking down in the face of this situation. Responding to this breakdown, an alternate worldview is emerging in which “the way things seem to be” and the spectrum of possible futures thereby available to us are intertwined with the ways that we *are* as futures practitioners. The world disclosed by ways of sense-making consistent with the emerging worldview poses great challenges to practitioners’ expertise. Two critical questions arise in relation to this. Firstly, in such a world, what might constitute *adequate* foresight expertise? And secondly, how can we *acquire* such expertise?

In addressing these questions, the aims of this article are:

- 1) To demonstrate that a pathway to the development of expertise commensurate with a world of the nature hinted at above can be found in the convergence of two unfolding waves of change in foresight and futures studies (FS). These waves of change are: the renewed embrace by the FS field of the family of practices and principles known collectively as *action research*; and evolutionary emergence of Integral Futures [1, 2].
- 2) To explore *embodied foresight* [3, 4] as a model for FS expertise suited to a *participatory world*, showing the relationship between the unfolding waves of change and this proposed approach to FS expertise.

By *participatory world*, I mean a view of the world, after Heron and Reason [5], that arises when we know that we are part of—and hence participants in—what seems to us to be going on. This understanding of one’s world as *participatory* in nature arises within a participative worldview.¹ Reason and Bradbury [6, p. 2] argue that such a worldview is fundamental to

action research: ‘action research is participative, and all participative research must be action research’. As such, it marks action research as paradigmatically distinct from the four competing paradigms of inquiry—positivism, postpositivism, critical theory and constructivism—identified by Guba and Lincoln [7].² Of particular importance—and this will be drawn out in some detail as we proceed—the participatory paradigm joins critical theory and constructivism in moving beyond the assumption of an objective reality independent of *us*, the inquirers into that reality, but then reaches beyond these again with the proposition of a participative—or subjective-objective—reality ‘co-created by mind and given cosmos’ [5, p. 289].

Heron and Reason’s participative worldview will take on particular significance as we consider the grounds for convergence between action research (AR) and Integral Futures.³ A central contention guiding development of the approach to practice introduced here is that Integral Futures and participatory action research (PAR) as articulated by Reason and Bradbury together offer not just a *useful* approach to futures and foresight work, but represent fundamental progressions towards *improved* FS work. This article will attempt to demonstrate to FS practitioners that AR, particularly as Reason and Bradbury present it as enacted within the participative worldview, will make FS more effective, and in doing so, offer a pathway to implementing the principles of Integral Futures, on the way to developing greater foresight expertise. This is a pathway that elevates FS practice from profession or career to creative life expression. It is axiomatic to the case presented here that this is what futures and foresight practice *should* become.

I commence presentation of this case by first confirming the commensurability of AR and FS on the basis of their stated foundational purposes. I then proceed to a description of the essential characteristics of AR, providing a basis for understanding the congruence between the AR and FS fields. Following this, the existing relationship between AR and FS will be reviewed briefly. I will then expand beyond this review to consider the nature of the *specific* congruence between PAR and the emergent integral stage of FS. Finally, I will conclude by looking at the nature of expertise in a world that gives rise to the integral perspective and will examine the role of PAR in developing this expertise. The term *embodied foresight*, introduced previously by Floyd, Burns and Ramos [3] and incorporating earlier views on ethical practice expressed by Ramos [4], will be used to characterise this view of expertise.

2. Action Research and FS: Commensurate Purposes

Commensurability of the purposes underpinning each field’s foundation is important for understanding the relevance of AR principles and practices to the FS field. While there are a broad variety of specific forms of practice across the AR field, there is strong alignment with regard to purpose. The various strands are all pulling in a similar direction. Reason and Bradbury, in their introduction to the *Handbook of Action Research*, provide a statement of purpose for AR that is representative of and consistent with views expressed by a wide range of participants in their field:

A primary purpose of action research is to produce practical knowledge that is useful to people in the everyday conduct of their lives. A wider purpose of action research is to contribute through this practical knowledge to the increased well-being – economic, political, psychological, spiritual – of human persons and communities, and to a more equitable and sustainable relationship with the wider ecology of the planet of which we are an intrinsic part. [6, p. 2]

Identification of a statement of purpose for the FS field that might be acceptable to all participants is perhaps more problematic. Superficially, it might be said that all in the field are pulling in a similar direction – “the future”. However, Slaughter’s [1] identification of traditions in FS suggests that there is significant difference with regard to the way that practitioners conceive their relationship with the future domain and the nature of the futures with which their work is associated. Nevertheless, Wendell Bell has offered a strong, unifying statement of purpose for the field:

The most general purpose of futures studies is to maintain or improve the freedom and welfare of humankind, and some futurists would add the welfare of all living beings, plants, and the Earth’s biosphere for their own sakes even beyond what is required for human well-being. Thus, at the most general level, the goals of futurists are to contribute toward making the world a better place in which to live, benefitting people and the life-sustaining capacities of the Earth...

A distinctive contribution of futurists is *prospective thinking*. Through prospective thinking, futurists aim to contribute to the well-being both of presently living people and of the as-yet-voiceless people of future generations. [21, p. 73]

The purposes of both AR and FS are identified with at least planet-centric concern [22] – the well-being of all people and even all life is considered in the aims of both fields. We can see also, with its emphasis on *increased* well-being, that AR’s purpose is well aligned with FS’s purpose of *making the world a better place in which to live*. On the basis of these representative statements, there is clearly a deep congruence between AR and FS regarding their stated purposes.

Within these statements, we also see the *particular* emphasis of each field. For AR, this is *practical knowledge that is useful to people in the everyday conduct of their lives*, and for FS it is extension of care to future generations through prospective thinking. AR’s emphasis on practical knowledge—implicit, as we will see, in the view of AR as research-in-action—highlights the field’s fundamental interest in *improvement*, or care and concern for “worlds not yet enacted”. That is, the field has a built-in orientation towards “the future”. These intentions are certainly congruent, in that FS’s particular experience and rigour in *prospective thinking* has potential to enhance AR’s *practical knowing*, and a deeper understanding of practical knowing from AR is capable of enhancing future-oriented present action for FS. It seems reasonable then to suggest that FS and AR represent different courses on a common journey. They are not “the same thing”, as each has a unique history and is presently enacted by practitioner communities differentiated on the basis of professional self-identity. Clearly though, at a deeper level members of these communities have similar self-understandings within related worldviews.

3. An Introduction to Action Research

In distilling the essential character of action research, Ramos [4, p. 644] highlights that its practice ‘assumes that we know the world better through acting and experiencing in the world, and without such experience theory is impoverished’. *Experience*—its nature and its role in practice—is of central importance to AR. Reason and Bradbury [23, p. 448] emphasise that ‘a basic tenet of action research is that any new understandings must be grounded in experience/experiment’. This concern for experience provides a “thematic backbone” to the article, and will be the principal vehicle for bringing together PAR, integral FS and embodied foresight in pursuit of the aims articulated in the introduction.

AR, as first articulated by Kurt Lewin [24] in the 1940s, has emerged in response to the limitations of traditional social science [25, 26]. Those limitations reflect the problematical nature of carrying out experimental research based on hypothesis testing—on which the natural sciences are founded—with humans in social situations [27]. Checkland and Poulter locate the basis of the limitations in three characteristics of such situations: their unique nature; the way that they change through time; and the role that multiple conflicting worldviews play in their constitution [28]. The action researcher uses the experience of actively and directly participating in human situations as the research object. The strong criterion of *repeatability* in the natural sciences is ill-suited to the complexity encountered in AR, posing a dilemma for externally assessing the validity of findings. Checkland and Holwell propose instead that validity in AR is established on the basis of the *recoverability* of findings, by making explicit the intellectual framework within which the researchers interpret their experiences, and thus allowing others to see how the findings are arrived at [27]. In this respect, high-quality AR entails bringing significant rigour to the processes of generating and interpreting experience.

3.1 Shared characteristics of AR practices

While acknowledging the heterogeneity of practices comprising AR, and the wide diversity of theoretical influences, significant commonalities are readily discerned in terms of underlying process and approach [4]. Within the context of these shared characteristics, Ramos also points out the explicitly participatory and democratic nature of AR: there is widely shared desire to seek multiple perspectives and openness to different ways of establishing these [4]. In AR, researchers consciously seek to include the “researched on” and the “researched for” in their work. Together these groups shift the emphasis from research *on* some aspect of the world to research *with* those who live in that world. As an approach to knowledge creation, AR is both action-based and action-oriented, giving it an inherently cyclic nature. The typical AR cycle comprises four phases of act-reflect-observe-plan-act [29]. This is a continuous process. The new actions arising out of each cycle are themselves the subject of subsequent observation, reflection and planning, and the cycle continues, with this continuity typically characterised as a spiral, as depicted in Figure 1. The use of these heuristic devices to characterise AR can be traced back to Lewin [24, p. 38], who described ‘a spiral of steps each of which is composed of a circle of planning, action, and fact-finding about the result of the action.’ In practice though, the AR process is far more fluid and adaptive than this suggests, with activity associated with the “steps” proceeding simultaneously [28]. The phases are not ultimately distinct from one another ontologically or temporally.

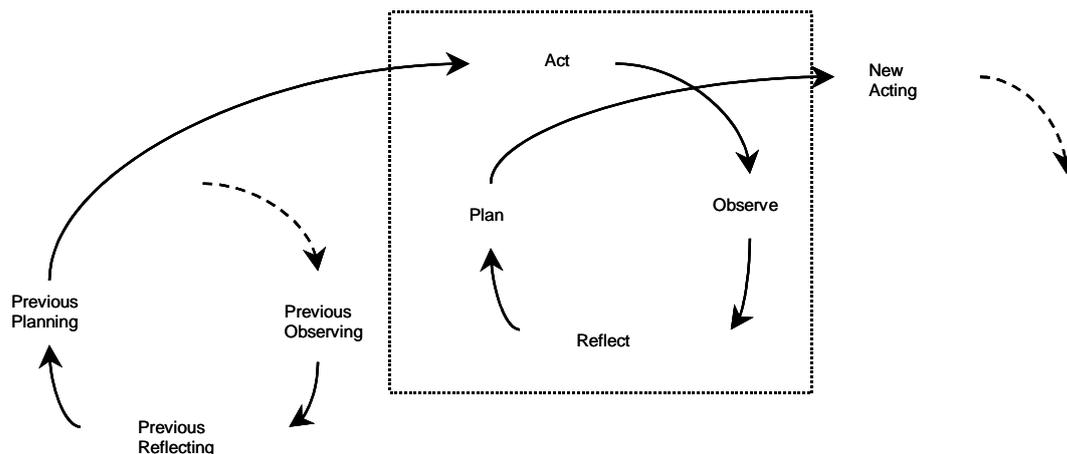


Figure 1. The action research spiral.

To the extent that this general model of AR follows a pattern that can be discerned in the way that, according to Wadsworth, inquiry seems to arise naturally in living systems [29], the challenge might reasonably be levelled that “there is nothing particularly unique going on here”. What is unique to AR is engaging in such inquiry with awareness of this process as central to how it is that we as humans tend naturally “to do what we do”. In other words, AR is inquiry that is not separate from the living of human lives together. As is implied in the description of the process above, in AR the cycle metaphor is typically employed as a heuristic to characterise what we normally do *naturally*, in order to do it, together, *intentionally*, on the way to enacting it more *skillfully*, as a responsive way of being in our world. In other words, the purpose of this device is to make the relationship between thinking and acting an object of inquiry, for the purpose of learning to enact improved thinking-in-action. Wadsworth [30] characterises the distinction between AR and what we do day-to-day as a matter of ‘degree rather than kind’ in relation to the consciousness we bring to existing actions, our willingness to treat sceptically what we think we know, and to change our theories and actions.

It is apparent here—and the significance of this will be drawn out further in due course as we consider the “mind space” within which *PAR*, specifically as articulated by Reason and Bradbury [6], has arisen—that AR, as articulated by practitioners such as Wadsworth, is a development in the way that practitioners *understand* what they do, rather than an entirely new way of practicing research. The important shift is one of worldview, rather than one of technique. Ordinary research becomes AR when practitioners develop the *reflexive self-awareness*⁴ with which research is carried out; when the boundary that defines who is a co-researcher is expanded; and when *mutuality* with these co-researchers is pursued intentionally. Also, the extent to which those involved in the process are aware of the cyclic logic and engaged in each of its stages differentiates AR from conventional research.

3.2 First-person, second-person and third-person inquiry

While the criterion of recoverability allows for validation and hence evaluation of AR-based situation responses by non-participants, this deals with only one of three principal domains in which inquiry is simultaneously conducted in the practice of AR. Authentic AR involves concurrent inquiry in first-person, second-person and third-person domains, and generation

of knowledge associated with each of these [23, 25, 31]. Assessing the quality of AR inquiry requires that each domain be considered.

The first-person domain relates to the presence with which I engage in each stage of the cycle. “Presence” is the outcome of critical self-reflection: the capacity to see myself in the process, and to be actively aware of the basis on which I proceed, including awareness of my foundational assumptions that might otherwise go untested. Here the ultimate aim of my inquiry is transformation of the self – to become a more competent, more effective actor/inquirer.

The second-person domain relates to the participatory extent of my engagement in the cycle. Do I actively seek to engage others, not only in exploring the situation, but in identifying the situation to be addressed by the research in the first place? Do I recognise the situation as an opportunity to seek knowledge through collaboration and mutual understanding? Do I see the impact of the situation on the relationships between those involved as an equally important outcome of the inquiry?

The third-person domain relates to extension of the inquiry findings from the immediate context in which they are developed, to seek wider, generalised outcomes. It’s here that recoverability is particularly important, though quality is a matter not just of process integrity, but of the actual nature of the improvements that the inquiry might bring to human situations. This entails seeking an abstract understanding of what is going on beyond the immediacy of the directly-experienced situation. The purpose of this is to make the learning from the particular situation more widely applicable—in the hope that it might lead to improvements beyond the scope of the spatially and temporally local situation that provoked the initial inquiry. Most importantly though, the key to appreciating this as third-person AR is that it considers the interests of others beyond the group participating directly in the research—it attempts to extend the benefits of the specific inquiry to situations remote in space, time and culture from the original context.

4. Action Research in Futures Studies

The strong links between action research and the wider FS field are recognised by many FS practitioners. This is highlighted by Wendell Bell’s perspective in volume one of *Foundations of Futures Studies*. He states that FS ‘can be considered an action science in the fullest sense of the term’ [21, p. 181].

Bell [21, p. 298] also identifies an explicitly AR-oriented stream in FS, which he describes as *participatory futures praxis*. He notes that futurists engaged in this area go beyond ‘merely creating the knowledge’, engaging directly in ‘the front lines of practical action’ [21, p. 298]. Bell [21] identifies two unifying themes in this area: (1) democratised futures thinking, through the participatory process and (2) taking action to bring about the futures determined by democratic process. These can be seen in social/political activism and participation, and in futures workshops.

Slaughter’s [1, p. 189] description of the future as ‘a principle of present action’ reinforces the relevance of FS to AR. Slaughter [1, pp. 36-37] traces the development of FS through four main traditions, which he describes as ‘paradigmatic ways of framing and approaching futures work’. These traditions are the empirical/analytic, critical/comparative, activist/participatory and multicultural/global. The activist/participatory tradition has characteristics aligned closely with AR, and is very similar to Bell’s participatory futures

praxis. The common ground between AR and FS is further emphasised in Slaughter's [1, p. 37] discussion of the motivation for studying the future as being 'to move away from a passive or fatalistic acceptance of what may happen to an active and confident participation in creating positively desired futures'.

Another perspective at the emerging edge of futures thinking is that of *anticipatory action learning* (AAL), in which the concepts of action research and FS co-inform one another [32]. Inayatullah [32, p. 132] describes anticipatory action learning as

a new type of research, mixing action research and future-orientation. In anticipatory action learning, the future received—the official nomination—is questioned so that other futures can be created. Once an alternative future is created, the questioning process does not end. There is a reflexive process of questioning, creation and questioning. This new type of practice adds an anticipatory dimension to action learning.

Anticipatory action learning thus differs from not only traditional, present-based research but is also different from most *futures* research. Anticipatory action learning/research is collaborative, and works within the epistemological framework of participation.

In AAL, particular emphasis is placed on experiencing alternative futures in the present. That is, the experiential dimension critical to authentic AR manifests in AAL as the concrete experience associated with exploring possible futures as *imaginal artefacts*, and thus relates to a reality interior to and inter-subjectively enacted by the participants. This view of research experience departs from the dominance in conventional research of narrow empiricism based exclusively on *sensory* experience [33]. Earlier, I drew particular attention to the importance of direct experience in AR. The validity of experience that has as its object domain the conceptual rather than sensory realm is critical to FS gaining full benefit from a convergence with AR. Later, we will consider the role that such interior experience can play in fostering expertise of the nature characterised in this article as embodied foresight.

Ramos [4] sees anticipatory action learning as a development in the tradition of Bell's participatory futures praxis, rather than an entirely new approach to futures inquiry. Nonetheless, development of AAL indicates that AR continues to be of strong interest in the futures domain. In fact, the context in which Ramos writes is a special issue of *Futures* (38:6) that explores more deeply the relationship between action research and futures studies. This suggests in its own right growing interest in the application of AR to the futures domain.

In another approach to locating AR's influence within the FS field, Ramos [34] outlines a stage theory in futures methods. This runs from linear and predictive methods, to systemic and strategic methods, to critical and interpretive methods and on to integral methods. He locates the origin of participatory futures within the systemic and strategic stage, having arisen as a response to the use of FS for military, industrial and restricted economic purposes. Participatory/action-oriented futures methods then re-emerge in parallel with the critical and interpretive stage. Ramos [34, p. 55] describes participatory/action-oriented futures as a 'bridge between critical methods and Integral, in the sense that such futures processes not only use critical approaches that challenge expert driven and orthodox visions, but integrate a variety of stakeholder perspectives and value systems into social change processes'. It is important to note that participatory/action-oriented futures methods are identified here as one strand to be embraced within an overarching integral framework. In the next section I will attempt to show that the relationship between integral FS and AR might best be regarded as

one in which each holds potential to inform and support the other, rather than one integrating the other as part of an encompassing whole (whether this be AR by integral FS, *or* integral FS by AR).

In summary, to date AR principles and practices have been associated with two broad currents in the FS field. The first relates to AR's status as leading edge practice as an approach to knowledge creation more generally. AR has emerged over the past sixty years in response to perceived deficiencies in conventional social research methodologies, particularly as these relate to the shaping of outcomes by researchers themselves. As such, it has been embraced by FS practitioners interested in making their work more democratic and participatory than that of narrow but powerful interest groups. The second broad current relates to the rise of action-oriented FS practice, in which the conceptual domain of the future becomes, in Slaughter's terms, a principle of present action. The practical orientation of AR has much to offer with respect to developing the interactive relationship between conceptual engagement with the future, and action in the present. In the next section, this will take centre-stage as we consider the convergent worldviews underpinning PAR, as articulated by Reason and Bradbury, and an emergent *integral* stage of FS.

5. The Nexus between Integral FS and AR

It is perhaps tempting to regard the increasing complexity with which human societies must contend, and the uncertainty that this entails, as a property or characteristic of the world external to we humans ourselves. Such a view overlooks, though, the constitutive role that we, the participants in any situation *perceived* as complex, play in generating the view itself. In the context of situations that are inherently *social* in nature, regarding complexity primarily in *perspectival* terms—in other words, as a consequence of the multitude of perspectives arising in relation to the situations in which we're embedded—seems to offer greater freedom of action than the more conventional view in which complexity is principally a matter of the relationships within a pre-given exterior reality.

It is in the context of complexity of *this* nature that Slaughter [1, 35] has championed Integral Futures as an adaptive response to humanity's existential dilemmas, and as a necessary evolution for the FS field in order for it to move beyond the fragmentations, partialities and biases to which any field of practice is susceptible as it grows and diversifies. Slaughter's proposed approach to developing Integral Futures calls for acknowledging and including all knowledges and their means of creation through integral methodological pluralism [1, 2]. Given the nature of the established relationship between AR and FS, for practitioners specifically interested in furthering the practice of *integral* FS, if such development is to be authentic it will necessarily take AR—as a broad field of practice and approach to inquiry—into account in some way and to some extent. While AR comprises a broad heterogeneity of practices, representing an even broader diversity of influences, Ramos identifies a common approach that supports both the legitimacy and utility of treating AR as relatively homogeneous from a process perspective [4]. It is a view of AR along these lines that I propose considering here in the context of an integrative relationship with integral FS—without seeking to diminish the importance of distinguishing between the range of practices collected under the AR banner.

As an explicitly integrative undertaking, bringing AR to bear on the development of integral FS requires that a relationship between AR and integral FS be proposed. One possible framing of the relationship involves seeking a significant role for AR *within* the integral approach to FS. Integral Theory, as articulated by Wilber [9, 10, 11, 12, 13, 14, 15] and

adopted by Slaughter [1] is typically interpreted as implying that an integral approach in any given field “transcends and includes” [10] those that precede it. In the case of AR and integral FS, however, an alternative way of framing the relationship seems to offer a better fit. The alternative that I propose here is informed by my own training and inquiry within the integral FS lineage first articulated by Slaughter, and by my own influences from within AR, including especially: Torbert’s Action Inquiry [31]; PAR as articulated by Reason and Bradbury [6]; Checkland’s Soft Systems Methodology [28]; Ison’s Systemic Inquiry and Social Learning [36]; Flood’s systems practice approach [37]; Scharmer’s Theory U [38]; and Frank Fisher’s *Response Ability* [39]. On the basis of experience shaped by such influences, I suggest that it may be more congruent to view the relationship between integral FS and AR metaphorically in terms of a *convergence*, whereby two complementary views mutually inform one another, rather than as a matter of one “transcending and including” the other. In the alternative that I propose here, AR should be embraced not just as one perspective *within* integral FS, but as the practical pathway to *enacting the principles* of integral FS. In such a view, while integral FS provides the conceptual basis and deep context for futures inquiry, AR provides the framework of practice that enacts the concepts within their integral context. I will elaborate on the role of practice shortly, and will consider this in more depth in exploring embodied foresight as an appropriate model for expertise in FS practice. The specific areas in which I see convergence relate to (1) the shared worldview or “mind space” within which both PAR, as articulated by Reason and Bradbury, and integral FS arise, and (2) the critical relationship between experience and theory that then emerges with this worldview.

5.1 Elements of worldview convergence

In the literature on both Integral Theory and PAR, we find a common appreciation for the paradigmatic⁵ nature of these two pathways of “engaged inquiry”. This paradigmatic reflexivity is demonstrated in the attention given by each field to its own ontological, epistemological, methodological and axiological characteristics.⁶

A central tenet of the integral approach is that it recognises the non-reducible validity of knowledge from three primary domains of human experience: self or “I” (first-person knowledge); culture or “We” (second-person knowledge); and nature or “It/s” (third-person knowledge). In Integral FS, based on Integral Theory [9], the integration of first-, second- and third-person knowledge is an explicit feature of the four quadrant model, in which the Upper-Left quadrant relates to the “I” domain; the Lower-Left quadrant to the “We” domain; and the Upper-Right and Lower-Right quadrants together to the “It/s” domain [1, p. 119]. Slaughter [1, p. 152] writes that ‘A key aspect of the integral approach is to honour all truths and acknowledge the value of many different ways of knowing across all significant fields’. As we saw earlier, integral FS is regarded by some in the field as an emerging stage of development in a sequence running from linear/predictive through systemic/strategic to critical/interpretive FS methods [34].

As also shown earlier, valuing of simultaneous knowledge pursuit in first-, second- and third-person domains is fundamental to PAR. It is important to note at this juncture that my intention here is not to suggest that these respective uses of “first-, second- and third-person domains” map neatly onto one another. Clearly, these conceptualisations have arisen in different contexts, for different purposes—they are not dealing with “exactly the same thing”. Even so, it does seem particularly significant, in the present context, that both fields of inquiry have an ontological outlook that recognises the need to embrace each of these three broadly-defined domains as “legitimate aspects of reality”.

A major implication of the integral approach's *non-exclusion principle*, which entails 'acceptance of truth claims that pass the validity tests for their own paradigms in their respective fields', is that it will recognise the methodologies of all preceding stages as valuable in their own right [22, p. 42].⁷ For instance, with reference to Slaughter's [1] use of Integral Theory to broadly characterise previously recognised "schools" of futures methodologies, this would entail valuing linear/predictive and systemic/strategic methodologies that tend towards a predominant Right-Hand quadrant focus and critical/interpretive methodologies that emphasise the Left-Hand quadrants [34]. A consequence of this is that integral FS, enacted authentically, will be strongly participatory in nature. Such authentic enactment will require engagement of appropriate participatory and collaborative techniques and practices; these are already well established within the PAR field.

Examining the nature of the worldview out of which each has emerged, the congruence between PAR and integral FS takes on further significance. The term worldview as used here denotes a common mind space, or shared way of constructing a perceived reality. As paradigms for inquiry, PAR and integral FS are intimately linked to the mind space within which they are enacted. From the PAR viewpoint, Heron and Reason [5, p. 275] describe this mind space as 'self-reflexive', and continue on to say that 'The participative mind – which Heron has also termed the postconceptual mind – articulates reality within a paradigm, articulates the paradigm itself, and can in principle reach out to the wider context of that paradigm to reframe it.' This participative mind is associated with a subjective-objective ontology within which 'Mind and the given cosmos are engaged in a cocreative dance, so that what emerges as reality is the fruit of an interaction of the given cosmos and the way the mind engages with it' [5, p. 279]. The mind space giving rise to Integral FS is described as *integral-aperspectivism*, an extension beyond the *rational-perspectival mind* [40].⁸ The characteristics of this integral-aperspectival worldview, referred to more generally within Integral Theory as vision-logic [10], are essentially those of Heron and Reason's participative worldview in which the context-dependence of all perspectives prevents us from ever giving an *ultimate* account of the ground of our being, without sliding into solipsism and hence denying that ground in its own right. That is, integral-aperspectivism is similarly subjective-objective, as recognised in the differentiation and integration of interior and exterior dimensions of any occasion in Integral Theory's [10] four-quadrant model.

Wadsworth's [30] differentiation, presented earlier, between conventional research and AR on the basis of 'degree rather than kind' seems consistent with a view that PAR arose as communities of researchers developed awareness equivalent to Gebser's integral-aperspectivism or Integral Theory's vision-logic. That is, to use Heron and Reason's characterisation, PAR arose with the participative mind. It seems reasonable to suggest that prior to this "mind space" arising, authentic PAR is not possible – and so a condition of its development was the emergence on a sufficiently broad scale of the mind space necessary for its existence. Similarly with integral FS: one possible way of viewing this is as the evolutionary drift of FS in general, as communities of practitioners and their broader cultural milieus reach beyond rational-perspectivism to enact integral-aperspectivism in concert with changing social and ecological circumstances. On this basis, PAR and integral FS might respectively be seen as broad developmental phases within "research in general" and "futures studies in general". Further to this, as Bell [21] has shown, futures studies can be seen as a sub-category of "research in general". From this we might conclude that PAR and FS can co-inform each other at the level of integral perception and action. Rather than seeing PAR-based futures practice as a possible strand within integral FS, this view positions PAR as a

pathway by which the integral FS phase might unfold into a fuller maturity, on the way to improving futures practice.

5.2 What is experience? What is theory?

As we have seen, experience is regarded as centrally important in AR. More specifically, it is experience developed in acting to bring about changes that improve human situations with which AR is principally concerned. In FS, legitimate experience tends to be of a somewhat different nature: visions, scenarios, forecasts and other ways of structuring our thinking about the future tend to be treated as precursor guides to strategic or transformative action. Considered superficially then, the relationship between experience and theory might be seen as a point of *departure* between AR and FS. However, by introducing an understanding of the experience-theory relationship appropriate to the mind space of *integral* FS, the problem dissolves. Instead, the relationship between theory and experience becomes a key feature of the nexus between PAR and integral FS, and will form an essential link with the *embodied* perspective of foresight expertise.

In AR, experience is born of action; theory is born of experience. The arc from experience to theory has its life within practitioners' interior mind space. Eikeland [41], writing in the *Handbook of Action Research*, examines the conceptual origin of experience and theory in Western thought. He traces this to Aristotle and finds a significant difference between ancient and modern conceptions.⁹ The modern conception tends to be 'of the research-relevant experience as some kind of "sense-experience" or perception, by which one is confronted by particular things or events' [41, p. 150]. Aristotle's experience, though, is not 'confrontation through the senses with particulars' but is rather '*a result* of dealing with particulars' and is of a '*general* nature' [41, p. 150]. For Aristotle, experience has the same *general* character as skills, habits and dispositions that can be activated spontaneously in new situations. Eikeland describes this view of experience as *sub-theoretical*, sharing with theory this *general* character that makes it portable from situation to situation. In this view, experience and theory are not differentiated by having sensory and conceptual—or thought-based—sources respectively. Instead, according to Eikeland [41, p. 150], 'While experience is "submerged and subconscious theory", theory is "experience emerged and made conscious". Experience and theory are merged in principle'.

To reject the claim that research-relevant experience must be of a sensory nature is not to reject the role of data in the creation of valid knowledge. This entails instead an expanded view of what constitutes data. Such a view plays a key role in Integral Theory:

there are legitimate data—*direct apprehensions*—to be found in the realms of flesh, mind, and spirit; that is, real data in these *real* object domains, object domains that we can call *sensibilia*, *intelligibilia*, and *transcendelia*. It is the existence of these real object domains (sensory, mental, and spiritual) and their real data that *grounds* the knowledge quest... what especially defines a datum, in any realm, is not its simplicity or atomism, but its immediate givenness, its direct apprehension. A datum is not necessarily the smallest bit of experience in any realm, but the immediate display of experience disclosed when one is introduced to that realm. [33, pp. 35-36]

What does this mean for the AR-FS nexus? In light of the two views of experience, ancient and modern, consider the common characterisation of FS as *a science for inquiring into a future domain that is not yet in existence* [21], and about which there are no "sensory data" of the kind typically regarded in the natural sciences as the basis for establishing legitimate

knowledge [33]. If we restrict our definition of experience to the modern Western conception of sensory perception, or contact, with concrete things and events external to us, then the linking of FS and AR is on shaky ground. This view would limit *valid* experience to past exterior events. To remain authentic to its stated foundations, AR might have to reject much of the knowledge upon which the futures field bases its actions.

Within the integral-aperspectival worldview though, the ontological status of “the future” takes on quite a different character to the view described above. Rather than treating “the future” as a domain *not yet in existence*, within this worldview it becomes apparent that “the future” exists, *now*, in the present, as a conceptual “working space”, albeit one enacted inter-subjectively and hence with an *attendant* exterior experiential basis as participants in futures processes interact together. That is, futures have *interior* reality, psychologically and culturally, right now within our own fields of awareness. This is the realm of intelligibilia where:

the mental datum is simply the immediate gestaltlike mental experience, whatever its “size” or complexity or duration. Even if you are thinking of some past event or anticipating tomorrow’s actions, the thought *itself* is a *present* event immediately perceived and experienced—that is, it is a *datum*. [33, p. 36]

Moreover, *futures* in this worldview never have an *exterior* reality; they are not as-yet unrealised exterior states that might *eventually* be realised, or latent states of reality temporally displaced from the present—exterior reality is always and only “ever present” as the ongoing flow of changing forms, right *now*. By affording “the future” such a status, and taking Aristotle’s and Wilber’s conceptions as our basis for what constitutes valid experience, we find that the experiential bases for AR and *integral* FS are entirely commensurate. With experience understood to be of the Aristotelian kind, the path is open to deriving experience from both interior and exterior “things and events”, without necessary mediation by the “outwardly-oriented” sense organs. Visioning, abstract modelling, conceptualisation all become valid sources of experience. A future possibility does not need to have become concretely manifest in order to inform the AR process within the practitioner. Legitimate actions include practices that engage with both exterior *and* interior domains of existence.

In applying AR practices to futures work on this basis, a question arises as to how we might then satisfy Checkland’s recoverability criterion to ensure adequate rigor and quality. Voros’s [42] generalised layered methodology (GLM) framework for understanding depth perspectives in futures work offers one possible option for how this might be approached. The GLM framework can provide a tool set to assist in the disciplined disclosure of futures-oriented mental data from the realm of intelligibilia. As depicted in Figure 2, the GLM framework consists of four basic strata—*constructs*, *contents*, *capacities* and *conditions of consciousness*—running from the most superficial level to greatest depth. These are arranged into two groups, *artefacts* and *processes*. Artefacts are of either exterior or interior origin. Exterior artefacts (constructs) are those aspects of our perceived reality that are seen to lie outside of consciousness; interior artefacts (contents) are the filters through which the perceiving occurs.

These interior contents—including ‘different mental models, frameworks of understanding or other sense-making contents of thinking’ [42, p. 33] can be examined and then manipulated, or acted upon, by *us* and as such can be the source of new experience. In this way, the experience that we develop in the present *about* the future is similar in nature to the

experience upon which mathematics and philosophy are based. In relation to the origin of the objects with which it is associated, this experience is entirely legitimate, though of a different nature to experience relating to the exterior world on its own. And as Voros points out, experience relating to objects with an exterior origin is itself plastic, depending on the contents of consciousness with which we engage those objects—even if *intentionally exercising* that potential plasticity is quite demanding. [42]

1. constructs	exterior	artefacts	patterns, trends, pop/litany
			system drivers, social causes
2. contents	interior		mental models, worldviews, discourses
			myths, metaphors, images, 'deep stories'
3. capacities	exterior	processes	multiple intelligences, structures in and 'modes' of consciousness
4. conditions			conditions of existence, social change
			macrohistorical factors and forces

Figure 2. The four main strata of the GLM [42, p. 33, fig. 1].

So in this view we see that the *experience* of AR and FS inquiry is of the same underlying nature; the point of departure lies only in the origin of the predominant *objects* of that experience. This provides a firm foundation for AR and FS to be seen as proceeding with a congruent *process* basis, even where their *artefactual* bases may sometimes differ. The continuity and mutual interpenetration of exterior and interior domains—subject-object, mind space-environment—is central to the concept of embodied foresight expertise, to which we will now turn our attention.

6. Embodied Foresight Practice: A New View of Expertise

Significant emphasis is placed on the practitioner's own development as central to the practice of integral FS [1, 2]. In relation to this, Slaughter [1, p. 164] writes 'Clearly this is demanding work that challenges the self-understanding, and the capacity, of everyone involved'. He adds that 'To be successful Integral futures practitioners will seek to understand the nature, structure and limitations of their own perspective' [1, p. 165]. With emergence of the integral-aperspectival mind, realisation arises that the futures envisaged and enacted "out there" are intimately interrelated with the mind space from which the envisaging and enacting flows. For the integral FS practitioner, development of expertise takes on new significance, and can no longer be seen simply as the acquisition of new tools or methodologies. Realisation in the present of what we envisaged in the past as improved or preferred futures becomes inseparable from the self-transformation of practitioners working towards such improved situations.

From an integral perspective, expertise in FS practice extends beyond cognitive competence. Describing the practice of foresight in terms of perception *and* action, Hayward [43, p. 16] writes that the 'act of consciously looking forward permits a broader perception to be gained and from this broadened perception can come a range of possible foresight actions'. This

range of actions culminates in what he calls sagacious wisdom—acting ‘with discrimination, profundity, compassionate understanding and anticipation’ [43, p. 16]. Foresight practice worthy of recognition as sagacious wisdom requires that actions both produce good outcomes and be entered into with compassion on the part of the practitioner. More *expert* foresight practice, consistent with Wendell Bell’s description of futures studies’ purpose presented in section 2, has a strongly ethical basis.

But in stating this, what might it mean to *be expert* or to *have expertise*? Stemming from the inability of computer-based “expert systems” to deliver on early promises, the conventional understanding of expertise as the capacity for superior reasoning and judgement, based on experiential accumulations of abstract rules, has long since been seen as unsatisfactory [44]. It is now more widely recognised that ‘no number of rules and facts can capture the knowledge of an expert who has stored his experience of thousands of actual situations’ [44, p. 22]. The emerging view of expertise ‘relinquishes the assumption that experts must be making logical inferences and acknowledges the importance of intuition’ [44, p. 22]. Abstract rules are still critical on the way to *development* of expertise, and are particularly valuable for sharing know-how between experts and beginners. Genuine expertise, though, is of a fundamentally different nature and can never be fully captured by abstraction.

Varela relates this view of expertise to an understanding of cognition and perception that he describes as the *enactive approach*. In the enactive approach ‘perception does not consist in the recovery of a pre-given world, but rather in the perceptual guidance of action in a world that is inseparable from our sensorimotor capacities, and... “higher” cognitive structures also emerge from recurrent patterns of perceptually guided action’ [45, p. 17]. In this view, ‘cognition consists not of representations but of *embodied action*’ [45, p. 17]. The way that we know our world, and project imaginatively into the future is structured by and dependent on our physical presence as embodied beings acting in our environments. Conceptual understanding, rational thought, judgement cannot be separated from the experiential structures that arise as we act in the day-to-day process of interactive living—the detailed contexts of our experience shape our perception and hence our capacity for action. The detailed substance of experience cannot be dismissed as background noise to be filtered out in order to arrive at some more fundamental understanding of how we do what we do. Varela and colleagues metaphorically characterise this view of the way that we bring forth the worlds in which we find ourselves as *laying down a path in walking* [46, 47].

Embodied action is thus the basis of skilfulness or expertise. For Varela, *ethical* behaviour, responding to the needs of others, is included in the repertoire of skilful action. Drawing on the Eastern Confucian, Buddhist and Taoist traditions, Varela [45, p. 33] shows that the path to ethical action ‘points to a journey of *experience* and *learning*, not to a mere intellectual puzzle that one solves. It points to the process of acquiring a disposition, where nondual action precedes the radical distinction between subject and object’. In this perspective, *better* practice is founded on *immediacy* of perception and action:

a wise (or virtuous) person is *one who knows what is good and spontaneously does it*... This approach stands in stark contrast to the usual way of investigating ethical behavior, which begins by analyzing the intentional content of an act and ends by evaluating the rationality of particular moral judgements. [45, p. 4]

The enactive approach to cognition provides a way of understanding the relationship between the interior domain, where the work of analysis, interpretation and prospection [48] takes place, and the exterior domain of FS-guided action, that is consistent with the participative

and integral-aperspectival worldview. In fact, the enactive view is itself referenced in the *enactment principle* of Integral Methodological Pluralism, the most recent articulation of how valid knowledge arises from the perspective of Integral Theory [22]. IMP's enactment principle states that 'phenomena disclosed by various types of inquiry depend in large part on a host of factors that influence the researcher who is disclosing the phenomena' [22, p. 42]. The enactive approach suggests and is the inspiration for a model of integral FS expertise as *embodied foresight*. This is foresight practice that manifests as a cultural consequence of our bodily being-in-the-world, but demands a certain *quality* of being-in-the-world for its authentic enactment. That is to say, not all ways of being in the world are commensurate with the wise and compassionate conduct advocated for here. The manner of walking and the path emerging with it are, to draw metaphorically on a closely related biological perspective, 'two interwoven aspects of a single process of enactive evolution' [46, p. 215]. In this sense, embodied foresight is a *manner of walking* suited to bringing forth worlds commensurate with Bell's articulation of the futures field's purpose. Embodied foresight establishes a quality of expertise in which FS work is conducted in the same way that we would reach out to save a child from falling into a well: it is simply a *spontaneously good* way of acting [45]. In this view of foresight practice, the authentically expert practitioner is one whose action is the natural expression of *love*, reflecting no *ultimate* separation between self and other. In the most straightforward terms then, to enact the quality of futures practice characterised as embodied foresight is simply a matter of *seeking to love one another to the greatest extent we are able*.

For those of us interested in such a path, how might we nurture spontaneous, compassionately responsive embodied foresight? It is quite apparent that this requires commitment to a process of disciplined practice. Varela [45] discusses the Eastern teaching traditions as pathways to such ways of being, and in particular the realistic—and demanding—prospect of cultivating Mahayana Buddhism's human ideal of the *bodhisattva* as one who non-self-consciously and hence freely embodies insight into the underlying nature of reality and concern for all beings. This has particular relevance in light of the importance placed by AR on first-person inquiry. It is noteworthy that such a first-person focus, influenced also by Eastern perspectives, has great prominence in integral *practice* [10, 15]. As Ramos highlights, AR emphasises the importance of *direct experience in local contexts* for grounding inquiry [3]. Integral FS on the other hand, based as it is on Integral *Theory* as distinct from integral *practice*—and perhaps due to the prominence and popularity of the theory's conceptual models—may be more prone to intellectual adoption that de-emphasises or neglects the need for such grounding [3]. With its "built-in" emphasis, AR may well afford practitioners less scope for avoiding—or straying away from—the demands of disciplined first-person practice. Such a benefit alone might be regarded as worthwhile grounds for encouraging a convergence between PAR and integral FS.

In a different approach, Scharmer [38] has introduced Theory U, a process of learning through sensing (observing carefully), presencing (retreating and reflecting) and realising (acting swiftly with natural flow) that is in some important respects a contemporary Western analogue of traditional Eastern practices, and that also has strong links to the AR tradition. Disciplines such as those mentioned would all play valuable roles in the development of integral FS practitioners. But disciplined practice on the way to embodied foresight need not be separated from the work that FS practitioners engage in every day. The emphasis is on cultivating ways of being that flow through all aspects of life, so that the action of work is not different from the action of other dimensions of our existence. To meet this aim, a framework for day-to-day practice is needed that encompasses both the principles of integral FS and the enactive view of knowledge, culture and cognition.

The contention advanced here is that action research, especially in its explicitly participatory form as articulated by Reason and Bradbury, provides a framework that, in the foregoing respects, offers much promise. PAR seeks to know through directly embodied *experience grounded in local contexts*, with this *knowing* applied to immediate and practical effect in improving the situations of those involved [3]. Authentic PAR practice explicitly links action in the world with the way that the world is perceived. Through this approach PAR practitioners seek to develop the first-, second- and third-person aspects of the world so perceived. This in turn can support the enaction of improved situations in self, culture and nature that are satisfying for practitioners; that lead to mutual understanding between participants and stakeholders in the work conducted; and that sustain the systems that support us all. PAR can offer us approaches to integral FS practice that encourage us to make our own assumptions and biases more self-transparent, increasing the likelihood that we come to better know our selves. Through pursuing PAR authentically, we can recognise others and seek futures that will meet their needs as well as our own: we can see that these needs are not separate, that good quality futures work seeks just and caring outcomes. And better ways of understanding our world's natural and anthropogenic ecology can be created: long-term impacts associated with the way that we live can be anticipated and communicated, allowing us to create new ways of living in the world. Moreover, we might allow others beyond our immediate contact to develop their own ways of living better lives. It is towards such a vision that integral FS also strives. In making its fullest contribution to realising such a vision, the integral approach to FS *should* be oriented towards cultivating futures practice characterised by the kind of spontaneous knowing-how-to-act that is embodied foresight. Or to put it another way: the practice of integral FS, if it is to fulfil the hopes held for it, *should* support the move towards embodied foresight. PAR, *particularly* with its emphasis on moving from inquiry as intellectual enterprise to contextually-grounded inquiry for improving the situations of those involved, provides a practical, accessible and futures-ready means by which we might ensure that integral FS realises this potential as fully as possible.

There may at first glance appear to be some incongruity between the enactive approach to cognition as embodied action and AR as a conceptual framework for guiding intentional practice. With the enactive approach, skilful practice entails cultivating ways of being in which right acting in the situation at hand is spontaneous. In this sense, enactive being is *non-* (or perhaps *sub-*) intentional. This apparent discrepancy is resolved, though, in appreciating that the aim of the enactive approach, as employed here in the development of embodied foresight, is to move towards *improved acting*. At one level, the enactive approach is a cognitive scientific theory of how we, as living beings, know and act. But it is also a paradigmatic development beyond conventional views of cognition as the recovery and representation of a world independent of *us* [47]. As such it opens new options for transformative practice towards ways of being that appear incommensurable within those conventional views. It is this transformative potential that allows us to reconcile PAR—in which thinking and action are, for the purpose of conceptual modelling, differentiated as parts of a whole—with the enactive approach in which thinking-and-acting are not ultimately distinct from one another. This reconciliation is achieved by recognising that: a) the purpose of PAR is improved acting in local contexts; b) for the enactive approach, improved acting entails responding to our local situations in ways that are spontaneously both practically effective and just; and c) improvement is cultivated by structured training through which we learn to embody such spontaneity outside of those structures.

So far, we have looked at PAR, we have looked at integral FS, and we have considered the grounds for and merits of bringing them together in support of embodied foresight. It remains

though to consider what such an alliance might look like in practice. The proposal that I offer here for consideration is that futures practitioners interested in advancing the integral phase of our field's ongoing development might fruitfully do so by cultivating embodied foresight through the practice of integral FS *as* participatory action research.

7. Conclusion

With the arrival of integral foresight and futures studies, not only are the concepts, methodologies and tools of the FS field subject to renewal: as practitioners we are ourselves called to undergo our own processes of re-creation. The integral stage of FS demands reconceptualisation of what it means to be an “expert practitioner”. The integral practitioner works in a new world, where the traditional divide between subject and object is no longer adequate for understanding future possibilities and the ways these might be assisted to emerge in the present. The *enactive* view of higher human capacities—including the ability to explore and respond to the forward view—leads to a way of understanding expertise that is consistent with such a world. Better practice in this world is encapsulated by the concept of *embodied foresight*, where future-oriented action and knowing are intimately connected in spontaneous, compassionate responsiveness to the immediate circumstances arising in the present. The shifts that this entails are not simply a matter of conceptual change, or adopting new theories and principles. These changes are principally about our own *ways of being* as practitioners. The path to embodied foresight is one of disciplined commitment to a way of work-life that trains us to simply know how best to act.

Action research, long part of the futures and foresight landscape, takes on particular significance in seeking to enact embodied foresight. Through authentic application of AR to futures and foresight work, means and ends are no longer separate: high quality FS work is that which is conducted with values of personal integrity, mutual understanding and systems sustainability. The emergence of integral FS provides a suitable context for harnessing participatory action research's full power in exploring and enacting futures of such quality. PAR, with its practical focus on the development of self, culture and nature, offers a strongly congruent pathway by which integral practice might come to be authentically enacted by practitioners as embodied foresight.

Throughout this article, we have considered PAR and integral FS in terms of the worldview with which they are associated. With the proposed shift from *using AR and integral FS to do futures work* to *cultivating embodied foresight through the practice of integral FS as participatory action research*, the “worldview” notion may be reaching the limits of its capacity to characterise what this is “all about”. We seem to be moving beyond *enacting a worldview*, towards *embodying a way of being and knowing*. Varela's *path laid down in walking* may offer a more congruent metaphor. Perhaps what is seeking to emerge here might be characterised simply as a *way*—through *love*—in which *integrality* is embodied as a quality of care and concern for one another as professional colleagues; for our shared field of practice; and for the fellow beings who stand to benefit with us from our work.

Acknowledgements

I wish to acknowledge the very valuable contributions made by Peter Hayward throughout the early development of this article. Peter provided extensive critical feedback, and as such any merit that the ideas discussed here might be deemed to have is a reflection of his thoughtful input. Peter, though, does not hold any responsibility for the article's shortcomings.

An anonymous reviewer made extensive critical comments and sought clarification on many aspects of an earlier version of this article. Addressing these comments and clarifying where appropriate has sharpened significantly my own understanding of the connections between AR, integral FS and the enactment of embodied foresight. This evolved understanding is reflected in the various ways that these connections are presented. I wish to express my gratitude to the reviewer for contributing to these important developments.

Endnotes

¹ Reason & Bradbury use the terms “participative” and “participatory” more-or-less interchangeably.

² In characterising this distinction as *paradigmatic*, it should be noted that I use the term here in Kuhn’s [8, p. 175] sociological sense of standing for ‘the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community’.

³ In the introduction I have referred to Integral Futures using the capitalisation convention adopted by Slaughter [2] in the introduction to a special issue of the journal *Futures* (40:2) titled ‘Integral Futures Methodologies’. For the remainder of the article, I will mainly refer instead to “integral foresight and futures studies” or “integral FS”, although context will determine the appropriate convention in any instance. My intent in doing so is to recognise a) the “integrality” in Integral Futures as potentially broader in scope than the contemporary articulation of Integral Theory by Wilber [9, 10, 11, 12, 13, 14, 15], without seeking to downplay the importance of this foundation for Integral Futures as originally articulated by Slaughter [1]; and b) to recognise that integral FS is best understood as primarily emerging with a way of sense-making and being that can be characterised as “integral” [16, 17], and that as such is differentiated from *particular* models of integrality in FS. In taking this approach, I also seek to acknowledge as legitimate—though this should not be taken to imply my *necessary* agreement with—the perspectives expressed in a special issue of the journal *Futures* (42:2) titled ‘Epistemological pluralism in futures studies’ edited by Inayatullah [18], responding to the earlier special issue of *Futures* (40:2) on Integral Futures Methodologies edited by Slaughter [2]. In the Integral Futures Methodologies special issue, Slaughter [17, p. 131] cautions that ‘the success of any method brings with it a temptation to reify and over-claim, so regular reassessments are needed’. It strikes me that those of us seeking to further the integral FS vision would be wise to apply this to integral FS itself. Gidley [19] recognises the importance of this in the Epistemological Pluralism special issue, and the view has been reiterated recently by Morgan [20].

⁴ In the sense intended here, self-awareness becomes reflexive when the awareness “feeds back upon” the self who is aware, to affect the self’s situation. This is “more than” *reflective* self-awareness, as the act of reflection is directed towards transforming the reflecting self and the self’s circumstances. Reflexivity therefore implies a self-referential process, in which inquiry informs changes in that which is inquired into, in a circular manner.

⁵ Using the term once again in Kuhn’s [8] sociological sense.

⁶ In considering the case for a convergence of worldview between these pathways, I will not attempt to maintain sharp categorical distinctions between each characteristic, or to necessarily give comprehensive and balanced coverage to them all. The point here is rather to consider each pathway at the level of paradigm, while recognising that in characterising paradigms, each of these characteristics makes an important contribution to the overall view. Context should indicate which characteristic is under consideration at any point.

⁷ The non-exclusion principle is the first in a set of three that together comprise Integral Methodological Pluralism (IMP), Wilber’s most recent articulation of how valid knowledge arises from the perspective of Integral Theory [22]. IMP’s second and third principles are, respectively, ‘*enfolding* (some practices are more inclusive, holistic, and comprehensive than others)’ [22, p. 42] and *enactment*. The enactment principle especially has important implications for the relationship between integral FS and the enactive approach to cognition, and will be discussed in detail further on.

⁸ In relation to this terminology, Gebser [40, p. 2] writes: ‘“Aperspectival” is not to be thought of as merely the opposite or negation of “perspectival”; the antithesis of “perspectival” is “unperspectival.” The distinction in meaning between the three terms unperspectival, perspectival, and aperspectival is analogous to that of the terms illogical, logical, and alogical...’ He explains that ‘Our concern is with integrality and ultimately with the whole; the word “aperspectival” conveys our attempt to deal with wholeness. It is a definition which differentiates a perception of reality that is neither perspectively restricted to only one sector nor merely unperspectively evocative of a vague sense of reality’ [40, p. 3].

⁹ In going so far as to draw on Aristotle, Eikeland [41, p. 146] remarks: ‘Among the reasons why Aristotle is still considered a distinguished, but also difficult, thinker, are his many subtle, but important distinctions. Since many of these are important for the practice and legitimacy of action research, I beg patience of the reader with the distinctions introduced along the way.’

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