



MIND & LIFE

## Mind & Life Podcast Transcript Al Kaszniak - The Universe of Verbs

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**Opening Quote – Al Kaszniak (00:00):** *I certainly don't see mind as something that unfolds within the confines of the skull. That's of course an important part of the processes we call mind. But I increasingly sense mind, first of all, as a process, it's not an entity. And importantly, that process necessarily involves what's unfolding in interaction between my experiential center of self and everyone and everything else.*

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**Intro – Wendy Hasenkamp (00:45):** Welcome to Mind & Life. I'm Wendy Hasenkamp. Today, I'm speaking with psychologist, contemplative researcher and Zen Buddhist teacher Al Kaszniak. Al is an emeritus professor at the university of Arizona where he headed the psychology department, as well as the fantastic Center for Consciousness Studies there. He's also served as interim president of the Mind & Life Institute, which is how I first met him about 10 years ago. Al's been involved in contemplative science since the earliest days of the field. And he's generated a lot of insights about how meditation impacts our thoughts, emotions and sense of self.

(01:26) We spoke about all that when I caught up with Al this past winter. First, he shares his own story of how he came to this work and his parallel interests in Buddhism and neuropsychology, and how they came to intersect. Then we dive into some of his research on meditation, emotion and attention. And we talk about very early sensory processing, and how our view of self impacts the way we take in and interpret the world around us. Al also shares some of his work on how meditation might change the cognitive effort that's involved in emotion regulation. And that takes us into a wonderful exploration of how his own experience has shifted through practice. This is honestly one of the most detailed and personal descriptions that I think we've had on the show about how meditation can change the sense of self. I thought it was really fascinating. Along the way, we get into ideas about attention and the very beginnings of an emotion, or what's known as affective tone. And we talk about how it's actually impossible to separate attention and emotion. Al shares some of his thoughts about free will versus what he calls free won't, which I love. And we talk about viewing the mind as a process rather than an entity or a thing, and what that means for science. Finally, we touch on the need to increase access to contemplative ideas and practices, and the value of interdisciplinary dialogue and the power of the "in between" spaces.

(03:01) Al is not only a highly distinguished scientist, he's transitioned in his retirement to teaching Buddhism. He's received Dharma transmission from Roshi Joan Halifax of the Upaya Zen Center (she was also a guest on the show recently), and Al now leads a Zen sangha in Tucson, Arizona. He's also a phenomenally warm and funny and wise and kind human being. You can listen to his dharma talks and also check out some of the research we discussed in today's episode in the show notes.

(03:31) I really love this conversation, especially Al's rich first-person reflections on his own experience of meditation. I hope some of this resonates for you. It's my pleasure to share with you Al Kaszniak.

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**Wendy Hasenkamp (03:47):** Well, welcome Al. It is so wonderful to be here with you. Thanks for joining us.

**Al Kaszniak (03:51):** Very good to be here with you.

**Wendy Hasenkamp (03:54):** I would love to hear a little bit about your story and kind of how you got into studying the mind from the different perspectives that you have, actually, which is many different perspectives.

**Al Kaszniak (04:07):** Well, thanks for that invitation. You know, it's a slippery slope when you ask an old man to do that sort of thing. *[laughter]* So I'll try to be appropriately brief. Relevant particularly to the Mind & Life Institute and my interests that coincided with the mission of Mind & Life... When I was in college, I admit rather reluctantly took a World's Religion course, because at the time I thought I was a sophisticated wannabe scientist and was done with that part of my early life. But in retrospect, very, very grateful that I did take that course. And I was introduced to Buddhism, which I knew very little about prior to that time. And that stimulated an interest, particularly in Zen Buddhism, which has continued throughout the rest of my life.

(05:08) And at that time, I, of course, was also doing all of the undergraduate preparatory work toward graduate study in psychology, with a particular emphasis on the biological aspects, neuropsychology in particular. And after I finished my graduate study and then completed my clinical neuropsychology internship, I was fortunate in securing an academic position at large medical school in the Chicago area. And then after a few years of that subsequently at the university of Arizona, where I've been since that time—now since 2015, serving as an emeritus professor. So I really focused in the early years, really about the first 15 years or so of my research career, almost exclusively on age-related disorders of the central nervous system and studying those. I enjoyed generous support from the NIH and a number of other sources. And so that all went quite well.

(06:28) My interest in Buddhism really was confined mostly to reading. I was what they call a "book Buddhist." And in that, I was able to dabble a little bit in sitting meditation. I did not have a teacher during that time, and I really wasn't a sort of daily, regular. Not until the middle 1980s when, with my career well launched and my family, my two children of school age, I was able to discipline myself and develop a daily practice. And that then evolved over time. Eventually I found a primary teacher in Roshi Joan Halifax at Upaya Zen Center in Santa Fe, and have continued in Zen study and practice. And now, since I received dharma transmission as a lay teacher, about 11 years or so ago, I now teach within a local sangha that's an affiliate of Upaya Zen Center in Santa Fe, which keeps me very busy.

(07:55) The research on contemplative issues—particularly contemplative neuroscience, and we also use psychophysiologic kinds of measures in our research—that didn't really begin until the middle to late 90s when, for various reasons, including that it became more possible to retain your respect as an academic and still be kind of out front about doing that kind of research. So we began with some admittedly stumbling studies, small samples sizes, and I think we presented our first paper using event-related potential methodology (a kind of EEG derived measure), focusing upon attention, in the late 90s.

**Wendy Hasenkamp (08:58):** That's still quite early. I mean, that's really, some of the first studies were published then. Yeah.

**Al Kaszniak (09:04):** It was early. There were others who were predecessors, and I was happy to follow in their footsteps. They really helped clear a lot of the underbrush, scientifically, to get this area started. So we became very interested in how meditation affects emotion and emotion regulation. And that then became the primary contemplative focus in the laboratory. Throughout this time, I was continuing in my work on aging and Alzheimer's disease and Parkinson's disease—that remained what I often call my bread and butter research because that's where my primary funding streams were coming from. Although increasingly, I received a small amounts of funding for the contemplative research also. We finally felt confident in that emotion-focused work (and the technical things such as adequate comparison groups and sufficient sample sizes for statistical purposes), and published our first paper in 2006, from that work with my then graduate student and now colleague at the National Institute on Aging, Lis Nielsen. We talked about that work at the Mind & Life Summer Research Institute meetings where... That very first summer research Institute that I spoke at was in 2005.

**Wendy Hasenkamp (10:49):** Okay. Yeah, that was only the second one, I think.

**Al Kaszniak (10:53):** It was the second one. And it was just a terribly exciting meeting for me, the first time entirely devoted to this area of research within a context that allowed for a contemplative atmosphere with meditation practice sessions, et cetera. And that then became staple, I attended those for several years after that.

**Wendy Hasenkamp (11:21):** I'm curious—did you get looped into Mind & Life through Roshi Joan Halifax, or how did you find the community?

**Al Kaszniak (11:27):** Ah, that's a great question. So I actually met Roshi Joan Halifax through Mind & Life. It happened in the other direction. I had heard about the Mind & Life meetings with His Holiness the Dalai Lama in Dharamshala. And of course that was the primary activity of Mind & Life for some years. But in 1994, here in Tucson at the University of Arizona, we organized the first meeting that we called Toward a Science of Consciousness. We did those meetings every other year. And then by 1997, we were very fortunate to secure substantial funding from the Fetzer Institute to launch a Center for Consciousness Studies here.

**(12:21)** And it was through that I first met Adam Engel, one of the co-founders (as of course you know) of Mind & Life, and the chief executive officer at that time. He was very interested, after we started establishing the Center for Consciousness Studies, in ways that Mind & Life might be able to look toward what we were doing as potential models for how Mind & Life might be able to fund itself. Because that was a big question at the time. How do you sustain something like this? So we had a number of conversations and then once the Summer Research Institute was started, it provided a way for me to have a connection to Mind & Life... eventually then co-chairing the Summer Research Institute planning committee in the 2007-2008 academic year.

**Wendy Hasenkamp (13:32):** Great. And so you said a lot of your work in the contemplative space had focused on emotion regulation. Do you have take homes from your body of work that you learned, or that has been learned from the field, about the capacity of practice to help with our emotions?

**Al Kaszniak (13:52):** Yeah, yeah. I would say, tentative ways of addressing that question. We started off with a hypothesis concerning enhanced sensitivity to information from the body, to what we often call interoceptive information. And in the course of doing that research, I think both Lis Nielsen and I, and then others I worked with among graduate students subsequently, came to sense that, that at least was not the whole story. And that there were aspects of emotion regulation, which clearly were enhanced by longer term meditation practice. Or at least maybe I should say that more accurately—it was strongly correlated with amount of meditation practice. Because these studies utilized extant samples of meditation practitioners. These were not the sort of double blind randomized controlled studies. So we utilized available samples of longer term practitioners in both Zen and the personal style of meditation practice.

**(15:18)** And in those studies, in order to minimize some of the other potential method problems... So, if you know this is a study of emotion—and you would know that by virtue of we show emotionally arousing images to people—and you're a meditation practitioner, you might be influenced to present yourself or engage in your responses to those images, in ways that might or might not reflect the actual state of affairs. There would be expectation bias possibilities. So we thought we might minimize those by using something that's called a masking procedure. And what that involves is very brief exposure to these visual emotionally arousing images preceded by, and then followed by what's called a mask, a visual mask. And that's... just think of it as jumbled visual noise, you know, Photoshop a cut-up image, put it together. And once we did actually years of piloting of this, if you get the timing just right, you can have a situation where the person is unable to report having seen, and certainly unable to identify what might have been seen in the image that is quickly exposed to them. And yet at the same time still be able to elicit other, particularly bodily responses, like changes in amount of sweat gland activity measurable from the skin surface, or various other measures of physiology that we used.

**Wendy Hasenkamp (17:15):** Yeah. So it's kind of like an unconscious measure, or you don't realize you're seeing something, but your body's responding...?

**Al Kaszniak (17:21):** Right. So maybe I would phrase it in this way—only because there's a little controversy that still exists about, to what extent is it actually preventing conscious awareness, or perhaps interrupting the flow of processes in consciousness such that it never makes it to something that can be reportable in memory. (It's a technical point, but that's the business that we had been in.)

**(17:51)** So to cut to the chase, where I think that was helpful to us, that procedure, was we saw evidence of emotion regulation in terms of an overall enhancement among the longer term meditation practitioners of the measures of positivity—for example, activity in the facial muscles involved in the smile, as opposed to those more involved in frown or grimace, in the forehead. And the fact that we were seeing that, even in this masked condition, suggested to us that whatever it is that might be correlated with length of time of meditation practice, was happening very, very early in the processing within the mind-brain of these emotionally salient images. So what is it that might happen so early, that would change the way in which, within milliseconds, processing of these images might occur?

**Wendy Hasenkamp (19:07):** And just to clarify—when you're measuring those facial muscles, you can detect very tiny amounts of activity, right? So it's not like the person is actually smiling or frowning or having that response, but it's almost like the tendency or the preparation to do that, kind of?

**Al Kaszniak (19:24):** Well, yeah. Important question. So, yeah, these would not be what would be visible in terms of an observer's rating of a smile or a frown. In fact, the amount of change is so small that that's why we need these physiologic, highly amplified measures of the subtle changes in the muscle activity. Yeah. So

you might think of it as a kind of preparation for response. And we often think about emotion physiology in general as being preparation for response.

(20:06) So, what are the candidates for what might be changing so early on? And certainly it opens the door to questions of how self is regarded, and therefore how we appraise anything that we experience. So if, in practice, I come to experience self as not this independent entity, separate from others, persistent over time—in other words, self comes to feel more like something that changes and is very situational—I might well, again, really very early in the processing, change the way in which something is relevant to me. And in emotion response, we think that what's key is appraising something—and by that I don't mean a sort of explicit, conscious appraisal, but something that makes very quick sense out of what's occurring—that it might well change the ways in which we judge something in that way as being relevant or not. So that's where it led us. I continue to be very interested in the nature of self experience in meditation practice. Although since I retired from my academic position and closed my laboratory, that interest expresses itself in my meditation practice and teaching today.

(21:56) – *musical interlude* –

**Wendy Hasenkamp** (22:14): Well, I'm glad you brought up the self, because that was certainly on my list of things to chat with you about. And it's funny, because it comes up in almost every conversation that I have on the show, but I think that's just evidence of how central those process are to contemplative practice and the insights that come from it. So I'm wondering if you want to expand at all on how you view that now, because you're also so well trained in Buddhism and Buddhist practice, and so you have such rich amount of subjective experience on those shifts in the self. And then I know you said you're not studying this personally, but have you tracked, or were you keeping tabs on, what was happening in the neuroscience world or the cognitive science world with ideas around self, and any intersections there, I guess?

**Al Kaszniak** (23:06): Yeah. Well, I have continued to be interested, and while I don't read the literature with the same, I would say diligence, I continue to stay informed by it, because I think it's important in how I approach my teaching in Zen Buddhism.

(23:27) When we did those studies that I was just mentioning, one of the unexpected things we observed... We had recruited people, we wanted to study longer term meditation practitioners. So we recruited people that had a minimum of five years of practice experience, very regular daily practice experience, and who also had some retreat experience. When we first looked at the data, we noticed that there was pretty wide variability among those people—not only in the amount of time they had been practicing, which ranged from five to more than 20 years, but also in the measures that we were obtaining from that experiment. And so we divided then, that group of people into two subgroups—one that had been practicing for 5–10 years and another that had been practicing 10+ years (approximately equal size groups).

(24:34) And when we then compared them, we saw that there were considerable differences, and I'll try to summarize those. In those people who were practicing from 5–10 years, it looked as though their differences from the non-practicing comparison group (those who were so called meditation-naive) was primarily in what I might call effortful emotion regulation. Where they described... We had a very lengthy self-report protocol, both a questionnaire as well as interview. And it appeared as though they would experience the arousal of some emotion, let's just say anger, and then they would do various things post that initial arousal to regulate the expression, and also the experience of that emotion. In those who were practicing more than 10 years, it looked much more automatic. They didn't report that they were doing anything particular. In fact, their experience was that emotion was simply arising and returning to

equanimity in a much more spontaneous kind of way. And it was really that, that also contributed to our thinking about what might be changing in the nature of self-construal.

(26:13) It corresponds with some of my own personal practice experience (you know, careful not to over generalize to other practitioners). But my own experience was that initially there was much more that I was explicitly reflecting on, in regard to self. I had context from things I read, and from interactions with my teacher, which developed certain kinds of expectations. But there came to be a kind of embodied sense that how I was experiencing this self, the self that's inside this particular encasement of skin, was very different than it had been prior to my practice life. But that change happened slowly and sometimes even imperceptively over a number of years of practice.

**Wendy Hasenkamp (27:24):** Hmm, how so?

**Al Kaszniak (27:26):** You know, putting words to it, which of course I'm borrowing from the tradition in which I practice, so it's very hard to disentangle what's I would call primary experience from that which is colored by that study, that I don't have a sense of a kind of persistence of a self. And I don't have a sense of a kind of independence of that self. It not only seems to me in terms of my concepts, that I am always changing and deeply entangled with everything and everyone else with which I'm interacting, but it also *feels* deeply like that. So not the kind of experience of, whether responding with anxiety, or threat anticipation, or some other things that were just part of my common experience before my practice life... [These] feel quite different now.

**Wendy Hasenkamp (28:47):** That's so interesting. And I imagine it is hard to put words to how that feels different. So do you feel like those experiences of emotion—of anger or threat or fear or something like that—don't arise so much? Or they just kind of pass through? Or how does that show up in a self that's more interdependent?

**Al Kaszniak (29:10):** Yeah. Thank you. So I wouldn't say that it doesn't arise, because I can notice... Sometimes it's a sort of inkling of what I would think of as just prior to the arising of a full emotional experience. And sometimes it's a subtle, and usually rather vague bodily experience. In other words, it's not as though I could say, ah, I noticed my heart rate changing, or I noticed, a change in the feeling of my abdomen. And by the way, as a sidebar, I think this telegraphs a particular problem that we have and will have in the study of emotion and emotion regulation in contemplative practice. And that is that it may be quite subtle and diffuse, the phenomenology, the experiential part of it. And so, for a while we thought, "Oh, maybe we can use measures like awareness of heart rate as a way to index interoceptivity, the sensitivity to bodily signals." That didn't pan out very well for us. And also not for some other labs as well. So that became important for how we then thought about, how do you proceed on with research on this.

(30:48) But back to my own personal experience, I notice in some of these more diffuse kinds of bodily experiences, what I would think of as a kind of early warning signal. And what happens then is that becomes part of the experiential context, which includes, maybe it's a person that I'm interacting with that's before me. And that then sets off other things. So for example, perhaps I pay more immediate attention to, "Ah, what's going on here?" I often experience that, not as an explicit sort of verbal cognition, but as a kind of attitude of, "What is this? What is this?" And that I see as a kind of shift in attention—a shift in not only the intensity of attention to the situation, but a broadening of the scope of attention, such that I'm noticing perhaps more in the context.

(31:59) And then it seems as though that, in many ways in and of itself, is a part of the regulatory process. Because I'm no longer attending to some of what often triggers an emotional response, which is a narrative. Let's say I'm in a dispute with someone else, or a potential dispute. And we all experience how easy it is to fall into those narratives of, "How dare he or she say that?" So by broadening that context, it's automatically changing the nature of how I'm appraising the situation. And it's a change that includes a different way of experiencing that relationship. That it's no longer this person that's doing something that affects this me inside here, but it's a flowing process of moment by moment interaction. And in that kind of noticing, I'm aware that there's not a me so much here that has a stake in this. It can become simply something of interest that implicit, "Hmm, what is this?" So I hope that makes a little bit of sense in my personal experience of that process.

**Wendy Hasenkamp (33:41):** It does. Yeah. Thank you for sharing that. That was really clear. A couple of things that come up for me when you're describing that. One is, when you talk about having this more vague sense of your internal bodily states, even before what you might call an emotion full-blown would arise. It's making me think of the work of Lisa Feldman Barrett. I don't know how familiar you are with her work, but...

**Al Kaszniak (34:06):** Yes. I much admire her work.

**Wendy Hasenkamp (34:08):** Yeah. She often talks about affect... Well, many people in the emotion world have this distinction between a very core, basic effect, which would be a more simple bodily response, arousal and valence, perhaps. So positive and negative [valence], and then higher or lower arousal. So that then feeds into a larger conceptual process that we would label as an emotion, right? Like, oh, this means anger, or something that we've almost been taught through your society and family and everything else to categorize as actually an emotion. So do you feel like your experience aligns with that, and you're kind of shifting more toward tapping into that basic effect side of things?

**Al Kaszniak (34:55):** Yeah. Wonderful. The short answer is yes. And it's one of the reasons I found Lisa Feldman Barrett's work so resonant. Is that, upon reading some of the earlier studies and then her book where she really unfolds all of this so nicely, it really rang true with my own contemplative practice experience, that there are these differentiable aspects. And when I talked about a moment ago, how shifting what I was attending to in the context, say, of this interaction with another person, context is, it seems, so important in determining what we label as, and conceptualize as, a discrete emotion. And I think, often that kind of conceptualization drives other subsequent things in our actions, in our speech, in our behavior, that can be skillful or not so skillful, depending upon the particular emotion and the context.

**Wendy Hasenkamp (36:17):** Yeah. So that's really cool. Because it lines up with other, I guess, experiences or evidence that I tend to think about, about meditation helping to shift out of the conceptual mind, maybe more into the embodied experience.

**Al Kaszniak (36:32):** There's a teacher in Zen tradition of the last century, a Japanese teacher, who often spoke of "opening the hand of thought." And I thought it was a very apt phrase because that, after all, is a part of the experience of our practice on the cushion or chair—that something arises in our awareness, there's a conceptual activation. And there's a noticing of it, and then a kind of gentle, nonjudgmental letting go of. We don't cling onto the processing of it, or develop a narrative about it; or, equally sticky, we don't push it away, reject it.

(37:26) – *musical interlude* –

**Wendy Hasenkamp (37:45):** The other thing that what you were just describing made me think of is, I love how you brought in the way that you use your attention to kind of expand, or you said have a more all encompassing frame about this dynamic or whatever's happening. So just that interweaving between what we think of as emotion and attention... And I think in cognitive science, historically those have been different fields, and different literatures, and viewed as different processes, but they're so integrated. So yeah, just wondering if you have reflections on that.

**Al Kaszniak (38:20):** Yeah. Well, and some of your own research on connectivity measures in the brain in meditative practitioners has influenced my thinking about that. As has, the simple anatomic study of systems in the brain that have historically been identified as important in emotion, as important in attention—enormous overlap, almost to the point of identity. And I think that's congruent with Lisa Feldman Barrett's theoretical perspective that, emotion really is inextricably caught within that context appraisal that necessarily involves attention—what we attend to, how broadly we attend, the process by which we attend, and then shift attending. I think that it's all of a common thread.

**Wendy Hasenkamp (39:30):** Yeah. And then I'm just wondering, as you've experienced over your history with practice, these shifts in your own processing of emotions and experience of self, have you noticed changes in your daily life, or just how you show up in the world? Things that are a little more tractable?

**Al Kaszniak (39:52):** Yeah. My usual answer is, "I don't know, you should ask my wife."

**Wendy Hasenkamp (39:56):** Yes. *[laughter]*

**Al Kaszniak (40:00):** But I will say I certainly experience a sense of ease and contentment in my day to day life that was fairly unfamiliar in my earlier, especially pre dedicated practice life. Now, another sidebar that has to do with the methodology of our approaches to the study of meditation is that, not only have my numbers of years of meditation practice increased over time, but so has my age. *[laughter]* And we also have a body of literature on normative changes correlating with age, that are often kind of in the same direction. And so, we have this dilemma where, what we would optimally like is to be able to randomly assign people to meditation training and then follow them for the rest of their lives. Needless to say, it's not feasible. The study outlives the investigator. And nobody's going to fund the costs that that would involve.

**(41:37)** So, I think what we're faced with is an approach in which we kind of continuously shift back and forth between those sort of randomization, experimental studies, and studies of people who have been meditating for longer periods of time. And they're self-selected, so we don't know whether what we're seeing is something attributable to meditation or something that reflects pre-existing status that also determines how long you stick with a meditation practice. But when we see convergences in the evidence we're observing from those two different kinds of approaches, I think we begin to be a little more confident that it's something we might be able to—again, tentatively, hypothetically—attribute to the practice of meditation. Always staying open to possibilities that we can be fooling ourselves.

**Wendy Hasenkamp (42:45):** I remember that you once mentioned to me—we were having some conversation about meditation and brain function, and you said something about how meditation is largely inhibition. I don't know if you remember the context of what we were talking about then, or if you have any further thoughts on that. It always stuck with me.



**Al Kaszniak (43:07):** Yeah. What I'm often fond of saying is, it's very unlikely that as human beings, we have free will, in any comprehensive sense. So, much as I might like to take off and fly around the room as we're talking, I was born without wings, and so I can't put that intention into action. And I'm constrained by all kinds of much more subtle things in my past experience and the results of my actions. In the tradition, we talk about karma, cause and effect, especially the effects of one's prior actions.

(44:04) I think what we do have, and what we perhaps are expanding upon in meditation practice is free won't. Especially those gaps, as we learn to sit still and quiet, those gaps between what is arising in the mental continuum and what is impelling our actions allows us a kind of freedom in which we either do or do not follow through with the action, whether it's speech or some bodily action, that is consistent with what is arising, both in the flow of various kinds of sensory and conceptual experience, as well as the flow of experience of information from the body. And just maybe, that's the kind of freedom that we're gaining in a life of practice.

**Wendy Hasenkamp (45:11):** Nice. I'm thinking back to these ideas around self, and expanding our concept of self, or having it become more interdependent—wondering your thoughts on the implications of that, societally today for problems of othering that we see, certainly nowadays, so prevalent. And the more I swim around in this work, I see it bigger and bigger picture, like othering of other groups of people, animals, nature, all of these systems that we feel separate from. Any reflections?

**Al Kaszniak (45:54):** Yeah. Well, yeah, you don't have to look too far to find all kinds of things in the media and other places, noticing what appears to be a kind of rise in narcissism, in self preoccupation, and a distorted appraisal of self and the role of that self in the world. Yeah. I think that there's enormous potential—and how one actualizes that potential is a whole other set of questions—but enormous potential of the things that contemplative traditions and practice have brought, for addressing some of what really has become... You know, we live in a culture of toxic polarities. Not just political and religious, but all sorts of ways in which we differentiate and distance and hierarchically approach our relationships with others—others, not only other sentient beings, other humans, other animals, but the rest of the living world as well.

(47:27) So I think that's where often a hope comes, how we can most skillfully make those practices and insights more broadly available. As I said, another set of questions. Not everyone has access to teaching within the traditions from which these practices have arisen. Not everyone would feel themselves compatible with those traditions. And so a lot of wonderful work that's going on today in how one might secularize these practices to make them more accessible, appealing, acceptable.

(48:16) – *musical interlude* –

**Wendy Hasenkamp (48:40):** I guess I'll throw out kind of a big question or... Feel free to opine if you have thoughts on it. Just from your, the unique perspective that you have now—of a career of studying the mind through the perspective of science and neuroscience and psychology, and then also through Buddhism and first-person experience—what's your view these days on the mind? How do you even conceive of it, if it's possible to talk about?

**Al Kaszniak (49:10):** Yeah, that's a wonderful question to speculate about. I certainly don't see mind as something that unfolds within the confines of the skull, or even the skull and what's inside it in interaction with the rest of the body. That's of course a part, and an important part, of the processes we call mind. But I increasingly sense mind as, first of all, as a process, it's not an entity. It sometimes leads me to quip that

the universe is entirely composed of verbs, and no nouns. All is process. And importantly, that process necessarily involves what's unfolding in interaction between what I experience as my conscious point of reference, my experiential center of self, and everything else, everyone and everything else.

(50:36) Now that, I think, for the sciences of mind poses an interesting dilemma. Because within psychology certainly, we have been inclined to study mind intra-personally. We have such disciplines as social psychology that focus on the social and interaction, but we don't have anything approximating, at this point, a really complete science of mind that fully incorporates all of the complex dynamic system interactions, moment by moment by moment, that are occurring. And anything short of that full appreciation is a partial study of mind, and can sometimes be misleading because of that partiality.

**Wendy Hasenkamp (51:40):** Right. But then at the same time, it's almost like, how could you ever get the whole view? Since it includes... arguably everything.

**Al Kaszniak (51:51):** Yeah, right. And maybe one cannot. Or our species cannot. Sometimes I think, "Well, that's the good news." I mean, first of all, it's sort of the mind scientist's full employment act—you don't run out of things to ask about. *[laughter]* But also, less and less do I care about the answers to the questions we raise about mind, as I do about the process by which we're asking those questions. And I'm so impressed with how the evolution of change in questions we ask and in how we ask them, has resulted in radical modifications in the way we've come to think about mind over time.

**Wendy Hasenkamp (52:51):** Can you give an example?

**Al Kaszniak (52:53):** Yeah, I entered into study of psychology during the period in which behaviorism was dominant. And it wasn't until there were some really signal observations about, for example, how you couldn't put together a theory of any complex behavior by simply stringing together... we used to talk about, big S is the external stimulus, little s is a kind of internalized stimulus, big R is the overt response, little r is the internalized sub response. All of that would take too long to unfold. The nature of everything from nerve conduction velocity to the number of synapses, et cetera—it just wasn't possible for that to be an adequate account. And that was part of the cognitive revolution. So that was a major change in how we thought about mind.

(54:02) And I think what we're seeing today is a much greater appreciation... When we talk about, for example, extended mind, it's a way of signaling our appreciation that, the tools we use—our artifacts, everything from a ruler to my cell phone, my smartphone—are extensions of mind. That mind is embodied. Everything that is occurring in brain is influencing and influenced by what else is occurring in the body. That mind is embedded. There's a context. I think that has become, if not the modal way of appreciating mind, certainly an increasingly important way. So that's a very big change. And who knows what ways changes in our methods, in our ways of making phenomenological observations, our observations of experience, and our technologies, will change all of that into the future? I won't be around to see a great deal more of it occurring, but I think it's just awfully darned exciting.

**Wendy Hasenkamp (55:25):** That's great. Do you have any closing thoughts, or take home messages for the audience that you'd like to share from your perspective, and your career?

**Al Kaszniak (55:36):** Well, thank you. One, I guess that's responsive to the context of our conversation right now, is that the Mind & Life Institute, as well as other organizations and institutions that have worked so hard over an increasing amount of time now, to bring together what had been separate traditions, even

magisteria... So, so important. Because I really think that, not only what is most exciting, but what is most likely to result in consequential changes—and by that, I mean, changes that are likely to affect how we live, our cultures, the ways in which we get along with each other—really are at the interstices in between those traditional domains. And the new insights, and ways of conceptualizing and acting upon, come out of those interactions.

**Wendy Hasenkamp** ([56:57](#)): I couldn't agree more. I love the in between spaces.

**Al Kaszniak** ([57:01](#)): Yeah.

**Wendy Hasenkamp** ([57:02](#)): Well, any other... anything to close, or are you feeling complete?

**Al Kaszniak** ([57:09](#)): *[laughter]* Ha! Thank goodness I'm not yet feeling complete. So if it's okay with you, I'll continue breathing and that kind of thing, for a little bit to go.

**Wendy Hasenkamp** ([57:19](#)): Right! *[laughter]*

**Al Kaszniak** ([57:21](#)): No, not for now, not for now. But just want to express my gratitude for the opportunity—not only to have the conversation, but to be able to virtually see and interact with you, a friend and colleague for some time now.

**Wendy Hasenkamp** ([57:41](#)): Well, thank you so much, Al. This has been wonderful. And a personal deep bow of gratitude to you—you've been a great teacher and mentor to me over the years. So I really appreciate you taking the time to join us today.

**Al Kaszniak** ([57:53](#)): Thank you so much, Wendy.

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**Outro – Wendy Hasenkamp** ([57:59](#)): *This season of Mind & Life is supported by the Academy for the Love of Learning, dedicated to awakening the natural love of learning in people of all ages. Episodes are edited and produced by me and Phil Walker, and music on the show is from Blue Dot Sessions and Universal. Show notes and resources for this, and other episodes can be found at [podcast.mindandlife.org](http://podcast.mindandlife.org). If you enjoyed this episode, please rate and review us on Apple Podcasts, and share it with a friend. And if something in this conversation sparked insight for you, let us know. You can send an email or voice memo to [podcast@mindandlife.org](mailto:podcast@mindandlife.org).*

[\(58:39\)](#) *Mind & Life is a production of the Mind & Life Institute. Visit us at [mindandlife.org](http://mindandlife.org), where you can learn more about how we bridge science and contemplative wisdom to foster insight and inspire action towards flourishing. If you value these conversations, please consider supporting the show. You can make a donation at [mindandlife.org](http://mindandlife.org), under Support. Any amount is so appreciated, and it really helps us create this show. Thank you for listening.*