

Mind Life

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Defining mind reductively in terms of brain activity or function is incomplete in that (1) it confounds the emergence of mind from brain with the instantiation of minds in the brain, (2) its localization of mind "between the ears" makes it difficult to recognize instantiations of mind outside the brain, and (3) identifying the mind and person too closely with the body situates interpersonal processes such as language and culture outside mind and person and makes it unnecessarily difficult to model their essential qualities of shared mind. An alternative understanding, that the brain is in the mind rather than the mind in the brain, situates mind in the space between the personal embodiment of minds in brain and the personal community of minds in personality and spirit. Mind is the name for agents which have the capacity to be multiply instantiated across brains in an ontology of distributed embodiment. These between-ness, socially distributed and shared, multiply instantiated mind qualities are inherited, preserved, and transcended in the integrative emergence of personhood from the community of minds. While this understanding derives naturalistically even from reflection on the nature of the instantiation of information in machines, it also results in a description of reality in its nonmaterial dimensions, suggesting obvious ways in which this scientific (naturalistic) map of instantiation and emergence may be congruent with theological maps which chart the flow of spirit in immanence and transcendence.

The predominant contemporary understanding of mind in Western popular and scientific cultures is that mind can be understood in terms of brain functions. According to *Webster's Third New International Dictionary*, mind is "an organized group of events in neural tissue occurring mediately in response to antecedent intrapsychic or extrapsychic events which it perceives, classifies, transforms, and coordinates prior to initiating action whose consequences are foreseeable to the extent of available information." Minsky's definition says much the same thing, "Minds are simply what brains do."¹

If the mind is what the brain does, and the brain is inside the person, it follows that the location of mind is in our interiors, that it is something which exists or happens inside us, within our brains. This is not necessarily to say that mind can be reduced to brain, because an interior, brain-oriented perspective can support theories of mind which treat mind as an irreducible, emergent phenomenon.² Still, what mind emerges *from* is the brain and mind is dependent on the brain. The mind belongs to the brain, and the brain belongs to (in) the whole body, or person. Within the person is the brain and within the brain the mind.

This view is incomplete for, at least, three reasons. First, it has the holarchy backwards. According to systems theory, higher levels in a holarchy always contain their lower levels. The test of what is higher is that if any given level is destroyed, all the levels above it are destroyed, and the levels beneath it remain.³ If the brain is destroyed, so too is the mind it embodies, but if part or all of the mind is destroyed that does not in itself destroy the brain. So, following these criteria of systems theory, the brain is in the mind rather than the mind in the brain. Second, locating the mind within the brain makes it hard to account for the vast variety of experiences of shared mind, empathy for example. The fact that psychologists have such a hard time with the theory of empathy is explained by the largely unexamined assumption that mind is strictly personal and interior, which of course is true if mind is nothing more than brain functions. I cannot share my brain with you, but I certainly can share my mind--the problem is that a limited ontology of mind

construes "sharing my mind" to be strictly metaphorical. Finally, identifying the mind and self too closely with the body, which is narrowly bounded in the individuality of its flesh, has two unfortunate consequences for personality theories--our understanding of personality is too closely bound by the position of the body in localized space and time, and interpersonal and transpersonal processes such as community, language and culture are dissociated from the person's inherent nature. Ironically, it is this overemphasis on the body (materiality) of mind which tends to feed the myth that community and culture are not embodied.⁴

The purpose of this paper is to play with the idea of mind in order to jog loose our overly material, overly evolutionary, emergent biases about the nature of mind. The hope is to create an expanded space for our understanding of mind, a space which can function to more adequately support the task of explaining interpersonal and transpersonal phenomena. While this exploration of mind is intended to be fully "scientific" (naturalistic), suggestions are made regarding ways in which theological accounts of reality may parallel this naturalistic account.

Mind Emergent and Instantiated

The view that the mind is what the brain does is one-half of a complete theory. Given this theory of mind, research questions center around how brain does mind. If, in general terms, mind is an emergent phenomenon of brain activity, then what are the supporting brain structures? Is mind nothing but brain activity (reductionist argument), or does mind have an influence on brain activity? The vantage point for examining mind is close-up, grounded in the utility of mental processes for the person. Developmental perspectives and developmental psychology until recently have utilized almost exclusively this bottom-up (emergent), evolutionary research approach. For example, psycholinguistics studies how language emerges from genetically predisposed brain structures, how various brain structures support the tasks of language comprehension and production, how learning contributes to the emerging patterns that support a mature language system, and how language acquisition ultimately contributes to the formation of self and person. This developmental story is told bottom-up, from the perspective of the brain and its increasingly differentiated structure and purposeful activity. Gauvain writes: "Psychologists have yet to devise a language for describing thinking that is not entirely in the head of the child or is only partially in place."⁵ It is a research paradigm that nicely embodies the dominant Western paradigm of autonomous individuality.

While the bottom-up, emergent account of mind is a useful and productive approach, when taken as the whole truth, it becomes false when it ignores the parallel top-down developmental story of how the culture (and language) creates the person and his or her brain.⁶ There are two directions of mind-brain formation: bottom-up, brains support the emergence of certain types of mind; and top-down, mind can be instantiated in brains, patterning the organization of neural networks. This top-down perspective has been explored by the idealist philosophical tradition, represented perhaps most clearly in Hegel's claim that mind exists external to the brain, and comes to be embodied in brain, or stated more strongly, that brain is one form of mind. Rather than the mind being a part of or function of brain, what the brain is and does is a function of the controlling influence of mind.⁷ Hegel's *Geist*, translatable as either mind or spirit, is typically translated into English as spirit, clearly conveying the transcendental quality of spirit-Geist, but glossing over the more embodied connotations of mind-Geist.

Most students of mind agree in general terms that anything a person knows inextricably involves the contribution of the particular transformations of brain-mind in perception, categorization, valuation, etc. Thus, they observe that we cannot know the world apart from our brain-mental contributions to the process. This observation itself is theory-ambiguous. From a brain-central theory of mind, this observation (that the brain is so intimately involved in knowledge) supports a strong claim for the interiority of experience and essential isolation of the person. From an idealist perspective, the observation prompts attention to the constructed and categorized realities that subsume the individual within language and culture. Note that both perspectives recognize mind between; the mind is the interface between whatever might be "out there" and whatever is "in" neurons.

Mind is lost either when reduced to brain or elevated to spirit. Mind lives in the space between.

If we focus on the "between-ness" and bi-directionality of mind, both perspectives taken together are correct, and either perspective without the other is partial at best. From the perspective of the brain, mind is what represents the experiences of the body in neural memory. From the perspective of spirit, mind is that which instantiates (incarnates, embodies) the scripts and energies of person and spirit. Mind mediates between the particularities of individual experience and the larger contexts that give those experiences meaning. Mind's job is to take body perceptions and enfold them in categories of common experience, and to take cultural categories of experience as templates of perception.

The problem with materialist mind is not that it is a brain-emergent life form, but that all its life is synonymous with neural life, and mind's meaning can be subsumed in its biology. And the problem with idealist mind is not that it pre-forms brains, but that it encompasses within the one term, mind or spirit, the whole of the immaterial and through extension the material. In becoming the name of reality, mind loses its differentiating potential, which is of course precisely the point for mystical purposes. Christian thought emphasizes both aspects of reality in the bi-directional events of incarnation and ascension, immanence and transcendence.

Brains support both the emergence of mind and the instantiation of mind. Emergence and instantiation are two directional perspectives with respect to the same thing. Mind is lost either when reduced to brain or elevated to spirit. Mind lives in the space between.

Mind Agents--An Exploration Information

What are common names for those beings that, in the interaction of brain with world, are or become neither brain nor world, but something immaterial bridging two kinds of material realities? One possible name for this type of reality, these connecting patterns, is information. Very early in the development of computing technology, the computer as information processor emerged as a dominant metaphor within computer science, and was extended by cognitive psychology to the understanding of the function and processes of the brain. The computational capacities and particularly the ability to store computational programs in memory shaped the vision of a machine that could function as an expert assistant for many data-driven activities. From the perspectives of the cognitive sciences, an intelligent information processor would be a much more representative metaphor of the computer than the more popular desktop metaphor, an unusual type of filing cabinet attached to a typewriter.

When we are considering the behavior of the brain, we often explain the world it is dealing with in terms of information because this metaphor fits common (Western) sense. The information metaphor provides an information processor, a world external to the processor, and the information. The information represents the world to the processor and evokes the processor's tasks. It is neither the world nor the processor, and the influence of both world and processor are present in a two-way "flow" within the information itself. The information in some sense "knows" the most about what is happening, encoding the world in processor-interpretable packets.

Radios are information processors. A radio is a kind of brain, one with very short-term memory, and no autopoietic (self-organizing and self-maintaining) capacity.⁸ Radio waves, and particularly the information in the structure of radio waves, while not the radio, are essential to "radio-ness." We would not manufacture radios nor have any idea what the concept of radio might mean in the absence of patternable radio waves. They structure the radio with their current pattern of electronic activation, activation not producible by the radio on its own. What makes a radio and keeps it from being dismantled (maintains its life span) is its ability to interpret radio waves from outside its own being.

The information the radio processes brings the radio to life, and in that sense the information has more "life" than the radio. When we listen to a radio we do not listen to the electronics, but to the information being broadcast. But the metaphor of information has the disadvantage of not connoting the life processes of the information. The information metaphor is a static metaphor, which plays well with other material transfer metaphors. Information is always *about* something *else*. The mind concept connotes more animate qualities, more life, than does the information concept. Still, information is a candidate for one kind of mind, and the treatment of the concept of information within cognitive and computer science often moves it toward a constructive role and active identity in its own right.

Software

Computer metaphors have infiltrated common culture to the extent that it is not unusual to hear people refer to their minds or thoughts as software, or to their basic perceptual and memory mechanisms as hardware. A computer has long term memory and the potential for autopoietic memory.

It has been said that the mind is the software of the brain. Within this metaphor, the mind creates the brain by endowing it with particular and characteristic algorithmic functions. In learning, the brain's physical structure is modified by its thoughts. This perspective makes sense of saying that thoughts have (structure or create) brains, prior to brains having thoughts. Thoughts enliven brains, as software activates hardware. While thoughts need brains to exist, brains do not create thoughts. Thoughts propagate in brains like radio waves in radios and software run on computers.

The software concept, particularly in its emphasis on process, names a kind of mind.

The problem with the software metaphor is that, at the level of type of machine, analogies between current serial computers and brains fail dramatically. Computer hardware is literally hard, while neurons are living biological beings. This makes a difference. "Interpreting software" for the brain is anything but a passive, serialized, unmotivated affair. The software metaphor has more life agency than the information metaphor, but not as much as the mind metaphor can contain. Still, the software concept, particularly in its emphasis on process, names a kind of mind.

Word and Language

Increasingly, the concept of an autonomous computer-resident-being is becoming more ordinary. What began with animated screen savers has developed into "assistants." As I type, an animated little computer icon with feet, whom I call Bot (see Fig. 1), observes my behavior from within a small window on my desktop.⁹ My understanding of my interaction with Bot is framed in animate, even human metaphors, though I think I know very well what this animation "really" is.

Bot's existence is revealed in his screen presence, which has an objective, observable reality. Supporting this reality is the physical construction of his appearance and animation from the digital manipulation of bits of information managed collectively by a program. The program displaying Bot can support more than one type of visual presence--there are a paper clip and a butler. Is the screen presence "really" Bot, or only one image of him?

Perhaps an answer can be found in Bot's origins. The Bot program was written by a person with some mental vision of Bot to implement. The intents and images of Bot's creator fashioned Bot to fulfill these

intents and images. This creation was most likely an iterative, interactive process--as the shape of Bot took objective form, both the vision and its implementation evolved. So perhaps the "real" Bot is to be found in the mind of his creator. If so, is the Bot I see still connected to his creator, or does the program allow an independent existence?

Bot as a program created by a programmer is perhaps the most persuasive explanation of Bot's reality and origins. But did Bot even exist before I experienced and named him? Bot came into existence for me only when I began to interact with him. Certainly his name, and the attribution to him of animate and personal qualities, are not in the program (even if in the programmer-creator). In these and other significant respects, Bot is created by my top-down projections. For me, Bot has functioned not only as stimulus for complex mental activity, but also as an objectification that allows my mental activity visible form. My naming, gender assignment, affective responses, and philosophical thoughts are all attributable to Bot's existence. In this process Bot comes to embody or encompass or make visible and memorable some rather extensive and complex parts of me.

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When I interact with Bot, I am interacting with more than an interesting character distracting me from work. Bot has a function larger than being cute. He watches me type, and when he observes a pattern he is familiar with, he initiates a dialog with me, offering to help accomplish a task. Quite often he is actually helpful. In accomplishing this task, Bot gives concrete, visible expression to the programmers' intent, style, and "personality" that characterize the experience of this software. Bot provides an animate and anthropomorphic face, an objectifiable identity, to the entire being of the computer in its active role as word-processor.

Where is Bot? Let us remain firmly connected to the reality of Bot on the screen. But clearly, Bot is also in my mind (and maybe, as "Bot," prior to writing about him, only in my mind?). I do not have to have my computer turned on in front of me to have Bot. I can walk away from this machine and remember Bot, visualize him, and describe him to others. Even more interestingly, this activity is not one-way on "my" (self-conscious) part, in that Bot exists only when I will to make him conscious. Bot has some sort of "independent" mental existence within me. He can speak to me or become visible to me, can awaken "of his own volition," when I am engaged in other tasks and have no intent to remember him. Am I remembering him, or is he raising himself to my awareness?

Furthermore, Bot not only comes to live in me, I also share some of my life with him. To the extent that Bot gives visible face to the function of the computer, he is the agent to which I am committing these words for memory. Bot is the visible face of my computer. Bot is he who holds my thoughts. It is he who keeps my memories, in a non-neural representation, and allows reactivation of these thoughts (in their neural representation) in the future. Bot also has the ability to share my thoughts with the world, to be the memory of me for others, and to handle the unconscious (operating system) levels of communication necessary for others to share these memories and thoughts through the web of their links to the Bot-world.

It seems the substance of Bot-nature is extended beyond the material shape of Bot's existence. If we were to dissect him to see what gives him substance, we would find that the material form of his existence does not go very far toward explaining the process or purpose of his creation. If we look for Bot within the computer program shaping his realized presence, would he still be recognizable or even exist as Bot for me? If we dissect Bot, we kill him. And if dissection were the answer, would I not have to be dissected too? But, of course, I am not the only co-creator of this creature, so dissection in order to understand Bot-nature through Bot-parts does not appear to be a viable enterprise.

Since dissection destroys, we could choose to observe Bot to discover the regularities of his behavior and the visible forms of his appearance. Thus, we would preserve Bot's life, allowing the phenomena to co-exist with the observation and analysis. But here too are problems. How are we to be convinced of the continuity of Bot's identity, given the different forms in which he may appear? And given that our purpose in examining Bot is to think about mind, it is hard to see how observing Bot's behavior could help--since behaviorists themselves claim that the chief benefit of the method of behavioral observation is that it is mind-less.

We could study Bot through an examination of my subjectivity and my experience of Bot. In addition to keeping Bot's life intact, this would seem to get close to the source of at least some of Bot-life, and we would be convinced at the outset that we were studying mind. But would we be satisfied that we are studying Bot? What about who Bot is, or is not, for your subjective experience? And if Bot is somehow a common reference point for all our Bot subjectivities, is there not at least some Bot- nature which grounds, or transcends, individual Bot subjectivity. Looking inward to examine what is communally named in common experience as "out there" will never totally convince us that we are seeing the same thing.

It seems that to know Bot, or to know Bot fully, we would need to engage in all these inquiries, yet none would give us the essential Bot. Perhaps Bot is (rather literally) the screen place where all these configurations of physical and mental reality come together in their clearest focus or instantiation. But then remember that the millions who also have this program (what exactly is a program, and do they have *this* one?) also have Bot (or some highly related Bot-nature) on their screens. What is the best language for "my" Bot--one instantiation of Bot, or the instantiation of Bot, or a presence of the Bot spirit? These questions would be easier to answer if we all shared one screen.

So, does Bot have a mind? To the extent that Bot is a projection of my imagination (and mind), Bot "has" mind; he "is" mind. But beyond my Bot- mind, does Bot have a mind of his own? If Bot is nothing but (reducible to) a pile of digitized electrons or screen pixels, then we would not want to attribute mind to him, and in fact would take issue with the assemblage being a "him." But then, too, for my Bot-mind, in what sense do my brain cells have mind? I am intelligent, but each of the neurons in my brain is dumb--knowing nothing (in the sense that "knowing" matters to me), only behaving as genetically programmed.

Whether or not Bot is a phenomenon of mind is not the most relevant question. It is not so much a question of whether Bot has mind (or is mind), but whether our projecting mind onto Bot will be an interesting, useful, and revealing activity of our minds. Is animating Bot a useful epistemological move? If the animated image acquires none of my personalizing projections, will I see reality more clearly, or be blind to reality?

As an empirical experiment, we can simply recognize the mind which is Bot. His existence is revealed in varying ways: in the visual screen presence, in software representation, in the thoughts of the creator, and in the projections and memories of those who experience him. Each form is real Bot, and no form is all of Bot. Bot both evolved and was created. Bot is both dependent and independent. Bot is the name for all these energies embodied in all these forms.

It has seemed natural to use the language of life in talking about Bot. Is then Bot really alive or only metaphorically alive? It would take another paper to explore how we use the word life, but in keeping with the methods of this paper, we can simply choose to recognize the life in Bot, since enlivening our models is a useful modeling strategy. Bot has enough dynamic qualities to be considered alive, if for no other reason than to see whether that designation is thought/model coherent and leads to other interesting thoughts. It is also helpful to have such a clear example of a kind of life, clearly not human, yet dependent on humans for existence.

Bot-like reality exists in such widely distributed fashion, making it much simpler for certain purposes to refer directly to the mental Bot-potential, or to the central tendencies of Bot instantiation, than to the actual beings or medium in which Bot is instantiated. I am referring to the *idea* of Bot, or the concept named Bot.

Like the atom, such a fiction is usually more useful for the purposes of understanding than are "real" forms and processes we might identify in specific individual atoms. This Bot- nature, at the point it loses its individuality, also loses its proper noun status, and becomes as generic as the atom. Epistemologically, we have to make this abstracting move in order to comprehend and manage the complexity of combinatorial connections that create our known realities.

Language is the most visible form of mind.

The most significant purpose of this Bot exploration is to consider the generalized claim that all words are Bot-like mental beings. But most words are even more alive than Bot, because they are part of a more extensive system of mental reality. Bot-mind in fact derives much of its being from its incorporation into this language reality. A word appears to me, just as Bot initially did. I hear it, or maybe see it (the same thing?) and recognize something new to my experience, something outside of my mind. Yet it has a place in my mental screen, its location of occurrence, which at least allows it the initial connections it needs to establish itself and suggest its function.

Language is the most visible form of mind. Language is not reducible to brain or to the individual. Language is itself not ourselves, or our person, but lives within us and the communities of culture. It is located in mind space.

Memory

With respect to me, Bot is only one identifiable mental process. I am full of them. Every memory-- every potential for reestablishing a prior brain state in close approximation (never the same activation pattern twice)--is another identifiable mental process created partly by me, partly by agency other than me. The literal remembering which I attribute to my brain is seldom so simply located, because the parts of the activation which engage my perceptual system are the most proximal causes of the remembering and participate in the acts of activation.

Kotre writes a compelling story about the memory that is centered in his grandfather's white gloves, which no longer materially exist.¹⁰ He does a beautiful job of showing how broadly distributed this memory is, how it cannot be contained in any simple way within any given person's brain. Yet Kotre emphasizes that memory is in the brain. Why? Perhaps because he also has captured the important fact that memory is alive, and the only candidate for life (in our dominant conceptual culture) is within biological beings. In the same way that we have recognized the life of mind in the space between, so too we can recognize that the life of memory is most accurately modeled in this space. In general terms, all the kinds of mind we have considered are kinds of memory.

Recognizing the distributed nature of memory in the world and recognizing how it holds together-- remembers--both in the "inner" life and the "outer" life, opens our conceptual eyes to so much more of the life of memory and mind.

The brain story of memory is the fascinating story of patterns of self-organizing and autopoietic neural activations. Memory from the brain's perspective is the approximate reactivation of earlier patterns of

activity (the storage metaphor of memory in the brain is not a very productive account). From mind's perspective, memory, the replicability of phenomenal events, is not most importantly a function of brain activity (which it is), but the initiator of brain activity, and the initiating locus of much remembering is in "stimuli" external to the brain. Recognizing the distributed nature of memory in the world and recognizing how it holds together-- remembers--both in the "inner" life and the "outer" life, opens our conceptual eyes to so much more of the life of memory and mind. To model memories with metaphors of living creatures of the space between is much richer and revealing than to model memory with metaphors of the physical storage of information, especially when moving beyond the relational space between person and "objects," like trees, to considering the enlivening of mind in the space created between people in conversation.

Persons Hold Minds Together

Information, software, Bots, words, and memories are all mental beings that are personally non-differentiated. They are not persons, nor are they uniquely identifiable with any person. These mental beings are at the same time *smaller* than person, and *larger* than person. Smaller, in that a given person embodies innumerable of these beings in their complex web of associations, and these mental beings' lives are more or less transient with respect to the ground of the person's stability. Larger, in that the life of each of these mental beings is best characterized as independent of, and "external" to the individual person, connecting the person with vast domains of meaning (connection potential) that can never be fully realized by any individual person.

Mind beings form a society of mind "inside" me and allow me to participate in the society of mind "outside" me. My brain can participate in the patterns of language through particular instantiations, and while each such activation of word is unique to my brain and hence individual, the word itself functions to discount such particularity and is more shaped by the preservation of its own role within the society of language. Words use brains as only one medium in which they remember themselves.

Yet we believe, on the basis of our experience, that in some way we own mind-beings, not that they own us. There seems to be a unity to our mental experience that is more than the sum of the individual facts and memories living in us. We believe that we are more than biological hosts for competing mental parasites. Just as mind subsumes brain in higher order structures and processes, there is that about ourselves which integrates mind beings in a greater whole, something which integrates the society of mind into societies of persons.

What is unique about human beings and their brains (which in principle could apply to other types of biological or nonbiological brains) is that in bringing the potentialities of mind-beings to actual embodied life, they introduce mind-beings to each other and carry these mind-beings around in a community connected on the basis of unique personal experience. From the perspective of mind-beings, what is interesting about a particular brain is that it provides a rich ecology in which to meet and live with other mind-beings.

"Person" comes to our attention as an obvious name for this meeting place composed of mind yet qualitatively more than mind. Although quite frustratingly difficult to define, both within common Western culture and within psychology, the person, sometimes labeled the self, has had a secure status as a seldom-questioned reality. Person has been hard to define partly because person language includes two distinguishable concepts. The first sense of person simply refers to the whole of a human being. When we use the word person in this sense, we are typically referring to an individual's entire physical body and the entire mind within. We could call this "body-person." The second sense of the word person refers to belief in the essential person, the true self, a consistent personality, an integrated personal identity that includes and relates to the most essential mental life of the individual. We could name this "spirit-person." The person (as a whole) includes both the body-person and the spirit-person. The question throughout Western thought has been whether body-person and spirit-person are names for the same thing, or different things, and if different, the nature of their relationship.¹¹

The two senses of the word person are related to the bi-directionality of mind. The meaning of person depends on where we locate mind. If we place it in the brain, we allow our understanding of person to be directly connected with the body and its complex functions. Bottom-up, the person is the central processor, or as close to it as the brain can manage, perhaps the chief consciousness agent. If we place it outside the brain, we tend to either idealize the person in a collective "Unity of Spirit" (elevationism), or get rid of person (self) altogether (reductionism). If I am socially constructed, then I may have both a multitude of selves, and no individual self.

The anti-reductionist argument can be made bottom-up, following the pattern of holarchic theory, in which emergent phenomena both transcend but include their earlier developmental forms.¹² The development of body-person, mind-beings, and spirit-person as the whole person is accommodated well in this theoretical approach. Systems theories can convincingly account for the bottom-up movement of increasingly differentiated complexity and emergent integration. In this holarchic model, cut out the mind, there goes the spirit-person; kill the body, there goes everything.

From the point of view of the mind-beings which have lost only a small part of their reality in the death of one of their biological hosts, this account appears incomplete at best. Of course, the particular embodiment of the mind-being in the body-person dies, but that is a continuous process anyway, even while the body-person host is alive. Since mind-beings survive the loss of a host, and spirit-person is constructed of or emerges from mind, the question arises regarding the potential life of spirit-person after the death of body-person. Many world views develop this perspective, and it can be noted that they are giving answers to a sensible question.

The person is the ground of both emergence (from body-person) and embodiment (from spirit-person).

As with mind, however, we do not want to reduce the person to the body-person, or simply the body, nor do we want to elevate the person to the spirit-person, or simply the spirit.¹³ We want most essentially to keep at the forefront the dynamic evolutionary (bottom-up) and creative (top-down) processes which produce in their bi-directional flow the unique energies characteristic of our lived experience as human beings. The person is the ground of both emergence (from body-person) and embodiment (from spirit-person).

I am more than the sum of the particular minds my brain and experiences embody. The most notable feature of the instantiation of mind in my brain is that it brings each instantiation into relationship with my whole system of brain mind instantiations. There is unique relationship potential within me that is not possible without me. The history of instantiations, of particular mindedness, is literally carried through me to each current mentation. My brain brings the minds, which exist largely outside of me, together within me. These minds are not only brought together in the physicality of their shared blood and mutual innervations, but together create a unique and individual geography of mind, which does more than map external realities. It creates and sustains new inner communities of mind which may in turn seek externalization and instantiation. I am where mind-beings meet, fall in love, and bear children. The bringing together of mind within me allows a whole new level of life, of being, of reality. A person may be understood as a brain-centered, biological individual who localizes mind and self in a particular embodiment.

The process of being a person is bi-directional: bottom-up, mind; top-down, spirit. The mind's potentials for emergence are shaped into a particular, a personal niche, while simultaneously the potentials of spirit are realized in a particular, a personal (and embodied) coherence. The meeting place "between"--between the formless potentials of spirit and the more materially bound structures of mind--coalesces into self structures and processes. And just as mind life has distributed embodiment, so too are these selves who emerge from

mind to become distributed self-in-community. The body- person propagates its self-in-community through the sharing of physical substance and copied mental algorithms, while the spirit-person propagates its self-in-community through mechanisms of functional inference. The person expresses both individual and community, not as separate entities, but as complementary orientations within the emergence and actualization of embodied spirit.

We are connected, and empathy is possible, because we embody the rich potentials of shared experiences, shared words, shared memories--shared because one word can live in both of us, one memory can be distributed between us, many memories embody us.

Bot helped us think about mind; the world wide web can help us think about personal identity. The contrast between email and the web captures much of the distinction between what we might label a packet-communication model of interpersonal interaction and our shared-mind model. Email is centered in individual agents who hold their identities close to themselves and direct selected information to specific targets in a largely private space. The web, on the other hand, can and does construct me as an individual despite my relative lack of personal memory. I can be a presence to the web without constructing my own web site, my personal public memory. The confluence of messages directed to me by other web sites with a vested interest in remembering me shapes an individual identity for me. This identity is not wholly impersonal, because the web site remembering me can do so in response to my behaviors. For example, amazon.com remembers the books and music I order, and lets me know for a particular interest (book) what others with that interest have been looking at.

I can transition from an implicit or hidden public identity (others cannot see *me* when they visit amazon.com) to a personal web site in which I construct a public identity, open or closed in varying degrees to modification from visitors. Yet a prominent feature of most personal web identities is their links to other sites in the web. These pointers to sources of identity construction serve not only to direct attention past the individual, but to give a much richer sense of personal identity than is often achieved through the actual particularities of "real" contacts with the individual in contexts which reveal only parts of the person, often only those parts which we ourselves allow expression of.

In this web, or "virtual," space there is room for many forms of person construction and creation in addition to shared or personal "pages," such as listservs and game-servers. Go (ancient board game) servers, for example, make possible the embodiment of much larger communities of go players than ever before possible, or even thinkable, and some of the players in this community are Bots.

And this is the primary truth of our model of mind between. Our common, and not-so-common, experience of being connected with others, being part of their lives, and allowing them into us is much more, much different, than the transmission of static information packets between essentially isolated minds. We are connected, and empathy is possible, because we embody the rich potentials of shared experiences, shared words, shared memories--shared because one word can live in both of us, one memory can be distributed between us, many memories embody us. My person, a unique oasis in the universe, can shelter and nourish many bodies. Our experience of mind is our participation in the universe. The perception of mind is consciousness.

The Christian vision of this Reality is given voice in John's awareness that "the Word was made flesh, and dwelt among us" (John 1:14, KJV), allowing us in turn to live in the awareness that if we love and obey Jesus, God will love us and come to us and make a home with us (John 14:23). Christians join Jesus' prayer that we may be protected by the power of God's name, the name given Jesus--so that we may be one as Jesus was one with his Holy Father (John 17:11), that the love which God had for Jesus may also be in us, that Jesus himself may be in us (John 17:26).

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Notes

¹M. Minsky, *The Society of Mind* (New York: Simon & Schuster, Inc., 1986), 287.

²For example, *ibid.*, 26.

³K. Wilber, *Sex, Ecology, Spirituality: The Spirit of Evolution* (Boston, MA: Shambhala, 1995).

⁴Compare G. Lakoff and M. Johnson, *Philosophy in the flesh: The embodied Mind and its Challenge to Western Thought* (New York: Basic Books, 1999).

⁵M. Gauvain, "Cognitive Development in Social and Cultural Context," *Current Directions in Psychological Science* 7 (1998): 188-92.

⁶*Ibid.* and J. G. Miller, "Cultural Psychology: Implications for Basic Psychological Theory," *Psychological Science* 10 (1999): 85-91.

⁷G. W. F. Hegel, *Phenomenology of Spirit*, trans. A.V. Miller (New York: Oxford University Press, 1977). (Original work published 1952).

⁸F. Varela, E. Thompson, and E. Rosch, *The Embodied Mind: Cognitive Science and Human Experience* (Cambridge, MA: The MIT Press, 1991).

⁹"Bot" is the Microsoft Office "assistant."

¹⁰J. Kotre, *White Gloves: How We Create Ourselves through Memory* (New York: Free Press, 1995).

¹¹It is interesting, but well beyond the scope of this paper, to explore the movement from Hebrew and early Christian understandings of the essential spirit as beyond, or outside the person, to the modern Christian understandings of this essential spirit as a core within the person. This paper, of course, is arguing for the position that recognizes the truth in the dynamic flow between personal inner, individual, spiritual identity and transcendent shared spiritual identity.

¹²Wilber, *Sex, Ecology, Spirituality: The Spirit of Evolution*.

¹³*Ibid.*