

*Are two heads better than one? Communication, collaboration and coalitions of minds*

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Upon learning of my selection to give this address, my first move was to contact my colleague and mentor, Bill Dorman, now emeritus professor of government. Bill, you need to know, was selected to give the Livingston lecture, not once, but *twice*. The first time, in 1995, Bill chose to talk about his research interests; the second time, in 2006, he chose to speak about his career as a teacher.

I don't expect a second chance to do this, so, I'm choosing to speak about *both* my academic interests and my teaching career, which led me to my title, *Are two heads better than one? Communication, collaboration and coalitions of minds*. The question in the title is intended to make a truism problematic, and at least for a moment, to invite our thinking about it. That's a teaching strategy. The subtopics, communication, collaboration and coalitions of minds, point to specific interests that have shaped my research and career.

In a note to my students, and other students in attendance, the Livingston lecture is an *epideictic* event intended to celebrate my role in the life of this university over the last 25 years, and that of Jack Livingston; it is a moment in time that is made most sensible by looking back, a version of forensic discourse, and looking forward, a version of deliberative discourse, so the present is made meaningful by shaping its context in both history and imagination. (There will be a quiz, by the way!)

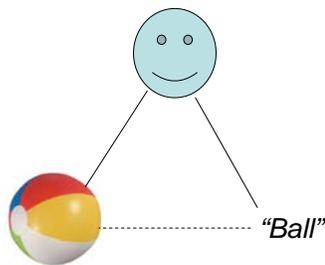


So, are two heads really better than one?

Obviously, sometimes not. What's ironic is that when I saw this specimen, I was standing next to one of my research collaborators, Steve Higgins. We've been successful, so yes, in at least in one case, two heads were better than one. But to take the question *seriously*, let's look at how we may understand collaboration and coalitions of minds from a communication perspective.

I'll begin at the beginning, as it were, by examining the codes which serve as basic media for communication.

The distinction between *signaling* and *communicating* is important. Animals provide information to each other by sound or gesture; the frill on the caped lizard merely signals "warning". Animals do not and cannot do what we are doing now—attending to abstract concepts, over time, for the purpose of restructuring our mental models and, therefore, learning. That is an amazing ability possessed only by human beings. However, deeply embedded in our taken-for-granted understanding of human communication, I see a problem, which is *not* getting past our preoccupations with our individual selves.



If we read and listen closely to how communication is taught generally, we discern a focus on the *individual mind*. This diagram is widely referred to as the "semantic triangle" developed by Charles Ogden and I. A. Richards in 1923. It is intended to make visible the relations between "thoughts, words and things as they are found in cases of reflective speech . . . and with regard to these, the *indirectness* of the relations between words and things. . ."

(Sandulescu 2103, p. 49). Many communication courses start at or near this point with the intention of explaining how people use language meaningfully, which *seems* to be a reasonable starting point. Ogden and Richards' insight that words *don't possess* meaning, but people, by associating words and objects or referents, *attribute* meaning helps to explain many observable qualities of the communication experience. However, the simplicity and visual power of that diagram, leads us to incorrectly *locate communication* in the *individual rather than a community of speakers*.

Beyond that, our *cultural values* reinforce the notion of individual knower. The Renaissance, which shaped the nature and structure of knowledge in modern Western society, was marked by efforts to understand better the fundamental truths about reality. One of the giants of that time, Rene Descartes, in critiquing Aristotle's method of knowing, argued that, "in order to procure the fundamental truths of metaphysics, we

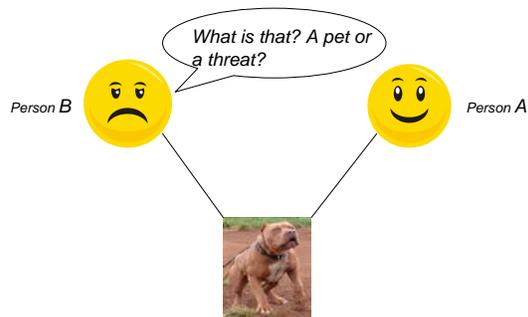
must ‘withdraw the mind from the senses’” (Hatfield 2014, sec. 3.1). Descartes was left reliant on “a purely intellectual perception” of experience (Hatfield 2014, sec. 3.1). Therefore, his project could not be accomplished without the use of symbols in the forms of verbal and mathematical languages to manage the search for truth. While Descartes’ approach was critiqued by Immanuel Kant, Kant’s own commitment to the sovereignty of *individual* reason, coupled with popular understandings of Descartes and Kant, reinforce the primacy of the monad—the individual mind—as the location of knowledge.

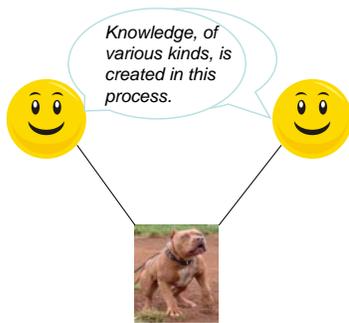
Although the general effect of the Renaissance project was great scientific, technical and artistic progress, I argue it nevertheless established propensity to value *individualistic* and *subjective* habits of mind. The same object may be interpreted very differently by two subjects.



In fact, much of our political gridlock today, I think, is grounded in our propensity to see the world in our *own*, limited way and our commitment to sticking with our *individual* interpretations.

Now, a *communication* perspective facilitates a *dialogic* approach rather than *monologic* approach to this question of knowing the world. Interestingly, a contemporary *philosopher*, Donald Davidson, writes, “Without other people with whom to *share* responses to a mutual environment, there is no answer to the question what it is in the world to which we are responding” (Davidson, 2001, p. 129.) For example, what if a genuine question is posed and an honest *effort* to answer is given?





In this example, the question of what it is person B was seeing was only resolved by person A's contribution. B's antipodal question, "What is that--a pet or a threat?" was unanswerable until shared with another, which in this case, facilitated a third option for interpreting the object. This better pictures the foundation of teaching, learning and civic action--*communication*.

My belief is that for too long, we have misunderstood learning and opinion-making as the province of the individual mind which has led us into a deep misunderstanding of the nature and function of education (and the means by which we assess it—high stakes individual tests), and has led us into the cul de sac of civic and political paralysis at all levels of government. A *communication* perspective on knowledge and opinion formation, however, models an *intersubjective* world that that can be *more objective, less biased, and more rational* as a result of the community negotiating the meaning of its experience.

It took me a while to figure this out, to shake off the taken-for-granted monadic conceptualization of communication, but when I did, I immediately saw it as the means by which knowledge is created and shared, and, as such, this process serves as the means by which significant *collaborations* and *coalitions of minds* can occur. Not that my insight was actually, new; great collaborations have been happening for a long time. Joshua Wolf Shenk's new book, *The Powers of Two*, documents some of the great collaborations of history. But when the scales on the eyes come off, the experience can be life-changing.

Thanks to my association with Bob Garmston and Art Costa, the scales came off for me, and I learned how powerful collaboration can be. Bob and Art developed (collaboratively) the notion of cognitive coaching. As faculty in our College of Education, they were trying to figure out how to improve teaching in deep and long-term ways; the didactic model of telling teachers what to do, coupled with supervision or surveillance hadn't worked. They had a joint concern, and began talking about it. Together, they constructed a collaborative method built on the best principles of interpersonal communication and critical thinking to develop Cognitive Coaching and the Institute for Intelligent Behavior.

In the days before the Center for Teaching and Learning existed on our campus, faculty development was accomplished by people with something to share with other faculty. Bob organized the Professors' Peer Coaching Program which met bi-monthly over a year.

As you can guess, my involvement with cognitive coaching was intense and when Bob retired, he graciously allowed me to serve as program coordinator. Linda Martin, at the time an adjunct professor in Communication Studies, and Bob's assistant, was as deeply committed as I was and agreed to stay with the program and we became a team. Together, we offered the Professors' Peer Coaching program until funding dried up, and then started taking it on the road. Over a number of years, Linda and I presented many dozens of workshops, short courses, conference panels, and faculty learning communities up and down the state and across the country. Our collaborative method helped others, and in using it, we constantly learned more about the processes of teaching and learning and learned more about ourselves as instructors and as learners.

The collaborative mind-set, thanks to Linda primarily, became rather wide-spread in our department. For ten years I taught our core course in rhetorical criticism, or message analysis, so about 12 years ago in talking with Sally Perkins we discovered that we had a joint set of concerns about the course, some *similar* skills (coaching by that time) and some complementary *differences* that spurred us to try team teaching the course and from that work sprang the idea of writing a textbook for this and similar courses, which we did.

My experience in teaching and writing with Sally provoked further *evolution* of my understanding of collaboration. What I found was that during class, in the *process* of negotiating new understandings of criticism with our students, we served as observers, memory banks, monitors and timers, for each other. This phenomenon has a name: *distributed cognition*, (Salomon, 1993) and it is foundational to collaboration. At times, we all "distribute" mental tasks to artifacts; for example, setting alarms on our phones to remind us of meetings. We can also distribute cognitive tasks to other people. Sometimes, when I have lots of things to remember in class, I'll recruit students to remind me to do X or Y at a particular times. A memory function has been distributed across the community. This is a fairly *trivial* use, but much more complex collaborative distributions can and *do* occur. Regarding our topic today, in 1998, Zhang "demonstrated empirically that whether two minds were better or worse than one mind depended on *how* the knowledge was distributed across the two minds" (Zhang & Patel 2006, p. 336). Collaboration, then isn't just sharing out labor, like one might do in writing sections of a report. Significant collaborations that effectively exploit distributed cognition require planning and maintenance regarding such things as personal compatibility, work connections, incentives, and infrastructure (Hara, N., Solomon, P., Kim, S. L. & Sonnenwald, D. H., 2003, p. 952).

I have found that assessing the conditions of compatibility, networks, incentives and resources for completing a project is extremely important. Figuring out your role in a

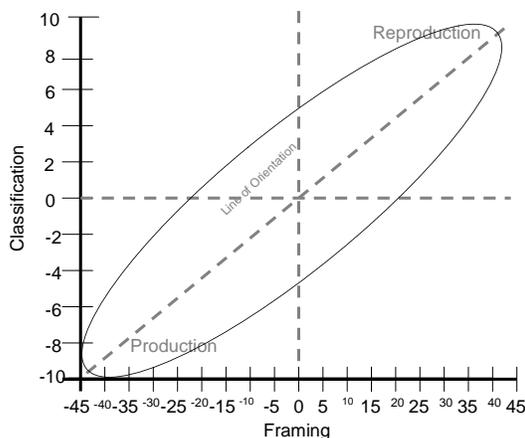
collaboration is essential for it to work. The benefits of collaboration move well beyond products or outcomes to *the humane development of mind and relationships*. Besides my collaborations with Linda and Sally, here's a sampling of others: Jordan Halgas and I developed a model of mentoring as problem-solving (Halgas & Stoner, 2007); Kimo Ah Yun, Rosemary Papa and I offered a plan for promoting STEM pedagogies; Steve Higgins, Diego Bonilla developed the Instructional Design Tool. In each case, the collaboration resulted in some new idea, approach, explanation, or analytical tool as a result of our initial attention to interpersonal compatibility, our skills, reasons for working together, shared knowledge, and networks. A collateral effect of collaboration is that I have friends across the campus, the nation and the world and much greater knowledge about a myriad of topics due to those relationships.

Now, things get *even more* interesting. Recollect that I've moved our discussion from the monad, the individual knower, to the dyad, at minimum, wherein any individual's subjective knowledge is constructed, refined, elaborated, corrected, or critiqued via communication with others and thus becomes *objective*. A few years ago, I began to think about *how communities of knowers* (as in: academic disciplines) try to induct novices into the community—it is essentially a big teaching question.

I posed that question to my colleague Steve Higgins at the University of Durham and we began to dig into theory that would help explain the process and, from a synthesis of relevant concepts, constructed an instructional design tool that others could use to assess and possibly modify how courses were designed commonly within their disciplines. We needed technical help in creating an electronic version so I enlisted the help of Prof. Diego Bonilla, from our department. Together we built and published the Instructional Design Tool. (Stoner, M., Higgins, S. & Bonilla, D. 2012). Diego figured out how to

collect the data and automatically represent it on a two dimensional field.

*Instructional Design Tool*  
Stoner, Higgins & Bonilla, 2012



I've used this in workshops with faculty who testify that it is very helpful in visualizing the invisible forces of framing and classification which facilitates purposeful and mindful changes in instruction.

I am sure that it's not quite clear yet, but this particular story connects collaboration as I've described it and an even bigger idea: *coalitions of minds* (Maton & Moore, 2009).

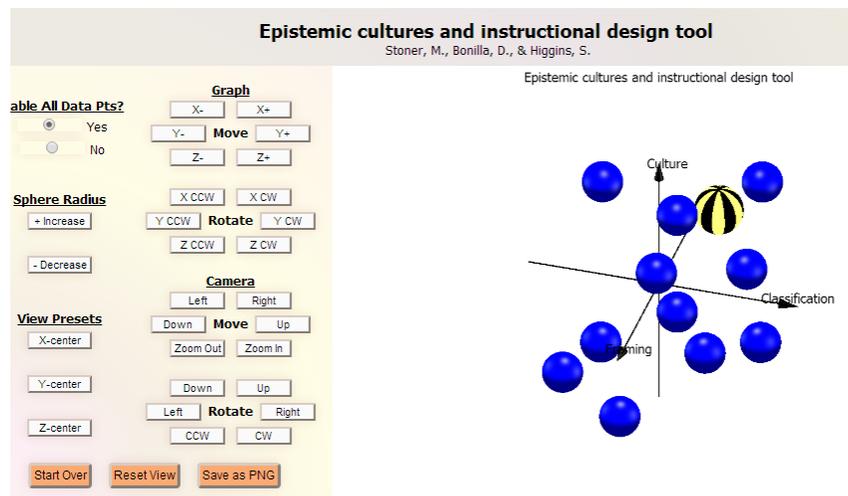
As we head toward the finish of this address, I want to explore how collaboration is related to, but different from, coalitions of minds. I kept thinking about the Instructional Design Tool and noted that we had a way of talking about how people *already* in a discipline talked to those who were entering the *same one*. But, I wondered how do disciplines talk to other disciplines? Sometimes that is a serious problem and knowing more about that could facilitate cross-disciplinary research.

It occurred to me that the 2-D instructional design tool may benefit from the addition of a third dimension—that of culture, *or more specifically, “epistemic cultures”* (Knorr-Cetina, 1999; Cummings & Kiesler, S., 2005; Maton & Moore, 2009) or *“academic tribes”* (Becher & Trowler, 2001). So I began working on that problem as a communication phenomenon.

In the meantime, Diego, who is expert in new media and mediated instruction built an entire cross-disciplinary minor in information and communication technology literacy for the CSU system. This minor will be offered as a complement to *any* other major, which creates a *practical* version of the practical problem that my *theoretical* question addressed: *how would one design a course of study and the appropriate pedagogies in a way that any discipline can weave into its own tribal culture?* We happen to be working on the same question from opposite ends.

Diego and I have been working collaboratively on that problem and have now built a new device that creates a visual rendition of three dimensions of knowledge creation: framing, classification and *epistemic culture*.

This device allows instructors or departments or colleges, universities, even university systems to compare their instructional designs in the context of their *own* epistemic culture or the cultures of *other*



disciplines. For example, here’s how Critical Analysis of Messages (the course Sally and I taught together) looks, relative to courses representing other disciplines. We built in the capacity to view one’s course along all three axes for better understanding of its relationship to others *in a disciplinary context*.

Knowing *how* different disciplines construct knowledge may facilitate more purposeful formation of *coalitions of minds*. It is in this context that we *move beyond collaboration between individual protagonists* (like all those examples I showed you earlier), to providing a way for disciplines to explore and systematically explain their relative epistemic and methodological compatibilities, incentives and networks for generating new and complex knowledge. Coalitions of minds are marked by “constructive engagement” with *significant* problems by *disparate* researchers and students engaged in dialogue over time and space (Maton & Moore 2009, p. 10).

The products of such coalitions can be described in the words of Emile Durkheim, written in 1915, almost a century ago: (This is a direct quotation)

*Collective representations* are the result of an immense cooperation, which stretches out not only into space but into time as well; to make them, a multitude of minds have associated, united and combined their ideas and sentiments; for them, long generations have accumulated their experience and their knowledge. A special intellectual activity is therefore concentrated in them which is infinitely richer and complexer than that of the individual. From that, one can understand how *the reason* has been able to go beyond the limits of empirical knowledge. . . . There are two beings in [the person]: an individual being which has its foundation in the organism and . . . a social being which represents the highest reality in the intellectual and moral order that we can know by observation—I mean society. (Durkheim 1915, p. 16)

This means that knowledge is social in nature on any scale, from the knowledge of any person, to the shared knowledge of generations. Unfortunately, the term “coalitions of minds” is a troublesome term. The image it provokes in many minds is something like a sack of potatoes because of the underlying value of individualism we discussed earlier. “Minds” still features individuals—sometimes gathered together, but still individual, like potatoes in a sack. However, if we emphasize the first word, *coalitions*, we may be able to shift the focus to the community of knowers.

We talk a great deal today about “cloud computing” as if the technology itself is the key. But all the cloud does is store information; its when that information is shared that the magic begins. The cloud facilitates distributed cognition among more people with great speed



and flexibility. It is not the technology, per se, but the coalitions of minds with access to information provided by the cloud that the potential for amazing human progress may be realized.

The model that Diego and Steve and I are developing has potential use in designing interdisciplinary instructional curricula and learning materials. Beyond that, though, it has the potential to help disciplines better *share* knowledge in ways that becomes a *distributed meta-cognition*. For example, we may find that helping geographers talk with public policy experts leads to research that provides empirical evidence for *institutionalized poverty* resulting from the physical location and surround of poor neighborhoods. What could we learn if physicists were better able to share knowledge with psychologists? Or engineers with artists? That is the edge of where we are at the moment and working on that problem will set my research agenda and that of others who wish to create a coalition of minds for the foreseeable future.

So, in answer to my original question, Are two heads really better than one? I think it is safe to say, most of the time, yes, and *sometimes*, the positive effect is incomparable. The potential for finding new “languages” (Maton 2000) by which disciplines more effectively collaborate will expand our knowledge of the world considerably. If we understand communication as a collaborative activity, as we *appropriate* each others’ cognitive resources through purposeful collaboration, and as we extend that process to disciplinary enclaves; as we extend across disciplines to form coalitions of minds, I am optimistic that we will create conditions of community that can break the patterns of self-interest and often *proprietary* knowledges that provoke so much of the conflict and oppression that seems to mark our present global experience.

Before we end, I’d like to enact a bit of what I’ve been talking about. In a modified version of a question and answer session, I’d like you first to take the opportunity to talk with one or two people near you in order to jointly *create an observation about collaboration* or *create a question about it*. I’ll give you about three minutes to talk, then we’ll jointly explore the topic until you run out of observations or questions or until we run out of time, which ever come first. I’ll signal you when we need to reconvene.

Question and answer follow.

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