Joy in Academia: 
The Systemic Role of Academia in Society

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ABSTRACT
What is the role of academia in society as a whole? Is the sole role of schools and universities to provide training for the jobs marketplace, or should academia help in the work of society’s ongoing adaptation and self-recognition? This article uses Stafford Beer’s Viable System Model to argue that academia’s role goes beyond servicing the economy, and that it must be organized in such a way that it can actually perform the roles of adaptation and re-thinking of identity of society. In order to perform these goals well, certain evaluative and organizational conditions must be met. The role of academia in society is construed as analogous to the role of positive emotions in human beings: they both serve to enhance the repertoire of possible actions of a system, and to integrate these possibilities in a coherent whole. Just as positive emotions need conditions of contextual safety, so does academia: therefore, it is necessary to revise certain evaluative practices that hinder academia’s creative roles.

KEYWORDS
Barbara Frederickson, Broaden and Build Theory, Cybernetics, Education, Evaluation, Evaluative State, Happiness Stafford Beer, Viable System Model

ON MODELS
There is a role in discourse for truisms and tautologies. There are times when saying “it ain’t over till it’s over” is appropriate in order to rally a team that’s behind on the score, and times when saying “you can observe a lot just by watching” is an adequate call to patience and observation. Sometimes, the reason for stating, and arguing for, truisms, is that they are being disregarded. Such is the case, at present, when education is increasingly becoming a for-profit enterprise (e.g., Waterson, 2015); schoolteachers are pressured into teaching to the test because of ever more powerful standardized testing (Nelson, 2013), and academia is generally seen to be at the service of enterprise rather than the personal growth of students and the growth of society in general (e.g., Stevens, 2012). In this paper, an erstwhile truism is argued for: that academia ought to play a creative role in society and that such a role requires an organizational environment in which students, teachers and researchers feel safe, and are able to fulfill their roles with positive emotions. To this purpose, Stafford Beer’s Viable System Model (VSM) is used; and the role of positive emotions in individuals is proposed as a model of the role that academic institutions play in society. Therefore, a preliminary discussion of models is in order.

DOI: 10.4018/IJSS.2018010101

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A model is an abstract construction upon which several phenomena can be precisely mapped with regards to certain specified characteristics (Beer, 1984, pp. 8-12). In as much as the different phenomena can be mapped onto the same model, the phenomena in question exhibit systemic invariance. For example, percolation theory describes the behavior of connected clusters in a random graph. It serves equally well to describe and predict how a liquid will move through a porous body over time, the likelihood of a fire spreading throughout a forest depending on its density, whether a virus will become an epidemic in a given area, or how news will spread in a social network. The model deals only with the aspects of the phenomena described which are invariant: it does not account for the species of the trees in the forest, the symptoms of the virus or the content of the piece of gossip (Cfr. Beer, 2008, p. 15).

Therefore, so to speak, making a model implies squinting, seeing only selected features of phenomena. This means that models are neither true nor false, but, rather, more or less useful (Cfr. Beer, 1984, p. 9). A model is precise in as much as it moves from an intuited similarity between phenomena (e.g., gossip spreads like wildfire), to finding that knowledge of one phenomena is useful in understanding the other (if the density of a forest aids the spread of the fire, then perhaps the number of connections in a social network aids the spread of gossip?), to finally a rigorous abstract formulation (Cfr. Beer, 1984, pp. 8-9). Whereas analogies can be abused (life may be like a box of chocolates, but towards the end it does not contain just the white chocolates that nobody wanted, etc.), models cannot, because they specify precisely what aspects of phenomena are being mapped (cfr. Beer, 1984, p. 12).

Several phenomena can be mapped onto a single model so long as the phenomena in question show systemic invariance. This can be true of systems that are embedded in each other, if the part is similar to the whole in this way. Thus, for example, Plato maps the individual and the republic onto the same model of justice; and the same organizational model can be used to map the relationship of the mother company to its affiliates and that of an affiliate with its several branches. This structure of embedding can be indefinitely recursive; therefore, it is up to the model user to decide which level of recursion to observe; that is, what to consider a part and what to consider a whole (cfr. Beer, 1984, pp. 14-16). At a certain level of observation, the body would be the whole and the organ, the part; at another, the organ would be the whole and the tissues the parts; and so on down to the level of cells and organelles, etc. In a given level of organization $n$, the parts $n-1$ are treated as “black boxes”, their effect is taken into account, but their parts are not observed to see how they work; while the larger whole $n+1$ is treated as the environment in which a system functions (cfr Beer, 1984, p. 16). In what follows, two different levels of recursion will be explored: the internal organization of academic institutions (where the academic institution is a whole), and the role of academia in society at large (where academic institutions are a part).

**THE VIABLE SYSTEM MODEL**

What role does academia play in society? Is it the job of schools and universities to provide training for the jobs marketplace, to be a producer of producers (cfr. Martínez, 2010; López, 2010)? Or should schools and universities also fulfill a political role in civil society? Stafford Beer’s Viable System Model maps the subsystems and relationships that are necessary for any viable system, that is, for any system that is capable of maintaining a separate identity and existence in a given environment; this model will be used to ask what the role of academia should be in a viable society. This paper will focus on the VSM’s distinction of the five kinds of subsystems necessary for any viable system, eschewing the detailed dynamics of how they work together, outlined by Beer (e.g., 1995a, 1995b). What are the subsystems that any viable system should have?

**System 1**: Any viable system, from a living organism to a commercial enterprise, must be autopoietic, that is, self-producing. A body produces the cells and organs of which it is made up of; a viable
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