

**“YOU ARE ADAPTING MORE TO ME THAN I AM ADAPTING TO YOU”
(BUT WHAT DOES MORE MEAN?): CYBERNETIC AND FOUCAULTIAN
EXPLORATIONS OF THE DOMAIN OF POWER**

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ABSTRACT

It is possible to derive a cybernetic approach to what the concept of “power” might mean, an approach which illuminates and critiques both that concept and the relations it is used to describe. Selected quotes from a short article Michel Foucault wrote late in his life, entitled “The Subject and Power,” are juxtaposed with a demonstration that aspects of his view, particularly as he was formulating it in this article, prefigure some elements of what might be developed into a cybernetic approach to what might be meant by “power.” I propose that such an approach can be developed from basic cybernetic and systems principles including system capacity, (structural) coupling, the relationship of an organism to a niche or environment, and the hierarchical organization of adaptive systems. A resulting concept of power, or rather, of the domain in which we talk about power, can help reanimate our theoretical discussion of what we mean by such a concept and what such a concept inevitably obscures.

Keywords: adaptive systems; hierarchy theory; structural coupling

CYBERNETICS, POWER, FOUCAULT

What follows is an attempt to derive from cybernetics a way to be precise when we talk about power over others, whether that power is exercised by individual human beings over others, by institutions over individuals or over other institutions, or even by animals over their conspecifics. This discourse will both be an explication of the concept of power and a critique of it.

I am not claiming here that power is a universal, necessary, or inevitable concept. It is often difficult to use powerful folk concepts, such as power itself, in a way which adds to precision and understanding. If people were to choose not to use the concept of power, my reaction would be, more power to them. Indeed, if the concept of power did not exist, I am not sure we would have had to invent it.

“The Subject and Power”

I use as a counterpoint to my cybernetic exposition, excerpts from the argument in Michel Foucault’s article, “The Subject and Power.” Foucault is possibly the thinker most identified with the concept of “power” as it is used as an explanatory principle today in the “soft” social sciences.

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I am not alone in seeing a kinship between Foucault and cybernetic ideas. The sociologist Céline Lafontaine claims that, “depoliticized, decentralized, and totalized, the concept of power as developed by Foucault is strangely similar to cybernetic control.” (Lafontaine 2007: 36) She also claims that “Foucault relies on the purely relational logic of the cybernetic model.”

However, the reason I am specifically focusing on Foucault’s article, “The Subject and Power,” is because this article, written late in his life, puts forth a version of power which is relational but not in my opinion totalistic, and not coterminous with the idea of control. Actually these are reasons why this particular version of Foucault’s view of power, one which paradoxically does much to deconstruct conceptually both the subject and power, fits with what I propose as an emerging cybernetic concept of power’s domain.

My own ideas about how cybernetics can inform a concept of power are set forth, in the context of Gregory Bateson’s questioning of the concept, in an article entitled “Breaking the Concept of Power (and Redescribing its Domain): Batesonian and Autopoietic Perspectives.” (Guddemi 2006)

In a section of his paper, “The Subject and Power,” entitled “How is Power Exercised,” Foucault rather surprisingly, given his reputation as a theorist of “power”, makes the following remark: “To put it bluntly, I would say that to begin the analysis with a ‘how’ is to suggest that power as such does not exist. At the very least it is to ask oneself what contents one has in mind when using this all-embracing and reifying term...” (Foucault 1982: 424)

Power-to and power-over

In contemporary social movements it is common to distinguish two aspects of power, power-to and power-over. Power-to refers to the subject’s capacities in general or vis-à-vis her environment, while power-over refers to the subject’s capacities relative to (and in relation to) other subjects like herself (who of course constitute part of her environment).

- In cybernetic analysis, the capacities of a system refer to the different adaptive responses it is able to make in the face of environmental perturbations. All systems which persist, particularly living systems, maintain themselves in the face of change. Some systems exhibit a greater range of behaviors than others. Learning (and in the very long run, Darwinian evolution) enables a system to develop appropriate responses which had not been part of the system’s repertoire.
- The enhancement of the system’s repertoire vis-à-vis its environment is power-to.
- From Michel Foucault’s article, “The Subject and Power”: “As far as this power is concerned, it is first necessary to distinguish that which is exerted over things and gives the ability to modify, use, consume, or destroy them—a power which stems from aptitudes directly inherent in the body or relayed by external

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instruments. Let us say that here it is a question of ‘capacity.’” (Foucault 1982:424)

- In spite of the phrase “power...exerted over things” what Foucault is referring to here is what is commonly thought of as power-to.
- Foucault, in the quoted section, implies that this kind of power-to is to be distinguished in terms of the type of environment to which it adapts, that is, a nonsocial or in some ways nonliving environment, an environment in which “others” are not present as actors. However, in subsequent discussion he makes it clear that power-to, or power as capacity, is a factor in social interactions or relationships as well. He argues that power as capacity, communication, and what might be called “power proper” can be distinguished analytically but occur in human life as an inseparable “block of capacity-communication-power.” (Foucault 1982:425-6)
- Foucault emphasizes “tool use” as part of the above “power-to” in the quoted section, but in a subsequent paragraph he refers not only to “the field of things” but also to “perfected technique, work, and the transformation of the real.” (Foucault 1982:425) The latter is more in accord with what Bateson (1972) has mentioned as an emphasis of Asian cultures or philosophies, to the effect that new capacities to use “tools” entail changes in the self as well as in the world.

“Power-over” as relational: the cybernetics of its relationality

In this paper we are primarily concerned, on the other hand, with “power-over.” I will begin, here, with Foucault’s exposition:

“On the other hand, what characterizes the power we are analyzing is that it brings into play relations between individuals (or between groups). For let us not deceive ourselves: if we speak of the structures or the mechanisms of power, it is only insofar as we suppose that certain persons exercise power over others. The term ‘power’ designates relationships between partners (and by that I am not thinking of a zero-sum game...). Foucault 1982:425.

- It is necessary again to think of Foucault’s “individuals” and “groups” in terms of their cybernetic characteristics as systems.
- Individuals and groups which have any sort of “relationship,” to use Foucault’s term, are considered as being “coupled,” to use a term of both W. Ross Ashby and Humberto Maturana.
- “Coupling” can be glossed as “in a relationship which involves recurrent mutual interaction.”

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- To be “coupled” implies separation as well as unity. Each system retains its autonomy, in spite of the emergence of a larger system which includes autonomous systems plus their relationships.
- Ashby here uses first-order cybernetic terminology of inputs and outputs, and refers to the systems as “machines,” in which category he includes organisms. Nevertheless his basic principle stands: “What we want is a way of coupling that does no violence to each machine’s inner working, so that after the coupling each machine is still the same machine that it was before. For this to be so, the coupling must be arranged so that, in principle, each machine affects the other only by affecting its *conditions*, i.e. by affecting its input. Thus, if the machines are to retain their individual natures after being coupled to form a whole, the coupling must be between the (given) inputs and outputs, other parts being left alone no matter how readily accessible they might be.” (Ashby 1956:49)
- In Bateson’s terms, when we are dealing with living systems, each of them is “collaterally energized.” Each individual animal or human being acts, in its bodily form, based on the energy provided by the food it eats. The mutual causation or feedback between these living systems is thus “informational” in nature rather than being reducible in principle to “matter and energy.”
- Bateson often gave as the example here that “if you kick a stone, the stone will proceed on the basis of the energy provided by the kick. But if you kick a dog, the dog may turn and bite you back, and the energy for the bite will come from the dog’s metabolism not from the impetus you gave by the kick” (see Bateson 1972:229, 1979:112-13). This example is important because it shows that Bateson’s “informational” realm can include the actions of bodies in their very materiality. Batesonian “information” is not a bloodless intellectual realm nor one composed of entirely incorporeal messages/ differences.
- (Of course whether one sees the kicking of the dog as power-over rather than power-to importantly depends on how one views the possible agency of the dog; Bateson would have certainly considered the dog’s act as a social one, and would have interpreted the dog’s reaction in that way as well.)
- Ecological relations of predator and prey, for example, participate in “matter and energy” relationships while at the same time demonstrating “coupling” in Ashby’s (and Maturana’s) senses.
- However, human “coupling” or “structural coupling,” in contrast to ecological relations of the predator-prey type, emerges in social living, arising from features of our particular adaptation which require or encourage cooperative action among conspecifics. Maturana and Verden-Zoeller discuss this at length (1996) but I will not do so here, although I am not merely relying on them for this point which I think is supported by considerable work within primatology and anthropology.

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Power, paradoxically or not, depends upon the autonomy of all parties

The coupling of systems which retain a basic autonomy is the basis of power-over, which is therefore not a marionette or robot relationship. Foucault: “Where the determining factors saturate the whole, there is no relationship of power; slavery is not a power relationship when man is in chains. (In this case it is a question of a physical relationship of constraint.)” (Foucault 1982:428.)

- I think slavery is an inferior illustration of this – consider instead the remote control of someone’s brain or muscles by embedded microchips, a classic paranoid delusion which is now technologically feasible.
- Making the inverse point, the previous sentences in Foucault read: “Power is exercised only over free subjects, and only insofar as they are free. By this we mean individual or collective subjects who are faced with a field of possibilities in which several ways of behaving, several reactions and diverse comportments, may be realized.” (Ibid.)
- Foucault also makes the related statement that power is “always a way of acting upon an acting subject or acting subjects by virtue of their acting or being capable of action.” (1982:427)

“Action upon the action of others” defines a cybernetic ecological relationship

Foucault asks, “What constitutes the specific nature of power?” (1982:426) He answers, “one defines the exercise of power as a mode of action upon the action of others.” (1982:428) More specifically, he writes, “Let us come back to the definition of the exercise of power as a way in which certain actions may structure the field of other possible actions.” (1982:429)

- The field of one’s possible actions is one’s niche, or environment.
- When one is structuring the field of another’s actions, one is therefore acting as environment for the other.
- This cannot ever in principle be a purely one way affair.
- Bateson liked to point out that, even in the “controlling” situation in which **A** desires to control **B**’s behavior, **A** must monitor **B**’s actions and respond accordingly; even Goebbels had to have some reading of German public opinion in order to craft propaganda (Bateson 1972:486). Thus we are dealing with an interactive system in which both sides retain some basic autonomy, or “freedom” as Foucault puts it.

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- This does not make this kind of dictatorial system less than unjust or unequal. It does mean that the system's analysis must not rely on unicausal versions of "linear" power as control. Foucault's theory is not of that kind.
- Return to Ashby: "the coupling must be arranged so that, in principle, each machine affects the other only by affecting its *conditions*, i.e. by affecting its input." (1956:49 op. cit.)

WHAT MAKES "POWER" INEQUALITY POSSIBLE? A CYBERNETIC EXPLORATION

How, then, does inequality of "power" exist? A cybernetic argument

The internal structure of systems provides the basis for inequalities between systems. The hierarchical structure of adaptation within systems is the building block of any hierarchy of systems.

- Systems that last must be stable enough to last. In dynamic systems, some "variables" will change so that others can remain the same. Some "variables" are more "fundamental" to the system remaining itself than are others.
- Bateson famously analogized the problems of an adapting being to a "man on a high wire," conserving the truth of the proposition that the man still remained on the wire, but only able to do this by changing the position of arms, legs, torso and so on. (See Bateson 1972:498)
- The Maslow hierarchies of need provide an example of some "needs" being more fundamental than others. In maintaining one's bodily identity as an autonomous, autopoietic being, certain bodily variables must be maintained within certain limits, must only act within certain constraints. Similarly, in maintaining one's social identity within a particular society, one must act within certain social constraints, and so on throughout the realm of human being and action.
- In maintaining these fundamental aspects of identity, in "keeping body and soul together," human beings may use a variety of innate or learned capacities (powers-to) or they may forego using them.
- Couplings can be unequal when they involve one party whose more fundamental processes are at stake, coupling with another party for whom that coupling places only more peripheral and "optional" processes at stake. I am referring to processes or capacities which are less, or more, fundamental to the maintenance of the autopoiesis of the larger system. For example, if the actions of A in relationship to B affect the abilities of B to maintain autopoiesis by meeting her "needs," more than the actions of B affect the abilities of A to meet his "needs," then we have an unequal coupling, or a "power relationship."

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- It is probably impossible to organize an ecology or social system in which no inequalities of this kind exist.
- However, human societies vary in the extent to which they grant legitimacy to such inequalities.
- “Power relationships” are not always characterized by simple inequality between such an A and B considered as individuals or particular systems. They can evince inequality in one realm or aspect of behavior or practice, “balanced” by other inequalities in other realms or aspects.
- This balancing, of course, is not necessarily an “equal” one in its various respects.

A restatement of the relationship between structural coupling and “power”

I have tried to show that the difference between the depth of adaptation of A to B, as against that of B to A, is a function of the particular, specific coupling they have.

- Imagine a change in the structural coupling between A and B.
- If this change requires A to make greater compensating changes to maintain A’s autopoiesis, than B is required to make to maintain B’s autopoiesis, then we have this change instantiating or illustrating a difference in “power,” in which B is seen as having “more power” within the relationship than A.
- This is also sometimes expressed as B having “power over” A.
- But this does not mean that B has control over A, in any full or robust sense of control. B is not causing A’s actions in detail.
- One party makes greater compensating changes because (or actually, *insofar as*) the coupling affects/ involves that party’s structure (in a more or less Maturanan definition of “structure”) in more profound or consequential ways than it affects the other’s.
- Consider the “free contract” between employer and employee. What is at stake for the employee may be fundamental to her autopoiesis – often enough, her survival. What is at stake for the employer, as a system, in any particular employment decision, is usually far less consequential to the continued autonomous existence of the organization. The employee will make greater compensating changes in her own behavior and practice, these constituting her “adaptation” to the organization, than does the organization to accommodate or adapt to the new employee. Thus this “free contract” is an excellent example of the kind of structural coupling which can be seen as a power relationship.

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- This example is not materially changed if the employer is an individual rather than an organization.

A is adapting to B more than B is adapting to A – a summarizing ecological metaphor for “power,” but what does “more” mean?

Mutual adaptation of A to B and of B to A is an obvious outcome, or restatement, of the surprisingly neglected fact that A and B serve as environment, or “niche,” to each other. It is astonishing how much the concept of “environment” carries the image, or connotation, of being relatively static, even inorganic, like rocks and rain. In fact, dynamic systems – including organisms, including human beings -- exist in each other’s environments, so that each must be seen not only as actor but also as environment to other actors.

The organism – environment relationship is more obviously qualitative than quantitative. Mutual adaptation, when cyberneticians have looked at it, has been seen as a fact yielding a kind of moral imperative, that we recognize the mutual interdependence that involves and implicates us in wider systems.

- Yet we have to recognize that sometimes this interdependence is more painful or difficult or limiting for some beings/ creatures/ systems/ people than for others.
- Can we quantify this difference in pain/ limitation/ arduousness? (Or should we even try?)
- The metric by which one would make a quantification of relative adaptation to the other – or even a conventional quantification of relative advantage – is actually somewhat obscure. The “what does more mean?” of the title is a real question, and one which deserves significant attention.
- The general statement “A is adapting more to B than B to A” is often true relative to a particular context or situation, rather than as a globalizing summary of their “total” relationship. In fact, globalized evaluations of relative “power” may fail to illuminate *particular* contexts or circumstances in which the parties are involved.

“Power” is one possible mode of analysis, not an inevitable one

Rather astonishingly, in view of the subsequent history of American academic uses of his works, Foucault writes: “The exercise of power is not simply a relationship between partners, individual or collective; it is a way in which certain actions modify others. Which is to say, of course, that something called Power, with or without a capital letter, which is assumed to exist universally in a concentrated or diffused form, does not exist.” (1982:426)

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This may or may not provide an opportunity, or excuse, for asking, what does the concept of power, even a cybernetic one, obscure?

- The expression “B has power over A” obscures the emergent systemic interdependent relationship of the two.
- “B has more power within the power relationship including A and B” is a slightly (if subtly) better phrasing, one which is less likely to obscure their relationality and the system which emerges from it. However even such a phrasing can, and has, been used to imply that the relationship is composed of, and is fully decomposable into, “something called Power, with or without a capital letter, which is assumed to exist universally in a concentrated or diffused form.”
- Nevertheless, the power aspect of relationships – their inequality of adaptation as defined here -- does not fully describe or explain them in all their dimensions, but only in one dimension relevant to particular modes of description and action, and not others.
- It is the tendency to subsume other aspects of relationship into power that has prompted much criticism of the concept, especially by Bateson (e.g. 1979:240-48) and others.

NOT FROM FOUCAULT BUT FROM HOBBS: IS POWER A MOTIVATION?

The philosopher Mary Midgley quotes from Hobbes:

“So that in the first place, I put for a general inclination of all Mankind, a perpetual and restless desire for power after power, that ceaseth only in Death. Hobbes, *Leviathan*, Pt. 1, chap. 11.

However, in a cybernetically informed view, it is not necessary to see power itself as a motivation, or a cause.

- The desire to have more “power-to” can perhaps motivate: the desire to have more adaptive options in a particular situation or within a particular life.
- It can sometimes seem desirable to control the behavior of others in order to achieve a goal of one’s own. The control of others is not the goal but a means to it.
- This control may be so that the other is made to facilitate the achievement of one’s goal.
- Or this control may be such that the other is made no longer to be an obstacle to the achievement of one’s goal.

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- What we call the “wielding” of power is A’s strategic use of the “power inequality” between A and B, to limit the choices that B makes within the constraints of the relationship between A and B. In Foucault’s terms this is “structuring the possible field of action of others.”
- But if A limits B’s choices to those pre-approved by A, A forecloses to some extent the possibility of B’s creative adaptation to B’s environment – which may in a wider sense be the environment which A and B share.
- In some cases this foreclosure of B’s creative response may be to the detriment of A, since A will not have the benefits that could have resulted from B’s independent adaptation to their mutual environment.
- A is still not causing B’s behavior in a direct way, and B is still autonomous; A is “merely” circumscribing B’s environment so that B will be more likely to choose what A wants.
- The ability of A to do this has limits.

Midgley on Hobbes: power as an insurance policy, feeding the anxieties it purports to soothe.

The context in which Midgley quotes Hobbes is one in which she asserts, in her confident way, “Those who really pursue power just for its own sake are neurotics, entangled in confusion by habit and destroying their own lives.” Here is her full quote from Hobbes:

“So that in the first place, I put for a general inclination of all Mankind, a perpetual and restless desire for power after power, that ceaseth only in Death. And the cause of this is not always that a man hopes for a more intensive delight than he has already attained to: or that he cannot be content with a moderate power: but because he cannot assure the power and means to live well, which he hath present, without the acquisition of more.” Hobbes, *Leviathan*, Pt. 1, chap. 11

She comments, “This puts power in its place as an insurance. But Hobbes still made it central and probably never realized how much this circular psychology limited the value of his political theory.” (Midgley 1978:8)

- The uncertainties of life include the uncertainties of the behavior others will exhibit, behavior which could affect the stability of our own adaptation.
- The desire for “power” is perhaps the desire that one can act so as to minimize the ability of others to challenge one’s own autopoiesis.
- But one’s ability to control others in this way is limited, as per cybernetic theory.

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- But if one does this by adapting to others, by cooperative efforts and by self-control (an interesting term), this may reduce the need to try to control one's environment by controlling the behaviors of others.
- One's abilities to follow this path as well – which is perhaps the path evoked in Foucault's last writings, on "the care of the self," and which has through history been the recommended path of mystics, monks, stoics, and so forth – may also be limited, as per cybernetic theory.

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