

Seeing Like a System: Luhmann for Anthropologists

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Abstract: In this essay, I discuss how Niklas Luhmann's systems theory might be useful for anthropologists. After providing a summary of Luhmann's theory, I address the quandaries anthropologists might face when deploying a theory that presumes systems without selves. I also recount how other anthropologists have made use of Luhmann's system theory in disparate contexts to analyze auditing, legal pluralism, and biosecurity hazards.

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Readers may be bemused by this essay's task – to present Niklas Luhmann to anthropologists as a potentially useful social theorist. Those with even a passing acquaintance with Luhmann will recognize the multiple disciplinary ironies at the heart of this effort. Luhmann, after all, chooses as his initial theoretical stance to remove the person as a conscious (or even unconscious) social actor from his systems theory. In addition, in his framework, radical epistemological difference exists both as a commonplace internal to how systems function and without reference to anything that many anthropologists have learned to view as cultural. What could there be in this system theorist's analytical toolkit that could prove productive, especially to scholars whose training presumes that subjectivity and radical difference are essential to think with or against in one's parsing of social contexts?

I suggest that it is precisely the ways in which Luhmann's theory of social systems erases the person as an agent that can render Luhmann's writings significant for anthropologists. Many anthropologists are committed to addressing how selves and socialities can be formed through different epistemological assumptions. Yet during fieldwork they are encountering interpenetrating systems in which different selves are distinctly not at stake. The systems that people on the ground face are increasingly structured as systems that erase selves, and, especially if the systems are global, that erase the messy contours of cultural difference. Economic flows, governmental networks, legal structures – all can be examined as colliding systems that create subject positions, but do not necessarily engage with subjects. In addition, Luhmann offers a theoretical standpoint from which to think about radical difference without invoking radically different selves or relations, a perspective that might prove invaluable when exploring social systems that participants view as systems—such as bureaucracies or institutions.

Systems Without Selves: Notes and Queries on Luhmann's Systems Theory

Luhmann's intellectual genealogy offers an intriguing starting point for imagining systems without selves—he begins at the intersection of Talcott Parsons¹ and Gregory Bateson². To begin with Talcott Parsons is to begin with a commitment to thinking about social interactions as instantiations of systems. Thus the first question to ask of any interaction is: to what system does this interaction belong? From there, the analyst can explore how this particular system structures itself, and how the system relates to other systems. In short, Parsons provides the impetus to frame society as an interwoven complex of smaller social systems, in which each system's functioning contributes to how society operates as a whole.

To begin with Bateson, however, shifts the focus in Luhmann's writing away from Parsons' more functionalist emphasis on how all interactions and subsystems are working as interdependent systems to produce society as a functioning whole. Thus the question to ask of any interaction is *not*, as Parsons might wish: how does this interaction contribute to a functioning totality? On the contrary—Luhmann's opening theoretical concern is with how systems distinguish themselves from their environment and from each other, creating contexts in which the 'difference that makes a difference' (Bateson, 1972: 453) becomes the analytical key to understanding a given system. It is useful to keep Bateson's vision of cybernetic systems in mind when beginning to tackle Luhmann's work, since both are far more concerned with understanding systems in terms

of communication and its binds than with interpreting systems in terms of functions and their failures.

How does Luhmann analyze systems and their communication without any concern for the people who might inhabit these systems? From Luhmann's perspective, this question fundamentally misrepresents the relationship between social systems and people. The foundational divide is not between society and the individual, but between a system and its environment. Systems constitute themselves by distinguishing what they do from what occurs in their environment. For systems to exist, the system itself must determine what is system and what is environment, not what is structure and what is agency. Performing these distinctions is a self-constituting activity of systems, not people. People are relevant to social systems only as part of the environment. He describes people as psychic systems, and argues that psychic systems are bounded entities that can not communicate directly with each other or with social systems (see Luhmann 2002: 169-184). People often will offer inputs into social systems, but these inputs are not the same thing as communication. Thus, people provide material for a social system to re-frame according to the system's needs, an activity no different than what any part of the environment contributes to its system. In short, for Luhmann, to see systems in terms of selves is to misunderstand how systems function.

A system constitutes itself as distinct from its environment according to principles particular to that system. Every system requires an environment, it requires a background against which the system defines itself. What is not part of the system is, from the system's perspective, part of its environment. A system can exist only by making constant distinctions between what it is versus what its environment is. For example, the aesthetic system is constantly distinguishing between what is beautiful and what is ugly. Its very existence depends upon continually producing this distinction, on constantly asserting what is beautiful and what is not. In the process, it is framing its environment as everything that waits to be coded as beautiful or ugly. It is in this way that systems can only exist because they have an environment available to be processed. Notice that the reverse is not true. No environment requires a system to exist.³

These systems are *autopoietic*, that is, they are self-reproducing. An autopoietic system is the product of its own processes and only its own processes. Autopoiesis is a term that Luhmann borrows from Maturana⁴, who originally coined the term to describe biological functions. Luhmann animates autopoiesis with social significance. Social systems are autopoietic—they 'create everything that they use as an element and thereby use recursively the elements that are already constituted in the system.' (Luhmann, 1995[1984]: 444). Neither the environment nor other systems (which can only be part of the system's environment) provides an autopoietic system with the tools to maintain itself—a system defines and maintains itself without any external structuring assistance. Thus, all observable activity occurs within systems, not within the environment.

In addition, for a system to be autopoietic, the system must be able to observe itself. Observation is how a system regulates the distinctions it is continuously making to determine what is system and what is environment. This becomes apparent when one focuses on how the aforementioned aesthetic system perpetuates itself. How beauty or ugliness is determined shifts over time, and largely depends on the object or performance's ability to attract an observer. It is the act of observation that perpetuates the system. For a system to understand which internal processes must be reproduced, and

which discarded, the system must be able to observe and judge its own functioning (Luhmann, 1995[1984]: 457). For Luhmann, making a distinction is an act of observation, so the originary act through which a system births itself is by observing. Luhmann distinguishes between two levels of observation, calling the act of making a distinction a first-order observation. Distinguishing between system and environment, or distinguishing whether something is right or wrong, legal or illegal, beautiful or ugly—all are first-order observations. Observing this distinction—noticing the initial separation or categorization—is a second-order observation. Thus systems are constantly performing first-order observations as they distinguish between system and environment. They are also constantly performing second order observations as they monitor the processes which separate system from environment.⁵ Both types of observation occur according to the logic of the system in which the observations take place.

Notice that these observations always occur within the context of a system. There is no external observer in Luhmann's framework. This may seem counterintuitive, since Luhmann's claims appear to be located in an external vantage point, an analytic position outside of the context of any system. This is not the stance that Luhmann claims for himself. For Luhmann, systems theory is an observation that occurs within the confines of society, it is one of society's self-observations. Indeed, all analyses, all observation according to Luhmann must occur from within a system. Observing requires a system from which one can observe. Thus to observe a system's functioning from outside of the system can only occur by observing from within the context of another system. In short, observing, or reflection, is possible only within the context of a system, and is structurally specific to the system in which it takes place.

Every social system—legal, economic, educational, and so on—operates according to its own internal logic. Luhmann argues that the logic is expressed through binary processes—a system evaluates every input that enters from its environment in terms of a binary code derived from its own particular logic.⁶ For example, the legal system distinguishes itself from its environment by processes that evaluate everything in terms of what is legal or illegal. Luhmann writes:

The legal system functions wherever one works with the schema legal/illegal. This schema serves to differentiate a specific kind of acquisition of information; it does not serve, at least not primarily, to find out anything about actions, to explain or to predict them. When the legal treatment of problems was professionalized, the legal system enlisted terms like theory, knowledge, and science. But cognitive efforts serve here only to create the preconditions for decision—those who make them take pride in doing precisely this and no more. (Luhmann, 1995 [1984]: 374).

Every element, every communication within a system is produced according to the principles that structure that particular system's functioning.

A system exists in a specific paradoxical relationship with its environment, since a system exists to expand, to ensure that it encodes as much as it can. The environment both provides the sustenance, so to speak, for the system to continue functioning, and acts as the boundary which the system is constantly trying to exceed. To be a system is to have a drive to envelop. The environment from this perspective serves as constant fuel

and constant resistance. Here Luhmann re-writes some familiar anthropological understandings of domination and resistance when he defines the relationship between a system and its environment in terms of order and its limits. The resistance that environments proffer systems is a resistance emerging out of too much complexity, not an active resistance to a system's urge to order.

What keeps a system from enveloping its environment? One of the basic divisions between a system and its environment is that a system is always far more ordered than its environment, and an environment is always far more complex than its system. This distinction is fundamental to what systems and environments are for one another. A system is constantly re-formulating the noise and chaotic complexities that leave the environment and enter the system into order. But creating order is also always creating a simplification, it is reducing complexity to what is manageable. The environment is, by its very nature, 'everything else', always far more complex than a system. The boundary between the system and its environment emerges as a result of the amount of complexity that the particular system is capable of ordering. The limit is the limit between a system's order and an environment's complexity. This is a constantly shifting limit as the system changes its abilities to structure.

This has an interesting implication for how systems relate to each other. From a single system's perspective, other systems are always part of the environment. A system does not distinguish between input it receives from other systems and the environment. 'This means that the complexity each system makes available is an incomprehensible complexity—that is, disorder—for the receiving system. Thus one could say that psychic systems supply social systems with adequate disorder and vice versa.' (Luhmann, 1995 [1984]: 214) Other systems' inputs are not received as pre-coded for that system's use. The relationship between two systems is indistinguishable from the relationship between a system and its environment. A system is always another systems' environment. 'Everything that happens belongs to a *system* (or to many systems) and *always at the same time* to the *environment of other systems*.' (Luhmann, 1995 [1984]: 177, emphasis in original) So when a change happens in a system, a change happens in the environment of all other systems.

As a consequence, the relationship between systems is always a relationship balancing interdependency and encompassment. Systems can depend upon each other in as much as systems can provide each other with palatable disorder, a disorder that is more easily digested. Producing the appropriate disorder for another system is not, however, part of a system's intention. Systems might interact in ways that promote each others' functioning, but a system never interacts in a way that takes into account the ways the other system functions.

Communicating across systems always generates a miscommunication because it involves re-contextualizing information. This is a consequence of having autopoietic systems interacting with each other. When a system exists only as the historical product of its own processes, then other systems can only contribute complexities or disorder that needs to be structured anew. As a result, receiving systems invariably disregard why a particular output was generated, or entered into their boundaries--the principles driving the production and transmission of the information are radically different from those governing its reception. These miscommunications have the potential of being productive, but not inevitably so. The relationship between systems is not simply about

circulating more and more easily re-formulated complexities. Every system also tries to expand into every other system, re-encoding its functions to operate according to that system's interests. When there are temporarily stable boundaries (and this occurs often), this stability is always a hard-won achievement. (Luhmann, 1990: 74).

Luhmann's theory presupposes radical epistemological difference as a commonplace, an inevitable component of how systems operate. Because systems are autopoietic, their logics are self-contained. The system doesn't allow other logics or principles to exist within its confines. In this sense, Luhmann's theory of distinction is one of radical distinction--logics are not mutually accessible to each other. He does acknowledge that a system can perceive another system as a set of processes operating according to alternate principles – systems can recognize that other possibilities, other ways of being autopoietic can exist. But from a system's perspective, the other systems are inferior. He writes:

Every system that participates in interpenetration realizes the other within itself as the other's difference between system and environment, without destroying its own system/environment difference. Thus every system can actualize its own superiority in complexity, its own modes of description, and its own reductions in relation to the other and thus make its own complexity available to the other. (Luhmann, 1995 [1984]: 217)

In this passage, Luhmann points to the ways in which systems acknowledge the possibilities that other ways of dividing the world can exist. He claims that systems can even recognize that they are another system's environment. Yet this recognition of otherness does not reduce or weaken a system.⁷ For a system, the perception of other systems is seen only in the context of the perceiving system's superiority.⁸ Unbridgeable difference is thus the norm for Luhmann. Systems can be viewed as perspectives which can never be inhabited simultaneously, a separation created by how systems fashion themselves.

Luhmann describes society as functionally differentiated, a conglomeration of interdependent systems. Each social system is a subset of society, and as such, contributes to how society operates as a totality. This totality is based on connections built upon miscommunications, it is a confederacy of irreconcilable perspectives. Society is made up of interacting but autonomous social systems. Luhmann describes society as a system, but it is a system that can not behave in the same fashion that its internal social systems can. Because of the rifts already described that lie at the heart of society's functional differentiation, society does not resemble its own systems in two significant ways. First, society can not observe itself—there is no external unifying position from which one can observe. 'Society remains the same but appears as different depending upon the functional subsystem (politics, economy, science, mass media, education, religion, art, and so on) that describes it.' (Luhmann, 2002: 89) Society has become riven by self-referential systems, each defined solely by their own techniques for responding to and incorporating complexity. These divisions between systems ensure society can not exist as a unity observing itself. Luhmann sees this as an historical development, arguing that there was a moment when society was a totality that could observe itself.⁹

Secondly, there is no social system lying outside of society. By this, I mean that society has no social systems in its environment. Society can have other systems in its environment—psychic, biological, and so on. But society encompasses all social

systems. This has several important implications. In Luhmann's account, society, and by implication all social systems, exist at a global level. Spatial boundaries have no significance in Luhmann's framework. There are no individual societies competing with each other, divided by national boundaries. Neither society nor social subsystems--such as economic, scientific or media systems--have geographical limits. There may be regional differences in the ways that particular systems are configured, but these regional differences are variants of a larger social system. Luhmann argues that: In our context, where we have to decide between assuming a global system of regional societies or a world society, we have now clear and theoretically consistent arguments for a single world society. The autopoietic system of this society can be described without any reference to regional particularities. This certainly does not mean that these differences are of minor importance. But a sociological theory that wants to explain these differences, should not introduce them as givens, that is, as independent variables; it should rather start with the assumption of a world society and then investigate, how and why this society tends to maintain or even increase regional inequalities. (Luhmann, 1997: 11)

In short, Luhmann suggests that society is best thought of as a global unity that is internally differentiated, rather than as a conglomeration of distinct entities that are linked through emerging flows of communication, knowledge, and resources.

In describing society as global, Luhmann also posits that society has a different balance with its environment than its subsystems have. Social systems must constantly guard their boundaries—other social systems constantly want to encompass the social systems in their environment. Society is not faced with the same threat. In this sense, society's relationship with its environment is more placid than social systems'.

Luhmann's focus on systems and their environment instead of agents and their social orders offers new analytical tools for exploring the contexts anthropologists' interlocutors regularly navigate. He offers an approach that enables scholars to conceptualize anew radical difference, agency, resistance, global/local dichotomies, and reflexivity. Radical difference is no longer the purview of culture, but a commonplace and pervasive by-product of how society constitutes itself. Agency is no longer located in the person, but is now a quality most readily understood to be part of systems. Resistance is no longer a performance of agency, but is now central to how systems and environments exist. The global/local divisions can no longer be framed as global systems interacting with local societies, thus sidestepping the paradoxes other scholars have commented upon in critiquing the global/local dichotomy (Appadurai, 1996; Inda and Rosaldo, eds. 2001; Strathern, ed., 1995). Finally, reflexivity is no longer linked to consciousness, but is fundamental to how systems constitute themselves. In short, Luhmann offers an analytical toolkit filled with double-edged instruments for anthropologists to use.

Anthropological Uses of Luhmann's Systems Theory: Reading With and Against Luhmann

Only a handful of anthropologists have found Luhmann useful to date, and each one has found quite different aspects of Luhmann's system theory provocative and promising. In this section, I discuss how Luhmann might prove useful to some

anthropological projects, albeit with some reservations. I also address some of the ways in which anthropologists have already incorporated Luhmann's interventions in their own work.

I am ambivalent about Luhmann's theory. I find his account of systems without selves useful as an analytic but unbearable when lived. Luhmann provides an analytical toolkit to think about the systems that my interlocutors in the field, Samoan migrants in New Zealand and the United States, encountered on a regular basis. They were constantly attempting to navigate bureaucracies which operated along contradictory yet all-encompassing principles, principles that often erased the nuanced ways in which my interlocutors tried to fashion themselves in these encounters into effective social strategists. The people who acted as representatives of the systems localized by these bureaucracies also were quite ambivalent about their allegiances, distancing themselves verbally from the systems that they were practicing. In short, Luhmann offers a rigorous method for thinking about the systems that people are constantly encountering, and for discussing the often paradoxical ways in which people understand and practice their relationships to these systems. What I am suggesting is that Luhmann's theoretical model is useful not because of his nuanced insights into social interactions, but because of his nuanced insights into social systems. He is not capturing sociality well, but he is depicting systems profitably. And for anthropologists, this presents a quite engaging challenge. How can we as ethnographers make use of Luhmann's insights into systems to understand better how our interlocutors in the field experience and analyze their relationships to social orders--social orders that often, but not always, are constituted as systems? I am suggesting that Luhmann is useful to anthropologists because he offers a framework for thinking about systems without selves, leaving anthropologists (and our interlocutors who encounter such systems) the difficult task of reading selves back into the interactions.

What would Luhmann's systems look like to people on the ground? In this section, I focus on the anthropological implications of two aspects of Luhmann's system theory. First, I explore how people might experience the tense relationships between systems that are central to how systems interact with each other. Second, I discuss what culture or allegiances to social orders not structured as systems might seem like from a system theory's perspective. In short, I am asking how anthropologists might engage with systems theory without losing sight of people or of more anthropologically familiar understandings of epistemological differences.

People might experience how systems differentiate themselves in several ways. People will experience bureaucracies and/or systems as often mutually incompatible. This incompatibility will range from contradictions surrounding basic terms or definitions to Catch-22s where people are thwarted from moving between systems successfully. In thinking about definitional incompatibilities I am referring to how exclusive and irreconcilable categories can be when compared across systems. What family means from the perspective of the economic system—a unit of measurement such as a household—is different than what family means in the legal system—a path towards legitimating inheritance, or a source of conflict to be sorted. Even when terms appear to share similar referents, the ways systems function will guarantee that they don't.

The dilemma this engenders occurs on more than a definitional level. Each system structures the subject positions that people can inhabit differently, forcing people

to learn a wide range of social strategies, each set compatible with a different system. The skills required to be a successful businessman are different than the skills required to be a successful parent or president of the local synagogue. What becomes increasingly rewarded as people move across systems are the skills required to see oneself as relating *to* one system among many. In short, as people move between systems, they will be rewarded for abilities to recognize and learn more quickly from strategic failures (such as recognizing systems' incompatibilities) as well as learning how to respond most effectively to the principles of a single system.

When people are operating as social strategists from within a system, rather than trying to navigate several, a different dynamic is at stake. While systems in practice are constantly differentiating themselves, systems often represent themselves as requiring increasing centralization. Centralization and its corollary--more effective communication—can be many systems' favorite chimera. Centralization is a system's dream of increasing control. Every system desires to expand and encompass as much of its environment (and thus other social systems) as possible. Increasingly efficient communication is a system's way of hoping to code more and more of its environment. Noise is a significant way that systems experience their own boundaries, boundaries that are overcome through more and more effective re-codings. Readers who research bureaucracies and institutions might recognize these calls for centralization and more efficient communication (in my fieldwork among New Zealand and United States welfare officers this was expressed as plans for a 'one-stop shop' in almost every context). After all, a system will recognize its own failures initially in terms of ever more inefficient communication.

I want to point out that centralization and efficient communication may always be imagined to be on the horizon, but are rarely achieved. Often these are efforts that in practice are meant to unite different systems tightly. This is a hazardous endeavor from the perspective of any system—they risk being overtaken by another system. So while centralization may be an often proclaimed goal, in practice all sorts of obstacles will emerge to undercut this process. Systems theory presents a context for explaining both the calls for centralization and efficiency, and the many interactions that ensure these goals will rarely be realized.

Centralization is but one of the ways in which systems attempt to re-formulate other systems. Luhmann points out that the boundaries between systems emerge as side effects of the ways in which systems attempt to reach their goals, that the very functioning of the system creates the differentiation. In short, the radically different *raison d'être* determining each system helps ensure that communication between the two systems is miscommunication. It is possible for people engaging with these systems to misinterpret these boundaries, to view them as obstacles rather than enforcing separations that create the spaces that support productive functioning. When the boundaries are misinterpreted from the political system's perspective, the political system attempts to expand through bureaucratization. This increase in administration is misplaced, since it is creating political order in domains where success can not be achieved in the ways that the political system usually creates order, that is, by producing binding decisions (Luhmann, 1990: 75-76). For example, when social workers try to help families create a plan of recovery, in which they schedule the changes they will make each week or each month, the social workers are supposing that families are functional when they are self-

referentially 'managed' in much the same way that government agencies are. The social workers are teaching families how to be functional from a political system's perspective. They are co-opting the family system, and attempting to replace its unique principles of how information and resources should circulate with political principles. Part of the dynamic underpinning government aid to families is this spread of bureaucratization. By providing resources, the political system encroaches upon the family system, justifying its own existence at the same time as it attempts to re-make the family in its own image.

Marilyn Strathern (in press) points to a similar dynamic of encompassment and re-structured reflexivity in her discussion of auditing as a Luhmannian system. She discusses how organizations function as the constantly perturbing environment for the auditing system, providing data that needs to be re-packaged by the audit. In this case, health service trusts or university departments are perceived by the auditing system as other systems, but systems that must be explicit about their functioning along the lines that the audit requires. What audit demands is that other systems become second-order observers of their own functioning according to the auditing system's principles, not according to their own. Their inevitable failures are transformed both into the audit's legitimation and a justification for its perpetual and insatiable quest for better tools of measurement. She writes:

I said that a frequent complaint made of audit is that it fails to comprehend the 'complexity' of the organizations it monitors. Of course: as itself a system, audit's complexity lies in its own internal mechanisms of conduct. These it 'improves' by sucking complexity out of the external organizations into itself. (Strathern in press)

Audit functions precisely because of the contradictions between how it models the ways organizations should function and how organizations model their own functioning. Reflexivity (or self-description) is not only structured along different lines by each system, but can also become the lever by which one system attempts to encompass another.

Strathern's use of Luhmann to account for the pitfalls at the heart of the audit also sheds light on other inter-system transactions. Sometimes anthropologists who research and work in NGOs have at some point or another had that sinking feeling that these NGOs have been set up to fail. Luhmann offers a theoretical explanation affirming this suspicion. From a political system's perspective, NGOs often play a specific part in perpetuating the political system. They must create a very particular disorder, one which the government bureaucracy can co-opt for its own purposes. What these organizations often produce, at the most literal level, for the political system are reports—reports written according to the political system's specifications—about the clients they have been funded to assist. The political system can transform these reports into tools of legitimation, the reports act as evidence and fuel for all-important statistics. Because of the ways in which government bureaucracies are set-up to collect this information, they have less leeway to fabricate than the community-based organizations do. And the community-based organizations have enormous, albeit implicit, pressure exerted on them by the political system to shape their reports according to the political system's needs. The political system shapes the pragmatic norms of how community based organizations can survive financially. By doing so, the political system also co-opts the ways in which these community-based organizations can break the rules. The government system is quite

effective at co-opting the pragmatic norms of how to fudge in this system—the community workers are often fashioning, however unwittingly, the disorder that the political system requires, not the disorder that their clients might find useful.¹⁰

I am suggesting that social orders in general, and systems in particular, need to be understood in terms of the social strategies they enable. It is as important to understand how people envision their relationship to a social system as it is to understand how a social system functions. Thus the question I have been asking in the past section has been: how do people understand their relationships to social systems, assuming that Luhmann has useful insights into how systems function? The question I have been posing in Luhmannian terms is: how do psychic systems perceive and understand their interactions with social systems? Yet framed this way, the question erases one of my central concerns. If systems function as Luhmann suggests, how do people move between systems? Luhmann has engaging discussions of how information or resources move across or between systems. But this begs the question of how people traverse systems, which they must do in the course of daily life. This is one of the ethnographic puzzles that Luhmann leaves anthropologists with – how to understand people’s relations not just to a social order or system, but to the wide range of incompatible systems they engage with on a daily basis.

Configurations of Risk

I turn now to other instances in which anthropologists might find the tension between Luhmannian systems and how people on the ground fashion themselves as strategists productive, turning in particular to his dichotomy between danger and risk. Several anthropologists have found Luhmann’s distinctions between danger and risk useful when analyzing people’s conceptualizations of their relationships to nature or to others (Tim Ingold, 1992; Dan Rabinowitz, 1992; Stephen Collier, Andrew Lakoff, Paul Rabinow in press). Luhmann defines danger as an external force, one that emerges from outside of one’s systems, networks or social contexts. Because danger enters from the environment, it is uncontrollable. One’s actions have no effect on whether danger will exist or not. Risk, on the other hand, is a threat produced within a system; one’s actions can allow the risk to come to fruition. At the heart of Luhmann’s distinction between danger and risk is the question of how one imagines the relationship between responsibility and contingency. In a situation of danger, people are not responsible for any possible threat or disruption. In the case of risk, people are imagining that a wide range of contingencies are linked to their actions. Risk entails one’s own involvement in cause and effect--possibilities are viewed as the outcome of strategies, and hence controllable.

Anthropologists have put this dichotomy to good effect, although often without adopting wholesale Luhmann’s approach to systems. Ingold discusses how hunter-gatherers might understand their relationship to nature as risk instead of danger, seeing themselves as embedded in a network of relationships with non-human agencies. He suggests that seeing nature in terms of danger—as a source of uncontrollable and external hazards—is a Western stance that misinterprets how hunter-gatherers operate (Ingold, 1992: 41-42). To put this in Luhmannian terms, hunter-gatherers do not see themselves as operating from within a system with Nature serving as an external environment. To be embedded within nature affects both their practices and what they consider social. In a

sense, Ingold is focusing on how to apply the danger/risk dichotomy to a first-order observation made by hunter-gatherers, he is focusing on the ways hunter-gatherers fashion the preliminary divide with their environment.

Rabinowitz uses the danger/risk dichotomy to describe how Israelis view Arabs. With this move, he is employing the danger/risk dichotomy to understand a second-order observation. He is not as concerned with how Israelis understand their own social strategies (potentially a first-order observation) as he is with how Israelis understand Arabs as social strategists, a second-order observation. He wants to understand how a person views the distinctions they think others make. He asks: what kind of rationales do Israelis attribute to Arabs as others, and then, how do these explanations recursively shape Israeli practices? He argues that Israelis tend to see Arabs more as dangers than as risks—as a person with an irrational destructive drive towards Israelis. This is not always the case, and there are times that the pendulum will swing towards risk—an Israeli will view an Arab as acting out of rational self-interest. He argues that Israelis are constantly ascertaining where Arabs fall on a continuum of dangerous or risky motivations—are they operating from a cosmological malice or are they acting out of a technological and hence rational interest? (Rabinowitz, 1992: 531) In short, for Rabinowitz, Luhmann's concept of risk enables a discussion of the fluid yet limited ways in which people will ascribe motivations to others.

Collier, Lakoff, and Rabinow use Luhmann's distinction to address the consequences of framing biosecurity only in terms of risk, and not in terms of danger. They argue that current frameworks for determining biosecurity recognize that the threats are the result of human action, and hence can be managed from within a technologizing framework. Yet the origin of the threat is unknown, no one can predict which group will attack using biological weapons, or which weapons they will use. This uncertainty creates the puzzle—how do experts construct apparatuses to respond to biosecurity threats when the nature of the threat is so indeterminable. This instability at the core of how people conceptualize biosecurity hazards contributes to a Rashomon effect. Biosecurity experts have trouble agreeing about the object of their concern. 'In other words, there may be as many "threats" as there are domains of expertise. This implies that a key task for our analysis is to note the different ways that the bioterrorism threat is constituted by various kinds of experts.' (Collier, Lakoff and Rabinow, forthcoming) These experts face interconnected dilemmas, the ways in which biosecurity hazards are both danger and risk in Luhmannian terms also ensure that no one agrees on the nature of the threat. The work of being a biosecurity expert is to navigate this infinite proliferation of threats through technologizing frameworks, attempting to create manageable uncertainties.

Systems and Their Vantage points

Other theorists have found thinking through Luhmann's framework to be productive without asking the question: how does a Luhmannian system look from the perspective of the people who encounter it? Luhmann offers a caution to scholars concerned with how social systems are instantiated in local contexts. Systems by their nature claim a universalizing perspective that is continually undercut by their practice. They are interdependent with other systems, but this must be overlooked during a system's self-referential observations. Sari Wastell puts this caution to good effect in her

critique of legal pluralism (2001), and, by extension, of cultural pluralism. Wastell begins by pointing out that systems which claim to have a global purchase—legal systems, economic systems, and so on—all presuppose a God’s eye view. This God’s eye view is structured differently depending on the system that presupposes it. Local versions of these systems are seen as lesser, as imperfect and limited variants of this overarching vantage point. In as much as these local variants represent a diversity—be it legal or cultural—it is one constructed out of an implicit juxtaposition with the global or universal envisioned in the system’s self-representation.

To say that legal or cultural pluralism presupposes a diversity that is always already essentialised and inferior is not a new critique (see also Greenhouse 1996). What Luhmann enables Wastell to argue is that the problem is not in the diversity but the vantage point from which the particular form of diversity is conjured. Just as systems create their own uniquely structured God’s eye view, so too do they create their own diversities. But as Wastell points out (2001: 188), not every system produces a visible diversity. She argues that systems which produce a diversity must do so by presupposing a God’s eye view against which the plurality is defined. But systems that don’t do so are continually striving to formulate a unity or unified meaning, an effort which can only occur ‘against a myriad of redundant possibilities’ (Wastell, 2001: 188). It is these systems, the ones that do not foreground plurality, that might offer useful ethnographic counterpoints to some of the paradoxes that anthropologists continually recreate as they engage with systems that presuppose diversity. Wastell suggests that the way out of the conundrums pluralisms pose to anthropologists is not only by seeing how various systems structure diversities differently, and structure these diversities as specific types of problems to be resolved (see Greenhouse 1998). She also suggests that ethnographic alternatives, studying systems where diversity is not at stake, will sharpen our analytical tools.

While Wastell focuses on how systems, in creating certain distinctions, produce a controllable diversity¹¹, other anthropologists have found Luhmann helpful in his focus on the ways in which systems must address the uncontrollable. Stephen Collier in particular has turned to Luhmann to frame his exploration of how futures are constructed from the vantage point of a system. Collier takes as his case study the ways in which Soviets planned cities. He argues that in the Soviet era, futures were predictable. By viewing the future as certain, systems were taking what might be understood to be environment as already successfully structured. He writes: ‘The pathology of certainty in Soviet planning, oriented to a future known in advance, in which questions of value had been fixed by bio-technical norms and industrial planning, was, as everyone knows, that it was the wrong future.’ (Collier, 2001: 339) The neoliberalism that has replaced this Soviet certainty posits a far more tenable approach to the future, according to Collier. For him, neoliberalism recognizes the fundamental uncertainty of the future. In short, neoliberalism takes into account the fundamental paradox that systems can never fully encompass or encode their environment. For Collier, operating with an awareness of this paradox renders neoliberalism a more functional system.

A System Theorist’s View of Culture

Anthropologists have started using Luhmann’s system theory to address how systems engender radically different subject positions, and thus how the everyday can be

experienced as epistemologically hybrid from context to context. To locate epistemological differences in systems while belonging to a discipline founded in part on studying culture raises an important question: what does culture look like from the perspective of systems theory? This is not a concern with how other systems' radical difference might appear from a system's perspective. As I have already discussed, systems can recognize other system/environment divides—they can recognize that other systems can function along similar lines without losing sight of the system's own superiority. Asking about culture from a system's perspective is asking about how systems perceive the possibility of radical epistemological difference not founded in a system/environment divide.

In his essay, 'The Ecology of Ignorance' Luhmann begins to address this question, describing culture as a resource for dealing with the paradoxes that inevitably accompany systems. He argues that the concept of culture begins with a double-edged cut. First, culture implies a cultural relativism, the existence of one culture implies the existence of other cultures. Note that for Luhmann the same does not hold true for society. The concept of culture promises externally located epistemological difference, while for Luhmann, the concept of society references only internally located social differences. Implying other cultural perspectives is not the only distinction culture's existence asserts. With culture also comes the possibility of non-culture, the possibility of boundaries or limits that culture's a-systemic nature renders paradoxical. In short, culture is not a system. The concept of culture implies relationships between what culture is and what culture is not that are antithetical to how a system distinguishes itself from its environment.

Luhmann finds the ways that culture fashions boundaries problematic for several reasons. First, culture is an endlessly divisible category, with no clear processes structuring these infinitely receding/shrinking divisions. American culture can contain youth culture, drug culture, black culture, all with no clear techniques for determining how these cultures might overlap or distinguish themselves from each other. Culture may presume distinctions in its originary moment, but does not sustain distinctions effectively afterwards. Luhmann thus finds culture's inability to have boundaries 'at the bottom' (Luhmann, 1998: 101) liberating in all the wrong ways, offering a promiscuous freedom from definition.

This promiscuous freedom to exceed definition emerges in culture's orientation to its topmost limit as well. Luhmann is concerned with those moments when people know that they have a culture, when cultural identity is consciously fashioned. In these moments, culture refers to a median, the average way of living in a particular context. Because culture is the average lifestyle, it also engenders the possibility of alternative lifestyles – the subcultures previously mentioned. Culture legitimates internal distinctions in such a way that there is a constant tension between the standardization of tastes or of lifestyles and an impulse to individualize. In addition, culture offers the possibility to be an individual through conformity to lifestyles that are distinctive only because they are not the norm. The differences alternative cultures present are not radical ones. People don't necessarily have to have different concepts of the self or different concepts of sociality when they have an alternative lifestyle. From a system theory's perspective, the difference produced by subcultures is an empty one—a difference formed by being marked as different only, not enacted as such.

Culture becomes a particularly treacherous analytic concept from Luhmann's perspective. It becomes a vehicle for asserting distinction but not producing stable distinctions. In this way, culture becomes an ideal medium for addressing paradoxes from the vantage point of second-hand observers (that is, observers who observe distinctions) without stably resolving them. Culture is an arena for articulating ideology without necessarily engaging in practice, rendering it an ideal medium for simultaneously discussing and maintaining paradoxes. At his most scathing, Luhmann states 'Culture is the stock market where options for paradox resolution are traded.' (Luhmann, 1998: 102).

What does this view of culture refracted through systems theory open up for anthropologists? First, this stance provides a framework for understanding the ways in which cultural miscommunications or cultural conflicts are approached by people enmeshed in systems. In contexts where people see others as the culture-bearers, culture is all too often invoked as an explanation for communicative failures, either between systems or between people. Culture is the catch-all explanation formulated after failure, not prior to failure. From within systems, people will tend to interpret differences as cultural after a failure in communication or compliance with the system performed by people outside of the system. In these instances, often those who enact the system will see themselves as acultural, with others as the culture bearers. This often implies invoking culture as a static category for classifying people. Among people who see themselves as belonging to a culture instead of a system, often what they understand to be culture is far more fluid. People will use the concept of culture not only as an explanation for failure but as a way of imagining why people act the ways that they do, to re-align what it means to be responsible for particular actions, and to understand why relationships are unfolding in the ways that they are (that is, not necessarily solely as explanations for failure, but also as explanations of process). By treating culture as a static and reified category, and cultural difference as a homogenous heterogeneity, those within systems manage to 1) help perpetuate the illusion that culture and system are distinct entities; and 2) often imagine that system-wielders can *save* culture-bearers. I also want to suggest that systems often benefit from the disconnection between the ways in which people within a system invoke culture and the ways in which those outside the system invoke culture.

Secondly, culture loses the analytical purchase that anthropologists have historically found in the concept. For me, this loss is most apparent when Luhmann writes: 'Culture sees itself as a culture of individuals, but this also implies that individuals must correspondingly discipline themselves' (Luhmann, 1998: 101). Culture in this formulation loses its epistemological promise to imagine alternative ways of having selves, of having complex patterns¹² for circulating knowledge and resources that create different subjects as well as subject positions. In sum, culture loses its originary promise made under Luhmann's framework—the promise of other cultures, of other epistemologies. Culture becomes a marker for empty identities. It becomes possible to discuss cultural identity without concern about whether these identities point to different perspectives. By invoking cultural identity as such a rubric, it becomes relatively easy to substitute a fill-in-the-blank-with-group's-name notion of identity for the cultural specificity created by analyses conducted at the intersection of social organization and epistemological perspectives. In short, cultural differences and their epistemological edge are lost when one views social interactions only from the perspective of systems.

Conclusion

Luhmann offers an analytically rigorous perspective for thinking with and against systems. He writes against many of the disciplinary pleasures that anthropology has to offer. This offers a challenge to anthropology that ethnographers who wish to do so can turn to their advantage. After all, the systems anthropologists and our interlocutors on the ground regularly encounter often undercut many of the pleasures of thinking and practicing cultural difference as well, but do so without providing such an analytically rigorous framework detailing how this is accomplished. I am encouraging anthropologists to have a complicated engagement with Luhmann's system theory, viewing it as a productive foil for those who wish to explore the intersection between systems, epistemologies and social organization. This may require an unfamiliar relationship to a theorist since it entails engaging with a theoretical perspective as a possibility that people struggle with and try to undercut in their daily lives. Luhmann is interesting precisely because he may be right about systems, but wrong about what it means to be a social being.

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¹ Luhmann studied under Talcott Parsons at Harvard in 1961.

² I am attributing to Gregory Bateson more influence than perhaps Luhmann himself would acknowledge in an attempt to place Luhmann's work in a context anthropologists might find more familiar. See *Social Systems*, pp. 38-39 and p. 39 ft. 75 for some further textual justification.

³ Notice also that distinction or difference only exists after the initial and initializing moment when a system distinguishes itself from its environment.

⁴ Humberto Maturana is a biologist who defined the nervous system as autonomous and self-referential—any information the nervous system receives is re-coded by the nervous system. Thus, and importantly for Luhmann, a living system has no direct access to its environment.

⁵ After the first-order observation, observations operate recursively and are all structured along the same lines. A second-order observation entails observing a distinction. One could have a third-order observation, observing the distinction created by the second-order observation, and so on. But the nature of the observation does not substantively change – from a second-order observation until a 917th observation, the observation itself is always simply observing a distinction.

⁶ I find Luhmann's insistence that systems code according to a binary logic a bit simplistic. When I try to understand how systems might be seen as coding and re-coding in my own fieldwork, I view the codings as occurring according to more intricate logics than either-or statements.

⁷ As I will discuss later, Marilyn Strathern offers an ethnographic example of this in her discussion of how audits engage with the organizations they evaluate (see Strathern in press).

⁸ It is possible that this ability to perceive other systems, and other systems' distinctions, is not a part of all systems. This may well be a capacity that some systems have, and others do not. My thanks to Sari Wastell for pointing out this nuance.

⁹ I came close to discarding Luhmann entirely when I first read his historical description of how society evolves from a self-referential totality to a totality split by functional differentiation. (Luhmann 1990) His romanticization of a pre-modern era when society was unified seemed too Eurocentric and naïve.

¹⁰ See Annelise Riles (2001: 175-178) for a parallel tension in how political activists can clash with a system, which she labels the Network.

¹¹ See Erlmann (1994: 166-167) for a discussion of how infinite internal differentiation can also be used effectively to analyze world music.

¹² In speaking for culture's originary promise, I am not recommending that anthropologists valorize culture as a fount of stabilized meanings in contrast to systems' conglomeration of incommensurabilities. Sociality in its many forms may also be dependent on the inaccessibility of other minds and productive misunderstandings. My thanks to my anonymous reviewer for this intervention.