Things of Boundaries*

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In this paper, I shall argue that it is wrong to look for boundaries between preexisting social entities. Rather we should start with boundaries and investigate how people create entities by linking those boundaries into units. We should not look for boundaries of things but for things of boundaries.

Interests in Boundaries

Problems of things and boundaries have arisen in both areas of my research: studies of professions and temporality.

I conceived of the professions as living in an ecology (Abbott, 1988). There were professions, and turfs, and a social and cultural mapping—the mapping of jurisdiction—between those professions and turfs. A change in this mapping was the proper focus of studies of professions and happened most often at the edges of professional jurisdictions. These edges could be studied in the three arenas of workplace, public, and state.

All of this presupposed much about boundaries of professions, of turfs, indeed of jurisdictions themselves. About boundaries, I presumed that they could be specified, that they did in fact separate professions, and that they were the zones of action because they were the zones of conflict. And, indeed,

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I presumed a spatial structure to these boundaries, as did the many people who attacked my theory for covering mainly the exceptions in the lives of professions and not accounting for the stable life "at the core of a profession." Here was a notion of professions as convex bodies, with secure heartlands deep behind the boundary territories.

Beyond these implicit presuppositions about boundaries, I presumed something much more profound. In arguing mainly about interprofessional conflict, I took for granted the existence of the professions doing the conflicting. This had been necessary, of course. One has to presuppose something, and if I made interprofessional conflict the focus of attention, the bodies in conflict were the obvious things to presuppose. But when I argued about the emergence of professions in border territories, or about the gradual dissolution of professions without jurisdictions, or about the transformation of professions via amalgamation and division, I was taking for granted the notion of acting bodies called professions, capable of being split or joined, capable of coming into or losing some kind of permanent existence.

A somewhat similarly linked set of issues about boundaries and entities arose in my work on temporality. One of my central concerns was how processes of different temporal sizes go together. The substantive issue again involved professions (Abbott, 1982). Why were there very few psychiatrists working in mental hospitals in the 1930s when psychiatry had begun as the profession of asylum doctors in the late nineteenth century? I considered a number of responses to this question. One had to do with an annual mobility model of the behavior of doctors entering and moving within the nervous and mental disease area. Another had to do with the much slower growth of exciting local communities of neurologists and psychiatrists in major cities, communities that changed the very conditions of mobility. Yet another had to do with gradual changes in psychiatric knowledge, moving over a fifty-year period towards psychologism and Freudianism. And a final analysis invoked

changes in social control that took more than a century to fall into place.

It was easy to set up these four explanations for the psychiatrists' move, but hard to imagine how they went together. If one assumed that knowledge change was the central causal force, then it would determine the mobility choices of psychiatrists in, say, the qiunquennium 1880 to 1885, even though it itself would not be measurably complete until 1920 or 1930. Obviously, that could not be. But it was equally ridiculous to think that such grand, contextual changes never mattered at all. Clearly, all these forces were working through the same present and yet contriving to somehow work independently.

All this drove me toward an intensely processual view of social structure. But if one took such a processual view—as did, for example, George Herbert Mead and Herbert Blumer—the problem of entities became acute. Was a social entity a merely accidental stability in a process, a kind of standing wave? Were boundaries in fact literally ever-changing and, hence, not in any real sense boundaries at all?

Now it is easier to explain stasis as an emergent phenomenon in a fundamentally changing universe than vice versa. Social theories that presume given, fixed entities—rational choice being the obvious current example—always fall apart over the problem of explaining change in those entities, a problem rational choice handles by ultimately falling back on biological individuals, whom it presumes to have a static, given character. But it is very nearly as difficult to account, in a processual ontology, for the plain fact that much of the social world stays the same much of the time. Here, too, is the problem of entities and boundaries.

In both these research areas, then, there arose questions of the relation between entities and boundaries and questions about the conditions under which social entities can be said to come into or leave existence. I propose an answer to the latter question by proposing an answer to the former.

Boundaries into Entities

I begin with a basic assertion about the relation of boundaries and entities: social entities come into existence when social actors tie social boundaries together in certain ways. Boundaries come first, then entities.

Let me restate this assertion in concrete examples. In the view proposed here, a geographical state is a set of frontiers which are later linked into what topologists call a closed Jordan curve (a continuous single boundary that defines an inside that is nowhere continuous with an outside). An organization is a set of transactions that are later linked into a functional unit that could be said to be the site of these transactions. A legal corporation is a set of market (and other) relations that are later linked in a certain, specified fashion. A profession is a set of turf battles that are later yoked into a single defensible position in the system of professions.

The major alternative to the position I am advocating takes the relation between boundaries and entities as a synchronic, even logical relationship. In this view, boundaries are a logical correlate of thingness and vice versa. Therefore, indeed, saying that a set of closed boundaries exists is logically equivalent to saying that a social thing exists. This common view obviously cannot provide a temporal account of the origins of social entities.

It is not surprising that we never start with boundaries. The prototypical entity in modern social thought is the biological human being. We think about social entities as overgrown versions of such biological individuals, and, thus, have become accustomed to think that social entities have essences like biological individuals, that they have some internal plan or thingness or Aristotelian substance.[1] Moreover, we assign to human individuals a self-other boundary guaranteed by centuries of Cartesian philosophy and cannot imagine such boundaries without human entities, an inability all too easily generalized to the level of social entities.

I am here suggesting that we reverse the whole flow of metaphor. Rather than taking the individual human being as metaphor for the social actor, let us take the social actor as metaphor for the individual human being. Not only is there much biological evidence for this—the world is full of organisms like slime molds and jellyfish that appear to be individuals but are actually societies—but also, under such an assumption, the fruitful belief that there might be social boundaries without social entities becomes possible.

Let me now turn to the logical issues of imagining boundaries without there being any entities for those boundaries to be the boundaries *of*. It will be helpful here to be formal. In algebraic topology, spaces are understood in terms of neighborhoods. The neighborhoods of a point x are arbitrarily defined "parts of the universe that are near x." In real (Cartesian) space, neighborhoods are typically circles or spheres or hyperspheres, loci such that all points in the locus are within a certain Euclidean radius of x. But, in general, given a set of neighborhoods and a set M, a boundary point of M is a point x such that every neighborhood of x contains at least one point in M and one point in the complement of M. (The complement of M is the rest of the universe once M is deleted.)

Note that this formal definition of boundaries requires the prior existence of entities—the set M and its complement—in terms of which the boundaries can be logically defined. Yet the direction of the definitions could be reversed. One could in principle define the neighborhood system and the potential boundary set and *then* construct the set of which the (potential) boundary set is the actual boundary. That is, given an assignment of points to neighborhoods and a complete list of potential boundary points, we would say that an entity M exists if we can find *some* assignment of all the points in all the neighborhoods to either M or the complement of M such that: (1) each point has a unique location (in M or the complement of M), and (2) given these locations, the points in the potential

boundary set all do in fact meet the definition of boundary points vis a vis M. This would define a set purely in terms of its property of being a thing that possesses a boundary and is a perfectly legitimate definition. But note that with the definition so constructed there is no guarantee of uniqueness. There might be several ways of assigning the points to a set (not M, but N, O, P, . . .) and its complement (N', O', P', . . .) that fulfilled the definitional conditions. Indeed, these different "assemblies of boundaries" would be many if we allowed the definition of the neighborhood system to fluctuate.

Thus, in formal topology, boundaries and entities are more or less logically equivalent. Either one could be primal. But in the logical sequence from neighborhood system to definition of boundary points to definition of set we see a logic of increasing specification that could easily be regarded as temporal, an account of the emergence of entities.

To postulate the temporal priority of boundaries, however, I must come up with a definition of boundary that makes sense even when there is nothing to bound. To do this, I shall replace the concept of set membership with the more general notion of "difference of character." Thus, I shall define a point x as a boundary point in space S if every neighborhood of x contains at least two points that differ in some respect: not one in M and one *not* in M, but simply two points that differ in some respect. (Note that the boundary point is defined "in a space S" rather than "of a set M.") In the simple case, this difference will be a single known property—color, gender, creed, education. In the more complicated (and more likely) case, it will be a combination of properties or dimensions of difference.

I have not mentioned "boundary of" anything. These points are simply what we might call "sites of difference." Also note the assumptions, here, of "differences" and of some kind of atomic unit (the point) to which those differences can appertain.

These two assumptions are critical and problematic. The

"differences" are things that emerge from local cultural negotiations. That is, local interaction gradually tosses up stable properties defining two "sides." These are not necessarily category labels, although the traditional argument (which starts with entities) would presuppose that fact. For me, the central requirement is rather that these differences be local and interactional. But to whom or to what unit do these properties appertain? It would be easy to slide into the traditional argument: these units are pre-existing entities—individual people, for example—who bring different, enduring qualities to interaction. In this case, my whole position turns into an elaborate micro to macro translation argument.

I wish to claim something more radical. I want to emphasize, with Blumer and other strong interactionists, that the units might be anything—people, roles, physical locations, shards of prior social entities, and so on. Of course, any social interaction begins with what is in part a soup of preexisting actors and actions. But interaction is not merely the actors' way of reproducing themselves. This is the seductive assumption that fools both functionalism and rational choice theory into accepting a social ontology that by making stasis primary loses its ability to explain change. If we would explain change at all, we must begin with it and hope to explain stasis—even the stable entity that is the human personality—as a byproduct. Previously-constituted actors enter interaction but have no ability to traverse the interaction inviolable. They ford it with difficulty and in it many disappear. What comes out are new actors, new entities, new relations among old parts.

What are these parts? Is this a hidden assumption that there really are enduring, atomic units? It is not if we hold the world to be "a world of events" (Mead, 1932, p.1). The parts are then events, instantaneous and unique. That some events have stable lineages, thereby becoming what we call "actors," is something to be explained, not something to be assumed.[2]

Having thus extended the logical foundations of my position, however, I readily admit that the example I shall use

in this paper—the constitution of social work as a social entity—does happen to be an example that seems to fit into a micro to macro translation framework. But that accident should not mislead the reader. I could as easily have inverted the example, for the production of what are usually called micro entities (the personality, for example) takes place by precisely the same process, but with what we usually call *macro* entities playing the part of sites of difference. (I shall discuss this example briefly later. An analogous view of personality was held by Simmel.) Micro and macro are not equivalent to real and emergent. Interaction and events are real; both micro and macro entities are emergent. The world is a world of events.

An Example

Let me move from algebraic topology and high theory to social reality in the late nineteenth century. In 1870, social work did not exist; the phrase did not exist, the set of activities did not exist, the "thing" did not exist. There were some activities being done that would eventually be done by social workers, but these were not being done by any group of people in particular, nor were they aggregated even at the simplest level into the tasks they would be when social workers did them. For example, there were hospitals. Doctors, nurses, and others working in those hospitals sometimes contacted authorities at other institutions about patients they were discharging. But this work was not organized into a systematic set of tasks done by some one role in particular, much less was that role articulated with "similar roles" in other social institutions. Or again, "friendly visiting" by the wealthy to the homes of the poor existed as a behavior; however, but it was not articulated with anything like a systematic view of charity but was rather seen as an outgrowth of earlier gentry-type obligations.[3]

Moreover, there were some tasks that would eventually be

done by social workers that were not even imagined. Nobody was investigating family structures with an eye to their impact on health. Nobody was thinking about vocational education outside the trades themselves. Nobody was applying psychiatric concepts like stress to everyday life.

By 1920, all this had changed. The word social work was old and established. There were professional societies of social workers. There were schools for social work. There were journals for social work. There was an employment exchange and a clearly defined labor market. There were institutions hiring large numbers of such "social workers" and employing them in positions of that name. Most importantly, there was a fairly clear turf, a set of things to do.

If we then ask ourselves, "When did social work emerge?" we find that that question immediately disappears behind the more ominous question of "what does it mean to say that social work emerged?" Now, we can address this latter question by turning it into the question of "what was the order in which certain institutions that we take as characteristic of social work emerge?" Then at least we know what came before what. This sequence-of-institutions view at least moves us from a static view of a profession's origins to a narrative one.[4] But the narrative is deceitful. For we build our narratives—at least our historical narratives—from back to front. We start with what we know emerged and then seek its origins. But history is lived front to back. Things emerge not from fixed plans, but from local accidents and structures.

In particular, the social work turf itself, the shape of the things to do and of things done, was by no means the relatively given factor that it appears in, say, the case of medicine. Nor should its origins be intuited by reasoning back from what appeared in the 1920s. Rather, we must ask ourselves why things like probation and kindergartens, which were originally part of this area of activity, disappeared from it in the final "thing" that emerged as social work.

Even worse, by the time we see major institutional events in

social work, we are well past the real moment of structuration, the moment when the very shape of tasks began to become fixed. For example, the first local social work school arrived in New York in 1898. The first professional associations arrived in the teens, typically specialty associations in areas like medical and psychiatric social work. The social work labor exchange also appeared in the teens, as one of the major activities of what would slowly become the national professional association in reality as well as name.

But the real action was long before. The area of charities and welfare began to take its first loose shape within the National Conference of Charities and Corrections, which began in 1874. At that original meeting were doctors, lawyers, clergymen, wealthy men and ladies, university faculty, and a whole variety of others. Under its consideration were things like vocational education and probation, as well as lunacy, tuberculosis, venereal disease, alcoholism, unemployment, child welfare, and who knows what else. The early institutions for social welfare—institutional churches, settlement houses, dozens of individual charities and charity societies—articulated between these and many other problems and services. Settlement houses provided kindergartens, cooking classes, adult education, and vocational guidance as well as several varieties of what we now think of as social services.

To the people of that time, all these different services, which seem to us like things that belong in schools and jails and hospitals and other such places, made sense together in one site. The emergence of social work as an entity was (that is, can be defined as) the separation of those things into tasks that fell under social work and tasks that fell elsewhere. And it is my contention here that the separations themselves emerged as independent, unconnected boundaries long before it made any sense to speak of social work as a social entity.

Let me now return to the formal exposition. I had defined boundaries not as points all of whose neighborhoods contain both some inside and some outside, but rather simply as points

all of whose neighborhoods contain sites of difference. I did not insist that all those differences be the same.

Such sites of difference are very common. Indeed, in many social states of affairs, they are quite random. Early social work is quite typical in this regard. If we look at John Mohr's data (1992, 1995) on New York charities organizations, we find that many adjacent charities differed in many different ways. His data happen mainly to involve client differences, but other data show many other kinds of differences.

These locally random sites of difference become proto-boundaries only when they line up into some kind of extended opposition along some single axis of difference. Thus, we might have two kinds of people who do some task and find that difference lining up into a systematic difference across many work sites or across several types of institutions. The kind of boundary that emerged between systems analysts and programmers in the 1970s and 1980s is an example of this difference. It appeared and reappeared independently in organization after organization. In this case, we have an extended set of boundary points that began to take on a special reality by virtue of the precedence of one or a limited number of types of difference. The names were conveniences to describe the boundary, which emerged well before there was any really systematic social reality to the entity "systems analysis" or "programming." It is rather that a dimension of difference—in this case over how one approaches a computing problem—emerges across a number of local settings to produce a proto-boundary.

Note, however, that I have assumed, in the word "local," some kind of adjacency structure to the social space involved. That is, we imagine some kind of metric of propinquity that places institutions or areas. Examples of these metrics might be professional mobility between areas, or career structure linkages between areas, or relations of division of labor, or client exchange, or whatever. It seems to me that we should for the present leave the nature of propinquity open. I simply

underline that I have assumed some kind of propinquity measure, which may be independent of the dimensions of difference.

I am now poised to present a conception of the origin of entities. In my social work example, we have a zone of social space that we may loosely call welfare space or social order space in which various proto-boundaries are set up. These might involve gender, training, or prior profession. It is the yoking of these proto-boundaries that makes the entity "social work." Note that it did not really matter what these boundaries were, at first. They began as simple, inchoate differences. They were not boundaries *of* anything, but rather simple locations of difference. They were not associated from one workplace to another; they were not consistent from one client type to another; they were not necessarily stable over time.

For example, kindergartens began in the 1880s to be conducted by people with a much wider variety of backgrounds than had appeared in the earlier Frobelian movement: some came from education, some from volunteering, some from churches. And these people also differed in some cases by gender, by class, by level of education. Rapid expansion from the earlier, smaller movement drove this differentiation. But the important distinction that emerged was in levels of special training; the older, specially-trained Frobelians were overwhelmed by less trained workers coming into kindergartens via the settlement houses. But in the probation field the dimension of difference was different. In probation, the main difference was among clients, who were themselves differentiated by the state laws governing probation, and this difference of clients in turn drove a difference in origin and orientation of people working with those clients: adult probation largely demanded legal professionals, while child probation was dominated by the newer aims of the child welfare movement.

Both kindergartens and probation thus became sites of difference, and, hence, boundaries in my sense, but the

differences were not similar across the two areas or even across given instantiations of a type of institution in a single area. In other parts of social welfare, a gender proto-boundary emerged. The best example of such a boundary was in psychiatric social work, an area in which men (psychiatrists) and women (psychiatric social workers) did largely the same kinds of things under different professional banners. In other areas, what mattered was a similar opposition between people who had connections to churches and those who did not. Friendly visiting itself—the very root of social work—was such an area.

Social work as an entity came into existence when various social agents—the leaders of the settlement and charities organization movements, the heads of state boards, the superintendents of institutions—began to hook up these sites of difference into larger proto-boundaries and then into larger units. (Other agents—particularly leaders of other environing professions and proto-professions—did so as well, the most important of these being the newly powerful occupation of school superintendents.) That is, social work emerged when actors began to hook up the women from psychiatric work with the scientifically trained workers from the kindergartens with the non-church group in friendly visiting and the child workers in probation. All those people were placed "within" social work, and the others ruled outside it. An image was then developed to rationalize this emerging reality as a single thing. Unfortunately, in the process of making such a hook-up, certain areas (like probation) may have ultimately proven too distant, in some sense, to have one of their parties included in the emerging thing called social work.

This is not to argue that in some cases, along other dimensions, a single boundary may not have been crucial. One "edge" of social work illustrates this well. An important boundary in home economics, industrial education, and kindergartens was that between services that were school-based and those that were settlement-house based. All of these areas

could have ended up "in" social work. But by linking the "school" sides of these boundaries together, school administrators achieved a much more secure location of certain welfare subjects into the school curriculum than did the emerging social work leaders into their own institutions.

Note that these various proto-boundaries may well reach clear out of what a functionalist might regard as social order space. Gender differences are an obvious example. A gender opposition in kindergartens, for example, was tied directly to similar oppositions in school systems via those particular sites where kindergartens had been started in schools. The social world is a crazy quilt in several dimensions, with many local regularities and edges, some of which peter out in quite small areas, and some of which run clear out of sight.

The making of an entity is simply the connecting up of these local oppositions and differences into a single whole that has a quality which I shall call "thingness" (which I will examine shortly). In a great many cases, this connecting up is a matter of conscious agency. The process involved in creating the medical profession in mid-nineteenth-century England is a good example. There were four or five potential candidates for inclusion in the whole thing to be called medicine: the apothecaries, who had begun by selling medicine but were now organized into a tight, self-examining group; the chemists, with their skill in drug manufacture; the surgeons, with their physical expertise; and the physicians, with their university degrees. The preceding unities of these groups had broken up because a new dimension of difference—expertise certified by direct examination—was created by the apothecaries. On this new dimension, the kinds of things available to differentiate physicians from surgeons and apothecaries—things like university degrees and certain kinds of training periods—failed to provide continuing, effective differentiation. That is, the new dimension of difference collapsed preexisting differences. In this new way of looking at the medical world, the only effective, sharply differentiable entity one could create was one

that would include physicians, surgeons, and apothecaries, which is precisely the group that became the modern British medical profession in 1856.

Note that what the apothecaries did was to change the way one looked at the space of differences. It was as if they forced a three-dimensional world into two dimensions, and in doing so moved themselves from the periphery into the center of the medical group. As a result of their act, other professions and actors beyond the professions moved to create a new unity. The emergence of social entities is often such an act, a drawing together of things. It could arise in any of the sources of action—charisma, tradition, optimization, accident, monomania, value rationality. We should remain explicitly agnostic about which is actually involved.

I need now to consider the term "linking up" or "yoking" that I have used throughout to refer to the connection of boundaries. What does it mean to say that an organization is a set of transactions which are later linked into a functional unit that could be said to be the site of these transactions? Or that a legal corporation is a set of market relations that are later linked in a certain, specified fashion? Or that a profession is a set of turf battles that are later yoked into a single defensible position in the system of professions?

Yoking means connection of two or more proto-boundaries such that one side of each becomes defined as "inside" the same entity. There seem to be two ways in which this can be done. In the example of British medicine just mentioned, the introduction of examinations had the effect of destroying a previous dimension of difference—broadly speaking, that of class, both of practitioner and client—thereby bringing things close together that had previously been far apart. In formal terms, such a yoking is a projection from a social space of higher dimensionality to one of lower dimensionality. (For example, Monterey, California, is right next to Monterey, Tennessee, if one ignores the difference in longitude, because the two are at the same latitude—36 15 N.)

This kind of yoking is, I am persuaded, the central form used when a social space is already filled with entities, when a division of a social space into entities is already established and institutionalized in some way. Under such circumstances, the only ways to radically change arrangements in a social space are to delegitimize old differences or to emphasize new ones. The former strategy yokes entities together, the latter divides them.

But when a social space is empty or, rather, unstructured, as was the case with the area of social order and welfare in the late nineteenth century, yoking means literal connection of boundaries. That is, to create social work, a group of actors hooked up the female side of friendly visiting with the nonchurch-affiliated side of the provision of social services with the nonmedical side of patient work in hospitals, and so on. The founding definitions of social work included one group from each of these disputes, placing that group "inside" the entity-to-be.

This second kind of entity emergence can be envisioned in two ways, one of which looks backward to the sources of my argument, the other of which depends on terms yet uninvestigated. In terms of my earlier definitions, the emergence of an entity is the assemblage of various sites of difference—boundaries in the loose sense defined earlier—into a set of boundaries in the topologically strict sense, boundaries that define an inside and an outside. But the work of creating an entity must also be seen as the work of rationalizing these various connections so that the resulting entity has the ability to endure, as a persistent thing, in the various ecologies in which it is located.

Thingness

This brings us to the issue of thingness, entity-like quality, endurance, or whatever we wish to call it. In the processual

ontology that I am here setting forth, the central quality of an entity is endurance. If "the world is a world of events," in Mead's ringing phrase, then what distinguishes entities is their property of repetition, of being events that keep happening in the same way. Repetition could arise either internally, through some structure of causes that internally regulates "enduring events," in which case I shall speak of internal reproduction. Or it could arise from an external structure, an ecology that leaves no real room for change in the individual, in which case I shall speak of ecological reproduction.

But entity-ness seems to me to go beyond mere recurrence. If one recalls my original question about the mutual effects of historical processes of different sizes, it is clear that what makes an historical event important is its independent standing as a site of causation, as a thing with consequences. It is this independent causal authority of large-scale and small-scale events that makes theorizing the social process so difficult. And what is true for large and small events is true also for large and small entities, which are, in my argument, a subclass of events. Thus, a second crucial property of entities is their ability to originate social causation, to do social action. But action here must be defined broadly, not merely as Weberian subjective action, but rather as any ability to create an effect on the rest of the social process that goes beyond effects that are merely transmitted through the causing entity from elsewhere.

An entity is, therefore, something more than a standing wave. It acquires, somehow, a coherence or internal autonomy. If that coherence is lacking, if we have pure ecological reproduction to which is added no internal solidity, it may be less useful to think of a given recurrent event as an entity. At a minimum, we must distinguish between such "internal" and "ecological" forces promoting entities.

For a set of examples, let me return for a moment to the theory of occupations. It is pretty clear that our ideal type of an occupation includes three things: a particular group of people, a particular type of work, and an organized body or

structure, other than the workplace itself, capable of some kind of reproduction. The high professions and the guilds are, of course, the archetypical examples of such occupations. But we can easily imagine social entities that lack one of the three attributes, but that are, in fact, real social entities in the sense that they can be continuously reproduced and can have independent causal consequences.

First, suppose that we have a particular group of people who are doing a particular kind of work, but who are not organized. Such quasi-occupations typically appear in the formative years of strong form occupations. But they may also be permanently created, if there are organizational forces—laws against combinations of workers come to mind—that prevent worker organization. But we can also imagine a particular group of people with an organized body and no work. Usually this situation arises from technological change or from displacement by other groups or from loss of demand. The railroad engineers illustrate the first of these, psychic mediums the second, and the clergy, at various times, the third. We can call such groups workless occupations. And, finally, we can imagine an organizational structure tied to a particular body of work, but no consistent group of people doing that work. These can be called turnover occupations, for their chief characteristic is the intense turnover of workers within them. The nineteenth-century railroads offer examples of this but more characteristic are modern life-cycle occupations, occupations served by individuals only at certain points of the life cycle—flight attendant in the early years of flying, for example.

I, thus, have four types of occupations so far: strong form occupations, quasi-occupations, workless occupations, and turnover occupations. All of these are entities, in the sense that they can persist, and that they can have causal consequences for adjacent social groups. It is clear that we are willing to think of them as social things.

But suppose I ask whether there are occupational entities

with only one of the foundational properties of an occupation. What does it mean to think about a particular group of people in the work world, without either an organization or an area of work? How would such a group be identified? Such a situation could arise as an occupation was disappearing. An example might be canal boatmen, who up until a few years ago existed in dwindling numbers in rural New Jersey and Pennsylvania. There was an annual reunion but no work and no organization. It was an occupation of memory and, in fact, had no causal consequences for anybody. Similarly, it makes little sense to think of a mere organizational form surviving without work to do or a consistent set of members. Surely this is not a social entity in any real sense.

But the third moment of occupation—an area of work to do—exists in some people's minds as a social thing. It is true that one might think of disaggregated tasks, at a very low level, as existing in discrete chunks, independent of particular people or organizations. (To imagine them aggregated is the enticing trap of simple functionalism.) Thus, in the social welfare area, things like teaching a mechanical arts class or contacting another welfare institution or directing a program for small children could all be seen as simple tasks. But how these tasks are connected up is precisely what constitutes the making of a social entity. It is all very well for the functionalists to say "doctors have control of everything that helps make the body well," thereby identifying the area of wellness. But this area did not exist *ex ante*; one has only to think of the exclusion from it, by the medical profession's definition of its turf, of the single greatest determinant of wellness—diet—which the profession has been quite content to leave to uninstructed family members for years. So this single dimension—of task—is also no warrant for defining an entity.

We can then draw an effective line between entities and non-entities in occupational life. I would like to raise two issues about this distinction, however.

First, the argument presented here is basically an argument

about tiling, about dividing up a space in some way. Taking it as a general model for the creation of social entities seems to assume that the typical process of entity emergence in social life is division of labor or turf. To what extent do we in fact wish to assume this process? Or are there rather several types of origins for social entities, one of which is division of labor? It is true that processes like amalgamation and division can be understood within a boundaries-into-entities format. Division, for example, is simply making an internal difference into part of an external boundary, putting that internal difference on the same footing as the inside/outside distinction.

But it would be harder to so construe cloning, the typical mechanism favored by the new institutionalists (like John Meyer) to account for the origin of entities. Suppose we create a new franchise or a new university. Are these not simply clones of existing structures, and, thus, does their origin not lie rather in imitation than in association of differences? In a broader sense, cloning can be construed as a version of role theory, and thereby directly connected to the notion that social reality is produced by plans and scripts put into place by actors, a la Parsons. To me, however, it seems more useful to think about such scripting as a phase in the construction of entities. That is, in the view presented here, scripting is one of several ways of conducting the action that pulls together a set of boundaries into a social entity.

Scripting cannot be seen as independent of boundaries because no social entity ever takes shape in a vacuum. Ecological constraints are always in position, and, thus, scripting alone can never produce an entity. Take the extreme case of the production of a human personality within a family. A first child enters a complex environment of two adults, with various boundaries placed between them in various dimensions and directions. And those of us who have children know well that the child's personality emerges as a pulling together of various existing oppositions. The Oedipus complex is precisely a contest over such a difference. There are many others,

arising in different differences that divide the parents in different ways. From a hooking-up of these differences comes a new social entity—the child's personality—that in turn restructures the existing boundaries of the relationship between the adults, just as successive children will redraw the cozy threesome of parents and only child. A child's personality emerges as an assemblage of various sides of various sites of difference between parents and child, parent and parent, and child and other children.[5]

Thus, it seems best to retain the notion that the prestructure of an entity lies in the creation of zones of difference within the social process or social space. These zones of difference gradually shape into proto-boundaries, which are then yoked by some kind of activity into an entity. If this proto-entity is to persist, it must have both internal reproduction and some kind of causal authority. However, we must recall that this process is not in any way necessary. There are many ways a given set of boundaries could have been structured into an entity, and what matters is simply that the resultant entity have internal reproduction and causal authority, not that it be optimal in any way. Rather, it must satisfy. Boundaries are *always* being set up within groups, but only occasionally do these fall into defensible or coherent possible entities. Sometimes, action or accident takes advantage. But there is no guarantee of being "best."

I would like also to make another claim about the process of boundaries-into-entities. It seems to me quite significant that entity-status among occupations involves more than one dimension of difference or structure. It may well be that social entities cannot exist without the tension provided by the differing pulls of different structural dimensions. That is, what gives entities their structural resilience is their defensibility, their endurance in several different dimensions of difference. In a simple form, this might be seen as a sort of overlapping cleavages argument. Strength lies in overlapping cohesiveness of several kinds. Yet, at the same time, an entity's causal

influence or extent may reflect vast extensions along certain particular dimensions. That is, while it might seem that compactness (or heartlands, or whatever metaphor we choose) would best allow an entity to reproduce and defend itself against redefinition out of existence by other entities, what produces causal authority may well be connection across long reaches of the social world.

The professions offer numerous instances of this phenomenon. A good example would be actuaries, who have a tightly organized, rigidly controlled, and quite small occupation. Entry is tightly structured, careers are tightly structured, task is tightly structured. In all three basic dimensions of people, work, and organization, actuaries are sharply bounded from the rest of the professional labor force. Yet it is in a sense because of this that their influence is so small. By contrast, consider the accountants whose "profession" is porous to the point of absurdity, whose careers lead in quite diverse directions, and whose task areas include heavily contested zones like tax law, unstructured areas like management consulting, and dying heartlands like public auditing. The accountants are, in fact, far more causally effective than the actuaries because they can bring their force to bear in so many different arenas, where they play so many different roles. It is precisely the structure of long tenuous boundaries anchored to a few more or less secure heartlands that enables accounting to be powerful. As in the Padgett/Leifer argument, openness provides strength (Padgett and Ansell, 1993; Leifer, 1991). Just as for Leifer, skill means never having to make rational choices, for entities, strong causal effect means never being pinned in any one heartland.

This strength refers to endurance, to the temporal dimension of entities, as well. Rigidity provides short-term safety but long-term vulnerability, as is well shown by the rigid but self-defeating temporal structure of the English lawyers when compared with the open and tenuous layout of the Americans (Abbott, 1988, Ch. 9).

Conclusion

In closing, I shall mention the relation between this view of social reality and certain others. I have already mentioned the new institutionalism, a view emphasizing isomorphism of entities and production of isomorphic entities both by ecological processes (so-called "coercive isomorphism") and by cloning (a version of "mimetic isomorphism").[6] I have elsewhere argued that much of the new institutionalism has failed to make the leap to a process theory of reality (Abbott, 1992), a failure embodied in part in the emphasis on cloned institutions. A simple reproduction model is far from the precarious, processual social world envisioned here.

Another theory of entities identifies them as congeries around an ideal type. Lakoff (1987) and others, for example, believe social entities are constructed by defining an ideal type and then identifying various entities that resemble it as members of its class. "The professions" (as a class) is an excellent example of such a phenomenon, with medicine and law as the ideal types. But I believe this process of naming and metonymy comes much later, long after the structuration processes discussed here. Archetypal class images are central at that later moment but do not play an important role in creating entities in the first place, except insofar as scripts play the role I earlier assigned to them. As in board games like go and chess, by the time the structures are clear enough to be labeled and discussed, they have long since been established (Leifer, 1991.)

Another related theory is that branch of game theory dealing with coalitions.[7] To be sure, there are obvious ways in which game theoretic concepts differ from the general view of social reality presented here. The world of game theory is not one of general flux and indeterminacy, of unbounded games in indefinite temporalties between players who themselves can be reconstructed and whose interests and resources differ in undefined and crosscutting ways. Nonetheless, coalition theory

is among the most indeterminate in game theory: its foundations complex, its implications unclear, its solution concepts conflicting. There is some sense in which thinking of entities as "coalitions of units" accords well with the view presented here, particularly in a micro to macro context.

A final relevant theory is the theory of what we might call attractor structures. In social life, we often have situations in which runaway processes destroy the middle ground of indeterminacy around a group. A group's interest in compliance with extreme rules by its members reduces free riding and, hence, increases rewards for remaining members, who further strengthen the extreme rules, and so forth. Iannaccone (1994) notes such a mechanism among churches. Similar runaway evolutionary processes leading to stable "entities" (in this case whole social structures) are discussed by Michael Wade and others (Breden and Wade, 1991; Wade, 1995). These models are all organized by the same intuitive idea: under certain conditions becoming a well-defined group strongly increases the rewards to constituents of that group. This intuition presumes a micro/macro character I have tried to avoid, but the overall structure of the theoretical argument is still closely related to the arguments made here.

I have set forth the view that social entities are often secondary to social boundaries. It is unclear whether this rule holds only in rare cases—unformed turfs like social welfare in the late nineteenth century—or is the general rule accounting for entities in social life. Addressing that question, however, means embedding this claim within a larger, general theory of social structure and temporality. Such a task takes me beyond the bounds of this piece.

Notes

[1] In the extreme version (for example, in event history models), we are willing to think about existence as an attribute and to allow

ourselves to imagine things that "are" but that lack the attribute of existence, as if the world were made up of myriads of potential entities, some of which have the predicate of actual existence.

[2] In this position, I am following Mead and Whitehead. See Abbott, 1994.

[3] For sources on social work, see the references in Abbott, 1994.

[4] Cf. Abbott, 1991.

[5] This argument shows why replacing traditional role theory with a role theory based on structural equivalence is useful. Recipes and scripts can be proposed, but ecological constraints select among them. The result is a hybrid "role theory" that consists of a dialogue between scripts and surrounds.

[6] Both terms are from Dimaggio and Powell, 1983.

[7] On coalitions, see Myerson, 1991, Ch. 9.

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