

I V A N E R M A K O F F

*Exceptional Cases:
Epistemic Contributions and
Normative Expectations*

Abstract

Exceptional cases are at odds with the typical: they stand out as bizarre and rare. What then could justify their systematic analysis? Elaborating the analytical distinction between anomalies, exceptions and outliers, this paper outlines three potential epistemic contributions of exceptional cases. First, exceptional cases reveal the limits of standard classification categories. In so doing, they problematize usual classificatory grids. Their input is critical. Second, exceptional cases point to new classes of objects. They acquire paradigmatic status when they exemplify the characteristic features of these new classes with utmost clarity. Third, exceptional cases magnify relational patterns that in more mundane contexts lack visibility. Here their contribution is heuristic. These three contributions become possible when we put at bay normative expectations of what should happen, and specify cases by reference to an analytical space of constitutive dimensions. To underscore the general significance of these observations, I draw on examples borrowed from different quarters of the social sciences: the sociology of organizations, ethnomethodology, comparative historical sociology and the history of science.

Keywords: Anomaly; Exception; Outlier; Paradigm; Social sciences; Sociological theory.

WHY STUDY EXCEPTIONAL CASES, that is, cases that strike us as rare and peculiar? As social scientists we are interested in the typical and the representative. It is through the typical and the representative that we identify regularities and that we abstract patterns. But exceptional cases are at odds with the typical. They do not fit in. That is why we view them as exceptional. A priori we should be suspicious of cases that do not fit in. Why then investigate such cases? What can we hope to learn from them?

Cases that impress us as exceptional—events, data points, ethnographic sites or moral dilemmas—wear different hats. Their contribution reflects the hat which they wear—or, to be more accurate, the hat which we make them wear. (1) They play a critical role when they catch assumptions and expectations off guard. As they call into question

standard categories, cases that strike us as peculiar challenge grids of classification and analysis. (2) They acquire paradigmatic value when they exemplify the characteristic features of an empirical class that has escaped systematic investigation. In so doing, they point to new objects of inquiry. (3) When they magnify sets of relations that in less peculiar or extreme instances tend to remain invisible, their contribution is heuristic.

Social scientists have emphasized the critical impact of deviant cases: cases that negate theoretical claims help reframe these claims (Burawoy 1989: 761; Seidman 1994: 30; Emigh 1997: 649; Paige 1999: 792-797; Lebow 2000-2001: 593). This paper complements this line of argumentation in two respects. First, I argue that to fully appraise this critical impact, attention should be paid to different types of deviation and, consequently, different types of challenges. Deviant cases can call into question normatively layered background assumptions. They can contradict theoretical predictions. They can also challenge analytical assumptions built into an explanatory model. The distinction between anomalies, exceptions and outliers helps spell out this argument.

Second, we should not confine the contribution of exceptional cases to their critical function—if by function we mean a “role” (e.g. Kendall and Wolff: 1955: 168-169), not a necessity required for the functioning of some entity. Cases that stand out or strike us as peculiar help identify sets of properties whose unusual combinations call for explication (paradigmatic function). They help disclose the etiology of processes that have eluded systematic analysis (heuristic function). The purpose of this paper is to acknowledge this plurality of contributions.

The point in doing so is also to outline the conditions of a dynamic understanding of exceptional cases. The different hats which they wear can be interpreted as different moments in a process of inference making. Often, the motive for further investigation stems from an acknowledgment of the critical impact of a case. When conventional categories are under challenge, this critical impact sets the ground for an assessment of the paradigmatic value of the case. Similarly, the identification of new analytical dimensions offers pointers for analyzing the etiology of the processes at play (heuristic function).

For this to happen, as I will subsequently argue, we need to realize how imperceptibly our understanding of deviant cases can be shaped by an implicit sense of what should happen, and how much analytical work is required to break from this implicit understanding. The lessons which anomalies, exceptions and outliers may provide are neither obvious nor immediate. Exceptional cases have no intrinsic revelatory character. They become research opportunities in light of the

analytical work we deploy for this purpose. Their revealing character is a function of their analytics.

The paper elaborates these different points as follows. The first section specifies the notion of case in light of the contrast between an analytical and a phenomenological understanding of cases. The definition which I propose—a case is an object of consideration—encompasses both conceptions. Focusing on the critical moment of deviant cases, the second section elaborates the distinction between anomalies, exceptions and outliers. The focus of the third section is on the paradigmatic value of cases that epitomize an empirical class. In the fourth section, I discuss their heuristic contribution—their ability to lay bare the etiology and logics of processes that lack visibility in less extreme instances. The final section relates these different epistemic roles to a dynamic understanding of exceptional cases.

Defining cases

We may want to distinguish two broad answers to the question: what is a “case”? One identifies a case as an “instance” of a population or concept (Abbott 1992: 55). In this conception, a case is necessarily a case *of* (Walton 1992: 121). Its significance is derived. Its becomes a case by reference to a population or a concept. Without this reference, the case is transparent. It has no significance proper.

A second approach conceptualizes cases as irreducibly singular. From this perspective, a case by definition is problematic. It defies common understandings and standard categories. This problematic aspect constitutes the case as a case. Along these lines, Passeron and Revel (2005) evoke the “disconcerting effect of [cases’] eccentric character” (12) and their “irreducible heterogeneity” (15). We identify cases when we are unable to subsume them to a broader entity that would provide them with their epistemic status.

These two definitions stand at opposite ends. While the first conception makes the exceptional a derivative, the second views its problematic character as *sui generis*. More specifically, they capture two different modes of constitution. The first presumes the definition of an analytical construct (concept or population). The understanding is primarily analytical. With the second conception, on the other hand, the case owes its constitution to the perception of some incongruous character. The constitution is phenomenological.

Is one conception more fitted than the other? Definitions have no intrinsic value. Rather, their value is a function of the question we ask. Since the purpose of this paper is to circumscribe the epistemic contributions of cases that stand apart, the analytical conception might already assume too much. We often pay attention to objects that we do not clearly situate. Yet, it is because we cannot easily situate them relative to an empirical class or a concept that we pay attention to them. This point redirects us to a phenomenological approach.

Shall we then fall back on this second conception? The problem here is that we do not necessarily view an object as interesting because it is “eccentric”. The fact of being problematic is only one modality of objects deemed worthy of attention. Furthermore, objects that look incongruous at one point may stop looking so at another depending on the lens we use. It does not follow that we lose taking interest in them, all the less so when they reveal phenomena and patterns that we had not suspected. At that point they become instances of a broader referent. This brings us back to the first conception.

Each conception, therefore, points to its alter ego when we start probing it. Consequently, this paper adopts a definition that does not presume any mode of constitution. By a “case” I mean an “object of consideration” (Blumer 1986: 146). The object under consideration is not necessarily an “instance” of a population or a concept. Nor is it necessarily “eccentric”. What constitutes it as a case is the fact of being under consideration. Being minimal, this definition is purposefully quite broad. It covers all possible variants of empirical objects from legal judgments, individual psyches, ethnographic inquiries as well as cases constitutive of a data set.

What then is an exceptional case? The etymology points to the notion of being “out of line” (Star and Gerson 1987: 149). An exceptional case stands apart. Indeed it is striking because it stands apart. The more blatant the departure, the more striking and therefore the more exceptional the case. This definition is agnostic regarding the choice of a method or the choice of an analytical framework. Similarly, it is silent regarding the nature and the scope of the deviation being displayed. I now consider this last point.

Critical

We take notice of exceptional cases first as deviations. But the deviations at play may be of quite different kinds. To underscore this point,

the following remarks elaborate the distinction between anomalies, exceptions and outliers. An *anomaly* denotes a deviation that remains indistinct and shapeless. Its characteristic feature is to be bizarre and peculiar. We are surprised even though we may not fully realize why. An *exception* takes shape in contrast to a pattern identified as such. It has a definite form. *Outliers* are exceptions that are or can be measured. By way of consequence, they imply the reference to a metric. Each figure characterizes a different type of challenge. Anomalies call into question classifications, taxonomies and expectations loaded with a sense of normalcy. Exceptions challenge patterns objectified through claims or measures. Outliers invite a critical understanding of analytical assumptions that might be the source of misspecifications and measurement errors.

Anomalies

In 1958, Agnes was a nineteen-year-old girl raised as a boy. “She had large, well-developed breasts coexisting with the normal external genitalia of a male” (120). Her feminine sex characteristics developed at puberty. Garfinkel (1967), who draws on the case of Agnes to elaborate his theory of “passing” (the behaviors deployed to secure a legitimate status), describes her physiological attributes as “anatomical anomalies” (117). The characterization is not incidental. The case of Agnes can be interpreted as the epitome of a class of deviations which we find striking because we perceive them as abnormal. These are anomalies in the proper sense of the term.

From Garfinkel’s perspective the “case” of Agnes is striking in two respects. First, it runs counter to common sense. We usually view people as either “male” or “female” (122). With regard to common sense—at least the common sense which Garfinkel records at the turn of the 1960s—the world of sexual differences is a dichotomous one: we are either X or Y. Agnes’ physiological traits directly challenge this either/or representation. Second, her physiognomy is striking insofar it departs from what is viewed as “normal”. This normality is normatively constituted. Indirectly, Agnes reveals the extent to which features perceived as “anomalous” take on their meaning against a morally laden background. They contrast with the “moral order” which everyday life expectations embody (Garfinkel 1967: 53).

Along these lines, “anomalies” exemplify the phenomenological conception of cases: they deviate from what we believe *should* happen. Most often, these background assumptions are implicit and inchoate.

We implicitly draw on them to make sense of our experience. They remain in the background until they get disrupted. This explains why objects of experience may appear to us as striking, bizarre, and “deviant” although we do not clearly appraise in what sense they do not fit. Anomalies thus can also be described as “disruptions of routines” (Star and Gerson 1987: 147) with the qualification that these routines, grounded in repetitions, define what we implicitly view as “normal”.

Such disruptions pave the way to major scientific breakthroughs. Suffice to mention Wilhelm von Röntgen’s account of the bizarre observation he made one evening in the fall of 1895 (November 8) as he was alone in his physics laboratory at the University of Würzburg (Kuhn 1996: 57). Röntgen was manipulating cathode rays by applying high voltages to a shielded vacuum tube. The room was dark and he noticed that crystals of barium platinocyanide lying at some distance from the tube glowed (Glasser 1959: 11). At this point, the barium platinocyanide crystals were not part of the experimental design (Chalmers 1952: 218). There was no known reason why they should glow. Röntgen was caught off guard. As he mentioned in an interview with the journalist H.J.W. Dam a few months after the event, “this was new, still unknown”.¹ The phenomenon was “strange” (*eigentlich*) and striking.² It disrupted his understanding of what was to happen—what Kuhn (1996: 57, 59) would describe as the *modus operandi* of “normal” investigations and “normal projects”.

Exceptions

Exceptions, for their part, contradict a pattern objectified as such.³ They are at odds with “some general model of causal relations” (Seawright and Gerring 2008: 302). Emigh’s (1998) analysis of Tuscany’s economic patterns in the late Middle Ages is a case in point. The Tuscan case refutes the neo-Marxist claim that three causal factors combined together pave the way to the emergence of capitalist agriculture: (1) leasing is fixed-term; (2) landlords do not control the means of subsistence; (3) landlords are not in a position to extract

¹ “Anfangs hielt ich sie für eine neue Art von Licht. Sicher aber war es etwas Neues, noch Unbekanntes” (reported in Glasser 1959: 11).

² “Ein Stück Bariumplatinzyanürpapier lag daneben auf dem Tisch. Ich schickte einen Strom durch die Röhre und bemerkte quer über das Papier eine *eigentliche* schwarze Linie” (*ibid.*).

³ See for instance the only phone call that did not fit the “distribution rule of first utterances: the answerer speaks first” in Schegloff’s corpus of 500 telephone calls (Schegloff 1968: 1076, 1079). I thank Doug Maynard for bringing Schegloff’s analysis to my attention.

surplus through coercion. In the fifteenth century, Tuscany satisfied all three conditions. Yet, a capitalist transition did not take off: neither landlords nor middle-tenants made investments to rural properties.

Identifying exceptions thus supposes the explicit reference to a claim or a rule. This is a key difference with anomalies as previously defined. Agnes' physiological traits calls into question the common sense of gender differences—a common sense that is imbued with moral notions and, inasmuch as it is assumed to be obvious, does not need to be made explicit. By contrast, an exception takes on its significance given the precise definition of “that”—claim or rule—from which it departs. When the focus is exclusively on a theoretical claim, this exception has no moral content per se. It means what it states: a departure from a class or a pattern duly identified and expected on the basis of the claim.

The more vaguely defined the claim under consideration, on the other hand, the higher the likelihood that this claim may be “informed” by considerations about what is to be considered “normal”. Consider the debate about the absence of a Socialist movement in the US. A close and comparative focus on multiple cases underlines variable processes of working-class formation resulting in different degrees of political cohesion and different ideological outlooks (Katznelson 1986: 30-41). “In the face of such varied situations, [it makes little sense] to approach the study of working-class formation by positing one national pattern as the theoretic *norm* in relation to which all others are treated as deviant cases” (Zolberg 1986: 399; my emphasis). Yet, due to the early electoral successes of Social Democracy in Germany, proponents of the “American exceptionalism” thesis have elevated the emergence of a Socialist movement as a “normal” outcome (Zolberg 1986: 399).⁴

Outliers

“Outliers” imply the reference to a frequency distribution. A case becomes an outlier when the combination of values which it displays turns out to be infrequent. For instance, compared with other instances of strike waves in the post-war period in Italy, the strike wave of 1969 appears to be an outlier with regard to both the number of hours lost

⁴ The locus classicus of an approach cast in exceptionalist terms applied to the United States is Werner Sombart's *Warum gibt es in den Vereinigten Staaten keinen Sozialismus?* (1906). Latest iterations include Lipset (1996)

and Lipset and Marks (2000). Nolan (1997) offers a critique of this approach's argumentative logic. For historically informed substantive critiques, see Voss (1993), Biggs (2002), Swenson (2002) and Goldberg (2007).

and the “volume of conflict” if by “volume” is meant the product of the frequency, duration and size of strikes (Franzosi 1995: 5, 7, 258). The case emerges as an outlier as a result of this numerical assessment. The issue of measurement is paramount. By way of consequences, we can only identify outliers if we have fully operational concepts in hand—concepts anchored in indicators that lend themselves to an empirical assessment. Outliers thus exemplify the analytical conception of cases.⁵

Here, the critical impact of such cases lies in the reformulations which they induce with regard to the constitution of the data set or the variables being tested. In both respects, considerable diagnostic work is required to assess the deviations at play and their implications for modelling assumptions (Bollen and Jackman 1985; Franzosi 1994). For instance, the identification of South Africa and Argentina as outliers in a cross-national study of “industrial democracies” in the early 1960s problematizes the definitional criteria of the “democracy” category and points to the possible misspecification of explanatory variables (Bollen and Jackman 1985: 526).

Beyond issues of empirical and analytical specifications, outliers may point to different causal patterns. Consider the 1969 strike wave studied by Franzosi (1995: chapter 7). A close scrutiny of the event reveals the involvement of new political actors: members of radical political organizations who challenged the legitimacy of unions affiliated with the Italian Communist party and promoted new forms of action at odds with more traditional repertoires. The case is “out of line” as a result of the shift to new forms of collective action and the role played by a new brand of radical activists in this shift (Franzosi 1995: 272-288).

Strategies of avoidance

Whether we are dealing with anomalies, exceptions or outliers, we are not in a position to learn from such cases unless we acknowledge them as such. This point is less trivial than it may seem. Researchers constantly encounter “anomalies”, facts that do not fit their hypotheses and conceptions (Kuhn 1996: 81; Lakatos 1978: 52, 68). Often, they let

⁵ Outliers and exceptions could be contrasted in light of the distinction between stochastic and deterministic approaches to causality. To the extent that an exception is believed to contradict a predictive claim based on a causal antecedent, it implies

a deterministic understanding of causality. Designating a case as an outlier, on the other hand, rests on the consideration of a frequency distribution that sets the case as improbable yet consistent with a stochastic interpretation.

these anomalies go by. As a result, these are not “cases” properly speaking. They have no significance.

There are three ways of producing insignificance in response to incongruities. That is, there are three ways of dismissing a case as insignificant. One simply consists in failing to see. The case is not recorded. It gets subsumed under a pattern that dominates the field of perception (Bruner and Postman 1949: 213). Such is the secret of its invisibility. The second response is one of denial: the case, so it goes, is no different from many others. It replicates them all and, in this sense, it is trivial. The incongruity has been “normalized” (Star and Gerson (1987: 149). The third response confines the case to the realm of the abnormal. The deviation is a “monster” (Lakatos 1963: 25). Since it has no representative value, it lies beyond the range of the legitimate.

The normative underpinnings of the third type of response are best illustrated by the appraisal that a “leading member of a prominent Department of Psychiatry” delivers regarding the case of Agnes: “I don’t see why one needs to pay that much interest to such cases. She is after all a very rare occurrence. These persons are after all freaks of nature” (Garfinkel 1967: 124). In other words, this “case” is not worthy of being a case at all since these physical peculiarities are abnormal. Garfinkel comments: “We could not have solicited a more common sense formula. A measure of the extent to the member’s commitment to the moral order of sexual types would consist of the reluctance to lend credence to a characterization that departed from ‘the natural facts of life’”(p. 124).

Indirectly, these three responses to incongruity underscore what it takes to vest a case with the possibility of positive content. To turn a case into a question mark, we need, first, to acknowledge the deviation and, second, to shield it from normative grids of reading. Then it becomes possible to gauge to what extent, and in which respects, the case disrupts assumptions or hypotheses. By the same token, such disruptions invite us to reconsider the way in which we approach or categorize classes of phenomena. This is their first contribution. The moment is negative. Yet, it is crucial for the prospect of redrawing categories and identifying processes.

Paradigmatic

Cases have a paradigmatic status when they epitomize a class of phenomena. They appear exceptional with regard to the extreme

values which they display on one or several dimensions constitutive of the empirical class to which they belong. As a result, they bring into relief the analytical significance of these dimensions and help construe them as objects of systematic investigation. Let me illustrate this point with two examples.

1. In May 1886, Chicago underwent an upsurge in strikes: about 70,000 workers, more than in any other city, went on strike. This instance of sustained strike activity is exceptional with regard to the number of workers and firms involved (Biggs 2005: 1694). The event exemplifies the fractal character of waves: smaller waves are nested in larger ones (Oliver and Myers 2003: 7; Mandelbrot 1983). It also exemplifies a type of cumulative size distribution characterized as “power law”: the probability that a strike spreads is an exponential function of the number of firms involved (Biggs 2005: 1695-1699).⁶ “This pattern encompasses numerous tiny strikes, confined to a single firm, and one extraordinary strike wave, which paralyzed the city’s commerce for days”. This last case appears as “an extreme event, but not an outlier” (Biggs 2005: 1700).

Thus, far from precluding its general significance, the extreme character of the case makes it exemplary. It provides the exemplar of a much wider class of phenomena characterized by the same type of cumulative distribution. This point challenges a priori dismissals of extreme events on the ground that they are outliers (e.g. King’s, Keohane’s, and Verba’s 1994: 10) once we have identified the analytical dimensions that make the case relevant as an instance of a broader empirical class. With regard to the strike example illuminated by Biggs’ (2005) systematic exploration, these dimensions turn out to be the fractal character of waves and the shape of the cumulative distribution of event sizes.

2. On 23 March 1933, Hitler acting as prime minister of Germany (chancellor) requested full legislative and executive powers from parliament including the power to amend the Weimar constitution without parliamentary supervision. The Nazi party did not have the two-thirds majority required to pass the bill. Yet, the bill was passed. Weimar democracy was formally buried with the consent of parliament.

At first, we may be tempted to view this event as exceptional because of the circumstances in which it took place: these were marked by crisis, ongoing political conflicts, and institutional disruptions

⁶ The number of events exceeding a certain size x follows a power law of magnitude β if $N(\text{size} > x) = c x^{-\beta}$ (Turcotte 1997; Biggs 2005: 1691; Brown and Liebovitch 2010: 6).

orchestrated by anti-democratic movements. We may also be tempted to view the case as exceptional given its consequences. The 23 March 1933 parliamentary decision legalized a radical reshuffling of the power structure in Germany to the benefit of the Nazis. It marked a political revolution and paved the way for a Nazi dictatorship. It had world-historical consequences.

None of these interpretations is satisfactory. Each in effect deprives the case of any intrinsic property that distinguishes it from other events with which it bears some resemblance: regime breakdowns, political transitions, and constitutional devolutions. When we emphasize context, the case is exceptional only by proxy, as a result of the circumstances that presided over its occurrence. When we emphasize impact, the case is a derivation of its consequences.

If, instead of taking our lead from circumstances and consequences, we focus on the *modus operandi* of the event, the case underscores the significance of moments in which groups, whether formally constituted or not, find themselves at the crossroads of radically diverging courses of action. In March 1933, democrats had to decide which stance to adopt vis-à-vis the Nazis' bid for power. Should they frontally challenge them? Should they seek to achieve some *modus vivendi*? Should they collaborate? This decisional problem was replicated in all social arenas in which some Nazis orchestrated a bid: worksites, cultural associations, unions, municipalities, city councils.

Reinterpreted from this perspective, the March 1933 parliamentary decision exemplifies a type of choice that can be deemed "critical": the vote entailed significant risks for each individual delegate whatever the option chosen; it was bound to have far-reaching consequences for large groups of people (externalities); and the delegates knew that their choice would determine the future and their own fate. These three characteristics—individual risks, externalities and decisional irretrievability—define an empirical class that had broad relevance beyond the specifics of the case that helps define it in the first place (Ermakoff 2008: xxvi, 332).

With regard to all three dimensions, the parliamentary decision of March 1933 was at the high end. Non-Nazi delegates in the Reichstag experienced the political challenge mounted by Hitler as an excruciating dilemma (Ermakoff 2008: 256-262). Their perception of the risks and the consequences entailed by the decision was exceptionally acute. The delegates knew that their vote would commit them in their eyes and in the eyes of their peers. They could elude neither the prospect of a choice nor the awareness of its consequences.

Heuristic

Exceptional cases acquire heuristic value when we use them for the purpose of inference-making that produce “novel facts”, that is, not only “facts that have been undreamt of, or have been contradicted by previous or rival [research] programs” but also the theoretically induced reinterpretation of “old facts” already known (Lakatos 1978: 5, 70-71). Three heuristic scenarios can be distinguished depending on whether the case takes on the mantle of a negation, a disruption or a prototype.

1. The case as *negation* provides the opportunity to refine the scope conditions and domain of applicability of theoretical claims (Ragin 1987: 115; Seidman 1994: 40; Emigh 1997: 659; Burawoy 1998: 16). This, of course assumes that the claims at stake are sufficiently specified so that the contradiction can be clearly established (Kendall and Wolff 1955: 167-168).⁷ The exception of Tuscany thus provides the opportunity to reformulate the neo-Marxist theory of agrarian development by incorporating the issue of revenue structure: when landlords’ and middle-tenants’ primary source of income does not come from farms, these actors have no incentive to invest in them (Emigh 1998: 364-365).

2. The revealing character of cases experienced as *disruptions* is of a different kind. Being challenged in their habitual or institutionalized routines, agents are compelled to think about what they are doing. They have to ponder, and reflect upon, rules of decision, which in a routine setting they can safely relegate to the background of their consciousness. In addition, as they grapple to regain a sense of regulation, order and normalcy, they invoke beliefs and standards that, in unproblematic situations, remain tacit (Ermakoff 2010b: 540-541). Becoming explicit, these subjective underpinnings are amenable to systematic analysis.

Ethnomethodology has elevated this basic observation—i.e., challenges to routine patterns disclose subjective underpinnings—to the status of a methodological tenet. It is on this ground that Garfinkel (1967) generalizes his observations about Agnes’ elaborate strategies to deal with the tensions and challenges related to her sexual identity: “the experiences of [...] intersexed persons permits an appreciation

⁷ See how Schegloff (1968) reconsidered the exception in his corpus of telephone calls: “Analysis of the case reveals that the

distribution rule, while it holds in most cases, is in fact best understood as a derivative of more general rules” (p. 1080).

of these background relevances that are otherwise easily overlooked or difficult to grasp because of their routinized character and because they are so embedded in a background of relevances that are simply ‘there’ and taken for granted” (118).⁸

3. Cases as *prototypes* lay bare relations that, in more mundane instances, are not as salient. Applied to cases that initially strike us as out of line, the notion of prototype—“concrete example on the basis of which one can discover new properties” (Livet 2005: 236-237)—may seem peculiar. The point here is that such cases magnify sets of relations that have not been subjected to systematic analysis. Duly theorized, these lead to the discovery of new facts. In other words, a case that ranks high on one or several dimensions has the potential of bringing into relief relational patterns that otherwise lack visibility. The extreme character of the case contributes to its heuristic fecundity.

Consider Vaughan’s (1996) examination of the space shuttle Challenger tragedy of 28 January 1986. The shuttle exploded one minute after it was launched, and all seven crew members were killed. The Presidential commission created to investigate the tragedy concluded that middle managers disregarded safety rules requiring the communication of information about technical problems likely to affect the joints of the solid rocket boosters that powered the shuttle into orbit (Vaughan 1996: xii). Engineers working for the NASA contractor Thiokol believed that these joints would not adequately perform their function if the temperature at launching was below 53 degrees. According to the commission’s report, middle managers did not relay this assessment up the hierarchy.

Yet, Vaughan’s (1996) detailed and systematic account of the chain of events that led to the launching of the shuttle on 28 January 1986 shows that the managers had made their decisions in conformity with NASA procedures. They had abided by internal NASA rules and norms for flight readiness assessments. The case is actually paradigmatic of a broader class of situations in which highly formalized and

⁸ For the sake of clarity and analytical precision, a distinction should be made between a situation of disruption and an “emergency”. Depending on the time constraints imposed on actors, the vital character of the threat they face and their ability, or lack thereof, to convene, individuals experiencing an emergency may be quite unable to be reflexive and to lay bare deeply ingrained assumptions. Assuming that we have a precise concept of structure—i.e. patterned relations and the set of shared

beliefs and categories that regulate these patterns—it is, in such conditions, unclear how “emergencies” can be described as “those situations in which structure becomes *explicit* (exposed)”, as Wagner-Pacifi (2000: 19) contends. The claim is all the more perplexing if “structure” is also said to be “distorted, *absent*, predominant” in some of these situations (Wagner-Pacifi 2000: 19; my emphasis).

regulated organizations such as NASA deal with the challenge of assessing risks. The situation faced by engineers and managers on the eve of the launch was unprecedented in several respects (Vaughan 1996: 348, 351, 373-375, 377). This unprecedented character added to the uncertainty of the engineers who, on that day, convened to review the risks inherent to the circumstances of the launch. Vaughan evokes a “situation of perhaps unparalleled uncertainty for those assembled” (398).

The case provides the opportunity to examine how actors differently located in the organization hierarchy and responding to different professional exigencies are juggling with conflicting imperatives while groping with the challenge of risk assessment. Organizational scripts at these junctures are no longer self-evident given the unprecedented character of the situation. Deploying rules strategically, actors with positions of power “play a calculated procedural game” (Freeland 1997: 132). Those without this capacity find themselves dependent on their peers’ assessment as they have to decide whether to voice dissent or not.⁹

Extreme cases thus shed light on the logic of the processes at play in one class of situations or outcomes. Let me elaborate this point one step further by going back to the notion of critical decisions discussed earlier in reference to Hitler’s acquisition of constitutional powers. As I mentioned, three characteristic features define this class of collective decision. First, the decision is risky for the individual. The risks may bear upon different aspects of one’s welfare: material standing, status, physical integrity or moral integrity. Second, the decision will affect the welfare of many others and the decision-makers are aware of this impact. Third, the decision will lock in the future. The range of possible options will be significantly and durably modified. Again, the decision-makers are well aware of this lock-in effect.

Precisely because parliamentary delegates so acutely experienced the dilemma inherent to the choice of a line of conduct on 23 March 1933, the case magnifies the ways in which actors struggle with this type of uncertainty. Seeking to shun isolation at any cost, actors strive to borrow their rule of conduct from those with whom they identify. Quite revealing in this respect is the remark made by the chairman of the Center party (*Zentrumspartei*) on the afternoon of 23 March,

⁹ Regarding this last point see how engineers describe the terms of the dilemma which they were facing (Vaughan 1996: 363-367).

a few hours before the vote: “No one can take the responsibility of casting an isolated vote. This responsibility is too heavy—the vote needs to be depersonalized and only a unitary vote [*ein einheitliches Votum*] accepting the enabling bill can achieve this impersonal character in the acceptance of the bill”.¹⁰

The case thus reveals how actors collectively facing a critical decision develop an interest in alignment and, accordingly, seek to coordinate their expectations about themselves. By the same token, the case reveals different processes of alignment depending on the availability of information regarding other people’s commitments (sequential alignment), the reliability of preferences expressed through interpersonal contacts (local knowledge) or the shared signals provided by public statements (tacit coordination) (Ermakoff 2008: 215-223, 252-276; 2010a: 102-104). As we dig further into the etiology of these conjunctures of collective determination or collapse, the case underscores the significance of moments in which groups, whether formally constituted or not, find themselves at the crossroads of diverging courses of action (Ermakoff 2010b: 544-548).

This point has particular relevance for the analysis of transitions from one regime of interactions to another, whether our focus is on political institutions (Przeworski 1991: 55-56), organizations (Freeland 2001: chapter 3) or informal groups (Coleman 1990: 221-222). Transition processes involve more or less organized sets, or collectives, of actors who engage the conjuncture from different strategic standpoints. Some are on the move: they experience the conjuncture as an opportunity to advance their own interests. Others are under challenge: they believe that their interests are jeopardized. The dynamics of these highly interactive conjunctures are punctuated by the collective stances emerging through this confrontation, and actors’ capacity for collective action (Ermakoff 2009). In bringing a problematic centered on moments of collective determination, or indetermination, to the fore, the case provides another magnifying lens.

¹⁰ “Prälat Kaas [... erklärte], daß niemand die Verantwortung für eine Einzelabstimmung übernehmen könne, diese Verantwortung sei zu schwer—das Votum könne nur entpersönlicht sein, nur ein einheitliches Votum schaffe

Entpersönlichung in der Annahme des Ermächtigungsgesetzes” Kommission für Zeitgeschichte, Bonn, Tagebuchaufzeichnungen von Clara Siebert; abridged in Morsey (1992: 137).

Caveats

Cases challenging categories, claims and analytical assumptions (critical function) help redefine them. Similarly, cases that display extreme values on one or several dimensions (paradigmatic function) set the stage for an exploration of how these dimensions relate to one another (heuristic function). Having made this point, it is tempting to view these three functions as the constitutive moments of a discovery process: first, the case challenges standard categories; then it points to a class of comparable instances; and finally it sheds light on the processes most likely to occur for any instance of this class.¹¹

Clearly, we take full opportunity of the epistemic potential of an object of inquiry that initially strikes us as peculiar when we construe it from a critical, paradigmatic and heuristic perspective. It does not follow that this evolutionary pattern runs its course unimpeded from the moment we acknowledge a case as “exceptional”. First, cases may lack the informational content required to become paradigmatic or heuristic. To characterize a decision as “critical”, for instance, we need to be able to document the type of risks experienced by actors through direct or derived indicators. Not all events lend themselves to fine-grained scrutiny.

Second, it would be mistaken to assume that there is a unique logic of discovery structured by the critical-paradigmatic-heuristic triad.¹² Depending on the extent to which the expectations from which the case departs have been made explicit, two epistemic configurations are possible. In one the case is already an exception; we can situate it by reference to a theory and a set of well-defined expectations. In the other, it stands out against the backdrop of inchoate and more or less normatively laden set of representations. In the language adopted by this paper, it is still an anomaly, not yet an exception, even less an outlier.

¹¹ As Kuhn (1996) puts it, “[the] awareness of anomaly opens a period in which conceptual categories are adjusted until the initially anomalous has become the anticipated” (64).

¹² “Any anomaly has a life cycle defined by the types of work required to manage it” (Star and Gerson 1987: 149). Koertge (1991) alludes

to the multiplicity of ways to expand knowledge: “Scientific problems arise when our expectations are violated, when what we consider to be regularities call for a deeper explanation, when two previously disparate fields look as if they could be unified, or when a good scientific theory clashes with our familiar meta-physical framework” (229).

Third, a case does not speak by itself. Ultimately it “is made up of all the questions with which we endow it” (Passeron et Revel (2005: 11). The insights which it may provide are a function of the extent to which we make sense of it. “The perception that something had gone wrong [is] only the prelude to discovery” (Kuhn 1996: 57). Past the first surprise or past the unease, considerable analytical work is required at every stage before a peculiar case can realize its heuristic potential if any. For instance, we need to know in which respects the case is exceptional. This requires identifying the class from which it departs, and the dimensions to which it points (Lijphart 1971: 693). That is, its critical value becomes much clearer when the categories that it challenges have been made explicit. Similarly, its paradigmatic significance becomes concrete when we specify the analytical space in which it adequately takes place.

Conclusion

So what do we learn from exceptional cases? Their contributions can be conceptualized under three different rubrics: critical, paradigmatic and heuristic. They play a critical role when they problematize standard categories and the representations that go along. They become paradigmatic when they exemplify with utmost clarity combinations of features that have not been identified or singled out as such. They fulfill a heuristic function when they provide magnifying lenses allowing us to identify relational patterns. In short, an exceptional case has the potential to challenge standard categories, to epitomize new classes of objects and to disclose new sets of relations.

This being said, we should not assume that “out there”, in the realms of phenomenal and formal realities, there are a myriad of cases that quietly await the opportunity to burst out on the stage and display their peculiarity. The fact of “being peculiar” is a relational property. Cases stand out in contrast to usual categories or accepted claims. Without such a contrast and the background that makes it possible, they would not strike us as exceptional. They stand out primarily as deviations. In this respect, they are nominal constructs. And yet, they are very real when we shift the focus to the processes and emergent properties which they help reveal.

These few remarks underscore why exceptional cases cannot be neatly subsumed to any of the four types distinguished by Ragin

(1992: 8): empirical, theoretical, general, and specific. In fact, they travel all around the conceptual map depending on which stage in their epistemic elaboration we are considering. 1. An exceptional case is a theoretical construct when defined relatively to an expected pattern. 2. It becomes empirical from the moment we use it for heuristic purposes as an object of systematic investigation. 3. Then this object is very specific. 4. It becomes general as we conceptualize it as a paradigmatic case and as we uncover the general properties of its own complexity.

This last step is crucial. It conditions the possibility of expanding the inferences derived from the case to more mundane, less exceptional instances—that is, instances that belong to the same empirical class but do not display extreme values on the dimensions constitutive of that class. Such inferences become generalizable only if they specify conditional factors and conditions of possibility. Far from diluting analytical relevance, attention to the specifics of the cases makes the inferences more specific and therefore more analytically relevant.

Acknowledgments

I am grateful to Michael Biggs, Bob Freeland, Steven Lukes, Doug Maynard, Michael Role and the reviewers of *European Journal of Sociology* for their constructive comments.

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Résumé

Les cas exceptionnels apparaissent le plus souvent comme atypiques, bizarres ou rares. Dès lors comment justifier d'en proposer une analyse systématique ? À partir d'une distinction analytique entre les anomalies, les exceptions et les déviations, cet article met en avant trois contributions épistémiques des cas exceptionnels. Tout d'abord, les cas exceptionnels révèlent les limites des catégories et classifications standards. Ils permettent de problématiser les grilles classificatoires. Leur apport est critique. Ensuite, les cas exceptionnels permettent d'identifier de nouvelles classes d'objets. Ils acquièrent un statut paradigmatique lorsqu'ils manifestent les caractéristiques spécifiques de ces nouvelles classes. Enfin, les cas exceptionnels mettent en évidence des modèles relationnels qui dans des contextes plus ordinaires resteraient invisibles. Leur contribution est ici heuristique. Ces trois contributions deviennent possibles lorsque nous suspendons nos attentes normatives par rapport à ce qui devrait se passer, et spécifions les cas en référence à un espace analytique de dimensions constitutives. L'article s'appuie sur des exemples tirés principalement des sciences sociales : la sociologie des organisations, l'ethnométhodologie, la sociologie historique comparative et l'histoire des sciences.

Mots-clés: Anomalie ; Exception ; Déviation ; Paradigme ; Sciences sociales ; Théorie sociologique.

Zusammenfassung

Außergewöhnliche Situationen werden meist als untypisch, komisch und selten dargestellt. Womit lässt sich dann aber ihre systematische Untersuchung rechtfertigen? Ausgehend von der Differenzierung zwischen Abweichungen, Ausnahmen und Sonderfällen, hebt dieser Beitrag drei epistemische Beiträge außergewöhnlicher Fälle hervor. Erstens verdeutlichen außergewöhnliche Fälle die Grenzen von Kategorien und Klassifizierungen. Ihr Beitrag ist kritisch. Zweitens verweisen außergewöhnliche Fälle auf neue Gegenstandsmodelle. Sie erhalten einen paradigmatischen Rang durch das Aufzeigen spezifischer Charakteristika dieser neuen Modelle. Drittens verdeutlichen außergewöhnliche Fälle Beziehungsmodelle, die in gewöhnlicheren Zusammenhängen unsichtbar bleiben. Ihr Beitrag ist hier heuristisch. Diese drei Beiträge sind möglich, wenn wir unsere normativen Verhaltensweisen bezüglich des Vorhersehbaren aufheben und die Fälle in Beziehung zu einem analytischen Raum konstitutiver Dimensionen setzen. Der Beitrag fußt hauptsächlich auf Beispielen aus den Sozialwissenschaften: Organisationssoziologie, Ethnomethodologie, vergleichende Geschichtssoziologie und Wissenschaftsgeschichte.

Schlüsselwörter: Anomalie; Ausnahme; Abweichung; Paradigmas; Sozialwissenschaften; Soziologische Theorie.