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Interactive Classification and Practice in the
Social Sciences: Expanding Ian Hacking's
Treatment of Interactive Kinds

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Abstract

This paper examines the ways in which social scientific discourse and classification interact with the objects of social scientific investigation. I examine this interaction in the context of the traditional philosophical project of demarcating the social sciences from the natural sciences. I begin by reviewing Ian Hacking's work on interactive classification and argue that there are additional forms of interaction that must be treated.

KEYWORDS: philosophy of social science, rhetoric of science, science studies, interactive kind, practice theory, human kind, scientific classification, taxonomy, social practices, scientific concepts

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Interactive Classification and Practice in the Social Sciences

Expanding Ian Hacking's Treatment of Interactive Kinds



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Demarcating the social sciences from the natural sciences forms the primary concern of much of the literature in the philosophy of social science. These demarcation criteria often take the form of distinguishing the objects of social scientific investigation from the objects of natural scientific investigation. While this project has produced a great deal of compelling and worthwhile philosophical discussion, I think it is most helpful to take social scientific practice on its own terms before we compare these systems to natural scientific theorizing. Specifically, I think a more useful picture of the social sciences emerges when we attend to the ways social scientists engage in classification and conceptualization, and the ways classifications interact with their objects of classification.

Despite his focus on developing an adequate demarcation criterion of the type I have declared to be premature, I think the philosopher of science Ian Hacking has performed much of the legwork needed in developing an adequate account of the types of classification in which the social scientist trades. He attempts to articulate an account whereby social scientific classifications interact with their objects in a special way. In the first section, I will explicate Hacking's notions of interactive and indifferent kinds, the terms he uses to distinguish the social from the natural sciences. I will also raise a number of worries about the ambiguities of these terms and the scope of their explanatory power. In the second section, I will use examples involving classifications of sexuality to illustrate two forms of interaction critical to social scientific practice that Hacking overlooks. I will conclude by examining an objection to the very idea of distinguishing between social scientific classifications and their classificatory objects, using this objection to illustrate when such a distinction is appropriate and why the distinction is important to social scientific practice.

Interactive and Indifferent Kinds

Traditional demarcation criteria in the philosophy of social science focus on distinguishing social scientific objects of classification from natural scientific objects of classification. Hacking claims to bypass these traditional debates by distinguishing social scientific *ways of classifying* from natural scientific *ways of classifying*. The move appears rather subtle, but it is striking in its implications. Hacking's focus is on laying out a method for the social sciences distinct from that of the natural sciences. Other philosophers of social science, notably Peter Winch,ⁱ have couched their project in this sort of methodological language, but their work pays greater attention to setting demarcation criteria in terms of the objects of social scientific classification.

Hacking's claim is that social scientific classificatory work is interactive, while natural scientific classificatory work is indifferent. When the natural scientist articulates a new category or classification, she does not change anything about the object or objects under study. Natural scientific classifications are inert and independent from their objects. The act of classifying an object of study in physics does not change anything about that object, and the object, once classified, does not lead to changes in the classification, except for the uncontroversial sense in which those classifications are *about* these objects.

To make this more concrete, consider Hacking's discussion of the quark (1999, pp. 68-72). Though the physicist has some degree of choice in the object or objects she studies, she changes nothing about the object of classification (the quark) in the process of classifying it. Once classified, quarks do not change anything about the classification. Hacking uses Andrew Pickering's discussion of quarksⁱⁱ as a useful way to emphasize these points. Pickering is a 'social constructionist' about quarks, but even this sort of view is compatible with the view that the object of scientific investigation is real and does not interact with a natural scientific way of classifying. Pickering's constructionist thesis amounts to the claim that the scientific process leading to the elaboration of a 'quarky physics' was a contingent process. Physicists could have proceeded in different ways and posited explanatory entities other than quarks. This is perfectly compatible with the view that once we have a quarky physics, the quark as object and the quark as classificatory term do not interact.

By contrast, social scientific ways of classifying interact with their objects in a two-way process that Hacking terms the 'looping effects' of human kinds. The classifications of the social sciences are available to be known and understood by their human objects of

classification. The human objects of classification can then come to change or modify their behavior based on their understanding of the classification in question. These changes can then come to affect the way we understand the original classification. Consider the patient classified as having ‘multiple personality disorder’. She often comes to exhibit the behavior and traits of those people who suffer from multiple personality disorder. She does this in a way that reaffirms or reinforces the medical understanding of the disorder in question.ⁱⁱⁱ

Hacking’s examples tend to emphasize the ways in which human beings self-ascribe a classificatory term and come to conform to its associated norms and practices. But there are other ways these interactions might proceed. Consider the example of the social scientific classification ‘American’. A political scientist might employ this classification when discussing contrasts between different strains of political thought, such as American individualism and Scandinavian socialism, or when generalizing about the mores of American society. This classificatory term comes bundled with certain norms and expectations about the objects collected under its scope. Individual Americans can come to learn about the ways experts classify Americans. They can react to this information in a variety of ways in addition to self-ascription and conformity. Perhaps an American reads an article about American individualism and reacts negatively to the piece, expressing the desire to develop more communitarian values. She responds to her new information by consciously cultivating these values. In cases like this, the objects of classification use the classificatory term to change their own practices, and in turn the very nature of the classification originally under consideration. They do so by perceiving the way they are classified and reacting negatively to this classification.

This sort of process can be described using Hacking’s terminology of looping effects. In cases like the one above, experts or other professionals are influenced by the practices of Americans to classify them in certain ways. This is an interaction flowing from the objects of classification to the scientist performing classificatory work. The Americans in question then become aware of the ways in which they are classified and respond by adjusting their behavior. This is an example of interaction flowing in the direction from classification to object. These practices, in turn, will affect the ways in which Americans will be classified in the future, another example of interaction flowing from object to classification.

Hacking’s demarcation criterion relies heavily upon our ability to fruitfully distinguish between a classification and the objects of a

classification. Why assume that an ‘American’ is anything above and beyond those people classified as Americans? I will consider an objection to this very distinction in section three. A more immediate problem with Hacking’s view lies in the way he distinguishes interactive from indifferent kinds. Hacking defined interactive and indifferent kinds in terms of scientific classifications. An interactive kind is a social scientific classification that interacts with its human objects of classification through looping effects. Hacking explicitly denies that he wants to apply the term ‘interactive kinds’ to the human objects of social scientific classification (1999, pp. 103-104). It applies to the *way of classifying*, not the *object of classification*. However, Hacking explicitly makes this forbidden move when responding to standard objections to his demarcation criterion.^{iv}

One popular counter-example to Hacking’s demarcation comes from the classification of disease-causing bacteria. This is a case where the classification of the natural scientist, namely the classification of ‘disease-causing bacteria’, leads to a series of interactions that comes to affect the object of natural scientific inquiry. The classification of the natural scientist inspires the medical scientist to treat the newly classified object as problematic. In response, she develops and produces antibiotics. The use of these antibiotics causes distinct selection pressures on the original bacteria. These selection pressures lead to evolutionary changes in the objects of classification and even to the development of new classifications, namely antibiotic-resistant bacteria. This, of course, is quite a common problem in the medical sciences.

Hacking’s standard response to this type of case is to point to the fact that the object of classification in these cases is not aware of the ways in which it is classified. Bacteria are not aware of the work of natural scientists. They do not hold meeting to discuss what must be done about the grave threat of antibiotics. They do not think of themselves as disease-causing and do not consciously modify their practices as a result of such classifications. They neither seek to conform to their disease-causing ways nor to avoid disease-causing due to shame or fear. In short, they are not aware of how they are classified and cannot think through its implications. The social sciences, on the other hand, study objects that *are* aware in this way. They study objects that are interactive. Hacking writes:

Do not microbes adapt themselves to us, quickly evolving strains that resist our antibacterial medications? Is there not a looping effect between the microbe and our knowledge? My simple-minded reply is that microbes do not do all these things because, either individually or collectively, they are aware of what we are

doing to them. The classification *microbe* is indifferent, not interactive, although we are certainly not indifferent to microbes, and they do interact with us. But not because they know what they are doing (1999, pp. 106, emphasis Hacking's).

Hacking acknowledges that there is a kind of interaction between microbe as object of study and microbe as it is classified. He dismisses this interaction because it concerns an object that is not aware of its classification.

The trouble with this response is that all of these facts about the bacteria are irrelevant to Hacking's claimed demarcation criterion. Hacking's demarcation criterion was supposed to be about ways of classifying objects, not about the nature of the objects under consideration. Hacking cannot respond to objections by pointing out the interactive nature of *objects*. Once Hacking has admitted that natural scientific classifications are interactive, his demarcation criterion falls apart. His position collapses into the fairly commonplace view that the social sciences deal with self-aware objects operating in the space of reasons while the natural sciences deal with inert objects operating in the space of causes.^v The counter-example shows that at least some of the classifications of the natural sciences, particularly some of those in evolutionary biology, are also interactive.^{vi}

This, of course, does not invalidate Hacking's view. He might use his claims about the objects of social scientific classification to create a novel thesis about social scientific ways of classifying. He might claim that the social scientist develops interactive classifications where the relevant interactions are with interactive objects. The natural scientist might trade in interactive classifications, but these classifications interact with inert, indifferent objects in law-like causal interactions. But Hacking runs into trouble here with his own example of autism. Hacking wants to hold autism as an example of a social scientific interactive kind at work (Hacking 1999, pp. 114-122). In order to do so, Hacking must claim that the classification 'autism' interacts with the people classified as autistic. Furthermore, in line with his response to cases such as that of disease-causing bacteria, he must claim that they interact in a specific sort of way. People classified as autistic must become aware of the way they are classified, and they must modify their practices as a result of becoming aware of this classification.

The problem with such a claim is that the relevant medical literature does not support the view that people classified as autistic can become aware of the way they are classified and react to this

classification. Indeed, some autistic patients are not conceptually aware of their surroundings *at all*, let alone in the sort of way required to understand the way they are classified by medical experts.^{vii} If autism is an interactive kind, it interacts with autistic patients in ways that are more subtle and are connected to broader social, political, and material forces. Perhaps those who care for autistics, such as medical professionals or family and friends, react to the classification of autism by treating autistic persons in different ways, and this leads to demonstrable changes in the practices of autistics. Autistics might conform to the expectations set for them by their caretakers, or they might chafe under medically-inspired ill-treatment.

So much for the demarcation criterion. But even if we cannot claim that all social scientific classifications are interactive and all natural scientific classifications are indifferent, can we hold on to the first half of the conjunct? Would doing so show important results, or reveal something important about the social sciences? I'd like to answer 'yes' to both of these questions. This broader notion of interaction is one I take to be important, and one to which we will move in the next section. The classifications of the social sciences are interactive, but not merely interactive with a human object aware of how she is classified. These classifications interact with individual human beings as well as other objects of classification and social scientific classifications themselves. I will use examples involving the classification of human sexuality to demonstrate this latter point.

Three Forms of Interaction in the Social Sciences

We saw in the previous section that the sense in which the social scientist deals with interactive ways of classifying is broader than that identified by Hacking. Social scientific classifications can enter into looping effects with agents aware of the way they are classified, but they can also interact with agents in different ways, as with the example of autism. In this section, we will look specifically at two types of interactions overlooked by Hacking. The first type consists in the interactions between a classification and the public or cultural practices that are picked out or proscribed by the classification. These interactions are sometimes mediated by the self-aware agent Hacking favors, but they often involve individuals who unreflectively conform to expected ways of behaving. The second type consists in classifications that interact with other classifications. There are, I will argue, three types of interactions critical to social scientific practice:

1. There are interactions between social scientific classifications and human objects of classification who explicitly articulate these ways of classifying. This is Hacking's paradigm case, and these interactions take the form of the looping effects Hacking describes.
2. There are interactions between social scientific classifications and broader habits or cultural practices. Social scientific classifications can affect public norms and expectations of what human beings are supposed to do. These interactions are most commonly between a classification and human beings who unreflectively conform or react to social norms.
3. There are interactions between social scientific classifications and other social scientific classifications. One classification can create a natural conceptual space for the articulation of other concepts. These interactions can take the form of either involved, theoretical reflection or they can be embodied or realized through the unreflective conformity of individuals.

I will use examples involving the classification of human sexuality to illustrate these additional forms of interaction. These three forms of interaction will help us build a more complete picture of what the social scientist does. I will argue in the next section that a focus on one or another of these forms of interaction, to the exclusion of the other(s), often leads philosophers of social science astray in giving an account of the social sciences and demarcating them from the natural sciences.

Classification of human sexual inclination or 'orientation' was spurred largely by the study of homosexuality. But what's a homosexual? Before the nineteenth century, not much at all, though many of the human practices taken as objects under the classification 'homosexual' were already present. Women had sexual relationships with women, and men had sexual relationships with men. Some of these relationships were long-term and sexually monogamous. At times, the existence of these relationships was well-known. Some societies practiced tolerance, while other expressed disapproval or the worst forms of persecution. Thanks to the work of people such as Foucault, these things are commonly known.

The classification 'homosexual' can be straightforwardly interactive in Hacking's sense. 'Homosexual' is interactive because we can think of ourselves in terms of this classification and modify our practices. Suppose Luke is in a relationship with Linda, but

occasionally has sexual encounters with James. Aware of the existence of the classification 'homosexual', Luke may seek to hide his behavior out of fear of being classified as homosexual.^{viii} Alternatively, perhaps these concerns lead him to end his encounters with James, because Luke comes to identify himself as 'heterosexual'. If these encounters are quite frequent, we may even accuse Luke of denying his own history in a case of Sartrean bad faith. This is a case of (1), where Luke has explicitly articulated the classification homosexual and uses it to modify his own practices. If cases

like Luke's are prevalent, it might lead a social scientist to consider ways to expand or contract the classification in order to account for cases such as these. The social scientist might use reactions such as Luke's to recalibrate the classificatory term, to modify what counts as homosexual or heterosexual practice.

The classification 'homosexuality' is interactive in the senses of (2) and (3), because it can interact with broader social forces or other social scientific classifications. Through associating certain cultural practices with 'homosexuality', we have come to affect other social scientific classifications, such as tolerance and intolerance, gay pride, and the "religious right". The modern articulation of homosexuality and its ascent from a cultural taboo to a widely accepted practice have led advocates of tolerance and opponents of discrimination to include sexuality as a protected class, along with race, social class, or national origin. The articulation of homosexuality has also led to the formation of specifically homosexual institutions, such as the gay bar and the gay pride rally. These interactions are cases of (2). A classification has come to affect broader cultural practices.

One important point to note about interactions of type (2) is that they need not be mediated by the reflective agent who articulates a concept and comes to apply it to her own life. Of course, this *sometimes* occurs. The gay bar is a useful example here because it exemplifies both of these cases. In one particular place, namely the Greenwich Village neighborhood of Manhattan, the gay bar was a product of people of similar sexual orientation coming together in the same place as a result of increasing social openness about homosexuality in the 1950's and 1960's. This did not involve the explicit articulation of a new set of cultural practices or norms. Rather, the way a certain classification was taken by people in a certain material and social location created a space for the development of new practices. The process of legalization of gay bars, however, did involve theoretical articulation. Specifically, once 'gay bar' was established as a term of public interest,

authorities in Manhattan began using police raids to shut down such establishments. This led to widespread fear and the understandable dissolution of a number of gay bars, until the president of a local gay rights organization successfully challenged the law. He quite literally set out to theoretically articulate his situation toward meeting the goal of changing public practices. This latter case is a case of type (2) where the public practices in question come to interact with a classification via explicit articulation.^{ix}

The original classification of homosexuality led to an explosion of classifications of human sexuality. As an immediate point of contrast, it led to the conceptualization of heterosexuality, previously taken as a kind of assumed norm of behavior. Dissatisfaction with this dichotomy led to the classification of 'bisexuality', while dissatisfaction with this trichotomy led sexologists to elaborate the seven-point Kinsey Scale and a variety of alternatives. These are examples of (3). The point is that a new social scientific classification may interact with other classifications in a variety of ways. The articulation of one classification may make evident the existence of a conceptual space for other classifications, and provide a space for new classificatory work.

Interaction (3), too, can be either a product of articulated, theoretical work or it can take place through embodied agents acting unreflectively. The examples in the last paragraph are of the former type. In the former type of case, the conceptual space for a new classification can be divorced from the actual practices of people in favor of the needs of social scientific theorizing. But consider the following sort of case. The term 'marginal value' is one used by the economist. Marginal value denotes a value that is true given a particular set of constraints or assumptions, as well as the change in a value associated with changes in particular values or variables. Marginal value can interact with other classifications of the economist, such as consumer or purchasing behavior. If a laborer increased her income from \$20,000 per year to \$28,000, the marginal value of her new income would be \$8,000. Suppose that as a result of this marginal value, she increases her bread purchases from fifty loaves per year to sixty loaves. This is a case where one classification, the marginal value of the laborer's income, is said by the social scientist to interact with another classification, her consumer behavior. Of course, ordinary folks do not articulate and theorize about marginal value. Their actions embody the classifications.

These interactions move beyond the types of cases emphasized by Hacking. The homosexual can become aware of the way she is

classified and come to conform to or reject her classification, but the classification can also come to shape cultural practice in unarticulated ways. Our concept of homosexuality comes bundled with expected ways of behaving. We are socialized into these ways of behaving when we learn about the classification. One need not be an agent aware of the way she is classified in order to be influenced by these expectations.

Classification, Objects of Classification, and Social Scientific Practice

Much of the traditional debate in the philosophy of social science involves clarifying the objects of social scientific inquiry. Deciding the objects with which social scientists deal is no small problem for the philosophy of social science and has formed a large sticking point of debate. Generally speaking, I think we can discern two currents or broad schools of thought in this debate.^x One group argues that the social sciences study objective social structures or a distinct realm of social knowledge, the ‘social fact’. From the traditional sociology of Durkheim to the structuralist or holist tradition, this route involves positing an ontological realm that is distinctly social and is studied by distinct empirical methods. Another group argues that the social world is constructed from the natural world and/or social meaning. A diverse lot, this group includes those from the reasons-based explanation of Winch to the social reality of Searle^{xi} to the “constructionist” tag often attributed to figures in the humanities.^{xii}

Hacking’s work on demarcating the natural and social sciences involves an attempt to bypass this sort of dichotomy. But when attempting to overturn an entrenched debate between two plausible positions, it is important to capture the intuitions of both positions. Hacking does not do this. He appropriately captures the constructionist intuition that many of the features of the social world are contingent and susceptible to changes in beliefs and attitudes, but he does not capture the intuitions of the traditional sociologist or the structuralist. I suspect this is why Hacking is occasionally mistaken for a card-carrying social constructionist.^{xiii} Social structures are important. Sometimes, they impact our lives in ways in which we are either unaware or only dimly aware. A successful account of the social sciences must make sense of this.

Such a task is not easy. It will involve a close study of the relations between social scientific classifications and human practices that cannot merely rely on the actions of self-aware moral agents. Many of these relations appear hidden and are difficult to predict and study. More radical critics, such as Turner (2002)

point to the multiple realizability of a human practice or behavior in a variety of different rules or social structures in support of the view that much of the work of the social scientist is either misleading or consists in the use of unsupported ontological baggage.

Through studying the three types of interaction listed in the previous section, I have identified a way in which such a study might proceed. We can take many of the traditionally problematic objects of social scientific inquiry, such as ‘social facts’ and ‘social forces’, and conceive of them as social scientific classifications, rather than social scientific objects. This allows us to ask whether or not they enter into the types of interactions studied by the social sciences. While it is a mystery how a social force could exert causal influence when thought of as an *object*, thinking of it as a classification makes this less mysterious. A classification is proposed by the social scientist through explicit articulation and theoretical reflection. It can then interact with human objects of inquiry through the three forms of interaction.

The trouble with this view is that it depends heavily on maintaining the distinction between social scientific classifications and the objects of social scientific classification, a distinction that some have denied. Rouse (2002), for example, claims that a social scientific classification is nothing above and beyond its embedding into a broader social, natural, and material situation. He thinks a fully articulated situation would provide all of the explanatory power offered by a social scientific classification. This is threatening to my approach because my approach depends on holding out a set of classifications that are the product of theoretical articulation and explication, and this process often involves a separation of classification from object. It is also threatening to Hacking’s notion of looping effects. If Rouse is correct, what Hacking calls looping effects are nothing above and beyond interactions in the ordinary material and social world. The sort of interaction taken by Hacking as unique to the explanatory model of the social scientist is simply another thing the human individual does in the process of navigating in the everyday world of things, objects, and other people. There is no reason to believe that such interactions constitute some sort of special explanatory problem requiring a distinct science or method.

I think Rouse makes a worthwhile point, but its applicability is constrained in certain ways. Rouse, like Hacking, focuses on certain types of interactions at the expense of the others. With regard to interaction type (2), Rouse is surely correct to point to the inability to distinguish classifications and the classified objects in many cases. With homosexuality, we are affected by a classification

we do not always take as a theoretical object. Furthermore, our actions, preferences, and attitudes affect the very category of homosexuality. As a generational shift occurs in attitudes of tolerance toward homosexuals and expectations about how homosexual relationships are supposed to proceed, the very category of homosexuality will change in a number of ways. As we change our practices, we will change the classification in a variety of explicit and implicit ways, such as establishing new expectations for how such relationships should function.

While Rouse is successful in explaining some cases, his elision is not fruitful in other cases. One type of case is instrumental. When the social scientist introduces a new theory or piece of terminology, she must separate her classification from its objects in order to test the fidelity and explanatory scope of the new term. If a political scientist studying contemporary Colombia generalizes the Colombian political system as a 'Caudillo democracy', she would need to abstract from these practices in order to test the generality of the term and its possible application to other political systems. Moving to neighboring Venezuela might provide her with a useful case study. In Colombia, a strong leader rose to power with widespread popular support in a way that subverted the traditional political establishment. The Colombian armed forces are supplemented largely by a country with a troubled record of international relations, namely the United States. Similar conditions apply in Venezuela, with the exceptions that the Venezuelan leader is a figure of the left rather than the right, and the questionable international support comes from Russia and Iran, rather than the United States.

However, there are differences. The Colombian government is engaged in a vicious armed conflict with elements of its own population, while Venezuela is not. The Venezuelan government has fostered popular participation and local democracy in the form of community organizational councils, while Colombia has not. Venezuela is notoriously inept and weak in dealing with crime, while Colombia is notoriously corrupt and draconian. Venezuela's president is exuberant, confrontational, and occasionally obnoxious, while Colombia's is famously bashful. The political scientist must abstract the classification 'caudillo democracy' from its objects because she must decide whether or not to apply the term elsewhere, and how to do so. She must also decide which of these differences between Colombia and Venezuela are relevant. Does the fostering of spaces for public participation absolve Chavez of his alleged caudillo status? Does his shy demeanor absolve Uribe?

Another type of case where the distinction may prove fruitful is when new classifications are introduced in a way that depends on the previous classificatory field. Hacking, for example, claims that a classification often needs a social niche in which to appear and thrive (Hacking 1998). He uses the example of dissociative fugue, a commonly diagnosed illness in nineteenth century France in which the patient aimlessly wanders away from home unannounced and unexpected. Diagnoses of this particular illness were almost completely isolated to this particular historical and cultural context, never becoming popular outside of France and (briefly) Germany. One requirement for such a phenomenon to occur, according to Hacking, is that there must be a natural conceptual space in the current medical taxonomy. Such a space existed for dissociative fugue between the previously conceptualized illnesses of epilepsy and hysteria. Without articulated theories of epilepsy and hysteria, articulations of fugue could not have occurred. The closing of this space in the early twentieth century, due to changes in medical taxonomy, led to the closing of this conceptual space and the disappearance of diagnoses of dissociative fugue.^{xiv} What is critical here is that the conceptual space opened for fugue originated in scientific theorizing about the classificatory field, in addition to theorizing directly about the practices of the suffering patients.

Such cases are not isolated to psychiatry. Indeed, they look like particular instances of interaction (3). Consider our earlier example of the conceptual explosion that occurred in the wake of the conceptualization of homosexuality. The classification of certain practices as homosexual practices created several natural points of taxonomic distinction, allowing for the conceptualization of heterosexuality and bisexuality (and eventually, due to dissatisfaction with these models, a variety of 'sexuality spectrum' approaches). As with the case of fugue, the relevant scientific theorizing did not occur through linking particular practices to a classification, but rather mining current classificatory schemes for an open conceptual space for new theorizing. Like fugue, social scientific conceptualizations of heterosexuality, homosexuality, and bisexuality would become largely obsolete if the conceptual spaces were closed. If one or another approach that considers sexuality to be a spectrum were to become dominant and widely disseminated throughout the scientific and lay communities, these classifications may disappear.

It may also be necessary to distinguish between classifications and objects in the service of social critique and change. The libertarian socialist tradition of thought, for example, has often held that revolutionary social change requires both mass action on the

part of individuals and the organization of individuals into free associations that theorize about proper revolutionary change. The Spanish FAI of 1927-1939 was one such organization, and the Venezuelan communal council may represent a modern form. The point of such organizations is to develop a larger thematization or narrative by which individuals might coordinate their actions. The development of such a narrative requires participants to abstract a category from mass action so that they may develop a structure of norms and goals around which they might build future action.

Of course, these types of cases might be considered by Rouse to be *merely* instrumental distinctions between classifications and objects. Once the classification becomes settled, it is tied to specific individual and cultural practices and institutions. When the political scientist fixes her conception or theory of caudillo democracy, this classification *consists in* certain types of cultural practices, such as the subservience of the lawmaking and law-enforcing process to the caudillo. She may think of the deliberation process as the systematic attempt to fit together concept and object. Once this fit is achieved, one need not bother distinguishing the two, except for explanatory convenience. When the libertarian socialist clarifies her goals, her actions *are* the revolution. When Hacking describes the looping effects of human kinds, he reserves a special role for the agent who deliberates about a classification, who takes a classification as a theoretical object. Rouse's elision of the classification/object distinction takes away this role. When he says that a person thinks about the way she is classified and changes her behavior to conform to this classification, Hacking is describing a cognitive process. Rouse would translate this process into pre-cognitive or non-cognitive language. When the Colombian thinks about caudillo democracy and when the man who has sex with men thinks about the classification homosexual, they are thinking about behaviors and practices in which individuals and groups engage. Conformity, or failure to conform, to the category is a matter of whether or not we conform to the norms already present in such practices. The addition of a category or classification to the picture does not have any explanatory weight or value on its own.

The distinction between different types of interactions sheds light on this particular debate in a way that can help us make sense of the distinction between concept and object that Hacking holds to be critical and Rouse globally denies. Interactions (2) and (3) occasionally conform quite well to Rouse's analysis. The trouble with Rouse's account is that it is impoverished when trying to explain Hacking's original, paradigmatic cases of interaction. While I have shown that many interactions are a matter of

unreflective conformity to the behavior of those around us, some interactions *really are* a matter of theoretical reflection and adjusting of our practices. We can return again to the example of Luke and Linda introduced in section two. In ending his encounters with James, Luke was not merely interacting with the practices of those around him. His interaction was a theoretical reflection on a category, a way of classifying and organizing public practices. Without the category, his actions could not be appropriately explained. His fear was one of being associated with a category, not with the objects classified by the category.

Hubert Dreyfus draws a distinction that is quite helpful in understanding the differences between these types of interactions. Dreyfus distinguishes between something he calls transparent or practical coping on the one hand and explicit or deliberate coping on the other. When a person engages in transparent or practical coping, she navigates her situation and environment in an unreflective and unproblematic way. She does not need to explicitly articulate her environment and does not need to engage in theoretical reflection, because she is already familiar with it. The person engaged in explicit or deliberate coping does need to explicitly articulate her environment, and may need to engage in theoretical reflection.^{xv}

The interactions studied by social scientists are often best described by one of these types of coping, and the type of coping to which it belongs is critical to the success or failure of Rouse's objection to Hacking. In the types of interactions I emphasize, namely (2) and (3), individual agents are most often engaged in practical coping. They seamlessly move through their environment, conforming to the norms and practices of others. In these cases, Rouse seems quite right to deny the distinction between social scientific classifications and their objects. Classifications are merely convenient terms used to denote the ways people engage in practical coping with their environment.

The problematic cases for Rouse begin when we move from practical coping to explicit or deliberate coping.^{xvi} In the types of interaction emphasized by Hacking, agents have problematized and theoretically articulated their own practices. They reflect upon and change these practices in a way that gives added significance to the classification. If we do not distinguish between classifications and their objects in these sorts of cases, we fail to explain the behavior of these agents engaged in deliberate coping. It is this agent that provides many of the cases important to social scientific reflection and theorizing. These agents, as Hacking suggests, are 'moving

targets'. Forming predictive laws and hypotheses in these cases of interaction may prove especially difficult.

Conclusion

As we saw earlier, the chief novelty behind interactive kinds is that they are about social scientific classifications, rather than the objects of these classifications. While we saw that Hacking is wrong to use the interactive natural or social scientific classifications to demarcate the social sciences from the natural sciences, Hacking effectively points to the importance that interactive classifications have for social scientific practice. I have shown that Hacking's notion of interaction is only one type among several types of interaction that are important to the social scientist. I have also shown how these various forms of interaction are manifested in the social sciences, specifically to the roles they play in the development and continued uses of social scientific classifications.

A certain type of interaction, namely that which results when an individual or group of individuals forms a thematization or narrative about their practices, forms a distinct sort of interaction critical to social scientific practice. The philosopher seeking to demarcate the social sciences from the natural sciences must account for each of these three types of interaction, and it is not obvious that the account will treat each of them in the same way. Further work must be done toward articulating the nature and mechanisms of these three interactions. Are they causal, reasons-based, or something else entirely? Cases of unreflective conformity or rejection of public norms appear to require different treatment from that accorded to cases of theoretical articulation of classifications or concepts.

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Notes

ⁱⁱ See Winch (1990 [1958]).

ⁱⁱ See Pickering (1984).

ⁱⁱⁱ Hacking gives thorough treatment to this topic in Hacking (1995).

^{iv} Tsou also points out Hacking's classification/object conflation (2007, esp. pp. 335).

^v Martinez (2009) also points out that Hacking's view does not really constitute a novelty in demarcating the social sciences from the natural sciences.

^{vi} Bruno Latour (1988) elaborates an alternative way to respond to these sorts of cases. Latour uses them as evidence for the importance of a kind of material agency that he attributes to all objects of scientific classification, human and non-human alike.

^{vii} See Martinez (2009, pp. 229-231) for an extended discussion of the autism literature and the ways in which Hacking's case of autism looks quite similar to the case of disease-causing bacteria in its forms of interaction.

^{viii} Of course, this is not the *usual* way of reading such a case. We would normally suspect that Luke is either a closeted homosexual, or that he is worried about the social repercussions for his behavior. But it is perfectly plausible that it is the *classification* he is worried about. Perhaps he lives in a community that takes a single instance of homosexual behavior to be evidence of homosexuality, and that associates such a classification with other negative beliefs about the person.

^{ix} The gay rights leader was Dick Leitsch, who was President of the Mattachine Society of Manhattan. See Simon (2008) for the transcript of an interview with Leitsch where he recalls the event under discussion.

^x I am relying primarily upon Schatzki (2003) and Fay/Moon (1994) in elaborating this distinction. Each text presents the distinction in a slightly different manner, with Schatzki focusing on the distinction between individualist and non-individualist ontologies, while Fay/Moon focus on the distinction between naturalist and humanist views of the social sciences. Both sets of distinctions are about the same thing, namely the objects of social scientific classification.

^{xi} See Searle (1995).

^{xiii} It would be impossible to review the entire history here, but a couple of examples might suffice. Durkheim and other traditional sociologists posit that the objects of social scientific classification and investigation form a distinct layer of knowledge, that of the 'social fact'. Facts in the social realm, such as 'nations', 'tribes', or 'corporations', were held to be special sorts of theoretical objects with independent causal powers over other objects of the social sciences, such as individual and group actions. These social facts are not reducible to facts about individuals and/or their relations. This quite naturally leads to the explanatory problem of explicating what types of objects these are, how they relate to the human beings who may or may not embody them or act in their name, and just how the causal relations amongst them are supposed to work. Constructionists, in contrast to the traditional sociologist, avoid ingrained social objects and causal explanations in favor of non-naturalist accounts of meaning and contingently constructed objects of social scientific inquiry. Peter Winch, for example, takes the task of the social scientist to be the investigation of our understanding of the social world. This involves the investigation of human meaning through language, which is located in the community of which one is a member. Human beings interact with one another socially not through causal interaction with social forces, but rather through interpreting or giving reasons for their actions in terms of the normative standards of their community. Winch is not a typical example of 'social constructionism,' but he shares its key features. The objects of social scientific investigation on Winch's account are highly contingent and can vary widely across different communities. Explaining society involves interpreting action against a background of shared contingent meanings rather than offering causal explanations. See Zammito (2004) for a more thorough treatment of the constructionist side of this debate.

^{xiii} Turner (2002) labels Hacking a social constructionist.

^{xiv} Murphy (2001, pp. 145-146) also discusses this particular case from Hacking.

^{xv} Dreyfus also distinguishes between deliberate coping and theoretical reflection, but this distinction is not critical to the current point.

^{xvi} Rouse (2000) addresses some of these worries by denying the distinction between practical coping and deliberate or engaged coping. See also Dreyfus's (2000) response to Rouse.