"They have good devices": trust, mining, and the microsociology of environmental decision-making

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A B S T R A C T

Since the 1990s, transnational mining firms have increasingly sought new deposits in the developing world. This shift in global patterns of mineral activity has led to contestation by mining host community residents and their activist allies. A swell of recent literature in the social sciences explores this phenomenon, largely accepting conventional wisdom about the causal forces behind individuals' choices to contest mining. This article examines individual decision-making around mineral conflicts in an effort to bring the microsocial into focus. Trust is an essential and largely ignored dimension of mining conflicts. We argue that two types of trust—institutional and relational trust—help explain how individuals form preferences about mining in their territory. We further argue that individuals' sense of self-efficacy underlies their decisions about whom to trust or distrust. We also seek to deepen the social theorization of trust by challenging the common binary of affective and cognitive trust. To make this argument we draw from a mixed-methods study of responses to gold mining in Guatemala.

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1. Introduction

Since the mid-1990s, mineral investment has moved from the traditional mining economies (e.g., the United States, Canada, Australia) into countries across the developing world with little previous mining experience and little capacity to administer mining. Thus, mining investment grew in Latin America by 300 percent over the past decade (Dougherty, 2011). Other developing regions, such as sub-Saharan Africa, Southeast Asia, the Pacific Islands, the Indian subcontinent and parts of Central Asia have also seen increases in multi-national mining activity (Bridge, 2004).

Four principal factors produced this shift: exhaustion of 'easy' reserves in traditional mining countries, increased demand from emerging economies for industrial metals, technological advances in extraction and processing which allow for lower-grade deposits to be profitably mined, and liberal foreign direct investment regimes in many developing nations (Bebbington, 2009).

Concomitantly, conflicts between host communities and mining companies have increased (Özkaynak et al., 2012). Given these recent trends, this article examines the microsociology of decision-making about mining. We argue that two kinds of trust—institutional and relational trust—are instrumental in understanding how individuals in agrarian mining host communities form preferences about mining. We further argue that individuals' sense of self-efficacy underlies their decisions about whom to trust or distrust.

We use interview and survey data from four Guatemalan municipalities hosting mining activity. In Guatemala, the number of exploration concessions granted yearly has increased by 1000% since 1997, owing to concerted state efforts to court mineral investment following the 1996 Peace Accords. This has generated anti-mining social movements and frequent violent confrontations between mining's opponents and supporters. Goldcorp's Marlin Mine is in the rugged, indigenous highlands of the Department of San Marcos. This mineralization was first explored in the late 1990s and passed through the hands of several companies until Glamis Gold brought it online in 2005. Guatemala's second gold mine is Cerro Blanco in Asunción Mita, Jutiapa, a lowland, largely mestizo municipality on Guatemala's eastern border. Cerro Blanco was discovered in 1997, and Glamis Gold acquired the rights in 1998. In November 2006 Glamis merged with Goldcorp. While Marlin has long been a global symbol indigenous resistance to transnational mining, until very recently, Cerro Blanco was not locally controversial.

As mineral conflicts in Guatemala have become central to public discourse over the last decade, many assume that host community

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residents allow community leaders or charismatic outsiders to sway their thinking. This perspective often originates from a cultural critique of peasants as irrational, given their minimal formal education. Others attribute their perceived tendency to be manipulated to peasants' indigenous roots, suggesting that in Mayan culture the *cacique* makes decisions for the community. Anti-mining activists and many academics assume that indigenous identity produces uniform thinking. In contrast to these assumptions, however, host community residents contend with contradictory scientific truths regarding the opportunities and threats of mining. Interview participant doña Élida bequeathed us the titular quote, "they have good devices." Referring to the equipment at the mine site, she mobilized this idea to justify her faith in the company. This statement embodies a key part of our argument—trust in technological sophistication is related to trust in authority, which in turn is related to mining support.

This article engages these discourses, by analyzing unique quantitative and qualitative data which show how self-efficacy emerges from the obfuscating information politics of mineral conflicts. We also illustrate how self-efficacy and trust interact. We highlight how certain residents, when confronting mining in their territories, engage in a process of grappling, winnowing, and coming to terms, a process laden with logic and emotion. Other residents react distinctly, ceding their trust to abstract institutions of authority—faith, expertise, technology and the state. Self-efficacy helps explain the difference. We argue that when individuals believe in their own capacity they tend to grapple, and those that grapple are more likely to critique mining; alternately, those that lack self-efficacy tend to trust in institutions and to support mining.

2. Trust, efficacy, and the new extractivism

As mining expands and transnational activist networks mobilize support for local anti-mining movements, the contestation around the impacts of mining has become prominent within public discourse. An upsurge of scholarship has followed these shifts. Principal themes in this literature include socio-environmental impacts (e.g., Bebbington et al., 2008a), legal and judicial processes and indigenous rights (e.g., Sieder, 2010), firm–community relations (e.g., Gordon and Webber, 2008), restructuring in global mineral industries (e.g., Dougherty, 2011), social movements (e.g., Bebbington et al., 2008b), corporate social responsibility (e.g, Haalboom, 2012), land tenure (e.g., Dougherty and Olsen, 2014), social capital (e.g., Bury, 2004), and community development (e.g., Kemp, 2010). Other recent work interrogates the argument that "new extractivism" represents something qualitatively new (e.g., Veltmeyer, 2013).

This scholarship also overlaps with the resource curse literature (e.g., Humphreys et al., 2007) and literature in management centering on mining, sustainability and corporate social responsibility (Hutton and Olsen, 2014). Research on the new extractivism distinguishes itself with its critical nature-society approach. It takes new extraction as a function of the neoliberalization of nature and draws theoretically from David Harvey's (2003) notion of capital accumulation by territorial dispossession (Perreault, 2012).

This scholarship often suggests agrarian host communities protest mining because it 1) threatens peasants' sources of livelihoods or stocks of natural resources (e.g., Bebbington and Williams, 2008); 2) threatens "traditional" modes of social relations (e.g., Taylor, 2011), 3) threatens locals' sense of territorial sovereignty or right to territorial self-determination (e.g., Bebbington et al., 2008a); or 4) is incompatible with smallholder farmers' or indigenous groups' inherent valuation of nature (e.g., De la Cadena,

2010). The ecological distribution conflict paradigm hybridizes these motivations (e.g., Muradian et al., 2003). These phenomena are important factors, yet macro-structural explanations—interpretations in which large social institutions move as coherent units— "may not tell the whole story" (Horowitz, 2009: 250). Social-psychological and affective dimensions are often overlooked. Further, this literature pays insufficient attention to mining supporters. This creates a tendency to assume uniform opposition to mining in contentious communities, which deprives host community residents of their complexity as decision-makers and brackets away much of the microsociology of mineral conflicts. In taking up the intellectual, emotional and profoundly social decision-making processes of host community residents, we echo Brian Wynne's (1992: 283) effort to unravel "simple notions of an unreflexive traditional lay culture."

A growing literature moves beyond conventional macro-causal arguments, recognizing the heterogeneity of local perspectives and exploring the micro-interactionist aspects of environmental decision-making. This literature draws from emotional geography and micropolitical ecology, which prioritizes, "underlying or tangentially related tensions within societies that figure, often invisibly, in resource-related conflicts" (Horowitz, 2009: 249). Hurley and Arı (2011) argue that the literature overlooks how competing rural capitalisms drive conflicts around diverse local political-economic interests. Horowitz (2009) argues that conflicts ostensibly about resource scarcity are, in part, about political legitimacy. Other work considers the gendered and emotional-geographic dimensions of mining conflicts (e.g., Ahmad and Lahiri-Dutt, 2006; Sultana, 2011). This literature works toward integrating micro and macro analyses. Hurley and Arı (2011: 1394), for example, advocate for "excavating the complex ways that micropolitical patterns articulate with wider political economic processes."

We build on these efforts to integrate the micropolitical and acknowledge local heterogeneity by examining the voices of mining supporters, critics, and individuals who articulate ambiguity. We unpack individual and microsocial decision-making and deepen the story of resistance to mining. Much of the literature on the new extraction treats mining opposition as the product of monolithic social groups acting in concert, while the emergent micropolitical ecology work seeks to characterize responses to mining as unique on the individual level but also profoundly influenced by macro-social factors. Both trust and self-efficacy represent this tension in which unique, individualized perspectives are conditioned by social forces. An individual's decision to trust depends on personal experience, yet trust is social because it depends on reciprocity, on the collective. Similarly self-efficacy varies individually and is a function of past experiences of success in achieving particular tasks. Yet self-efficacy is conditioned by the content of social interactions. We have elected to focus on these concepts because trust and self-efficacy represent this tension central to micropolitical ecology. We briefly review these concepts below.

2.1. Social theory of trust

Sociologists have defined trust variously. We draw from multiple definitions here. Barber (1983) views trust-as-expectation. One trusts because one has a reasonable set of expectations regarding the actions of another based on experience and norms. With this view, the outcome of failed trust is disappointment. Luhmann (2000 [1988]) defines trust as a solution for problems of risk. Living in a complex world, we trust because we cannot feasibly calculate risks in every occasion in which we face uncertainty. Mayer, Davis and Schoorman (1995), define trust as a willingness to