HOW ANTICOMMONS RESOURCES EMERGE THROUGH TERRITORIAL CONFLICT IN ORGANIZATIONS

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ABSTRACT

In organizations, conflict often revolves around limited common resources because they are shared and often critical for influence, performance, and organizational survival. Research on property rights, territoriality, and cooperation in social dilemma suggests that to reduce such conflict, organizations should facilitate the (psychological) privatization of commons resources. The current paper draws on the legal and social psychology literatures to model how psychologically privatizing shared organizational resources to prevent a tragedy of the commons (depletion or destruction of the resource) can lead to the emergence of equivalently inefficient anticommons resources in organizations.
INTRODUCTION

Conflicts in organizational life often result from tensions around a commons resource. When many people have the privilege of use a resource and no one user has the right to exclude another, not only is conflict likely, but inefficiencies emerge. Office space (Peterson & Bearden, 2004), intranets (Fulk, Heino, Flanagan, Monge, & Bar, 2004), research laboratories (Liliveld, Van Dijk, & van Beest, 2008), department budgets (Kramer, 1991), shared labor pools (Rutte, 1990), and customer bases (Ingram & Inman, 1996) are but a few examples of tangible commons resources present in organizations. Further, many valuable intangible resources, e.g., brand image and reputation, can be considered commons resources because access is difficult to restrict and use may dilute the value to other potential users (King, Lenox, & Barnett, 2002). These resources would be of little importance to management scholars if it were not for their presence in organizational life (Rutte, 1990) and their consequences for firm value.

Considering that a primary goal of an organization is to use resources effectively and efficiently to achieve its goals (Katz & Kahn, 1978), conflict over commons resources may pose a significant threat to an organization’s performance (Bluedorn & Waller, 2006; Gupta & Govindarajan, 1986). To resolve (and even avoid) conflict over commons resources successfully, the literature on property rights, territoriality, and social dilemmas converge to suggest that organizations should take steps to privatize commons resources (e.g., Brown, Lawrence, & Robinson, 2005; Smith, 1981; van Dijk & Wilke, 1997). These literatures are grounded in economic theory which assumes that behavior reflects individual profit maximizing utilities and assume there is shared understanding among users about governing the commons resource. What happens when users, left to negotiate the privatization of a commons resource, do not share the same perceptions about how it should be governed? Relaxing this assumption, the current paper maintains that attempting to privatize a commons can lead to the emergence of an anticommons resource. An anticommons (Heller, 1998) is a resource where multiple actors claim the right to restrict access to the resource and no one has an effective privilege of use. Individuals – be they people, groups, departments, or organizations – with overlapping claims to a resource may obstruct efforts to deploy anticommons resources in ways valuable to the organization, potentially impairing organization effectiveness. This paper explores how excessive territorial behavior emerges in organizations and transforms a commons into an anticommons resource.

LITERATURE REVIEW

Organization scientists often draw on Hardin’s (1968) paradox “the tragedy of the commons” to conceptualize and study commons resources (e.g., Aram, 1989; Fulk et al., 2004; Ingram & Inman, 1996; Kumar & van Dissel, 1996; Mannix, 1993; Moxnes, 1998; O’Mahony, 2003; Rutte, 1990). The property rights, territoriality, and social dilemma literatures suggest privatizing commons resources either formally or informally as an efficient solution to the commons resource problem. However, privatization can lead to a mirror image inefficiency – a tragedy of the anticommons. We contribute to the literature by exploring the psychological and behavioral antecedents of the tragedy of the anticommons and shed light on how organizational commons risk being transformed into equivalently inefficient anticommons resources.

The tragedy of the anticommons was conceptualized by Heller (1998); a legal scholar. Traditionally, an anticommons occurs in the domain of physical property (e.g., a store), intellectual property (e.g. patents). Heller (1998) describes how during the Soviet Union’s
transition from a socialist to a market economy, rights were made alienable in the hope that individual owners would trade them to more productive use. The problem, however, was that the government distributed rights over resources to too many people. For example, upscale stores in Moscow ended up in the hands of multiple owners. While one person may have been initially endowed with the right to sell in a single store, another was endowed with the right to receive sale revenue, and yet others had the right to lease, to receive lease revenue, to occupy, and determine use. Nobody received a standard bundle of rights and the many rights-owners excluded each other from using a given storefront, which led to both individual and collective inefficiencies. Thus, in post-transition Russia, over-fragmentation of property rights led merchants to sell the influx of merchandise from the West in flimsy metal kiosks on the sidewalks. Both merchants and customers shivered through the harsh Moscow winters, when several feet behind them stores that could provide heat and security lay empty. Similarly, over-fragmentation of intellectual property rights has led to inefficiencies in the U.S. biomedical industry (Heller & Eisenberg, 1998), with detrimental consequences for the provision of healthcare. Because U.S. patent policy grants multiple owners rights over fragments of a single gene, each fragment owner can block other fragment owners from acquiring a coherent bundle of rights in the full-length gene, which is often necessary for producing the drugs that actually save lives. We extend the exploration of anticommons resources and link it to psychological property, focusing on how anticommons emerge in organizational contexts.

The property rights, territoriality, and social dilemma literatures give little consideration to anticommons resources or the antecedents to their creation. Ziedonis’ (2004) study of the semiconductor industry uses the anticommons concept to understand how (and whether) firms innovate when facing “thickets” of dispersed patents (a type of anticommons) that are costly to negotiate. Ziedonis’ (2004) article, like other burgeoning empirical research on anticommons resources (i.e., Buchanan & Yoon, 2000; van Hiel, Vanneste, & de Cremer, 2008), views the anticommons resource as existing ex ante. Becoming underused, the resource may no longer provide its full benefit to its users, creating opportunity costs that negatively affect an organization’s functioning (Porter & van der Linde, 1995). The question remains of how anticommons resources emerge in organizations the first place.

From the property rights literature, rights governing a commons resource can be partitioned: different people can have control over different elements of the same resource (e.g., Ostrom & Schlager, 1996). From territoriality research, individuals mark and defend resources even when they do not technically own (or hold legal property rights over) those resource (e.g., Brown et al., 2005). The territoriality and property rights literatures assume there must exist shared understanding among users over how a resource will be used or who controls access to avoid conflict (Egbertsson, 2003; Greenberg, Rohe, & Williams, 1982). Relaxing this assumption, social dilemma research suggests that conflict over commons resources is a manifestation of mis-aligned perceptions about what is appropriate use of the commons resource (e.g., Tenbrunsel & Northcraft, 2010; Weber et al., 2004). Thus, these literatures provide unique insights that help us explore the emergence of anticommons resources in organizations.

With these insights in mind, we introduce a paradox to the management discipline: Individuals psychologically owning overlapping portions of a commons resource may mark and defend those overlapping portions of the commons in attempt to avoid overusing it. However, if enough individuals mark and defend overlapping portions of a commons resource, the resource ceases being vulnerable to overuse and risks inefficient underuse. This is because multiple individuals have means and the motivation to restrict each other from using the resource.
A MODEL OF ANTICOMMONS RESOURCE EMERGENCE

Certain characteristics of the commons resource and the group create ambiguity surrounding what constitutes a fair resource distribution. This ambiguity leaves individuals susceptible to viewing the distribution of the resource through the self-serving biases of egocentric interpretation of fairness and reactive egoism (Epley & Caruso, 2009; Wade-Benzoni, Tenbrunsel, & Bazerman, 1996). Viewing the governance of the commons resource egocentrically, individuals will be inclined to over-mark and over-defend their psychologically owned portion of the commons. As more of the commons resource becomes marked and defended, an anticommons resource is more likely to emerge. The carrying capacity of the commons resource moderates the relationship between territorial behavior and anticommons resource emergence.

Several assumptions are necessary before presenting our propositions. We assume the individuals involved psychologically own (portions) of the commons resource. Psychological ownership can emerge through an individual using a resource, associating (or identifying) with a resource, or investing private resources into the development or maintenance of that resource (Pierce et al., 2001). This assumption is necessary because territorial marking and defending is an outward expression of an individual’s perception of and a motivation to maintain ownership (Brown et al., 2005). Second, we also assume that individuals do not share perceptions about what constitutes the appropriate form of commons governance (Weber et al., 2004).

Resource Complexity and Egocentric Views of Fairness

The complexity of the commons resource impacts the degree of egocentric view of fairness experienced by individuals. In particular as a commons resource becomes more difficult to subdivide, ambiguity arises as to what constitutes its fair distribution (Messick, 1993). Lumpy resources – such as an office commons with one computer – cannot be easily parceled: some are left with more than others (Taylor & Ward, 1982). Further, commons resources become challenging to distribute when some individuals benefit more than others (Wade-Benzoni et al., 1996; Kopelman, 2009). Such cases increase ambiguity regarding which decisions rule is appropriate (Weber et al., 2004); e.g., should computer access be a function of employee tenure, workload, or skill? Thus,

**Proposition 1:**
(a) Individuals will experience egocentric view of fairness when the difficulty in dividing the resource is high compared to when it is low. (b) Individuals will experience egocentric view of fairness when the distribution of benefits across potential resource users is unequal compared to when it is equal.

Group Structure and Reactive Egoism

The structure of the group using the commons resource influences the tendency for an individual to react egocentrically to other users. As the number of users of a commons resource increases, so does the uncertainty about what those users will do with that resource (Messick & Rutte, 1992). Indeed, social dilemma research in political science (Marinoff, 1999) and organization science (McCarter, Rockmann, & Northcraft, 2010) suggests as group size increases, individuals become more concerned with what others will do. Similarly, groups that are fractured into subgroups experience greater competition among subgroups over harvesting from a commons resource (Kramer & Brewer, 1984). This is because in-group members (those
perceiving to belong to one subgroup) favor their own members while being uncertain about the intentions of out-group members (Brewer & Silver, 1978). Thus,

**Proposition 2:** (a) Individuals will experience reactive egoism when the number of potential users of a commons resource is large compared to when it is small. (b) Individuals will experience reactive egoism when group differentiation is high compared to when it is low.

Self-serving Biases and Territorial Behavior

The self-serving biases, egocentric views of fairness and reactive egoism, lead to over-marking and over-defending of portions of a commons resource. When individuals psychologically own an object, and when there is uncertainty surrounding what should “belong” to whom, they express that ownership through control-oriented marking (Brown et al., 2005). However, if it becomes difficult to determine a fair distribution of a resource, it becomes easier for individuals to access, retrieve and process information that supports their own interests and needs compared to attempting to do the same for others (Messick & Sentis, 1983). Merging these ideas from egocentrism and territoriality, when there is uncertainty about what constitutes a fair distribution of a commons resource, individuals, psychologically owning that resource, will interpret its distribution egocentrically and over-mark. Furthermore, if they anticipate that others will not be as cooperative and fair as they perceive themselves to be in respecting their marked territory (Messick et al., 1985), individuals may over-defend a territory through anticipatory defenses. Thus, based on these proposed relationships, we offer the following three propositions:

**Proposition 3:** (a) Egocentric views of fairness will be positively related to over-marking, territorial behaviors. (b) Reactive egoism will be positively related to over-defending, territorial behaviors. (c) Egocentric views of fairness and reactive egoism will mediate the relationship between resource complexity and group structure and territorial behavior.

Territorial Behavior and Anticommons Emergence

Furthermore, we maintain that over-marking and over-defending behaviors transform a commons resource into an anticommons resource. Property rights theory and territoriality theory reminds us that individuals can perceive to own the same (or overlapping) portions of the same resource (Alchian, 1977; Brown et al., 2005). The more individuals mark and defend portions of a commons resource, the more challenging it becomes for others to access and use the resource. This marking and defending can be exacerbated because individuals may perceive they either deserve to control more the resource, for example because they have relative power and believe that power merits resource-use (Kopelman, 2009) or fear that others will be greedy when marking and defending a territory. As a result, access to the commons resource is excessively limited, becoming an anticommons resource. Thus,

**Proposition 4:** As over-marking and over-defending behavior increases, the likelihood of an anticommons resource emerging increases.

The Moderating Effect of Carrying Capacity

The carrying capacity of the commons resource will moderate the impact that over-marking and over-defending behaviors have on anticommons resource emergence. If the commons resource is scarce, it may take little marking and defending portions of the commons resource before it becomes no longer useable. In contrast, where there is a bounty of a commons
resource available, even individuals marking and defending, what is perceived as, more than their fair share will be less likely to lock up the resource. Thus,

**Proposition 5:** The carrying capacity of the commons resource will moderate the relationship between territorial marking and the emergence of an anticommons resource such that the likelihood of territorial behavior leading to anticommons resource emergence will be greater when the carrying capacity of the commons resource is low as compared to when it is high.

### DISCUSSION AND CONCLUSION

Therorizing how marking and defending behaviors lead to an emergence of anticommons resources highlights the importance of interdependence when multiple individuals perceive they own (portions of) the same resource. Our proposed model focuses on how one individual’s territorial behavior not only impacts how they use a commons resource, but also how others use it. In discussing the consequences of territoriality, Brown et al. (2005) primarily focus on individual outcomes – such as individual commitment, desire to be isolated from others, and preoccupation. The current paper complements Brown et al.’s (2005: 587) theorizing by looking closer into what can happen when “territorial behavior … [does not] create socially agreed upon territories”: interdependence experienced among users of a commons resource creates an environment where one’s territorial behavior results in a resource being underutilized by others.

Eggertsson (1999) observed that little weight is given to the social processes influencing property rights formation. The current paper shows how “psychological property rights” (van den Bergh, 2007) can emerge over a commons resource and, because of self-serving biases – i.e., reactive egoism and egocentric views of fairness – these psychological (de facto) property rights regimes can turn a commons resource into an anticommons resource. Whereas previous property rights research focuses on how incentives lead to property right formation (e.g., Alchian, 1977; Demsetz, 1967; Hart & Moore, 1990), the current paper brings the role of perceptions into the five decade-long discussion of property rights scholarship. This refocus on perceptions encourages property rights theorists to consider not only how incentives to (psychologically) privatize alter the payoffs of a decision but also how the decision maker’s behavior is perceived and responded to by other decision makers. Individuals may be merely responding rationally to incentives to mark and defend portions of a commons resource that they perceive as theirs, while being perceived by others as being irrational and inappropriate.

Further, we extend the burgeoning work on the anticommons (Heller, 1998, 2008) by explicating how the suspected “psychological biases” lead to anticommons emergence. Whereas the majority of the literature assumes the anticommons’ existence ex ante (e.g., Buchanan & Yoon, 2000; van Hiel et al., 2008; Ziedonis, 2004), the current paper shifts focus to where this troubling resource commons from. A bottom-up approach pushes the discussion of anticommons – predominantly among legal scholars – from market situations where formal authorities (e.g., the state) create anticommons resources using de jure property rights regimes, to organizational situations where individuals use de facto property regimes to create an anticommons resource out of a commons resource.

A bottom-up approach to anticommons resource emergence pushes our understanding of ownership in several ways. First, consider the paradox of privatization while navigating the tragedy of the commons. Individuals, seeking to manage a shared resource and avoid overuse (an inefficient outcome), may take action leading to its underuse – still an inefficient outcome.
This paradox has particular importance to managers who may encourage subordinates to psychologically own their work, in hope increase work morale, output, and accountability (e.g., Vandewalle, Van Dyne, & Kostova, 1995). If the resource the individuals perceive to own is shared, what is rational for the individual can become irrational for the organization.

An English proverb says that “too many cooks can spoil the broth”, implying that too many people involved in the same task reduce the chances of that task being achieved (Ammer, 2006: 446). We theorize how too many territories can spoil a commons resource by transforming it into an anticommons resource. Privatizing a commons resource can be an effective way to navigate a tragedy of overuse but only when either there is a “leviathan” to dictate and enforce rules (Hobbes, 1907 [1651]) or an agreed upon set of appropriate rules (March, 1994; Weber et al., 2004). Absent of the former, and individuals may seek to manage a commons resource through territorial behavior. Absent of the latter, and individual territorial behavior leads to an outcome unfortunate for everyone: a tragedy of the anticommons. In both situations the broth is spoiled – resource inefficiency plagues the organization.

REFERENCES AVAILABLE FROM AUTHORS