



Competition, delays, and coevolution in markets and politics

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ARTICLE INFO

Keywords:

Strategy
Competition
Delays
Social movements
Economic geography
Political geography

ABSTRACT

Individual and collective actors are typically engaged in several simultaneous co-evolutionary matching dynamics with their opponents, and this process creates a relentlessly evolving political-economic landscape. When an actor makes a move that is detrimental to another actor, the latter is likely to strike back with a countermove that nullifies the initial threat, or compensates for it. To understand the time-geography created by these move-countermove dynamics, the paper (a) delineates criteria for classifying competitive counterforces, (b) provides a detailed typology of delays encountered in competitive landscapes, and (c) illustrates the relevance of this research to economic and political geographies.

1. Introduction

Human geography has a distinctive position within the social sciences by its relentless focus on developing a spatial way of thinking about social phenomena (Johnston and Sidaway, 2016). The same social entity would be conceptualized differently and understood differently by the various social sciences. To give an example, a social anthropologist might look at a village as a local culture, a sociologist would prefer to think of it as a community, whereas a geographer would frame the same entity as a place (Simandan, 2002, 2016). To give a second and more immediately relevant example, competition, one of the fundamental processes shaping the dynamics of markets and politics, has been investigated through a range of disciplinary lenses, but economic and political geographers have been particularly attuned to the many-fold relationship between competition and space, and the geographies it generates over time (see also Gong and Hassink, 2018). Indeed, an analysis of economic and political geography papers recently published in *Geoforum* reveals at least three complementary ways of articulating competition and space:

1. Space as the arena or locale where competition takes place, with the important observation that the process of competition is productive of the very space over which it occurs, in a recursive fashion. We see this articulation in “The wound of whiteness: Conceptualizing economic convergence as Trauma in the 2016 United States Presidential Election” (Sioh, 2018: the arena is the USA), in “New York City: Struggles over the narrative of the Solidarity Economy” (Hudson, in press: the arena is New York City), as well as in “Visualizing a country without a future: Posters for Ayotzinapa, Mexico and struggles against state terror” (Wright, in press: the arena is Mexico).

2. Space as a limited physical resource itself (or “rival good”, in the terminology of economics), attracting competition and even violent conflict. This articulation is empirically illustrated in “Intricate links: Displacement, ethno-political conflict, and claim-making to land in Burundi” (Tchatchoua-Djomo, in press), in “Navigating violence and exclusion: The Mbororo’s claim to the Central African Republic’s margins” (de Vries, in press), as well as “After the land grab: Infrastructural violence and the ‘Mafia System’ in Indonesia’s oil palm plantation zones” (Li, 2018).
3. Space itself as competitor with other “rival spaces”. This subtle personification of spaces and spatialization of competitive processes can be gleaned in an empirical context in “New geographies of European financial competition? Frankfurt, Paris and the political economy of Brexit” (Lavery et al., 2018), where the authors point out that “whilst private actors inside financial ‘networks’ may agitate for continued ‘cooperation’ and regulatory convergence after Brexit, new competitive orientations are also in evidence as political actors seek to privilege their territories relative to *rival spaces*” (Lavery et al., 2018: p. 72, emphasis added).

We can think of markets and politics as constituted by assemblages of individual and collective dynamic adaptive systems responding to one another’s moves in an attempt to maintain or improve their various resources (space, capital, market share, economic moat, status, positional goods, political influence, legitimacy, etc.). This social ballet creates a co-evolutionary geography whereby one’s options are shaped by, and contribute to shaping, the options of many other agents. In other words, agents are typically engaged in many simultaneous co-evolutionary matching dynamics with their opponents, and this process generates a relentlessly evolving social reality that has been variously

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<https://doi.org/10.1016/j.geoforum.2018.09.014>

Received 2 June 2018; Received in revised form 11 September 2018; Accepted 17 September 2018

Available online 07 December 2018

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labeled interactional field (Abbott, 2001, 2016), web of interdependent co-developments (Jacobs, 2010), power-geometry (Massey, 2005), actor-network (Latour, 2005; Müller and Schurr, 2016), assemblage (Deleuze and Guattari, 1976; Dittmer, 2014; MacFarlane, 2017), strategic action field (Fligstein and McAdam, 2011), social topology (Lata and Minca, 2016), or coupled fitness landscape (Kauffman and Johnsen, 1991). The relentless evolution of markets and politics is a spatial phenomenon marked by contingency, chaos, choice, and chance (Rescher, 2009; Shapiro and Bedi, 2006; Simandan, 2010a, 2010b, 2018a, 2018b, 2018c). This state of affairs means that decision-making processes ranging from the scale of individuals to that of institutions almost always take place under radical, irreducible uncertainty, in wicked environments, that is, in environments where learning from experience is unreliable and easily misleading (Hogarth et al., 2015; Simandan, 2011a). In her seminal work, Milliken (1987) usefully distinguished three types of uncertainty that must be confronted by economic and political agents: state uncertainty (how will my environment change?), effect uncertainty (how will the change in the environment affect me?), and response uncertainty (how will the environment respond to my response to its change?).

The cognitive limitation or “bounded rationality” (Simon, 1996) of agents constrains them to adapt by means of “cheap tricks” (Rao, 2011), or flawed solutions that buy the agents some time until reality catches up with them. One source of error central to understanding the sub-optimal adaptive responses of agents resides in sizing up one’s partners and competitors. Jon Elster (2007) has pointed out how difficult it is to navigate between the Scylla of “younger brother syndrome” (underestimating one’s competitors) and the Charybdis of “older brother syndrome” (overestimating one’s competitors). The bounds of one’s intellect are continuously tested in markets and politics by the complications arising from the simultaneous attempts of multiple agents to outguess what the others are thinking and planning (Butcher, 2012; Huggins and Thompson, 2017; Kuus, 2017). The cheap tricks by which agents respond to one another’s moves are usually flawed solutions for yet another, less conspicuous reason: competitive contexts are especially likely to exacerbate uncertainty and the concomitant inability to predict the future because winning often depends on deliberately surprising one’s competitor. When an actor (individual, organization, group) makes a move that is detrimental to another actor, the latter is likely to react with a countermove that reduces the initial threat, or compensates for it, often by punishing the offending party. The countermove can be framed, variously, as a balancing, or negative feedback loop (aimed at restoring the prior situation) in the vocabulary of systems dynamics (Richardson, 1999; Sterman, 2000), or as a form of reciprocation in the language of game theory and social psychology (Bowles and Gintis, 2011; McNamara, 2013), or as the anti-thesis to a thesis, in the long tradition of dialectical thinking in political and economic theory (Hegel, Marx, Engels, Karl Polanyi; cf. Doel, 2008; Elden, 2008).

The aim of this paper is to contribute to the project of understanding the co-evolutionary economic and political geographies created by interpenetrating, fractal-like (i.e. scale-invariant), social processes of competition and cooperation. More specifically, the paper investigates the dialectics of competitive “move-countermove” pairs and shows that in order to understand the ever-shifting, lively, geographies they create, there is a need to develop a complex classification of countermoves. The next section will analyze countermoves by distinguishing three criteria for classifying them: (a) intentionality (intended countermoves *versus* unintended counterforces), (b) degree of substantive similarity between the countermove and the initial move (symmetric countermoves *versus* asymmetric countermoves), and (c) the type of agency involved (agentially concentrated or individual countermoves *versus* agentially diffuse or collective countermoves). The subsequent section will be dedicated exclusively to a fourth criterion, namely the time elapsed between the initial move and the countermove (immediate countermoves *versus* delayed countermoves). The analysis will bring out that

any countermove involves a number of necessary, unavoidable delays, and that the failure to account for them is costly both in theoretical terms of understanding the dynamics of the geographical landscape, and in the more pragmatic terms of successfully competing in the arenas of political or economic activity.

Taken together, these four criteria afford economic and political geographers more refined ways to think about competitive dynamics and the unity and struggle of contraries in spatial formations. Reasoning across the four criteria in a combinatorial, creative manner, one can distinguish particularly interesting types, such as “delayed asymmetric counterforces” (Simandan, 2018a, 2018b) that heighten suspense because they incorporate *both* deliberate delays of length unknown to the maker of the initial move *and* the element of surprise inherent in the asymmetry (or dissimilarity) of the countermove. Attending to these economic and political geographies of surprise and suspense complements in useful ways the evolutionary and institutionalist emphases on the role of routines and habits in the dynamics of markets and politics (e.g. Brette et al., 2017; Felin and Foss, 2011; Hodgson, 2004; Sarigil, 2015). This sense of being on an emotional rollercoaster, of reality as free entertainment, of excitement for the spectators and participants of social life alike is wittily captured by George Ainslie when he says “appetite is best refreshed by being confronted with delay and surprise” (Ainslie, 2013: 462).

Daniel Kahneman, one of the pioneers of the field of behavioral economics, has argued that the most important and dangerous bias of the human mind can be encapsulated in the (admittedly awkward) acronym WYSIATI, standing for What You See Is All There Is. Also known as the availability bias, WYSIATI is a useful reminder that nothing is as important as it seems when too much attention is dedicated to it in exclusivity (Kahneman, 2011). Indeed, just because the focus of this work is to help develop detailed vocabularies that can yield a coherent body of useful knowledge about the economic and political geographies of competitive dynamics, it does not follow that I consider processes of cooperation any less important to the understanding of markets and politics (Axelrod, 2006; Simpson and Willer, 2015; Springer, 2014). Various schools of thought in the social sciences can be arranged on a spectrum that describes their differential emphasis on *social conflict* (e.g. Karl Marx, Max Weber, Michel Foucault, realism in international politics; cf. Tyner and Inwood, 2014) or *social harmony* (anarchism, neoclassical economics, the functionalist thinking of Robert Merton, Talcott Parsons, Emile Durkheim, Herbert Spencer, or August Comte; cf. Bregazzi and Jackson, 2018; Rosenberg, 2015). I view competition and cooperation as fundamental features of geographical space, inextricably intertwined in a fractal-like manner, across scales that range from the body (e.g. processes of neuronal competition and pruning coupled with processes of neuronal cooperation for the encoding of various mental representations; Simandan, 2017) to the global (e.g. dynamics of competition for supremacy among geopolitical powers, coupled with their cooperation in the fight against nuclear proliferation, “terrorism”, and “rogue states”; Dalby, 2008; Koopman, 2011). Instead of choosing the side of social conflict or social harmony theorists, I agree with Shiping Tang’s balanced formulation of an ontological and epistemological synthesis of the two paradigms (Tang, 2011: 232):

Ontologically, we must admit the following three principles. First, there is both conflict of interest and harmony of interest among agents and they often coexist, although conflict of interest often exceeds harmony of interest. Second, agents engage in both conflictual and cooperative behaviors, depending on circumstances. Third, social outcomes are the products of both conflictual and cooperative behavior. In other words, more often than not, cooperation and conflict are intermixed, and cooperation sometimes is achieved in the shadow of possible conflict. Epistemologically, we shall follow two principles. First, just because agents have conflict of interest does not mean that they are doomed to actual conflict.

Likewise, just because agents have common interest does not mean that they will cooperate or coordinate. Second and following from the first, we cannot assume conflict of interest behind actual conflict or harmony of interest behind cooperation and coordination. Instead, each particular social outcome needs a careful search for its specific causes.

Furthermore, the binary classification of social settings into competition or cooperation can be misleading because in many contexts it does not make sense to distinguish exclusively between cooperation and competition. There is much more to economic and political life than just competition and cooperation (Elster, 2007).

To dispel potential confusions, the approach that follows should not be conflated with game theory. The latter is a branch of applied mathematics concerned with “the study of *mathematical models* of conflict and cooperation between intelligent rational decision-makers” (Myerson, 1991: 1; emphasis added). My approach is free of any mathematical modelling; indeed, it is a phenomenological qualitative analysis of the subjective experience (i.e. embodied and emplaced cognitions and emotions) involved in basic move – counter-move dyads. This crucial difference aside, my framework further distinguishes itself from game theory because it is not methodologically individualistic: the proposed approach *does not* give ontological or epistemological priority to the individual over the collective, it is a study of moves and counter-moves regardless of who or what carries those dynamics (e.g. the carriers may be an individual, a group or an organization: indeed, my framework dedicates a full section to the analytical criterion of whether the moves/counter-moves are carried out by individuals or by collectives, see the third criterion of section II – the degree of concentration of agency). More generally, it is a case of *non sequitur* to assume that just because game theory is a well-known tool for studying competition, any contribution that advances the study of competition must be some form of game theory. The framework that I propose is a geographical alternative to game theory, free of mathematical formalisms, free of methodological individualistic assumptions, and free of the tenets of rational choice underpinning many of these formalisms and assumptions (cf. Erickson, 2015, chapter 6). The approach that I offer is situated and shaped by my subject position as a critical geographer and seeker of social justice (Olson, 2018; Simandan, 2018d, 2018e, 2019). In contradistinction with the objectivist, disembodied, and a-moral pretense of game theory, I believe that the study of competition is inseparable from moral and political commitments, however tacit these might be (Hargreaves Heap, 2017). I hope that my work will help reaffirm the tradition of a distinctly geographical analysis of competition, which included Hotelling’s contributions to the study of competition in abstract space (Hotelling, 1929) and its “spatialization” by Alonso (1975), Downs’ classic economic theory of democracy (1957), and Allen Pred’s seminal *Behavior and Location* (1967).

Bearing the WYSIATI bias and these caveats in mind, we can now proceed to the analysis of the four aforementioned criteria for classifying move-countermove pairs.

2. Moves and counter-moves in competitive landscapes I: intentionality, asymmetry, and collectivity

Adopting an “actor-centered focus toward theory development” (Yeung and Coe, 2015: 29; see also Kuus, 2017), this section will bring together and provide an analysis of the first three criteria for classifying counter-moves or counterforces in competitive landscapes: intentionality, asymmetry, and collectivity. Based on this groundwork, the next section will focus exclusively on the fourth criterion – the immediacy of the response.

The realm of sports offers an accessible, intuitive entry-point to apprehending the role of *intentionality* in competitive situations in markets and politics. Even though when we think of counterforces that redress a disturbed equilibrium of power between two players, we

naturally tend to assume intentionality, choice, planning, and deliberation in the crafting of one’s response, this isn’t always the case. James March (2010) gives the example of a tennis player A who repeatedly hits the ball on the weak side of his adversary B, thereby raising the odds of victory in the short-run, while at the same time, *unintendedly*, offering more opportunities to their adversary to practice their weak hand. As time goes by, the cumulative impact of repeated practice with the weak hand will equalize player B’s competency with their two hands and therefore the competitive advantage of player A’s hitting on the weak side of B will be gradually undermined. Subtending this competitive situation is the familiar “J curve” in economics that describes situations where “it gets better before it gets worse” (Simandan, 2011a, 2011b, 2011c), or the “cheap trick” (Rao, 2011), a flawed solution that player A uses until reality catches up with her. At a different level of analysis, the foregoing situation illustrates one of several structural complications involved in attempts at replicating success, namely the problem of endogeneity (March, 2010). The counterforce in this case is co-created, as an “emergent co-becoming” (Wright et al., 2016: 455), by both players and by the competitive space in which they perform. Whereas it is player B that actually trains her body to get better at the weak hand, the occasion for this training is created by player A unintentionally, and inadvertently, as a side effect of player A’s initially winning strategy of exploiting the weak side of player B. In short, counterforce creation doesn’t require conscious decision making, an insight that aligns with the attention lavished on affect, the pre-conscious, and the pre-verbal in feminist and non-representational strands of economic and political geographies (Dixon, 2015; Pain, 2015; Thrift, 2008; Werner et al., 2017). To provide an illustration, in a recent review of the economic geography of digital skill published in *Geoforum*, the authors point out the role of pre-conscious, habit-driven digital skill acquisition in the competitive context of video games, and spell out the broader implications for economic geographical scholarship (Richardson and Bissell, *in press*, page 6):

Process theories see bodies as continually re-formed through the ongoing practical encounters that they have with other bodies, human and non-human in specific environments...This relational understanding also invites a transitional approach, since it approaches bodies through their changing capacities...Such a transitional account of bodies is helpful for approaching the changing geographies of workplace activity – or skills – through digital technologies. Instead of taking ‘worker identity’ as a starting point, we can begin by focusing on the capacities of the body that might (or might not) become work, despite not being in a formal workplace. Process theories of habit provide one sense of how such a rethinking of the body can push our understanding of digital skills. Bodies develop skillful competencies through repeated movements.

One item of mental hygiene worth bearing in mind when discussing unintended counterforces pertains to the fact that we need to steer away from the widespread practice among social scientists to conflate “unintended” with “unanticipated”. As Frank de Zwart’s (2015) analysis of Robert K. Merton’s inconsistent use of these concepts has shown, just because a phenomenon is unintended, does not mean that it hasn’t been anticipated. One can identify a distinct subset of unintended but anticipated consequences and their investigation is important theoretically, ethically, and politically. A complication in the assessment of intentionality in “move-countermove” dyads arises from the fact that the presence or absence of intentionality is often difficult to ascertain when one is in the grip of a situation and shaped by its emotional “circumstance” (McCormack, 2017). This complication means that there are cases where the initial move was perceived by the affected party to be intended, when in fact it was accidental. The erroneous perception of intentionality in the original move triggers an intentional response in the form of a countermove (e.g. punishment). The problem occurs like a fractal, generating risk from the level of negotiating misunderstandings in a political or business relationship to the level of

handling military ambiguities and evaluating hostile intent among geopolitical powers (Scott and Hughes, 2015). Finally, an assessment of intentionality and of the impact of deliberate choice would not be meaningful without taking into account the fluctuating affordances a given competitive landscape provides over time. On one hand, there are occasional windows of opportunity or critical junctures, defined as “relatively short periods of time during which there is a substantially heightened probability that agents’ choices will affect the outcome of interest” (Capoccia and Kelemen, 2007: 348; see also Soifer, 2012). On the other hand, as evolutionary economic geographers and historical institutionalists have emphasized (Boschma and Frenken, 2011; Clemens, 2007; Grzymala-Busse, 2011; Martin and Sunley, 2015; Pike et al., 2016; Thietart, 2016), there are path-dependent processes within which both the array of options and the likely efficacy of one’s choice are much more constrained.

A second criterion with analytical purchase for characterizing move-countermove pairs refers to the degree of *similarity* between the substantive, intrinsic features of the initial move and the properties of the subsequent response. Theoretical precision would require to think of similarity and dissimilarity as a spectrum, or a continuous variable, but for the sake of convenience we can dichotomize this spectrum and reduce it to two broad categories: similar (or symmetrical) countermoves, which describe responses that are, by and large, of the same kind as the triggering move, and dissimilar (or asymmetrical) countermoves, which refer to reactions that are substantively different from the initial trigger. Reasoning spatially, across geographical scales (Herod, 2010; Lloyd, 2014; MacKinnon, 2011), I will begin by briefly illustrating symmetrical and asymmetrical responses to the same initial move. This exercise should help ground the theoretical elaboration that will follow. Beginning with a move-countermove dyad at a lower scale of geographical analysis, let us consider the case of a rogue company launching a copy-cat product originally created and patented by a rival business. A symmetric countermove would be to file a lawsuit against the offending company for its violation of intellectual property law, whereas an asymmetric response might take the form of a protracted and relentless price war against the offending company, in an attempt to corner it out of the market altogether. This example brings out the important consideration that symmetry should not be taken too literally. Even though the countermove of filing an intellectual property lawsuit isn’t nominally the same with the initial offense (theft of intellectual property) they both belong to the same conceptual realm, that of legality. This means that there is a very clear, albeit not literal, symmetry between breaking the law (the initial offense) and restoring the law (the countermove represented by the lawsuit). Shifting from this lower scale illustration to the macro-scale, let us conjure up the situation – inspired by real events – of a geopolitical tension started by the discovery that key intelligence sites of the government of a given country have been subjected to repeated malware attacks originating from another country. A symmetric response would be a cyberwar, where the initially attacked country would react in kind by attempting to infiltrate with malware critical sites of the government of the offending party (Kaiser, 2015). An asymmetric reaction would be to make the matter public, shame the government of the attacking country for its nefarious practices, and ask for its ambassador and other diplomats to be withdrawn from the victimized country (see also Jones and Clark, 2018; Kuus, 2016; and McConnell, 2017, for geographical analyses of diplomatic practice).

Dissimilarity of response is an often recommended and frequently used strategy in the variegated realms of economic, political, as well as military affairs (Freedman, 2015; Kiechel, 2010; Miller, 2003; Porter, 1996; Tembine et al., 2007; cf. Winter, 2011). Some scholars have gone so far as to argue that strategy *is* asymmetry. Thus, writing in the context of business and economic strategy, Liam Fahey insists that “the essence of strategy is to be different from rivals” (Fahey, 1999: 6). Correspondingly, reflecting on the same matter, but in the context of military strategy, Lukas Milevski reaches the same conclusion that

“strategy may be interpreted as the generation and exploitation of asymmetry” (Milevski, 2014: 79). The frequent reliance on asymmetry in competitive responses is partly a consequence of its record of success (Thornton, 2007), and partly a consequence of the understandable preference of competitors to react with moves that play to their own strengths and dynamic capabilities (Gavetti and Menon, 2016; Schilke, 2014; Wilden and Gudergan, 2015; Yeung and Coe, 2015). More to the point, asymmetric responses often are more effective than symmetric moves for two distinct reasons: firstly, an asymmetric response is inherently surprising to the offending party, and surprising one’s competitor means that they will be ill prepared to mount a successful defense (i.e. the asymmetric response will likely reach its objectives); secondly, asymmetric responses tend to be crafted based on the pattern of dynamic capabilities and competitive advantages that a given player has. In other words, the asymmetric countermove will have better odds of success because it orchestrates those resources and attributes at which one already tends to excel. There is an interaction effect, however, between the degree of surprise and the extent to which one plays to one’s strengths. Specifically, given that any particular agent has a finite universe of strengths, the element of surprise of their asymmetric countermove is bounded by their rival’s selective awareness of that limited collection of strengths. To put this more formally, if the initial move is ventured by agent A and she knows that the key strengths of rival B are attributes (a, b, c, d, e, f), agent A will be able to contain the uncertainty about the countermove of rival B, by expecting a limited range of asymmetric responses defined by various combinations of that limited collection of strengths (a, b, c, d, e, f). For this opportunity of foresight to occur, however, one needs to gather accurate and detailed geographical intelligence about their opponents, a necessity made obvious (*know thy enemy*) in all classical treatments of strategy, from Sun Tzu to von Clausewitz, as well as in vernacular expressions such as “keep your friends close and your enemies even closer” (cf. Dittmer, 2015; Rutten, 2017).

The third criterion by which action-response pairs can be usefully classified is the degree of *concentration of human agency* involved. One can thereby distinguish between individual counterforces and collective or diffuse counterforces (see also the discussion of “rival spaces” in the introduction, as an illustration of the latter). This distinction is significant in both economic and political geography (Kear, 2018; Kuus, 2017; Zukauskaite et al., 2017) and it is well worth pausing to spell this significance out. Various schools of thought in these sub-disciplines, as well as economics and political science, can be arrayed on a spectrum that has at one extreme the paradigm of methodological individualism (which contends that the individual has ontological and epistemological primacy in the explanation of social-spatial processes) and at the other extreme the paradigm of methodological collectivism or holism (which maintains that ontological and epistemological primacy in explaining social-spatial formations resides with the group or the collective; Elster, 2007; Tang, 2011). The same problematic animates historiography and the philosophy of history, where the theoretical battle has more commonly been framed by opposing the importance of the individual agency of the “great men” or “heroes” of history (Carlyle, 1840) to the collective multitude as the true source of historical change (Tucker, 2011). Perhaps the best summary case for the significance of the multitude and *against* the myth of the hero has been made by Leo Tolstoy in *War and Peace*:

The human intellect, with no inkling of the immense variety and complexity of circumstances conditioning a phenomenon, any one of which may be separately conceived of as the cause of it, snatches at the first and most easily understood approximation, and says here is the cause. In historical events, where the actions of men (*sic*) form the subject of observation, the most primitive conception of a cause was the will of the gods, succeeded later on by the will of those men who stand in the historical foreground – the heroes of history. But one had but to look below the surface of any historical event, to

look, that is, into the movement of the whole mass of men taking part in that event, to be convinced that the will of the hero of history, so far from controlling the actions of the multitude, is continuously controlled by them. (Tolstoy, 1869: 918).

One readily apparent research area where socio-spatial change can be usefully framed in terms of collective and diffuse force-counterforce dyads is the (cultural) economic and political geographies of social movements (Davies, 2012; Davis, 2017; Halvorsen, 2017; Nicholls, 2008; Nilsen, 2009; Walder, 2009) and lifestyle movements (Cherry, 2015; Haenfler et al., 2012; Hayes-Conroy and Martin, 2010; Morris, 2009; Williams, 2011). To illustrate how this type of framing can work, in his beautifully written Marxist theory of social movements, Nilsen (2009) contrasts “social movements from below” with “social movements from above”, with the first category describing collective initiatives of the oppressed class to challenge the status quo, and the second category referring to collective responses of the ruling class to the challenges mounted by the oppressed. In other words, Nilsen’s distinction instantiates a collective and diffuse force-counterforce pair that permeates the turbulent political-economic landscape of capitalism (s) (Castree, 2009; Harvey, 2014; Hudson, 2016; Sheppard, 2015).

The epistemological and political import of agentially diffuse (i.e. collective) force-counterforce dyads has been brought out even more strikingly in the emerging field that studies the intimate political geographies of lifestyle movements. Indeed, in her recent overview of this subdiscipline, Merje Kuus notes that “political practice is best viewed as an everyday mundane activity fused with highly personal aspirations and animosities” (Kuus, 2017:4), that there is an increased “interest in the granular details and sensory feel of everyday political practice” (Kuus, 2017:5), and that “today’s political geography explores politics especially through a close-up focus on everyday people, places, and things: on the quotidian lived experience in all its ephemerality and ambiguity” (Kuus, 2017:6). In their seminal analysis of the differences between social movements and lifestyle movements, Haenfler et al (2012: 10; emphasis added) defined the latter as “loosely bound collectivities in which participants advocate lifestyle change as a primary means to social change, politicizing daily life while pursuing morally coherent ‘authentic’ identities”. In contradistinction to social movements, they point out that “much of the structure of lifestyle movements, including movement ideology and authority, tends to emerge from a diffuse discursive field rather than in the course of a highly organized campaign” (Haenfler et al., 2012: 10; emphasis added). The Slow Food lifestyle movement can thus be conceptualized as a spontaneous, agentially diffuse, bottom-up response (or counterforce) to the spread of fast food (Hayes-Conroy and Martin, 2010); the naturist movement can be framed as a reaction against the estrangement of humans from nature brought about by capitalist industrialization and urbanization (Morris, 2009); the abstinence movement in the United States can be described as a diffuse political response against the sexual liberation promoted in the aftermath of the social upheavals of the 1960s (Williams, 2011); the vegan lifestyle movement, for a final example, can be conceptualized as a collective counterforce against the cruelty with which animal rights are ignored by the meat industry (Cherry, 2015).

The diffusion of agency in move-countermove pairs is a frequently encountered feature of markets and politics and speaks to the recent call by Ash and Simpson (2016: 48) for a post-phenomenological geography that “rethink[s] intentionality as an emergent relation with the world, rather than an a priori condition of experience”.

3. Moves and countermoves in competitive landscapes II: delays

The fourth useful criterion for classifying countermoves in “move-countermove” pairs is the extent of the *temporal gap between the triggering move and the subsequent response*. Since time is a continuous variable, countermoves can be arrayed on a spectrum, with fine

gradations. For practical purposes, however, it remains convenient to dichotomize that spectrum and to distinguish between two broad classes: immediate countermoves and delayed countermoves. To provide an example for each, a verbal altercation during a parliamentary debate can be analytically reconstructed as a sequence of moves and immediate countermoves triggered by some perceived insult or slight, whereas the execution by a company or country of a protracted denigration campaign against a particular rival would constitute a delayed countermove, that will bear fruit only over a long time horizon.

The classification of countermoves into immediate and delayed is, however, deceptively complex, because even immediate countermoves are hardly instantaneous: it takes (at least some) time to notice the initial triggering action of one’s competitor, it takes (at least some) time to assess its potential implications and thereby understand what it means, it takes (at least some) time to decide how and when to respond, and it takes (at least some) time to implement one’s response and to wait for it to bring the desired results (Chen and MacMillan, 1992; Luoma et al., 2017; Nadkarni et al., 2016; O’Driscoll and Rizzo, 2014; Osinga, 2007). This complication is another way of saying that delays themselves need to be further classified into unavoidable delays (inherent to how the world works) and intended, or premeditated, or optional, delays.

As I am about to show, there are multiple reasons why the shrewd strategist may want to respond to an opponent’s move with a deliberate lag. As Frank Partnoy (2012) notes, competitors are well advised not to conflate *minimizing* delays with *optimizing* delays. Premeditated delays can be used to great effect to create a particular affective “circumstance” (McCormack, 2017) in order to wear one’s rival down psychologically. To understand how this works, let us introduce the concept of “reverse time pressure” to describe the phenomenal quality of uneasiness, doubt, stress, and nagging concern that your opponent will punish you somehow but you do not know either how or when. The subjective experience of reverse time pressure embodies a thwarted desire for cognitive closure, marked by its temporality, its tense waiting, its second-guessing, and its paranoid and expectant looking over one’s shoulder (Hirsh et al., 2012). Intriguingly, the phenomenal quality of experiencing reverse time pressure scales up from the level of the individual to the level of groups and institutions. Thus, leaders of a large business or political organization may speak of a “freezing” of big decision-making until the situation “clears itself”, or of the organization’s future being “in a limbo” (cf. Benjaminsen et al., 2018, for the related, but distinct idea of “being in an impasse”).

Vernacular expressions such as “biding one’s time”, “holding a grudge”, “smoldering resentment”, “plotting one’s revenge”, and “revenge is a dish best served cold” also encapsulate useful clues about the benefits of deploying premeditated lags in one’s countermoves. Since it takes time for a hot dish to become cold, it is apparent that “cold” is a metaphor standing in for “delayed”. By delaying one’s response to an opponent, a strategist may *either* torment them through the fear, uncertainty, and doubt described in the foregoing analysis of “reverse time pressure” (which assumes that the competitor expects retaliation), *or* benefit from forgetfulness and the availability bias inherent in the ever-changing “news cycle” or the cycle of attention (out of sight, out of mind; Kahneman, 2011). Indeed, if the temporal gap between the offending move and the retaliatory response is increased beyond normal expectations, the competitor who initiated the hostile move may begin to believe that no retaliation will take place after all, and forget about that particular episode altogether. This forgetfulness entails that when the retaliatory move does eventually happen, it is bound to generate astonishment (Lorini and Castelfranchi, 2007) because it was no longer expected to take place. In turn, the generation of surprise enhances the effectiveness of the countermove because it forces the target competitor to scramble for a response or defense without any time to prepare. Since asymmetry of response is yet another way to foster surprise, it follows that countermoves that are both deliberately delayed and asymmetric are especially likely to be successful (Simandan, 2018a, 2018b). The

vernacular expression “revenge is a dish best served cold” also embodies useful knowledge about the foolishness of reacting emotionally, in the heat of the moment, when one is in the grip of their “animal spirits” (Keynes, 1936). Delayed countermoves are preferable to immediate, emotion-ridden, reactions, because they allow time for calming down, gathering data, and using one’s intellect to carefully craft a winning response. Furthermore, taking one’s *time* permits one to position oneself in the surrounding *space* in the best possible way, so as to take advantage of what Chinese strategists have called “*shi*” or the *spatio-temporal* propensity of things:

At the end of the whole chain of connections which accounts for the great process in which the world is engaged, the term “propensity” [shi] designates both the particular circumstances characterizing the various stages in the process and the particular tendency produced in each case. It is just such a “propensity” that brings the slightest potential for existence to concrete fruition at the first hint. At the most embryonic stage, the tendency toward the fullness of actualization is already latent. It is this tendency that one must examine attentively from the very beginning, from the very first hint of its existence, for it gives us certain information regarding the evolution of things and provides us with a dependable basis for success. Attempting to act upon the physical or social world without going along with the tendency objectively implied in it and governing its development would be vain and therefore absurd (Jullien, 1999: 223).

To summarize this section’s argument so far, I have distinguished between immediate countermoves and delayed countermoves, only to highlight the complication that even immediate responses cannot happen instantaneously. This observation ushered in a classification of delays themselves into unavoidable delays and optional or premeditated delays, and a subsequent discussion of the benefits of introducing deliberate delays when orchestrating one’s reaction to a competitive challenge.

In order to depict the time-geographies and the “chronopolitics” (Klinke, 2013) created by delays and to develop a richer mental model of the complex relationship between unavoidable lags and premeditated lags, we need, however, to provide a further classification of delays, this time based on their natural *sequence of occurrence* in individual and/or organizational decision-making (cf. McCormack and Schwanen, 2011; Rahmandad et al., 2009; Richter, 2014; San Cristoba, 2014; Schwartz, 1975). This criterion affords the delineation of seven different types of delays, as follows.

Observation delays describe the lag between the emergence of an item of information in the environment and one’s taking notice of it. Some observation delays are inevitable, some others are avoidable. Often the threat posed by a competitor doesn’t take the form of a discrete event, but of a slow, gradual process of accruing competitive advantage. This necessarily generates observation delays because the detection of a trend or process presupposes some waiting for the individual data points (“weak signals”) to accumulate and to array themselves into the sequence recognized as the trend (Mendonça et al., 2004). Competitors with statistical acumen might deliberately extend the data collection process in order to avoid committing the fallacy of “the law of very small numbers” (Tversky and Kahneman, 1971) whereby people mistake noise for signal because they jump to conclusions based on very few but very recent data points. Less benign but avoidable forms of observation delays may be caused by recklessness (lack of due diligence) or as a consequence of passive, emotional coping. Emotional coping may translate, for example, in the failure to open an important email already noticed in one’s mailbox, or to regularly check one’s environment, for fear of discovering bad news. This phenomenon, suggestively labeled by Karlsson et al (2009) “the ostrich effect”, thus describes the deliberate inattention people sometimes have toward uncertain but potentially negative news.

Coup d’oeil delays or *initial insight delays* refer to the lag between

one’s awareness of several disparate, and at first meaningless, pieces of information, and the mental coming together of these pieces into a gestalt, that is, into an incipient mental model of what is going on, that is meaningful and relevant to the observer (Ohlsson, 2011). To the extent that good competitive strategy customarily deploys stealth, camouflage, and dissimulation (Clark, 2016; Godson and Wirtz, 2011), it follows that often times the initial move against an opponent is recognized as such by the latter only after a considerable delay. To express it using the vernacular, *coup d’oeil* delays refer to how long it takes an observer to “connect the dots” or to “put two and two together”.

Mental model development delays are constituted by the lapse of time between the initial insight that recognized a competitive threat and the fleshing out or elaboration of that inchoate insight into a full representation of the competitive situation. This subset of delays is especially important in two contexts. Firstly, if the competitive situation involves economic or political organizations rather than individual agents, institutionalized processes of decision-making operate based on sufficient reason and accountability. It is unbecoming for an organization to commit resources and act on a mere hunch, or *coup d’oeil*. Instead, there is an expectation, often codified in rules and procedures, for a fuller and more careful representation of the situation (Olsen, 2008). This institutional expectation for detail and comprehensiveness often necessitates a temporally extended process of further data collection, aggregation, and interpretation (Csaszar and Levinthal, 2016; Feduzi and Runde, 2014). Secondly, if the competitive situation overflows with contradictory information, sometimes deliberately planted by rivals, it takes more work and more time to ponder and test different explanations of the unfolding situation and to recognize the information attack for what it is (Endsley, 1995; Hill et al., 2015; Lipton, 2004). Mental model development delays also incorporate phenomena such as the recommended practice of “sleeping” on one’s information or let it gestate so that unconscious information processes can bear their fruit (Ohlsson, 2011).

Reporting delays are inevitable in large businesses and hierarchical political organizations where the flow of information is regimented alongside certain officially accepted channels of communication (Fuller and Phelps, 2018; Olsen, 2008) and temporal trajectories (e.g. the practice of submitting annual reports in January, which may mean that a development occurring in February would not be reported until the year after; Tavory and Eliasoph, 2013). They describe the temporal gap between the gathering and interpretation of data, on one hand, and the transmission of this knowledge to those with decision-making power further up in the organizational hierarchy. This type of delays has been identified as one of the major national security risks in the USA, where the work of intelligence and counterintelligence is distributed among several different specialized agencies, which often share a history of rivalry and mutual mistrust (Clark, 2016). Whereas some reporting delays are inescapable, others happen deliberately, in situations where the lower-rank employees who produced the unpalatable knowledge about the competitive threat fear that their bosses will “shoot the messenger” once it comes to their attention (Heuer, 1999).

Decision-making delays are formed by the time it takes for the process of decision-making to culminate into a specific decision about the countermove to be launched against one’s opponent. This class of lags is significant for both individual and collective agents (Stieglitz et al., 2016). Thus, at the individual level, even if one has a clear mental representation of the competitive situation, the phenomenon of “being of two minds” may delay reaching a decision because none of the alternative courses of action considered clearly dominates the other options when weighing their relative balance of strengths and weaknesses (McNamara, 2013). Furthermore, as Converse and Reinhard (2016) have shown empirically, inter-individual and cross-situational differences in regulatory focus mean that individual agents whose mind is primarily attuned to prevention concerns (e.g. security, safety) are more likely than those with promotion concerns (e.g. advancement,

gain) to delay making a decision and to consider their options more cautiously (cf. Huggins and Thompson, 2017). The very process of engaging in decision-making about a countermove can be delayed: one might be aware of the competitive threat, but decide, nonetheless, to delay making a decision whether to respond and how to respond (i.e. a meta-decision). The aforementioned discussion of reporting delays in hierarchical organizations also helps illuminate the inevitability of decision-making delays in these settings. Even if the relevant knowledge has arrived on the desks of organizational leaders, it is often the case that the forum with decisional power in that organization convenes only periodically (e.g. board of governors of the US Federal Reserve System, annual congress for a political party, periodic meetings of the CEOs of a business alliance, etc.). If the participants in that decisional forum also happen to be “of two minds”, or split between opposing factions with their own agendas, reaching a final decision may turn out to be a very protracted affair. This internal tug-of-war generates fractal-like situations of “move-countermove” dyads operating *within* a collective’s agent decision-making process about what countermove to launch against an external competitor. In short, competition within, competition without.

Initiation delays or *launching delays* refer to the temporal gap between the decision to mount a particular response and the date at which that response is actually launched. Thus, a board of business executives may decide in May to initiate a hostile takeover in September, a disgruntled politician may decide to leave her party as soon as the current prime-minister will step down, or an intelligence agency may decide to assassinate a revealed double agent as soon as he re-enters the country. The latter example points out to the limit case of infinite launching delays, that is, the possibility that an agreed-upon countermove may not be carried out at all for lack of opportunity (e.g. the double agent knows better than to return to the respective country). The length of initiation delays is often not known in advance, especially when the actor involved wants to match the countermove to a maximally opportune situation, as encapsulated in the Chinese concept of “shi” (the propensity of things; Jullien, 1999) or in the vernacular expression “waiting until the time is ripe”.

Lastly, *material delays* describe the temporal gap between the initiation of a given countermove and the obtaining of actual results. Their length is a function of the specific causal mechanisms along which the countermove unfolds (Grzymala-Busse, 2011), and is measured more formally in the field of systems dynamics by means of the so-called “time constant” of a given system (Sterman, 2000). Material delays are constituted by the irreducible waiting that occurs between sowing and reaping. In some contexts, the length of material delays can be deliberately chosen. To recall the earlier sinister example of the assassination of a double agent, this can be carried out almost instantaneously (professional sniper targeting the agent’s vital organs) or in a stealthier, more protracted manner (e.g. through slow, inconspicuous poisoning with the radioactive element Polonium). In many other contexts, however, control over the length of material delays is much more limited. A major corporation may initiate various competitive countermoves such as augmenting its dynamic capabilities, new product development, re-tooling, re-branding, expansion in a new market, merger, acquisition, outsourcing, or relocation (Gavetti and Menon, 2016; Smith et al., 1992, 2001). All of these take considerable time, which is another way of saying that economic geography is in fact a time-geography of the economic landscape (May and Thrift, 2001; Simandan, 2012). A handful of politically-motivated enthusiasts might initiate a lifestyle movement, but it takes time until it spreads through word of mouth, social media, and the power of example, to the point that it wins the hearts and minds of sufficiently large demographics to generate a change in social and cultural norms (Marshall and Staeheli, 2015; Solingen, 2012). Several presidential wannabes may launch their bid for the White House, but the institutionalized temporal landscape of American presidential elections, premised on initial competition in party primaries, means that months and years will go by before the final

results will be known.

4. Discussion

Ron Martin and Peter Sunley have convincingly argued that “nothing makes sense in economic geography except in the light of evolution and development” (Martin and Sunley, 2015: 726) but their point is worth extending to political geography as well (cf. Benjaminsen et al., 2018; Daley et al., 2017; Kuus, 2017; O’Loughlin, 2018). We can conceive of social reality as constituted by assemblages or networks of complex adaptive systems reacting with various speeds to one another’s moves in an attempt to maintain or enhance their resources (Chen and Miller, 2015; Gerrits and Marks, 2015). These social formations generate a co-evolutionary geography, whereby one’s choices reflect (with some delay), and are reflected by (with some delay), the choices of many other agents. Economic and political agents, in other words, are typically engaged in several simultaneous co-evolutionary matching dynamics with their opponents, and this spatial process of mutual adaptation creates a relentlessly evolving, but delay-ridden, landscape (Boschma and Frenken, 2011; Vespignani, 2012; Gong and Hassink, 2018).

I have argued that competitive contexts are especially likely to exacerbate uncertainty and the concomitant inability to predict the future because winning often depends on deliberately surprising one’s competitor (Amin, 2013; Aven, 2016; Taleb, 2007). When an agent makes a move that is detrimental to another agent, the latter is likely to strike back with a countermove aimed at redressing the prior balance of power. The countermove can be envisioned, depending on one’s theoretical proclivities, as a negative, or balancing, feedback loop (aimed at restoring the earlier situation), as a form of reciprocity (“tit-for-tat”, Axelrod, 2006), or as the anti-thesis to a thesis, in the rich tradition of dialectical reasoning.

Whereas the purpose of this paper has been to offer a detailed vocabulary for helping the development of a coherent body of useful knowledge about the political and economic geographies of competitive dynamics, this focus should not be misinterpreted to mean that I consider processes of cooperation any less important to the understanding of markets and politics. I regard competition and cooperation as fundamental features of social space, inescapably mingled in a fractal-like manner, across geographical scales (Jordan et al., 2017; Miller and Page, 2009; Rand, 2016). In this spirit, the foregoing analysis should be taken as an admittedly modest contribution to the larger project of understanding the co-evolutionary economic and political geographies created by interpenetrating, fractal-like, and delay-ridden, social processes of competition and cooperation. More specifically, the paper has shown that in order to understand the kaleidoscopic, relentless, geography spawned by competitive move-countermove dynamics, there is a need to develop a fine-grained classification of countermoves and study their properties carefully.

The foregoing analysis of delays should stand as a useful reminder that one should not equate the mission of economic and political geographies with the study of the spatiality of markets and politics. In a remarkable work of geographical theory that has not received the attention it deserved in either economic or political geographies, Jon May and Nigel Thrift have forcefully made the case for abandoning the practice of hyphenating time-space and supplanting it instead with their full merging in the dyad *TimeSpace* (May and Thrift, 2001). This conceptual manoeuvre undermines the entrenched habit of thinking time and space as interlinked-yet-distinct, and views them instead as mutually constituted. The two scholars point out that the apparently benign categorical separation of time and space opens the door to the twin reductionisms of “debilitating historicism” (whenever time is privileged over space) and “spatial imperialism” (whenever space is privileged over time). The proposed merging of time and space infuses space with dynamism and transforms our understanding of it from a noun (container) to a verb (a doing, a process; Doel, 2008; Wright et al.,

2016). In the footsteps of May and Thrift, my detailed typology of delays is a way to foreground the TimeSpace of economic and political practice by highlighting the constitutive, generative force delays have in producing the geographical landscape. This move articulates with recent self-conscious attempts in both economic (Hudson, 2016; Martin and Sunley, 2015; Pike et al., 2016; Yeung and Coe, 2015) and political geography (Daley et al., 2017; Kuus, 2017; Moisis, 2018; O'Loughlin, 2018) for theorizing more rigorously evolution and change in markets and politics. It also contributes to the conversation coalescing in the pages of this very journal about the deployment of time and temporality as key dimensions of geographical analysis. I have in mind recent empirical work with telling titles such as “Thinking temporally when thinking relationally: Temporality in relational place-making” (Zhang, 2018), “Mobile with an agency: Negotiating the spatiotemporalities of the temp migrant worker” (Zampoukos et al., 2018), “A ‘deep’ aesthetics of contested landscapes: Visions of land use as competing temporalities” (Jenkins, 2018), and “Rhythms of wet and dry: Temporalising the land-water nexus” (Krause, in press).

I hope to have made the case that, taken together, the four criteria for classifying competitive countermoves have substantial analytical purchase and enable economic and political geographers to research competitive landscapes with a more refined and more useful conceptual toolbox. Consider, for example, economic geographers’ in-depth engagement with Karl Polanyi’s writings in order to foster an economic geography committed to the “substantivist (as opposed to formal) analysis of actually existing economic formations, together with a more purposive embrace of institutionalism, holism, and comparativism” (Peck, 2013: 1545; see also Faulconbridge and Muzio, 2018; Warner and Clifton, 2013). The analysis of the reception of Polanyi’s conceptual framework in economic geography highlights repeatedly that he has been a “somewhat elusive figure” in the discipline and that his “presence has been more metaphorical than substantive” (Peck, 2013: 1545). The theoretical apparatus developed in this paper can provide a more refined and precise understanding of key Polanyian concepts such as “the double movement”. I agree with the observation that “its function in his schema is essentially dialectical, in the sense that double movements are moments of socioinstitutional counteraction brought on by the socially destructive overreach of commodification and marketization” (Peck, 2013: 1559), but we can leverage the four classificatory criteria offered in this paper to delineate Polanyi’s use of this metaphor more systematically. Taken together, Polanyi’s original writings on the concept (Polanyi, 1944) and its subsequent reception in economic geography (Faulconbridge and Muzio, 2018; Peck, 2013; Warner and Clifton, 2013), economic sociology (e.g. Gemici and Nair, 2016), and political science (e.g. Goodwin, 2018) show that the countermoves Polanyi had in mind when using this concept were (1) *intentional* (e.g. civil society and state institutions becoming aware of the excesses of unbridled capitalism and changing regulations with the explicit intent to mitigate these excesses), (2) *asymmetric* (e.g. the economic forces generating inequality and blatant injustice were opposed by public outrage and by legislative and regulatory mechanisms), (3) *diffuse* (e.g. no particular person or institution concentrates the response against capitalist excess; instead the response is diffuse across a tangle of state institutions and grassroots social responses such as the rise of state socialism, fascism, and authoritarianism), and (4) *delayed* (e.g. it takes time to let capitalism play itself out and reveal its nefarious capacity for generating uneven geographical development; it takes time for people to see through “false consciousness” and embrace the collective identity of belonging to the class of the oppressed; it takes time for new laws and regulations to be drafted, approved, and implemented, and it takes considerable time for them to begin to bear fruit, etc.).

The aforementioned Polanyian illustration is perhaps a fitting way to end this paper, because it suggests just how much economic and political geographies are conceptually and morally entangled with one another in their attempt to understand the world and make it better (Agnew, 2012; Birch and Siemiatycki, 2016; Wójcik et al., 2017). It

suggests that it can be counterproductive to separate economic actors and political actors because all social actors have economic *and* political dimensions to them. As Merje Kuus has recently noted, ongoing work in political geography is “destabilizing the binaries of...political and non-political spheres” (Kuus, 2017: 2), and instead promotes an understanding of “political agency as a general concept applicable throughout social life” (Kuus, 2017: 9).

Acknowledgments

This research has been funded through Insight Grant # 435-2013-0161, provided by the Social Sciences and Humanities Research Council of Canada.

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