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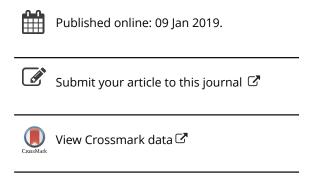
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Avoiding cultural trauma: climate change and social inertia

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ABSTRACT

The failure of societies to respond in a concerted, meaningful way to climate change is a core concern of the social science climate literature. Existing explanations of social inertia display little coherence. Here, a theoretical approach is suggested that integrates disparate perspectives on social inertia regarding climate change. Climate change constitutes a potential cultural trauma. The threat of cultural trauma is met with resistance and attempts to restore and maintain the status quo. Thus, efforts to avoid large-scale social changes associated with climate change constitute an effort to avoid cultural trauma, and result in social inertia regarding climate change at individual, institutional, and societal levels. Existing approaches to social inertia are reviewed. An intellectual framework utilizing the work of Pierre Bourdieu is proposed to integrate these different levels of social interaction. Social processes that maintain social order and thus avoid cultural trauma create social inertia regarding climate change.

KEYWORDS Climate change; social inertia; neo-institutionalism; cultural trauma; post-politics; framing

Since May 2018, when atmospheric CO_2 levels topped 410 ppm, it has become apparent that the earth's climate is entering a new phase. Climate change impacts are advancing across the board. Yet despite extreme weather events and urgent warnings from the scientific community, action to mitigate carbon emissions is stalled. Global efforts to bring carbon emissions under control have been unsuccessful. In 2018, only seven of the 195 signatories to the Paris Accord were within range of meeting their commitments under the treaty. Not a single major northern industrial country has met its pledges (Climate Action Tracker 2018). The recent United Nations Framework Convention on Climate Change Conference in Katowice Poland featured several events celebrating coal production and was unable to fully recognize the most recent work of the Intergovernmental Panel on Climate Change. The relentless march of carbon emissions continues. In 2017, carbon emissions increased 1.4% (IEA 2017), and are projected to increase 2.7% in 2018 (Dennis and Mooney 2018).

Moreover, climate change continues to be a low-salience issue. In the USA, polling by the Gallup Organization shows that since 1970, the state of the environment has remained a peripheral concern for Americans, with never more than 3% of the population identifying it as the Most Important Problem facing the US. Since 2014, when Gallup first included climate change as a standard issue in its surveys, the topic has ranked nearly dead last. The gap between the severity of the problem and its lack of public salience is visible across the world. In an international comparative regional poll (PEW 2015), the US was ranked as the fourth most concerned region, behind Latin America, Africa, and Europe, but ahead of the Middle East and China. However, the difference between attitudes in the US and Europe was not great. The percentage of the European population that identified climate change as a very serious problem was 54%; in the US, it was 45%.

There has been insufficient mobilization and engagement to affect the level of public urgency and even interest that the predictions of climate scientists would warrant. Rather, efforts to address climate change have encountered substantial social inertia, the interrelated cultural, institutional, and individual processes that inhibit actions to address this pressing issue. Why is this?

The failure to realistically address climate change is a dominant theme across the social science literature. However, explanations for social inertia vary widely across disciplines and remain piecemeal, and the interdisciplinary conversation remains dominated by natural science and economic perspectives. As shown by Brulle and Dunlap (2015, p. 5-14), these approaches suffer from substantial limitations. What has emerged is, by and large, a confused mixture of disciplinary perspectives that fails to cohere into a comprehensive approach capable of explaining the present paralysis or guiding future action. Extending earlier attempts to develop a comprehensive approach to understanding social inertia (see Leahy et al. 2010), we seek here to develop a conceptual framework and theoretical argument to explain the interrelated social processes that drive different levels of cultural inertia on climate change.

We focus our theoretical examination on the notion of avoidance of cultural trauma. Cultural trauma is a social process that involves the systematic disruption of the cultural basis of a social order. The individual routines, institutional behaviors, ideological beliefs, and overall regime of practice become subject to questioning and uncertainty, resulting in profound challenges to routine, taken-for-granted ways of interacting (Alexander 2004, 2012, Sztompka 2004). We argue that climate change constitutes a potential cultural trauma in two senses. First, the unusual natural events linked to climate change, such as fire and flood, can serve as a direct disruption of social practice and thus create potentially traumatic outcomes. Second, climate change constitutes a profound symbolic challenge

to the existing social order and is thus a potentially traumatic threat (Zizek 2010, p. 326-327, Hamilton 2012, p. 728). This is because the social construction of climate change as a collective concern challenges the underlying narratives of collective identity and invokes a symbolic process of meaning construction based on a new narrative of the social order. The risk of cultural trauma is met with resistance and attempts to restore and maintain the status quo. These actions to avoid cultural trauma result in social inertia on climate change at the individual, institutional, and societal levels.

We start our analysis with a summary of existing social science approaches to understanding different forms of inertia on climate change. This review illustrates the piecemeal nature of this literature and its limited focus on single dimensions of the social order. To move beyond this limitation, we utilize the tripartite framework of social order developed by Bourdieu to propose an integrated approach to social inertia that synthesizes existing approaches across individual, institutional, and societal levels. We apply the Bourdieu's framework of habitus, field, and doxa to discuss how a potential disruption of social order in the form of a cultural trauma leads to actions at the individual, institutional, and societal levels to maintain the current orientations and to ensure social and cultural stability, thus avoiding the social disruption associated with climate change. We conclude that social inertia on climate change is not an irrational or unexpected response, but rather the normal and expected functioning of existing social control mechanisms.

Existing social science explanations of social inertia

Most social-scientific research into climate change can be divided into three distinct levels of analysis: individual values, beliefs, and behaviors; institutional transformations and disruptions of organizational practices; and macro-level cultural, political, and economic contests.

Individual-level approaches

By far the most prevalent approach to analyzing climate-change inertia centers on what Bulkeley (2000) called 'the information deficit hypothesis'. Simply stated, society's failure to respond proportionately to climate change is due to failure to widely promulgate appropriate scientific information to aid public understanding: 'If people only knew, they would act'. There is also a second approach focused on the individual factors that limit action on climate change (Gifford 2011). In general, these factors include: provocation of anxiety, which leads to the systematic avoidance of engaging the issue (Mnguni 2010); failure to integrate knowledge of climate change into the formulation of daily behavior (Leahy et al. 2010); and understanding the implications of climate change, which can undermine individual ontological security (Lucas et al. 2014, Lertzman 2015). This work has provided valuable insights into individual-level psychological dynamics, including how individuals think and feel about climate change, the role of individual behaviors in generating or reducing carbon emissions, the factors that will likely influence reactions to climate change, and the potential psychosocial impacts of climate change (Swim et al. 2011).

While this literature establishes important dimensions of social inertia, including how encountering climate change can destabilize the self, these explanations focus only on individual responses and behaviors. From the viewpoint of sociology, none has been developed into a comprehensive approach (Weber 2015). Moreover, individualized approaches focused on attitudinal and behavioral change fail to consider the embedded nature of social interactions, leaving unexamined the institutions that structure everyday life and individual practices (Swim et al. 2011, p. 245, Shove 2010, p. 1274).

Institutional-level analyses

A separate literature engages with institutional-level responses to climate change, focusing on corporations, local/regional governments, or particular aggregate industry sectors (Perrow and Pulver 2015). One key institutional factor that drives social inertia is organizational routines. As Uittenbroek (2016) shows, organizational routines structure and standardize institutional systems into legitimate regimes of practice. Because regimes of practice are embedded within existing infrastructure and technologies, they create an interrelated network of action based on shared definitions of reality. The cultural system that defines appropriate actions develops a taken-for-granted and legitimate nature and becomes self-reinforcing as new entrants to the field are socialized into existing practices. This regime of practice thus encourages organizational inertia, making transformation difficult.

Summarizing the new institutionalist literature on climate change, Rosenschold et al. (2014, p. 64) define institutional inertia as 'the inability of institutions to formulate timely responses to anthropogenic climate change'. They show that institutional-level societal inertia related to climate change is based in five institutional factors: transaction costs of coordinating actors in a field which limit flexibility in adopting new practices; uncertainties about legislation and regulatory requirements which inhibit corporations from taking actions that are not easily reversed if the legislative environment changes; path dependence constraints from past decisions which limit future options because patterns of behavior/investments are institutionalized and sedimented in organizational routines, making undertaking new routines difficult; existing power relationships within a given field which would be disrupted as institutional structures that preserve the power of incumbent corporations and market actors are transformed, leading powerful actors to strive to maintain their position and thus inhibit social change; and the lack of legitimacy accorded to new, alternative paths because they are not embedded into a regime of practice (Perrow and Pulver 2015, Slawinski et al. 2017).

As with their individual-level analyses, these scholars provide key insights into the forces generating cultural inertia within organizational contexts. Destabilization of organizational norms and relationships as well as uncertainty regarding external factors that impinge on organizational success have clearly been shown to impact institutional responses to climate change. However, these explanations remain disconnected from the dynamics of the individuals that compose these organizations. Additionally, while New Institutionalism acknowledges that external factors influence organizational behavior, the climate-change applications of this literature fail to contextualize institutional behavior within the structural dynamics of global political-economic and cultural processes.

Societal-level approaches

The third major set of literature explaining social inertia focuses on societal, cultural, and political factors. Here, ideological and political conflicts are identified as major factors driving climate inaction. The extent of social inertia due to these factors is seen as a contingent outcome among competing coalitions (Levy 2008, p. 951-952, Knight and Greenberg 2011). These political conflicts have been the subject of a large number of analyses at both national and international levels (Brulle 2014, Anshelm and Hultman 2015, Caniglia et al. 2015). While there are significant variations across different nations, the various contending coalitions have been divided into three major groupings based on the discursive frame that informs their approach to climate change: reactionary, reformist, and radical.

The reactionary approach centers on the effort to oppose action on climate change via the development and promulgation of climate misinformation which has taken the form of a climate-change countermovement. Primarily located in the US, and to a lesser extent in the UK and Australia, the countermovement is grounded in corporations' vested interest in maintaining the status-quo fossil fuel energy system and their alliance with neoliberal think-tanks in opposing government economic intervention. This opposition effort is seen to create a significant barrier to action on climate change (Dunlap 2014, Dunlap and McCright 2015, Anshelm and Hultman 2015).

A second political conflict exists between reformist approaches and more radical ones (Hadden 2015, Della Porta and Parks 2014, Bäckstrand and Lövbrand 2016). In her detailed analysis, Hadden (2015, p. 10) notes that the climate movement takes the form of 'a divided network with two main components: groups engaging in conventional climate advocacy [reformists] and those adopting a contentious climate-justice approach [radicals]'. The reformist approach centers on two discursive frames, which Bäckstrand and Lövbrand (2007, 2016)) describe as Green Governmentality and Ecological Modernization. Green Governmentality centers on the development of strong international governance actions focused on economic activity and natural-resource use (Levy and Egan 1998, Bäckstrand and Lövbrand 2016). Ecological Modernization, alternatively known as Climate Capitalism (Newell and Paterson 2010) or Green Keynesianism (Anshelm and Hultman 2015) focuses on shifts in economic production. Climate advocacy based in this discourse advocates for technological development, shifts in financial investments including market-based pollution user fees, carbon-tax incentives, and increasing energy efficiency.

The radical approach to climate action is informed by the discourse of Climate Justice (Della Porta and Parks 2014, Hadden 2015, Bäckstrand and Lövbrand 2016). This perspective sees climate change as a 'structural problem generated by the global capitalist order that commodifies nature and ecosystems' (Bäckstrand and Lövbrand 2016, p. 11). Accordingly, it links climate change to larger issues related to the organization of the neoliberal capitalist regime, the North/South divide, unequal economic and political relationships, and a moral critique of the existing international order. To address these structural inequalities and injustices, climate-justice advocates seek large-scale social change and fundamental shifts in the power structures that reproduce the social order and result in ecological degradation including climate change, as well as in poverty and colonialism. It is thus a direct challenge to the post-political form of climate discourse.

Although the efforts of the climate countermovement attract a great deal of attention in the USA, at the international level and in most countries, the key political struggle over climate action is between interests defined by the reformist discursive approaches of Green Governmentality/Ecological Modernization and the radical discourse of Climate Justice. Here, the reformist approaches are seen as maintaining the status quo by favoring the interests of dominant industrialized countries and the existing power elite, whereas Climate Justice Advocacy is seen as forwarding the interests of the Global South and the largely disenfranchised poor populations of the world (Urry 2011, Van Asselt et al. 2018).

Additionally, from the viewpoint of Climate Justice, the reformist approaches are seen as embodying a post-political perspective (Swyngedouw 2011, p. 264). The post-political frame is characterized as being 'structured around the perceived inevitability of capitalism and a market economy as the basic organizational structure of the social and economic order, for which

there is no alternative' (Swyngedouw 2010, p. 215; also see Kenis and Lievens 2014, Reusswig and Wiebke 2010, p. 167). Adoption of this perspective narrows the range of policy options considered to address climate change to those that are in accord with existing social, political, and economic relationships, thus limiting political action to consensual approaches, such as individual behavioral change and market-oriented ones such as emissions trading, thereby avoiding more conflictual strategies (Kenis and Lievens 2014). Rather than providing relevant information to guide a major societal transition toward sustainability (O'Riordan 2013), the reformist framing of climate change has developed in accord with the governing principles of late modern society (Blühdorn 2000, p. 30) and itself constitutes a form of social inertia that limits actions to address climate change to marginal, incremental measures in line with the status quo.

In contrast, Climate Justice challenges the reformist discourses and calls for the radical democratization of global governance and economic processes (Hadden 2015, Bäckstrand and Lövbrand 2016). In this political contest, Climate Justice has struggled to gain legitimacy and access to climate decision-making arenas. While it has gained a great deal of currency within the climate movement, it is subordinated to post-political reformist positions (MacNeil and Paterson 2012, Bäckstrand and Lövbrand 2016, p. 15-16). As a result, the post-political perspective has retained its hegemonic position in climate politics (Anshelm and Hultman 2015, Bäckstrand and Lövbrand 2016, Remling 2018, Sywngedouw 2018).

From this perspective, the efforts of the climate-change countermovement to cast uncertainty about climate science combined with the hegemonic position of the post-political frames of Global Governance and Ecological Modernization serve to constrict societal-level discussions of possible transformational actions to adequately address climate change. These combined forces marginalize Climate Justice Advocacy, and limit responses to piecemeal, incremental actions that do not disrupt the existing institutional, political, and economic arrangements. Thus these ideological factors create powerful social inertia limiting feasible climate-change actions. However, these approaches fail to connect to social processes at individual or institutional levels. Left unexamined are how these ideological struggles are related to public concern, daily behavior, or institutional inertia.

Overall, multiple distinct yet disconnected explanations for social inertia are each supported with a substantial body of theoretical concepts and growing empirical research. While this separation of approaches might be useful in some contexts, it is also theoretically and empirically limiting, given that social order is composed of a nested and interactive structure. To move beyond these partial approaches, there is a need to expand the theoretical framework to encompass all three levels of social interaction.



Toward an integrated understanding of social inertia

One of the fundamental insights of sociology is that individuals are part of a larger structure of cultural and social interactions and vice versa. Norgaard (2011, p. 210) observes that individual responses to climate change are embedded in a larger social structure, and that these politicaleconomic structures affect institutional norms and individual beliefs. Additionally, individual beliefs affect institutional regimes and government policies. Norgaard's (2011) ethnographic work on the social organization of climate denial bridges individual, cultural, and political economic realms in an empirical manner. We build on this approach to establish a more general and inclusive model of social inertia to illustrate the powerful processes that work at individual, institutional, and overall society levels to maintain current orientations and ensure social and cultural stability. At the same time, we show that these same processes that create and maintain social order also create the social inertia that inhibits rapid social change.

Social order as linguistic construction

Our model employs a linguistic (symbolic) perspective on the creation, maintenance, and transformation of social order, building upon the work of Pierre Bourdieu (Bourdieu 1972, 1990, Bourdieu and Wacquant 1992). His conceptualization of social order is based on three key components field, habitus, and doxa. Bourdieu emphasizes that social interactions are guided by common definitions of a situation that, in turn, determine appropriate conduct. With stable definitions of social reality, members of society have a basis for acting together. Thus the creation and maintenance of social structures depends upon instituting and sustaining the 'objective' reality of a symbolic discourse.

In this scheme, each particular social setting defines a unique social space, or field. Fields are constituted through the creation and maintenance of a binding definition-of-the-situation, or 'field frame', that defines appropriate behavior within that social setting. Through the creation and definition of socially appropriate conduct, specific rules of interaction are developed to guide social interactions. In this way, certain patterns of interaction are normalized and stable social institutions are created and maintained (Garcelon 2010, p. 333).

To tie together fields and individual actions, Bourdieu developed the concept of habitus: 'systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles of the generation and structuring of practices and representations' (Bourdieu 1972, p. 72). In other words, social structures are internalized as individuals experience them. Each of us develops a practical understanding of

these structures as we learn the categories presented by our particular culture. The habitus enables the smooth and routine reproduction of collective patterns of interaction (Garcelon 2010, p. 327). Thus, the self is not a discrete entity but a social production, thoroughly embedded in a pattern of social interactions (Kasper 2009). The habitus also links the emotional experiences of individuals to larger social narratives (Emirbayer and Goldberg 2005, p. 482-483). Denzin 1984, p. 385) explains how one's emotional experiences draw on 'stock social narratives [...] and these are the forms through which we process affective response in ways that can be articulated to self and others'.

The third symbolic element of the social structure is the overriding *doxa* of a field. Entering a field of social action requires an uncritical adherence to its way of working. To ensure this conformity, the field's doxa defines a specific worldview as the normal and appropriate definition of the situation. The doxa legitimates the given social order as morally appropriate, defining the taken-for -granted reality that defines a social space, that is, it requires seeing things in certain ways and not others. This taken-for-granted preconscious understanding of the world and one's own place in it shapes our more conscious awareness.

Thus, for Bourdieu, social stability is an accomplishment embedded in the social and cultural processes of reproduction. First, social interactions take place within specifically defined, symbolically constituted fields differentiated by dimensions of power (Bourdieu 1972, p. 184). This allows social obligations to take the form of a 'legitimate demand on the services of others' (Brubaker 1985, p. 756). Individuals acquire a habitus corresponding to each field that defines appropriate conduct within the given social space. The habitus provides individuals with social competence that can be used to meet different social circumstances. Finally, the consistency and stability of the field is maintained by its doxa, or the creation and maintenance of a particular worldview, with unquestioned parameters of belief.

Cultural trauma and social change

Given the interlocking operation of cultural order and social reproduction, social transformation is for the most part an incremental process. However, societies can experience periods of social destabilization that take the form of cultural traumas. Cultural trauma is a social process that involves the systematic disruption of the cultural basis of a social order. The individual routines, institutional behaviors, ideological beliefs, and overall regime of practice become subject to questioning and uncertainty, resulting in profound challenges to routine ways of interacting, which are normally taken for granted (Alexander 2004, 2012, Sztompka 2004).

There are two related approaches to understanding the development of cultural trauma. The first is centered on the occurrence of major disruptive

events. For Sztompka (2004, p. 164) cultural traumas are events or situations that produce 'dislocations in the routine, accustomed ways of acting or thinking'. They occur when members of a specific social group are subjected to an event that creates an indelible impression and shifts the group consciousness fundamentally, such as the dissolution of the Soviet Union. Additionally, environmental events exert a prolonged and cumulative pressure that can eventually reach a point where it induces cultural trauma (Sztompka 2004, p. 158). Eyerman (2015, p. 9) expands this perspective by showing that the failure of a meaningful response to Hurricane Katrina undermined citizens' expectations of government protection and thus led to a cultural trauma among those most impacted. While examining different types of events, both authors center on external phenomena as driving forces behind the creation of cultural trauma.

A second approach developed primarily by Alexander (2004, 2012), centers on the social construction of a cultural trauma. For Alexander, events in themselves do not create cultural traumas. Rather, cultural traumas are socially constructed narratives that challenge the existing social order and notions of collective identity. They take the form of a narrative of 'some fundamental injury, an exclamation of the terrifying profanation of some sacred value, a narrative about a horribly destructive social process, and a demand for emotional, institutional, and symbolic reparation and reconstitution' (Alexander 2012, p. 16). This alternative narrative challenges the taken-for-granted narrative, leading to a symbolic struggle. In this process, the nature of dominant cultural beliefs is brought into question, and these challenges to the cultural system are then reflected in ongoing institutional interactions and at the everyday level of the habitus. They serve to dislocate the social reality that anchors individual identities and social interactions. Thus in this perspective, cultural traumas are not attributable to a particular event, but to how that event is perceived and reflected in collective understandings of the event (Alexander 2004, p. 10).

In both perspectives, cultural traumas can be seen as a systematic disruption of the cultural basis of a social order. The individual routines, institutional behaviors, ideological beliefs, and overall regime of practice become subjected to questioning and uncertainty, resulting in profound challenges to routine ways of interacting. In response, new cultural perspectives and regimes of practice develop and expand (Sztompka 2004, p. 194), these changes in turn precipitate clashes between cultural practices of the adherents socialized in the old and new cultural systems. These clashes produce disruptions across all levels of the social order, leading to cultural transformation (Sztompka 2004, p. 194, Eyerman 2015).

Climate change constitutes a potential cultural trauma as defined by both theories. First, the unusual natural events linked to climate change can serve as a direct disruption of social practice and thus potentially create cultural



trauma. Everman's (2015) analysis shows how the failure of an adequate government response to Hurricane Katrina led to the creation of cultural trauma among severely impacted populations.

Second, climate change has provoked an alternative narrative to the continuation of business as usual. Advanced by climate scientists, this climate change narrative describes the massive damage caused by carbon emissions to both humans and natural systems. This narrative also demands profound changes in the practices connected to carbon emissions and, as used in the Climate Justice discourse, reparations for damages caused by fossil fuel use. Thus the alternative narrative of climate change constitutes a fundamental challenge to the existing social order and has the potential to emerge as a major cultural trauma (Zizek 2010, p. 326–327, Hamilton 2012, p. 728). In a highly incisive analysis, Smith and Howe (2015) see the climate change symbolic contest as a social drama. This symbolic struggle builds on Alexander's (2012, p. 16) insight about the social construction of climate change as a potential cultural trauma. Smith and Howe (2015) demonstrate that the intensely emotional debate about climate change is an effort to construct and advance a new narrative that would bring about a severe dislocation of existing social practice. This alternative narrative is opposed by efforts to avoid large-scale social changes and thus maintain the status quo.

Cultural trauma and social change: habitus and individual identity

Applying the perspective of advancing or avoiding cultural trauma and coupling it with Bourdieu's tripartite scheme allows for the construction of an integrated perspective on the creation of social inertia at the individual, institutional, and societal levels, as shown in Table 1.

Individuals orient their actions and selves to the overall narrative of the society in which they are socialized. This socialization pattern creates a standard and unconscious repertoire of behaviors within which individuals act. This taken-for-granted life practice is embedded in technologies and the built environment and provides a measure of predictability and ontological security to the self (Garcelon 2010, p. 333, Beamish 2002, p. 133). Because individual identity is rooted in routine cultural expectations, any sociocultural disruption unsettles the personality structure as well. Disruptions in social order also thus disrupt the habitus and are reflected in one's emotional responses (Alexander 2004, p. 10). Cultural trauma thus undermines an individual's sense of security and leads to a destabilization of the self, both of which provoke emotions including anxiety, distrust, pessimism, and insecurity (Sztompka 2004, p. 166).

Individuals respond to cultural trauma in a number of ways. A first response is to retreat from the situation into a position of marginalization and passivity. The second response is ritualism, wherein individuals



Table 1. Cultural trauma and social change.

Dimension of Social Order	Social Reproduction Process	Impact of Cultural Trauma and Social Change
Habitus and Individual Identity	Socialization of individuals into socially appropriate practices and emotional behaviors	Self destabilization and threats to ontological security, leading to anxiety, retreat, ritualism, or rebellion Reflexive restructuring of the self
Field Frame and Institutionalized Interactions	Establishment and maintenance of normalized and routine interactions	Destabilization of governing field frame Confusion and disputes regarding appropriate collective practices Innovative development of new institutional practices
Doxa and Cultural Hegemony	Acceptance of dominant worldview and the social processes it defines	Loss of ideological legitimacy of hegemonic ideology Development and advocacy of alternative worldviews Political struggles between social movements and countermovements

continue to follow the old behavior and ignore the implications of this behavior in the new context, which takes the form of the hysteresis effect (Bourdieu 1990, p. 64, Emirbayer and Goldberg 2005, p. 483). The third response is rebellion, which involves attempts to alleviate trauma by attacking the new worldview and its implications (Sztompka 2004, p. 184-188). Whatever form it takes, the continuation of inappropriate behavior is due to the legacy effects of prior socialization (Sztompka 2004, p. 169). Finally, individuals may realize the need to address the new situation (Emirbayer and Goodwin 1994). Here, individuals recognize a need to reconstruct the self through agency and by proactively reshaping their perceptions and actions. Davidson (2013, p. 620) summarizes this response as the use of 'reflective intelligence, allowing an actor to respond to problematic situations'.

Cultural trauma in fields and institutionalized interactions

At the institutional level, disruption of the processes of social order leads to destabilization of the governing fields, resulting in confusion over collective interaction practices and conflicts between different institutions as new roles and practices are defined (Kerr and Robinson 2009). Social institutions are grounded in a well-established field of interpretation that allocates roles and appropriate conduct. This field creates the conditions for the coordination of social interactions and defines a regime of practice. Any transformation of a field of practice thus requires the disestablishment of old rules of conduct and the establishment of new organizational practices



(Beamish 2002, p. 134). This process leads to destabilization of the established field frame.

A second impact of the destabilization of social reproduction at the institutional level is an increase in the struggles within the affected policy field as organizations attempt to reorganize the nature of their relationships with other organizations (Kerr and Robinson 2009, Lounsbury et al. 2003, p. 76-77). This situation leads to confusion and disputes regarding appropriate collective practices. It also leads to the development of alternative institutional practices and, ultimately, a new field of practice.

Cultural trauma, doxa and ideological hegemony

Finally, at the level of doxa, the experience of cultural trauma leads to a struggle over cultural hegemony. Governing a social order is a set of ideological beliefs that defines a particular worldview as morally appropriate and legitimate. Achievement of conformity to the doxa of a given society is not automatic, but rather the outcome of the active process of meaning creation, political leadership, and coercion, which simultaneously provide for social stability. The undermining of the dominant cultural ideas in any society leads to a struggle over what constitute the 'ruling ideas'. A struggle for cultural hegemony is a natural part of large-scale social change and involves building and maintaining institutions to advocate for either the dominant or the alternative narrative to ensure it is accepted as common sense in the popular mentality (Fontana 2004, p. 96).

Coupling the notion of cultural trauma with Bourdieu's tripartite approach to social order allows us to connect challenges to societal-level cultural beliefs to institutional disruption and disorganization, and also to psychological processes at the individual level. Rather than seeing these processes as separate or distinct, they are viewed as different dimensions of the same process of social change.

Climate change and social inertia

In his 1988 testimony to a Congressional hearing, Dr James Hansen placed climate change on the public agenda as a clear threat to the continuity of business as usual. Since that time, the climate science community has served as a carrier group (Alexander 2012, p. 16) of the alternative narrative that advocates for meaningful action on climate change. As natural science has established, the advent of global climate change is a fundamental transformation in both human and natural history and constitutes a major physical change that exerts widespread impacts on human activities. Thus the material conditions of human existence have fundamentally changed, and to live within these limits now requires extensive social and



economic changes (Anderson and Bowes 2012, p. 640). Climate change thus constitutes a profound challenge to the existing global economic and development structure and, if its impacts were fully acknowledged, could constitute a major cultural trauma for all who identify with this system (Zizek 2010, p. 326-327, Hamilton 2012, p. 728).

For those identified with the modern world system, scientific findings regarding climate change represent a series of new ideas that clash with old, dominant beliefs about the world and human society, thereby posing a challenge to the 'axio-normative and symbolic belief systems of a society' (Sztompka 2004, p. 161). This fact presents the current social order with two alternatives, both of which inevitably lead to large-scale social disruption: If climate change proceeds unabated toward the projected temperature increases of 4°C or more, society will encounter colossal challenges to continuing business as usual, as this level of climate change is projected to be 'incompatible with any reasonable characterization of an organized, equitable and civilized global community' (Anderson 2012). Alternatively, if society were to address and successfully mitigate carbon emissions to avoid this outcome, it would require fundamental changes in economic production and lifestyle. Thus, regardless of the chosen trajectory, 'Western societies will simply have to come to terms, collectively, with ways of living which differ radically from those that they have become accustomed to' (Gosling and Case 2013, p. 708). Thus climate change constitutes a profound challenge to established ways of life in Western nations and constitutes the emergence of an ongoing and expanding cultural trauma.

Avoiding climate change as cultural trauma

Climate change clearly conforms to the criteria of a major traumatic event: it is widespread and comprehensive, impacting virtually every aspect of our planet's natural processes and of human activities, and it presents a radical and fundamental challenge to the continuity of the social processes that structure the 'modern world system' as we know it. As is the case with traumatogenic change, it has been received by most people across Western societies in an 'unbelieving mood' (Sztompka 2004, p. 159). Yet despite the clear and repeated scientific findings regarding the extremely serious nature of the threat posed by climate change, it has yet to engender sustained and widespread action to address it. In this sense, reaction to climate change has taken the form of the prolonged development of a cultural trauma (Stzompka 2004, p. 158). However, the social stabilization processes that operate at individual, institutional, and systems levels have so far successfully averted the full realization of climate-change-driven cultural trauma that could lead to extensive social dislocations and social change.

Why has this issue not yet made a full transition to a recognized major cultural trauma? Looking at the social reception of climate change through the combined perspectives of cultural trauma as developed by Sztompka and the tripartite division of social order of Bourdieu, we can see that the various processes that engender the social inertia related to climate change at the individual, institutional, and societal levels are different components of the same process by which society responds to social disruption. These factors are summarized below in Table 2.

Climate change as disruption of the ecological habitus

For the majority of Western citizens (for example, urban dwellers largely identified with the modern world system), climate change challenges the everyday practices that define our 'ecological habitus'. Defined as 'the embodiment of a durable yet changeable system of ecologically relevant dispositions, practices, perceptions, and material conditions' (Kasper 2009, p. 318), the ecological habitus consists of each individual's ecologically relevant, taken-for-granted practices. At the individual level, knowledge of climate change leads to a perceived failure of the everyday habitus because the many daily carbon-producing activities in which individuals living in modern Western societies engage clash with new expectations for a low carbon lifestyle, leading to feelings of anxiety and threats to ontological security (Adams 2013, p. 13, Lertzman 2015).

The perceived inadequacy of the habitus can lead to a number of possible individual responses (Sztompka 2004, p. 184-188). One is to willfully ignore the information on climate change by avoiding reading or watching news stories related to the topic (Shepherd and Kay 2012). Second, individuals can engage in ritualism and implicatory denial. This is perhaps the most common form of reaction to climate change. The science of climate change is well known and understood, yet individuals continue their daily practices unchanged - such as flying frequently, buying a large house, maintaining high consumption levels. To accomplish this, individuals engage in two-track thinking:

There is one track in which the critical nature of environmental problems is acknowledged, within which people see the future as apocalyptic, and another in which people envisage their own personal future and make decisions about political action, 'business as usual' reigns and there is no acknowledgement of the environmental crisis. (Leahy et al. 2010, p. 857)

By engaging in this type of cognitive dissonance, individuals are able to maintain their everyday practices and identities in spite of their awareness of climate change. While individuals know that a climate apocalypse can occur, they carry on as if it won't (Zizek 2010, p. 328). Norgaard (2011,

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Dimension of Social		Impact of Cultural Trauma		Impetus for New
Order	Social Reproduction Process	and Social Change	Creation of Climate Change Social Inertia	Direction
Habitus and Individual Identity	Socialization of individuals into socially appropriate practices and emotional behaviors	Self destabilization and threats to ontological security, leading to anxiety, retreat, ritualism, or rebellion Reflexive restructuring of the self	Disruption of the ecological habitus, leading to: • Emotions of guilt/anxiety • Willful ignorance • Two track thinking and implicatory denial • Attacks on climate science	Self-reflexive transformation of self and ecological practices
Field Frame and Institutionalized Interactions	Establishment and maintenance of normalized and routine interactions	Destabilization of governing field frame Confusion and disputes regarding appropriate collective practices Innovative development of new institutional practices	Interpersonal conflicts over appropriate response to climate change Disputes over internal organizational procedures Conflicts over organizational goals	Transformation of organizational procedures Invention of new social institutions
Doxa and Cultural Hegemony	Acceptance of dominant worldview and the social processes it defines	Loss of ideological legitimacy of hegemonic ideology Development and advocacy of alternative worldviews Political struggles between social movements and counter-movements	Development of climate countermovement/ anti-reflexivity Development of post-political ideology and channeling of actions into neoliberal actions regarding climate change	Social Movements

p. 5) coined the term double reality to describe this disjuncture. Third, there is a response of rebellion, which involves attempts to alleviate trauma by attacking the new worldview and its implications (Sztompka 2004, p. 184–188). Most commonly, individuals select news sources that confirm their beliefs that climate change is a hoax or uncertain, and label climate change advocates as ideologues. This process manifests itself in a highly polarized and emotional debate as individuals seek to maintain their prior worldview and exclude new information that would require reformulation of their personality structure and beliefs regarding their ecological habitus.

Field-level disruption and conflict in the face of climate change

Climate change also provokes cultural trauma at the institutional or field level of social order as environmental concerns are increasingly seen as relevant and interjected into institutional behavior norms. This process results in either the changing of institutional procedures or the repression and marginalization of the individuals who raise these issues, or both (Eliasoph 1998). The cultural trauma of climate change also plays out in institutional conflicts. Disruption of the taken-for-granted field regarding energy production has placed an entire industry sector in contention. Pulver (2007) shows that climate change has triggered internal disputes within major fossil-fuel companies. In the case of E.U.-based fossil fuel corporations, this conflict has led to the reorganization and refocusing of corporate procedures, while in the US it has led to defiance and obstruction of climate restrictions. Jones and Levy (2007) show the considerable disparity between corporate pronouncements regarding climate efforts and their actual behaviors. Finally, Rickards et al. (2014) show that institutional decision makers are subjected to a wide variety of conflicting pressures regarding how to respond to climate change.

Climate change as cultural disruption

Finally, at the societal level, climate change challenges the dominant doxa of neoliberal capitalism and the nation state (Klein 2014). Response to this challenge takes two forms. First, attempts are made to maintain the status quo. As previously discussed, a coalition of for-profit corporations, their allied trade associations, conservative think tanks, advocacy/front groups, and foundations seeks to maintain the current fossil-fuel-based energy system and economic relationships through a countermovement that opposes legislative restrictions on carbon emissions.

Second, a competing bloc of financial interests, government agencies, and a majority of environmental groups (at least in the US - see Brulle 2014) attempts to install 'climate capitalism' via market incentives and

development of new technology Newell and Paterson 2010. This competing approach sets up a conflict at the level of energy policy and constitutes a dispute within the current neoliberal social order (the latter of which is based on Ecological Modernization approaches and conforms to a postpolitical ideology). It can be seen as an attempt to channel the response to climate change into socially acceptable narratives that maintain the existing social and institutional order and preserve the routine habitus of individuals while at the same time gradually transforming the energy systems of global society. As climate scientists have noted, the pace of this transformation is inadequate to address the growing risks of anthropogenic climate change (Anderson 2012). This approach is seen to reflect an inability of the dominant Western cultural system to recognize and respond to the cultural trauma of climate change (Zizek 2010, p. 327).

Applying this perspective, we can see the political and cultural conflict over climate change as a contest that challenges the doxa of neoliberal capitalism, destabilizes the fossil-fuel-dominated institutional field, and disrupts the maintenance of the habitus, or self-identity. Here, the production of social inertia on climate change simultaneously involves struggles over individual orientation that guides everyday practice and interactions, institutionalized systems of energy production and use, and large-scale ideological orientations regarding the appropriate form of social organization. Social inertia with respect to climate change is thus an expected product of challenges to the social order (Beamish 2002, p. 132).)

Proactive responses to climate change

Efforts made to address cultural traumas can serve as a mechanism that fosters social change as well as social inertia (Sztompka 2004, p. 194). This process involves actions at the individual level to reshape the self and the daily habitus, at the institutional level to revise or invent new collective routines of action, and at the ideological level to support social movements that seek to advance alternative ideological frameworks to guide social action. These actions are interdependent. Actions at the individual level to alter routines of practice (Kurtz et al. 2015) involve changing interactions with individual and collective actors. While some individual actions can be taken with few social interactions, to institutionalize these behaviors requires modifying the social and technological context that shapes individual routine practices (Shove and Spurling 2013). This process involves either transforming existing organizational practices to facilitate new practices or creating new organizations that enable and expand these practices (Haluza-DeLay 2008). In turn, this process is dependent on the creation of social imaginaries that generate the cultural resources to envision variations in practice (Gosling and Case 2013, Davidson 2013, p. 620-621)

Social movements play a key role in the development and promulgation of alternative social imaginaries and social practices. While the application of this scheme to the entire climate-change movement is problematic, it is most clearly present in the segment of the climate-change movement community centered on the frame of Climate Justice. This frame - adopted by organizations such as Rising Tide, La Via Campesina, and the Indigenous Environmental Network (Caniglia et al. 2015) and increasingly by more established environmental groups - seeks to develop and promulgate a new narrative to address climate change by forwarding an alternative regime of practice outside of the nation state and neoliberal markets (Brulle 2014). Hence its slogan: System change, not climate change.

A sociological approach to understanding climate change

Climate change presents a major challenge to the stability and maintenance of the symbolic order on which social interactions are based. It creates a radical disjuncture between taken-for-granted ways of living and generates responses across the entire society by destabilizing the individual's habitus, challenging the viability of institutional and group routines, and forming threats to the dominant doxa that defines the social order. It also leads to the formation of alternative narratives advocated by social movements. Thus, it should come as no surprise that climate change advocacy is met with social inertia. Rather, the failure to respond is based in social processes that maintain and reproduce social stability.

Embracing this perspective allow us to move beyond the limitations of piecemeal approaches to the issue. This theoretical framework points toward the development of a comprehensive understanding of social responses to climate change. Yet it offers only a sketch and requires further theoretical and empirical development to flesh out a robust perspective that can serve as the basis for additional research. Whether there is any chance that the present dominant social system can adapt beyond its many constraints remains to be seen. Some scholars, examining the massive barriers to action, have concluded that collapse is inevitable (Leahy et al. 2010). While we share this concern, we also hope that further theoretical and empirical development of the approach sketched here can enable scholars to develop robust understandings of social interactions related to climate change that can inform practical action.

Notes

- 1. Certainly there are pockets of real climate engagement in all nations.
- 2. We refer here to the sensibilities of majority publics in Western democratic nations. Within these contexts there are of course communities who are less identified with the modern project.



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